Service Manual Rev 1.0

CAUTION:
- The specifications of this product are subject to change without notice for reasons such as performance.
- The content of this game, its main devices and design are protected under each federal law concerning patent, copyright and other intellectual properties.
- Unauthorized reproduction of this document or any of its contents is strictly forbidden.

Safety Instructions

Safety instructions apply to operators and service personnel. Read these instructions before preparing the video game machine (VGM) for play. Other safety instructions appear throughout this manual.

WARNING: TRANSPORTING THE VIDEO GAME MACHINE (VGM).

The VGM contains glass and fragile electronic devices. Use appropriate care when transporting. Avoid rough handling when moving the VGM.

WARNING: DISCONNECT POWER.

Always turn the power OFF and unplug the VGM before attempting service or adjustments unless otherwise instructed. Installing or repairing components with the power switched ON can damage the components and void warranty.

WARNING: GROUND GAMES.

Avoid electrical shock! Do not plug in the VGM until you have inspected and properly grounded it. Only plug into a grounded, three-wire outlet. Do not use a "cheater" plug, or cut off the ground pin on the line cord.

WARNING: DO NOT INSTALL NEAR WATER JET

This VGM is not suitable for installation in an area where a water jet would be used. Do not use a water jet to clean the machine.

WARNING: AVOID ELECTRICAL SHOCKS.

This VGM does not utilize an isolation transformer. Internal cabinet AC is not isolated from the external AC line.

WARNING: HANDLE FLOURESCENT TUBE WITH CARE.

If you drop a fluorescent tube and it breaks, it will implode! Shattered glass can fly eight feet or more from the implosion.

WARNING: CHECK POWER SELECTOR, LAMP.

Set the 115/230 VAC selector switch on the power supply for the correct line voltage on the installation site. Verify that the fluorescent lamps are rated for the proper line voltage. NOTE: There are two fluorescent lamps in the marquee and one fluorescent lamp in the main cabinet.

WARNING: USE PROPER FUSE.

Avoid electrical shock! Replacement fuses must be identically rated to the original fuse!

WARNING: ATTACH CONNECTORS PROPERLY.

Be sure all connectors mate properly. If connectors do not slip in easily, do not force them. Connectors are often keyed and only connect one way. Check for correct orientation.

WARNING: USE EXTREME CARE WHEN HANDLING PC.

The PC contains sensitive components. Do not handle roughly. Call your distributor before servicing PC internal components. Ask about warranty information as it relates to the PC.

WARNING: IF POWER CORD IS DAMAGED

If the supply cord is damaged it must be replaced by a special cord or assembly available from the manufacturer or service agent.

WARNING: HAZARD TO EPILEPTICS.

A very small portion of the population has a condition that may cause them to experience epileptic seizures or have momentary loss of consciousness when viewing certain kinds of flashing lights or patterns that are present in our daily environment. These persons may experience seizures while watching some kinds of television pictures or playing certain video games. People who have not had any previous seizures may nonetheless have an undetected epileptic condition.

If you or anyone in your family has experienced symptoms linked to an epileptic condition (e.g., seizures or loss of awareness), immediately consult your physician before using any video games.

We recommend that parents observe their children while they play video games. If you or your child experience the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation, or convulsions, DISCONTINUE USE IMMEDIATELY and consult your physician.

FCC Compliance
Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.
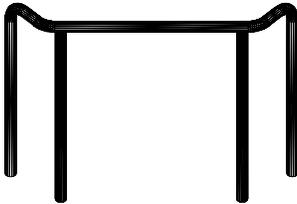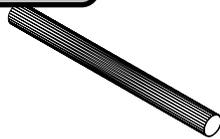
Assembly Components

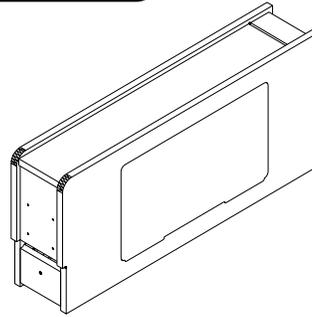**Monitor Cabinet with Marquee**
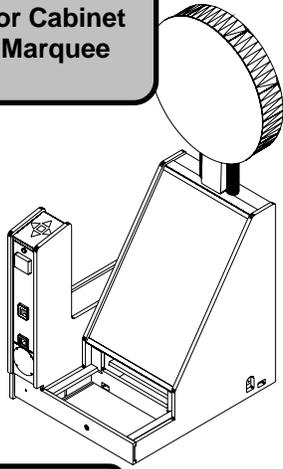
Putt Floor
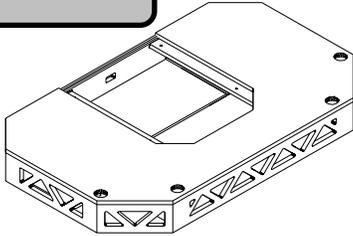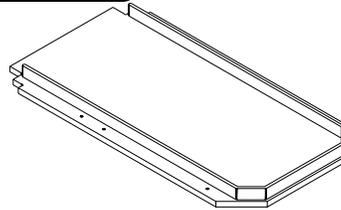
Handrail
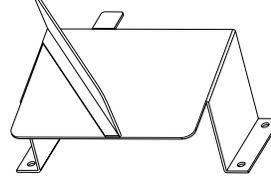
Monitor Guard Bar

Ball Mech Cabinet

Green

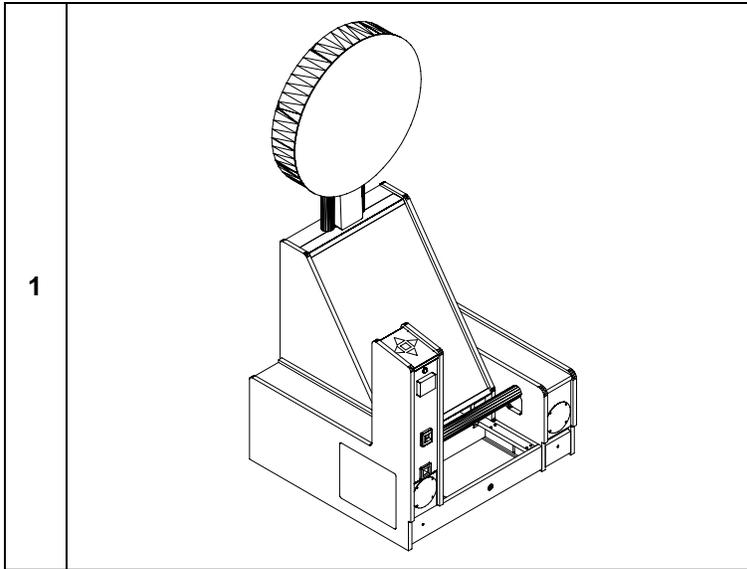**Ball Chute**

Hardware
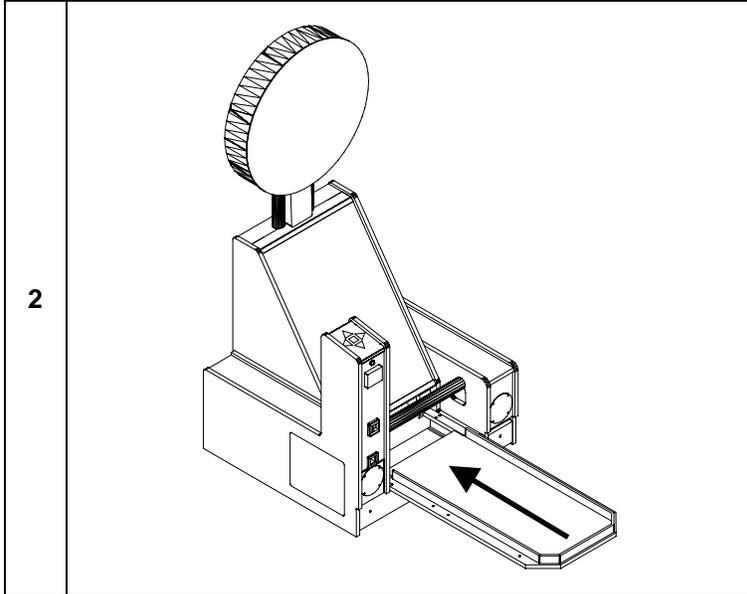
(10) ¼-20 x 1-1/2" Hex Head Bolts
(4) ¼-20 x 2-1/4" Hex Head Bolts
(12) ¼" x 5/8" OD Flat Washers
(4) #8 x ½" Black Phillips Pan Head
(4) ¾" Black Mounting Dome Plug

Assembly Instructions

1	
2	
3	

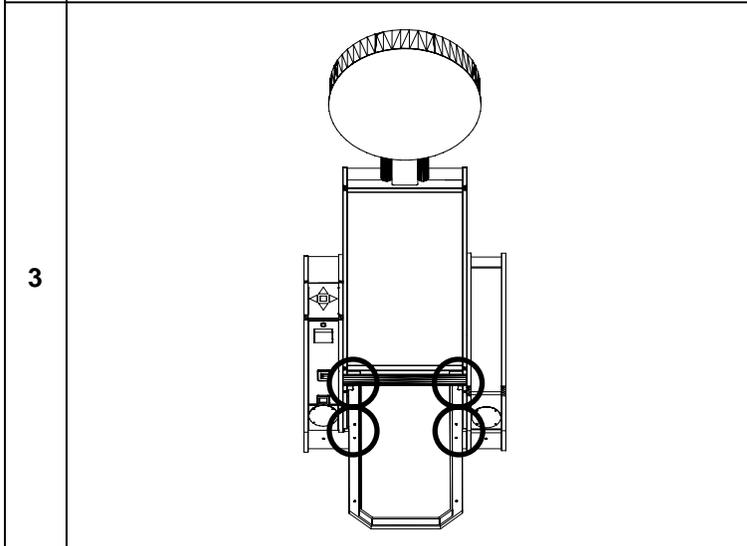

WARNING! CABINET MUST BE LEVEL FOR GAME TO FUNCTION

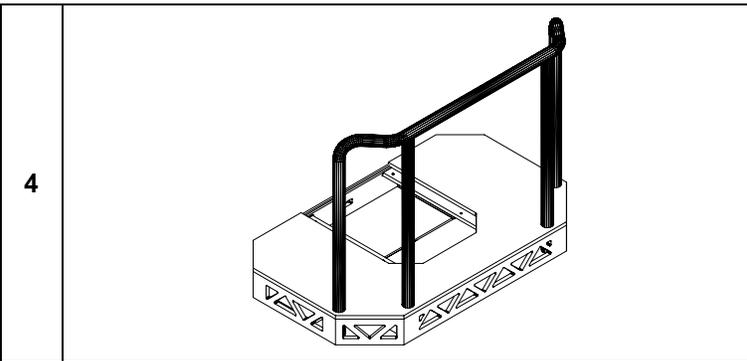Level the **Monitor Cabinet.**

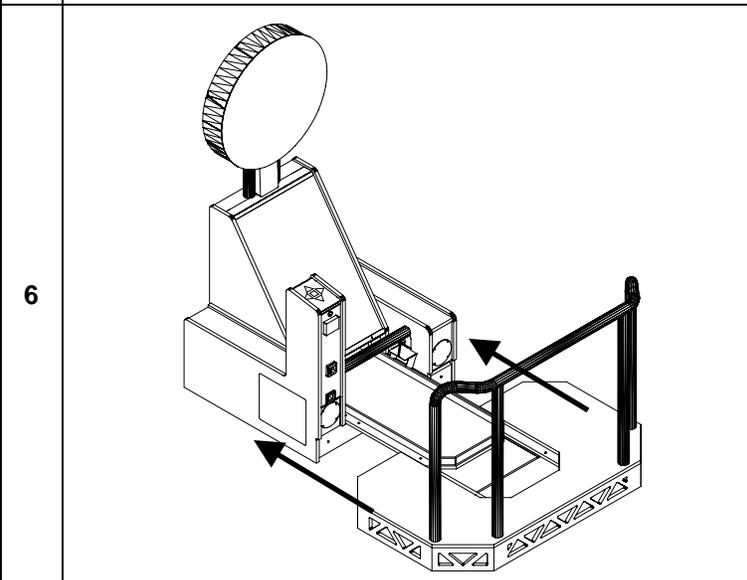Put the **Green** in position on the **Monitor Cabinet**.

Using (**4**) of the **¼-20 x 1-1/2" bolts** and **¼" washers** provided, secure the **Green** to the **Monitor Cabinet**. Use black hole plugs to cover holes after bolts have been installed.
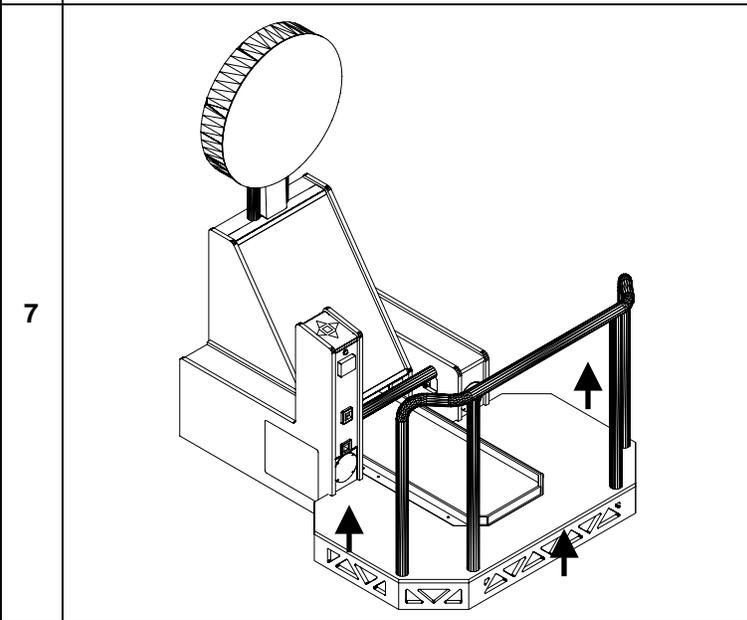
|		
4		Place the **Handrail** in the mounting holes on the **Floor**.
5		Place something (cardboard, cloth, etc.) on the ground to protect the artwork. Lift the **Floor** up and secure **Handrail** from bottom with (**4**) **¼-20 x 2-1/4"bolts** and **¼" washers**.
6		With the leg levelers on the **Floor** in the lowest position, move the **Floor** into place. Connect the **12V DC Lamp Cable** (which extends from the **Floor**) to the corresponding harness, which extends from the **Monitor Cabinet**. Make sure the cable does not get pinched when pushing the cabinets together
7		Using the leg levelers, adjust the **Floor** until it is the same height as the **Monitor Cabinet** and **Green**.
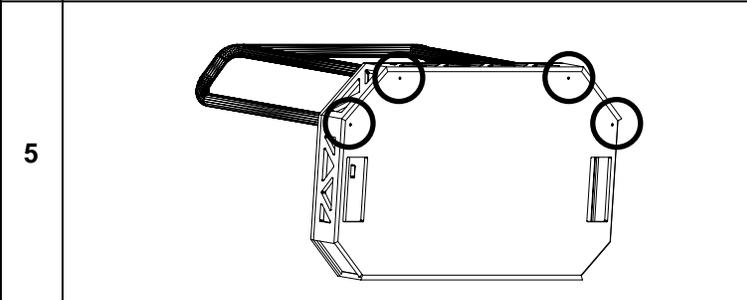
8	
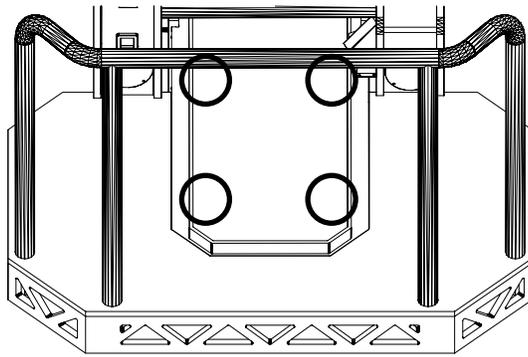
Lift the carpet on the **Green** at the white tabs. Bolt the **Green** to the **Floor** using (**4**) **¼-20 x 1-1/2" bolts** and **¼" washers**.
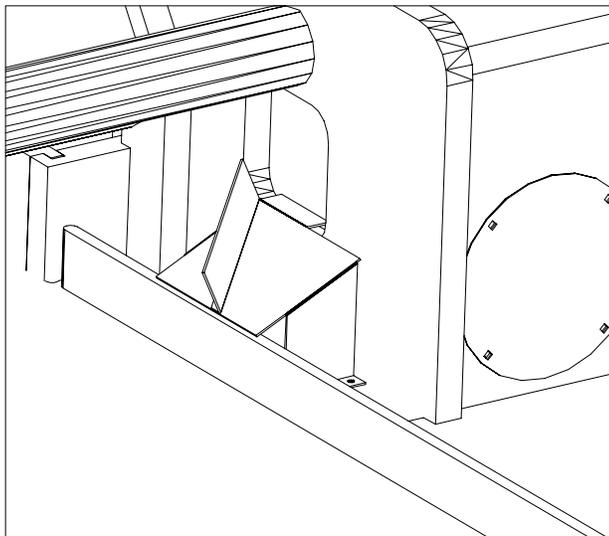
9	**FLOOR AND GREEN ARE STILL ATTACHED AT THIS STEP** Putting Ball Mech Floor Cabinet
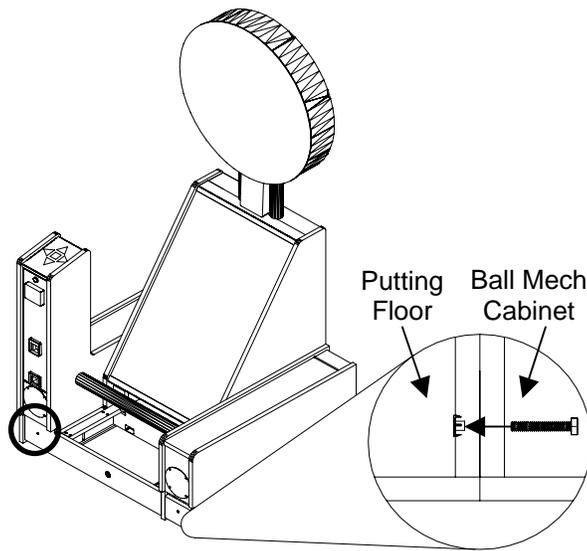
Once in position, bolt the **Floor** to the **Monitor Cabinet** on BOTH SIDES below the speakers from inside the **Ball Mech Cabinet** and **Coin Door Cabinet** using **2 ¼-20 x 1-1/2" bolts** and **¼" washers**.

|	
10	

After everything is assembled and bolted together, attach the **Ball Chute**. Slide one foot of the **Ball Chute** under the **Ball Chute Foot** below the ball exit. Make sure the **Ball Chute** is aligned with the pilot holes and secure it with the **(2) #8 x ½" Black Screws.**

Removal of Ball Mech Cabinet

If the cabinet is too wide to fit through a doorway with the **Ball Mechanism Cabinet** attached, it can be easily removed and reattached.
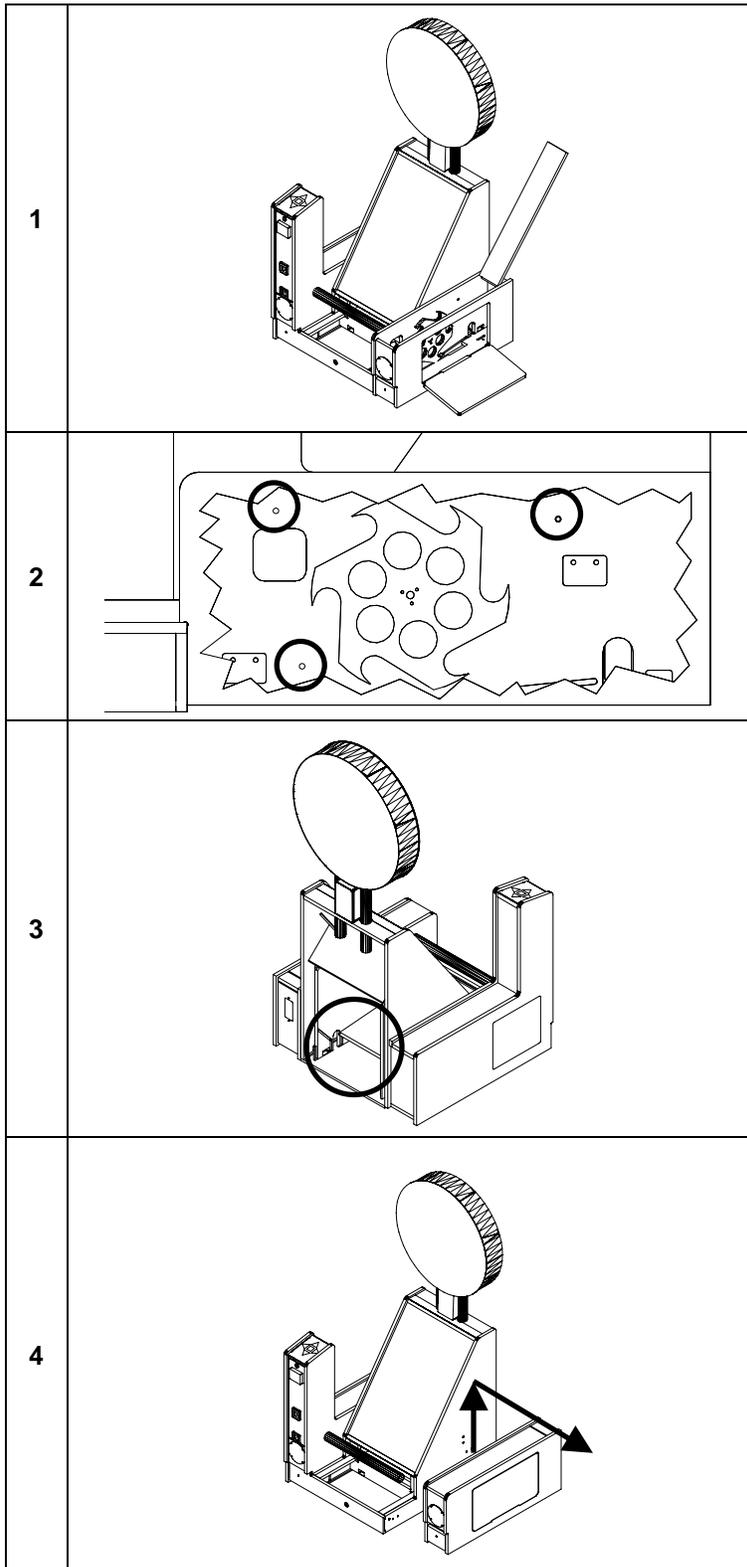
1		Open the top door and side door on the **Ball Mech Cabinet**.
2		Remove the **2** bolts connecting the cabinets, the **2** nuts connected to the **Monitor Guard Bar** and the plate where you removed the nuts.
3		Remove the **Back Door** and disconnect the **AC Wire Harness** and **Ball Mech Harness** that run between the **Monitor Cabinet** and **Ball Mech Cabinet**.
4		Pull the disconnected harnesses back into the **Ball Mech Cabinet** and close the doors. Lift the **Ball Mech Cabinet** straight up **1 inch** to free it from the **Ball Mount Brackets**, and then pull it away from the **Monitor Cabinet**. The **Monitor Guard Bar** should still be connected to the Control Panel Cabinet

To reattach the **Ball Mech Cabinet**, just follow the previous steps in reverse order.

Aligning Motion Sensor

The motion sensor is aligned before you receive it, but it is possible that some movement has occurred during shipment.

NOTE: For better visibility, use the removed back door to shield light from the cabinet. When the back door is open, light reflecting off the motion sensor guard tends to wash out the image, making it more difficult to see.

Open the coin door and press the Menu button on the Service Panel.

Using the Up and Down buttons on the **Control Panel**, move to **Diagnostics** and press Start. From this menu, select **Motion Sensor**.

Look at the box labeled "Live Feed." This shows you what the motion sensor is currently seeing.
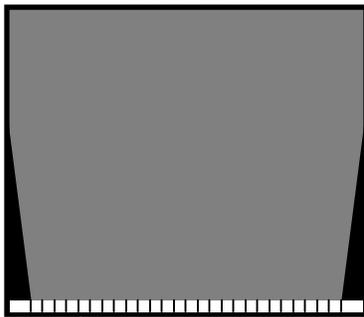
If the motion sensor is correctly aligned, you should see equal black triangles on both sides of the image and a thin silver line, which is the top of the Ball Gate, at the bottom of the screen. **THIS LINE MUST BE HORIZONTAL FOR THE MOTION SENSOR TO TRACK ACCURATELY**. If the image DOES NOT appear as described, use the guide below to determine how you must adjust the motion sensor.

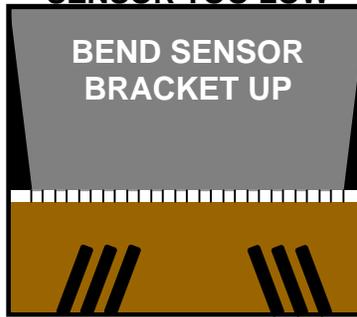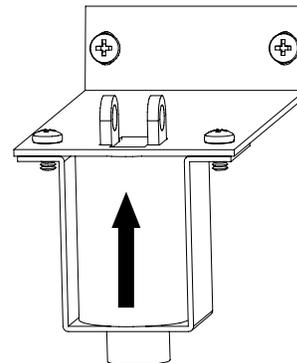**See Motion Sensor Test on page 19 for information on adjusting the ball speed.**

PERFECT

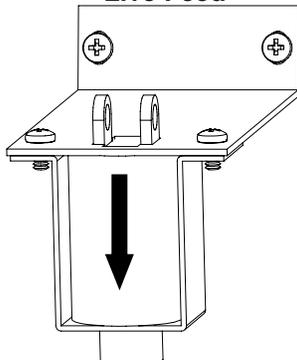**Live Feed**
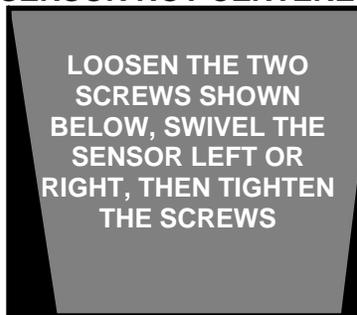
MUST BE PERFECTLY HORIZONTAL

SENSOR TOO LOW

BEND SENSOR BRACKET UP

Live Feed

SENSOR TOO HIGH

BEND SENSOR BRACKET DOWN
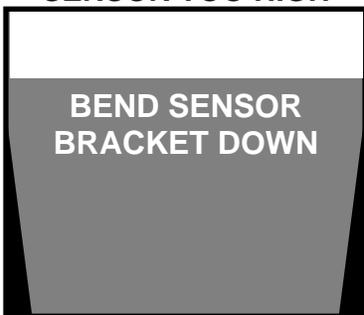
Live Feed

SENSOR NOT CENTERED

LOOSEN THE TWO SCREWS SHOWN BELOW, SWIVEL THE SENSOR LEFT OR RIGHT, THEN TIGHTEN THE SCREWS

Live Feed

IMAGE NOT HORIZONTAL

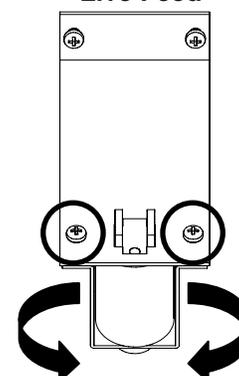LOOSEN THE TWO SCREWS SHOWN BELOW AND TWIST THE SENSOR SO THE WHITE LINE AT THE BOTTOM IS PERFECTLY HORIZONTAL. WHEN IN PLACE, TIGHTEN THE SCREWS
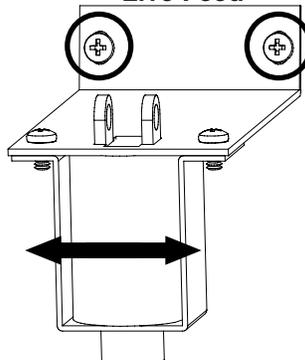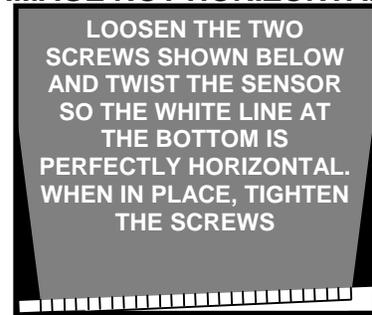
Live Feed

Accessing and Removing Computer Shelf

The computer shelf is located at the rear of the Coin Door Cabinet. The computer shelf can be accessed by removing the door on the back of the Coin Door Cabinet. Remove the thumbscrew and slide the computer shelf back.

There are nine cables that need to be disconnected from the Computer Shelf to completely remove it from the cabinet. These are the **Fan Power Harness**, **Power Cable to the Power Supply, Coin Door Harness**, **Control Panel Harness**, **Ball Mech Harness**, **Speaker Harness**, **DVI Cable, USB Extension Cable** and the **Motion Sensor's USB Cable**

1. TURN POWER OFF AND UNPLUG FROM WALL!

2. Remove the back door of the Coin Door Cabinet.

3. Disconnect the **Fan Power Harness** from the **ATX Power Supply**.

4. Remove the thumbscrew that holds the Computer Shelf in place.

5. Pull the computer shelf out just enough so that you can see all of the I/O Board and Power Supply.

6. Disconnect the **A/C Power Cable** from the **Power Supply.**

7. Disconnect the 4 cable connectors that are attached to the face of the I/O Board. These are the **Coin Door Harness**, **Control Panel Harness**, **Ball Mech Harness** and the **Speaker Harness**.

8. You can leave the 4-pin power connecter attached to the top of the board, as well as the USB cable and Audio Cable.

9. Continue pulling the shelf out of the cabinet.

10. Disconnect the monitor's **DVI Cable** from the Video Card that is connected to the motherboard.

11. Disconnect the **Motion Sensor USB Cable** and **USB Extension Cable** from Motherboard**.**
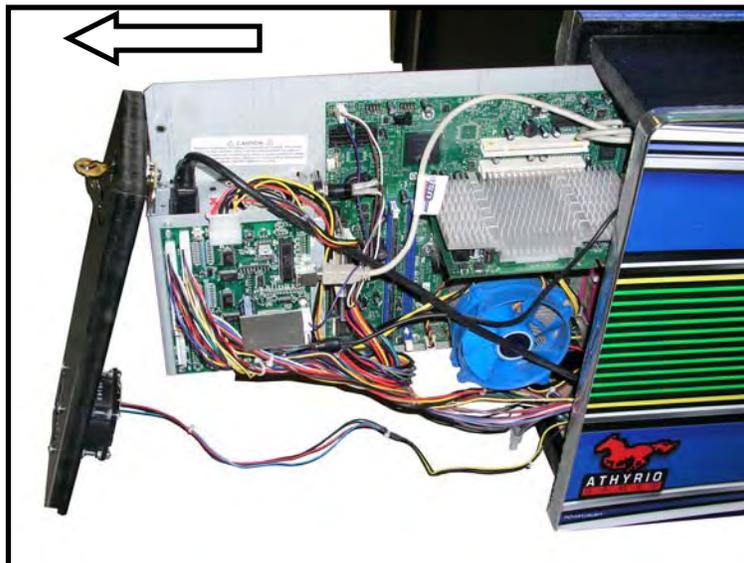
Servicing Floor Lamps

The lamps in the floor are wired in sets of 2. Each set consists of **1 inverter** and **2 lamps**. There is a single cable that runs from the Monitor Cabinet to each inverter, as shown below. Each lamp has its own cable, which connects to the other side of the inverter.
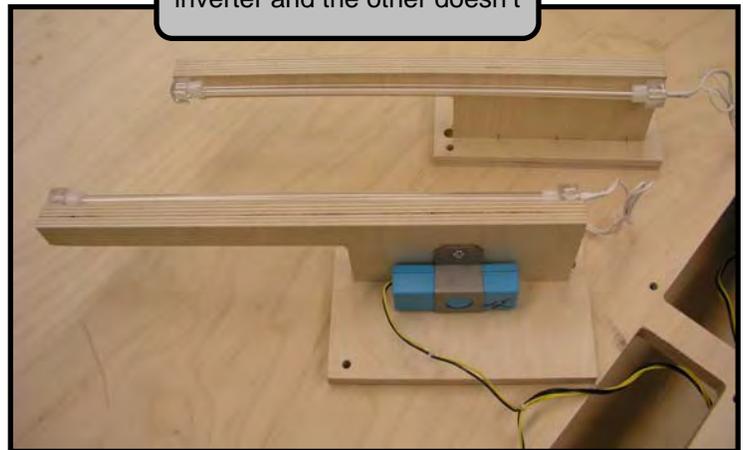
> **Because both lamps are plugged into the same inverter, you must remove both blocks in a set when servicing a lamp**.

The Floor Light Cable connects to each inverter
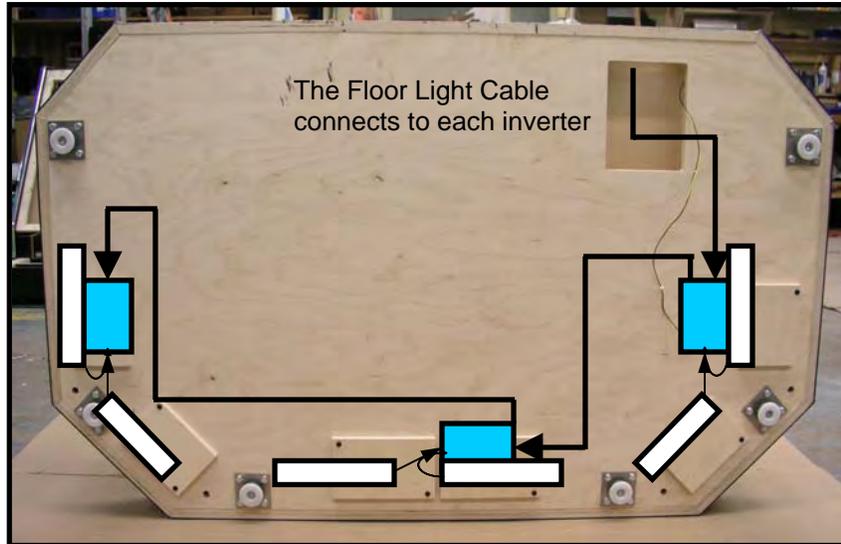


The **Floor Lamps** are wired in sets of 2
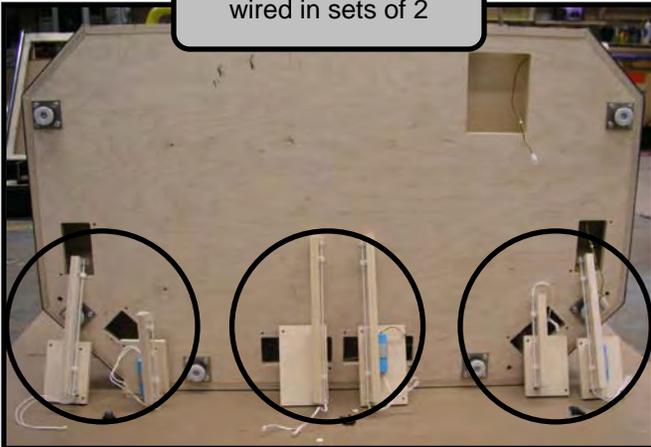
In a set, one block has an inverter and the other doesn't

See the next page for detailed instructions

1. Remove the bolts that hold the **Floor** to the **Monitor Cabinet** and remove the 4 bolts that mount the **Green** to the **Floor**. You can leave the **Green** connected to the **Monitor Cabinet**.

2. Pull the **Floor** away from the **Monitor Cabinet** and disconnect the **Floor Power Cable**, which runs between the two cabinets.

3. Pull the handrail down to the ground so that the **Floor** is vertical.   Put something on the ground to protect the art and Handrail from being scratched.
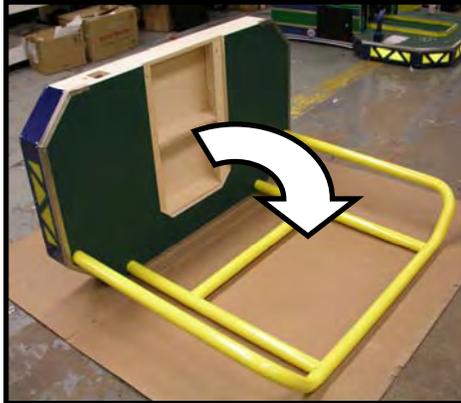
4. Remove the 4 screws for the pair of lamps that you have to remove. Slightly lift each block so you can see which one has the inverter. Unplug both sets of white cables that are plugged into the inverter.
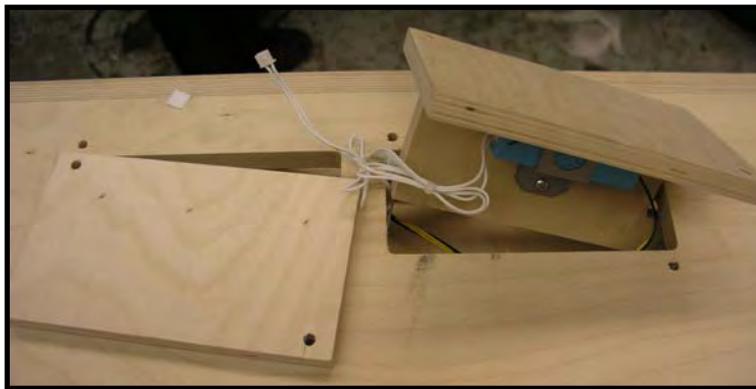

5. You can now remove and service the lamp or inverter.

6. When reinstalling the lamps, you must first install the lamp WITHOUT the inverter and run that lamp's cable to the other lamp's mounting hole, as shown below. Now put the block with the inverter in position and connect both of the lamps cables to the inverter
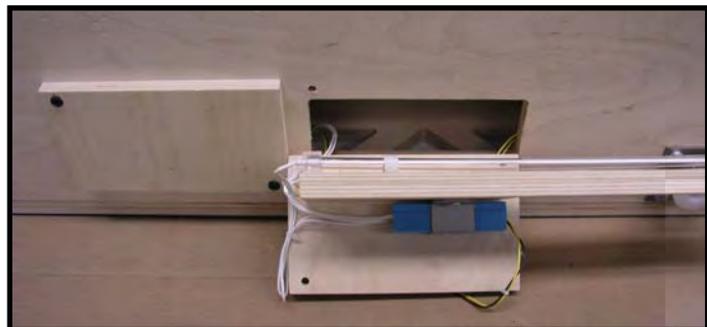
Main Menu

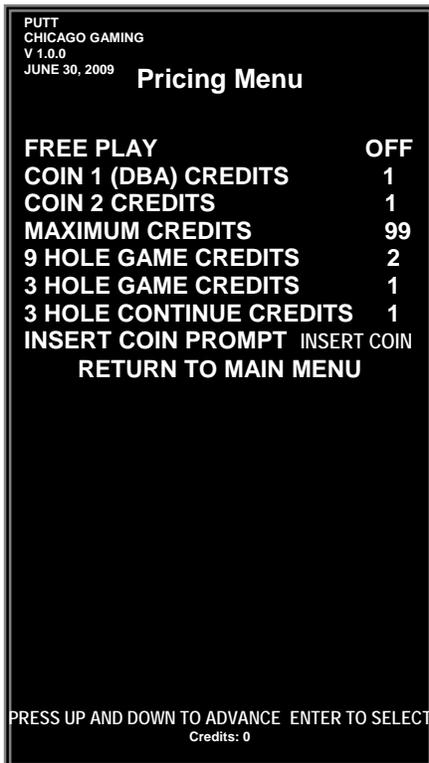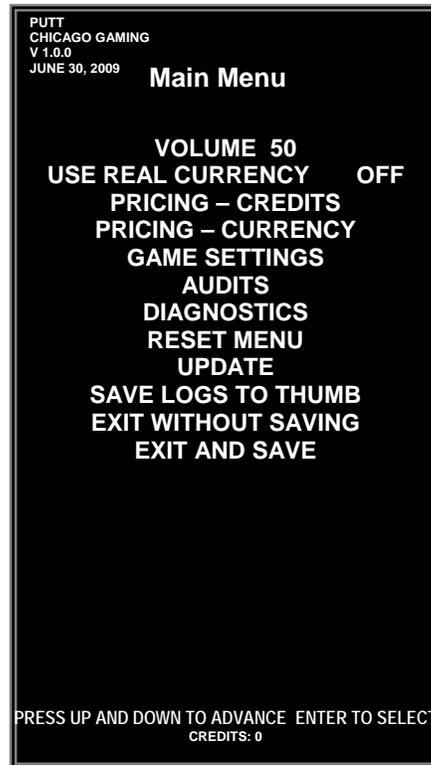The Service Panel is located behind the coin door
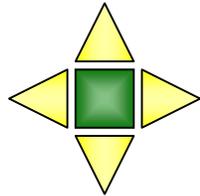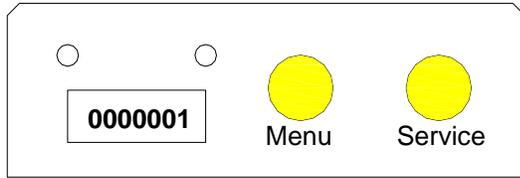
Use the arrow buttons to navigate the menu

Volume – Set Volume from 0-100

Use Real Currency – ON / OFF

Pricing – Credits

PUTT
CHICAGO GAMING
V 1.0.0
JUNE 30, 2009   **Main Menu**

               VOLUME 50
    USE REAL CURRENCY   OFF
         PRICING – CREDITS
        PRICING – CURRENCY
          GAME SETTINGS
             AUDITS
           DIAGNOSTICS
          RESET MENU
             UPDATE
      SAVE LOGS TO THUMB
      EXIT WITHOUT SAVING
         EXIT AND SAVE

PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
CREDITS: 0

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JUNE 30, 2009   **Pricing Menu**

FREE PLAY   **OFF**
COIN 1 (DBA) CREDITS   **1**
COIN 2 CREDITS   **1**
MAXIMUM CREDITS   **99**
9 HOLE GAME CREDITS   **2**
3 HOLE GAME CREDITS   **1**
3 HOLE CONTINUE CREDITS   **1**
INSERT COIN PROMPT INSERT COIN
      RETURN TO MAIN MENU

PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
Credits: 0

Coin 1 (DBA) Credits – OFF / 1-10

Coin 2 Credits – OFFF / 1-10

Maximum Credits – 1-99

9 Hole Game Credits – 1-10

3 Hole Game Credits – 1-10

3 Hole Continue Credits – 1-10

Insert Coin Prompt – Insert Coin / Insert Key / Swipe Card

Pricing – Currency

```
PUTT
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V 1.0.0
JUNE 30, 2009      Pricing Menu


FREE PLAY                    OFF
LOCALE              USA DOLLAR
COIN 1 (DBA) PER PULSE    $0.25
COIN 2 PER PULSE          $0.25
9 HOLE GAME COST          $2.50
3 HOLE GAME COST          $1.00
3 HOLE CONTINUE COST      $1.00
INSERT COIN PROMPT   INSERT COIN
     RETURN TO MAIN MENU






PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
          Credits: 0
```

Free Play – ON / OFF

Locale – USA Dollar / England Pound

Coin 1 (DBA) Per Pulse – $0.00-$5.00

Coin 2 Per Pulse – $0.00-$5.00

9 Hole Game Cost – $0.25-$10.00

3 Hole Game Cost – $0.25-$10.00

3 Hole Continue Cost – $0.25-$10.00

Insert Coin Prompt – Insert Coin / Insert Key / Swipe Card

Game Settings

```
PUTT
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JUNE 30, 2009     GAME SETTINGS


DIFFICULTY               MEDIUM
ATTRACT SOUND                ON
ALLOW CONTINUES              ON
CONTINUE TIMER               30
METERS / YARDS             FEET
MAX STROKES OVER PAR          4
MINUTES TO TIMEOUT IDLE GAME  5
     RETURN TO MAIN MENU






PRESS UP AND DOWN TO ADVANCE  ENTER TO SELECT
          Credits: 0
```

Difficulty – Easy / Medium Easy / Medium / Medium Hard / Hard

> **The difficulty level determines how much the computer assists the player during putting**. If a player, aiming at the hole, hits the ball too far to the right, the computer will partially correct the putt, moving the ball closer to the hole. Easier difficulties correct more, while harder difficulties correct less.

Attract Sound – ON / OFF / Low Volume

Allow Continues – ON / OFF / 1 / 2 / 3

Continue Timer – 15-45

Meters/Yards – Meters / Yards / Feet

Max Strokes Over Par – OFF / 1-10

Minutes to Timeout Idle Game – OFF / 1-15

Audits Menu

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AUDITS MENU

BASE AUDITS
GAME AUDITS
VEGAS AUDITS
HAWAII AUDITS
RETURN TO MAIN MENU

PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
Credits: 0

Base Audits

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AUDITS

	CURRENT	LIFETIME
MONEY IN	$0.00	$0.00
COIN CHUTE 1	0	0
COIN CHUTE 2 (DBV)	0	0
TOTAL COINS	0	0
FREE PLAY STARTS	0	0
GAMES PLAYED	0	0
SERVICE CREDITS	0	0
SERVICE CREDIT CURRENCY	$0.00	$0.00
TIME ON	0Y 0D 00:00:00	0Y 0D 00:00:00
PLAY TIME	0Y 0D 00:00:00	0Y 0D 00:00:00

PRESS SERVICE TO CLEAR CURRENT AUDITS
PRESS ENTER TO EXIT
Credits: 0

Game Audits

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JUNE 30, 2009

AUDITS

	CURRENT	LIFETIME
MONEY IN	$0.00	$0.00
GAMES PLAYED	50	50
GAMES X PLAYED	52	52
AVERAGE GAMETIME	0:00	0:00
1 PLAYER GAMES	34	34
2 PLAYER GAMES	1	1
3 PLAYER GAMES	0	0
4 PLAYER GAMES	0	0
9 HOLE GAMES	23	23
3 HOLE GAMES	12	12
3 HOLE CONTINUES	15	15
1 PLAYER CONTINUES	14	14
2 PLAYER CONTINUES	1	1
3PLAYER CONTINUES	0	0
4PLAYER CONTINUES	0	0
VEGAS GAMES	5	5
HAWAII GAMES	30	30

PRESS SERVICE TO CLEAR CURRENT AUDITS
PRESS ENTER TO EXIT
Credits: 0

Vegas Audits

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AUDITS

	CURRENT	LIFETIME
HOLE 1 PLAYS	0	0
HOLE 1 AVG SCORE	0	0
HOLE 1 AVG TIME	0	0
HOLE 2 PLAYS	0	0
HOLE 2 AVG SCORE	0	0
HOLE 2 AVG TIME	0	0
HOLE 3 PLAYS	0	0
HOLE 3 AVG SCORE	0	0
HOLE 3 AVG TIME	0	0
HOLE 4 PLAYS	0	0
HOLE 4 AVG SCORE	0	0
HOLE 4 AVG TIME	0	0
HOLE 5 PLAYS	0	0
HOLE 5 AVG SCORE	0	0
HOLE 5 AVG TIME	0	0
HOLE 6 PLAYS	0	0
HOLE 6 AVG SCORE	0	0
HOLE 6 AVG TIME	0	0
HOLE 7 PLAYS	0	0
HOLE 7 AVG SCORE	0	0
HOLE 7 AVG TIME	0	0
HOLE 8 PLAYS	0	0
HOLE 8 AVG SCORE	0	0
HOLE 8 AVG TIME	0	0
HOLE 9 PLAYS	0	0
HOLE 9 AVG SCORE	0	0
HOLE 9 AVG TIME	0	0

PRESS SERVICE TO CLEAR CURRENT AUDITS
PRESS ENTER TO EXIT
Credits: 0

Hawaii Audits

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AUDITS

	CURRENT	LIFETIME
HOLE 1 PLAYS	0	0
HOLE 1 AVG SCORE	0	0
HOLE 1 AVG TIME	0	0
HOLE 2 PLAYS	0	0
HOLE 2 AVG SCORE	0	0
HOLE 2 AVG TIME	0	0
HOLE 3 PLAYS	0	0
HOLE 3 AVG SCORE	0	0
HOLE 3 AVG TIME	0	0
HOLE 4 PLAYS	0	0
HOLE 4 AVG SCORE	0	0
HOLE 4 AVG TIME	0	0
HOLE 5 PLAYS	0	0
HOLE 5 AVG SCORE	0	0
HOLE 5 AVG TIME	0	0
HOLE 6 PLAYS	0	0
HOLE 6 AVG SCORE	0	0
HOLE 6 AVG TIME	0	0
HOLE 7 PLAYS	0	0
HOLE 7 AVG SCORE	0	0
HOLE 7 AVG TIME	0	0
HOLE 8 PLAYS	0	0
HOLE 8 AVG SCORE	0	0
HOLE 8 AVG TIME	0	0
HOLE 9 PLAYS	0	0
HOLE 9 AVG SCORE	0	0
HOLE 9 AVG TIME	0	0

PRESS SERVICE TO CLEAR CURRENT AUDITS
PRESS ENTER TO EXIT
Credits: 0

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DIAGNOSTICS

SWITCHES
VIDEO
AUDIO
BALL RETURN
LAMPS
MOTION SENSOR
HARDWARE INFO
RETURN TO MAIN MENU

PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
Credits: 0

Switches – Select this option to test the functionality of the switches.

Video – Select this option to test that the monitor is working properly.

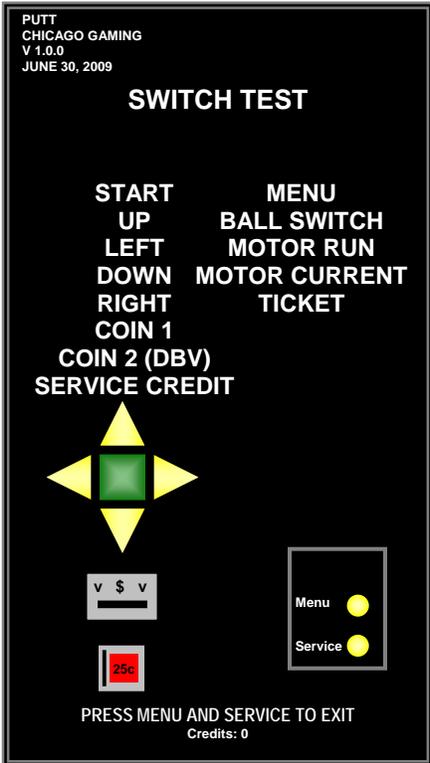**Audio** – Select this option to test that the speakers are working correctly.

Ball Return – Select this option to test the Ball Return Mechanism and Motor.

Lamp Test – Select this option to test all lamps in the cabinet.

Motion Sensor – Use the motion sensor diagnostic to make sure that the motion sensor is working and properly aligned. This is also where you can adjust the speed of the ball in game.

Hardware Info – This provides the versions of Motherboard, I/O Board, and BIOS Version in the machine.

Switch Test

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SWITCH TEST

START   MENU
UP   BALL SWITCH
LEFT   MOTOR RUN
DOWN   MOTOR CURRENT
RIGHT   TICKET
COIN 1
COIN 2 (DBV)
SERVICE CREDIT

v $ v

Menu
Service

25c

PRESS MENU AND SERVICE TO EXIT
Credits: 0

Switches – Pushing a switch will cause the name to light up on the screen.

Start, Up, Left, Down, Right, Coin 1, Coin 2 (DBV), Service Credit, Menu, Ball Switch, Motor Run, Motor Current, Ticket

Video Diagnostics

Use Up and Down to navigate the menu and press enter to select a test screen.
Press enter again to return to **Video Diagnostics Menu**.

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VIDEO DIAGNOSTICS

COLOR BARS
CONVERGANCE
WHITE
RED
GREEN
BLUE
RETURN TO DIAGNOSTICS MENU

PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
Credits: 0

Color Bars

Convergence

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Credits: 0

White

Red

Green

Blue

17

Audio Diagnostics

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AUDIO DIAGNOSTICS

100 HZ
1000 HZ
10000 HZ
RETURN TO DIAGNOSTICS MENU

PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
Credits: 0
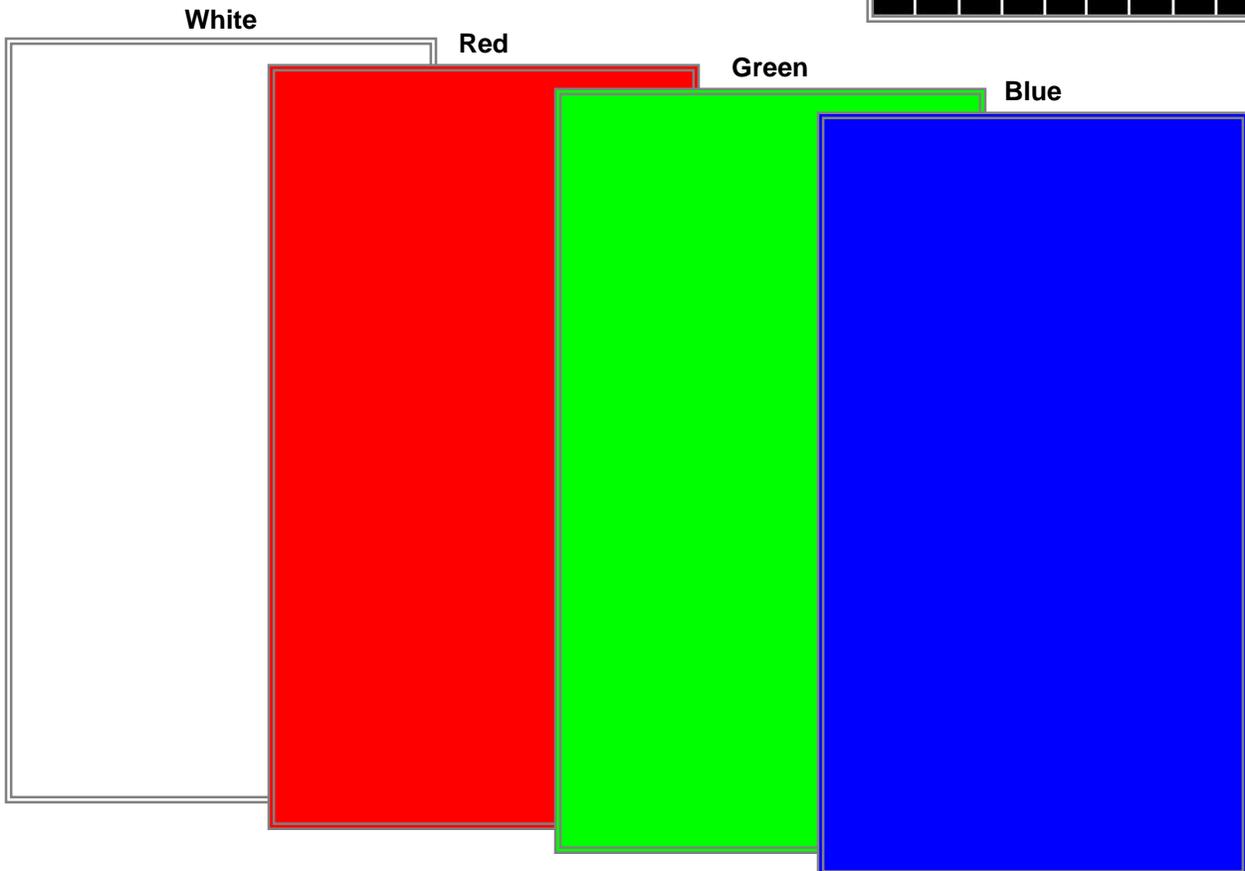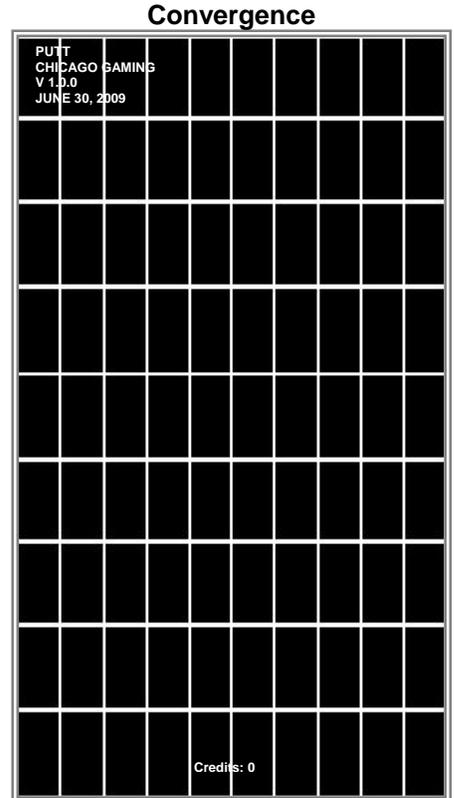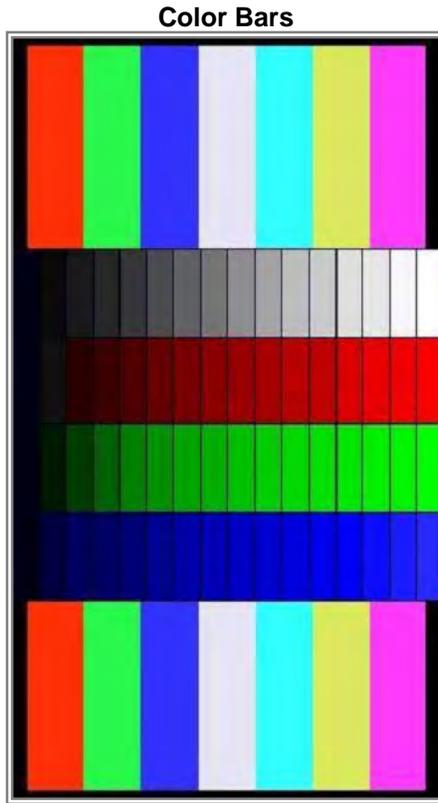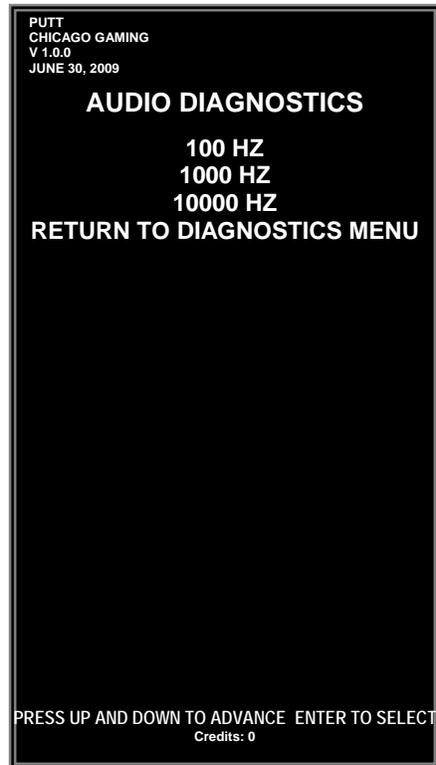
100 HZ – This tests that the speakers work at 100HZ.

1000 HZ – This tests that the speakers work at 1000HZ.

10000 HZ – This tests that the speakers work at 10000HZ.

Ball Return Test

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BALL RETURN TEST

PRESS START TO RETURN BALL
PRESS DOWN TO STOP MOTOR

MOTOR STATUS: OFF

PRESS MENU TO EXIT
Credits: 0
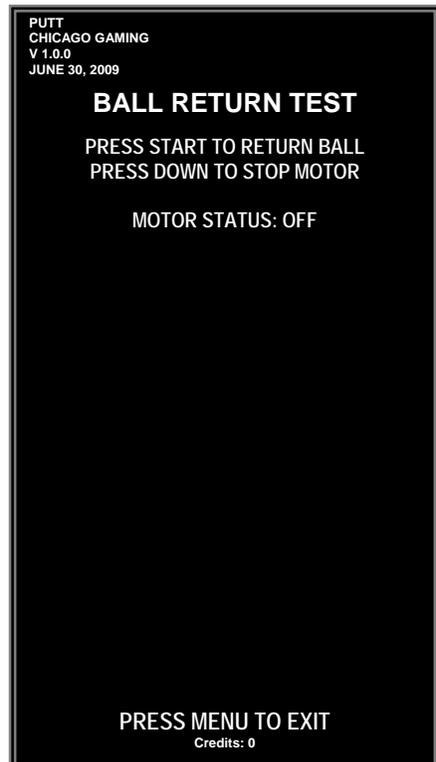
Pressing Start returns one ball.

Pressing Down while the motor is running will stop it.

Lamp Test

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LAMP TEST

I/O BOARD VERSION 1.0

ALL LAMPS FLASHING

**PRESS ANY BUTTON
FOR INDIVIDUAL LAMP TEST**

PRESS MENU TO EXIT
Credits: 0

Upon entering the **Lamp Test**, the five Control Panel Button Lamps should be flashing. Pressing any button switches to the Individual Lamp Test. In this mode, pressing a control panel buttons tests the lamp in that button and pressing Service tests the meter.

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LAMP TEST

I/O BOARD VERSION 1.0

**PRESS CONTROL PANEL BUTTONS
TO TEST CONTROL PANEL LAMPS**

PRESS SERVICE TO TEST METER

PRESS MENU TO EXIT
Credits: 0

Motion Sensor Test

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**MOTION SENSOR TEST
PRESS ENTER TO EJECT BALL**
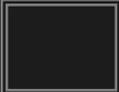
LIVE FEED   MOTION T = 0
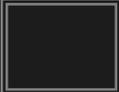
BASE LINE   MOTION T = 1

PUTT BALL INTO CABINET

PRESS LEFT AND RIGHT
TO ADJUST BALL SPEED

BALL SPEED = 57
FACTORY SETTING = 57   MOTION T = 2

MOTION T = 3

PRESS MENU TO EXIT
Credits: 0

The **Motion Sensor Test** is used to align the motion sensor and set the speed of the ball in game. A guide for aligning the motion sensor can be found on **page 9**.

LIVE FEED: Shows a live view of what the motion sensor is seeing.

BASELINE: This is the image that the software will use to compare to the others once it detects motion. It is reset when a new ball is ejected.

MOTION T=0, 1, 2, and 3: These four (4) images are compared against the base line, which shows the direction and speed of the ball.

Adjusting Ball Speed
The ball speed can be adjusted in the **Motion Sensor Test**. Increasing the ball speed causes the ball to travel a greater distance with the same strength of putt, while lowering the ball speed will decrease this distance. While in the **Motion Sensor** Test, press Right to increase the ball speed or Left to decrease it. The factory default setting is 57.

Hardware Info

```
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Motherboard Information:
INTEL CORPORATION
D945PLNM
BIOS: 150
VIDEO: NVIDIA 9500 GT
AUDIO: INTEL 82801G (ICH7) HDA
NIC: INTEL PRO/100 VM
SOFTWARE VERSION: V 1.0.0
I/O BOARD VERSION: 1.0




                PRESS ANY BUTTON TO EXIT
                      Credits: 0
```

This screen provides the versions of Motherboard, BIOS, Video Card, I/O Board and Software that are currently in your game.

Reset
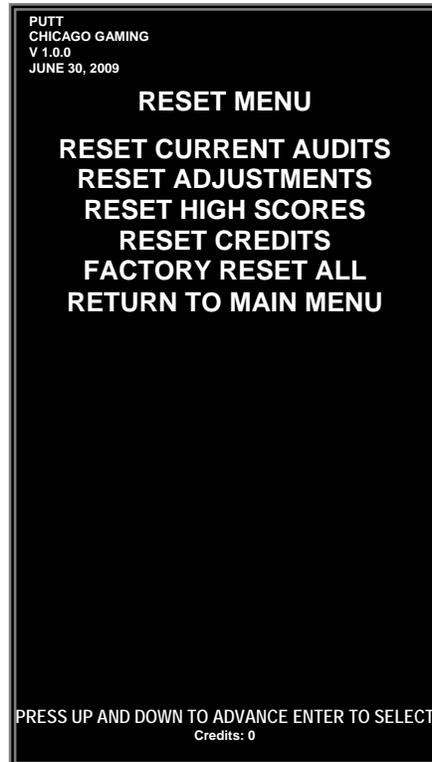
Reset Adjustments – Prompts to confirm reset adjustments

Reset High Scores – Does not prompt to confirm

Reset Credits – Does not prompt to confirm

Factory Reset All – Prompts to confirm factory reset all

```
PUTT
CHICAGO GAMING
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           RESET MENU

      RESET CURRENT AUDITS
       RESET ADJUSTMENTS
       RESET HIGH SCORES
          RESET CREDITS
       FACTORY RESET ALL
      RETURN TO MAIN MENU




PRESS UP AND DOWN TO ADVANCE ENTER TO SELECT
                  Credits: 0
```

```
PUTT
CHICAGO GAMING
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    RESET CUR

THIS ACTION C
        ARE Y


    PRESS MEN
    PRESS SERV




                  C
```

```
PUTT
CHICAGO GAMING
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    RESET ADJUST

THIS ACTION CANNOT
        ARE YOU SU


    PRESS MENU TO
    PRESS SERVICE T




                Credits: 0
```

```
PUTT
CHICAGO GAMING
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       FACTORY RESET ALL

THIS ACTION CANNOT BE UNDONE
        ARE YOU SURE?

     PRESS MENU TO CONFIRM
     PRESS SERVICE TO CANCEL




                  Credits: 0
```

Update

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SYSTEM UPDATE
WARNING: THIS WILL OVERWRITE FLASH MODULE

PLEASE CONNECT THUMB DRIVE WITH UPDATE AND PRESS MENU

PRESS MENU TO START UPDATE PROCESS
PRESS SERVICE TO EXIT

Credits: 0

Putt! software can be updated through a USB drive.
Connect the drive with the update on it to the USB Extension
Cable behind the Coin Door, enter the System Update Menu and
press the Menu button. You can cancel by pressing Service.
When the update is complete, turn the power off, remove the
USB drive and turn the power back on.

Save Logs to Thumb

PUTT
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SAVE LOGS
WARNING: THIS WILL WRITE TO THUMB DRIVE

PLEASE CONNECT THUMB DRIVE WITH UPDATE AND PRESS MENU
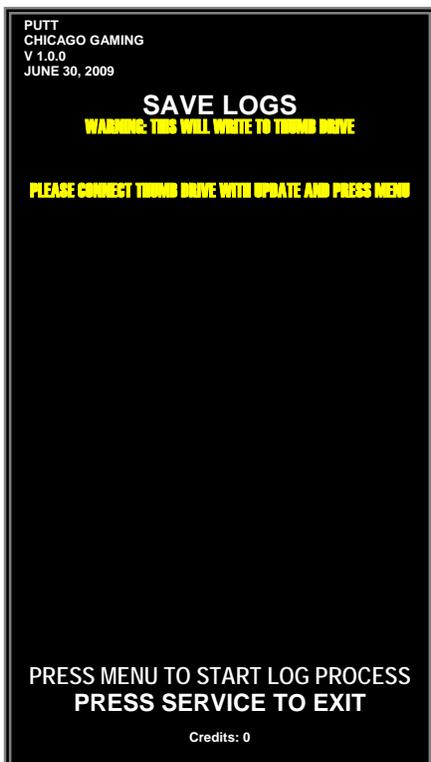
Log files can be saved to a USB drive. This is intended
to help diagnose problems while servicing the machine. Connect
a USB drive, enter the Save Logs to Thumb menu and press
Menu. When the screen prompts you, turn the power off, then
remove the USB drive.

PRESS MENU TO START LOG PROCESS
PRESS SERVICE TO EXIT

Credits: 0

Putt! Parts List

Part Picture	Part Number	Part Name	Qty.
	PUT-SUB-PCSHELF	Computer Shelf Subassembly	1
	000-ELE-270WPWR	Power Supply Sparkle Part # FSP270-50SNV	1
	000-ELE-2GCFCRD	2GB Compact Flash Card With Software	1
	PUT-PCB-MBIN048	Motherboard, D945PLNML S775 800FSB DDR2 MATX	1
	PUT-PCB-USBIO	USB I/O Audio Amp	1
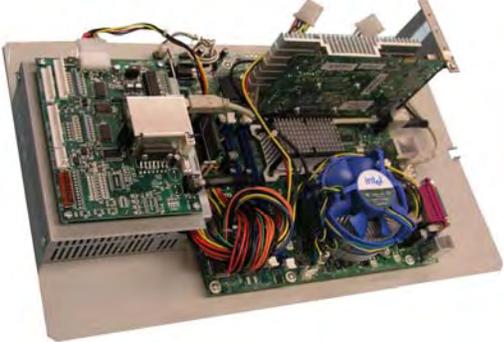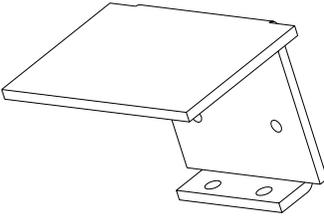
	PUT-MLS-AHSNK15	Amp Heat Sink 1516	**1**
	PUT-PCB-V9502GT	Biostar Graphics Card V9502GT51	**1**
	PUT-ELE-1GBRAM	RAM – 1 GB, DDR2, 533MHz	**1**
	PUT-ELE-CFSOCKT	Compact Flash Socket	**1**
	PUT-ELE-PRIN780	Celeron 2.8GHZ Processor	**1**
	PUT-ELE-SUPACC	Celeron Heat/Fan Sink	**1**
	PUT-MLS-IOMOUNT	IO PCB Mount	**1**
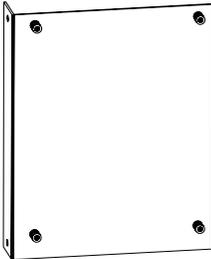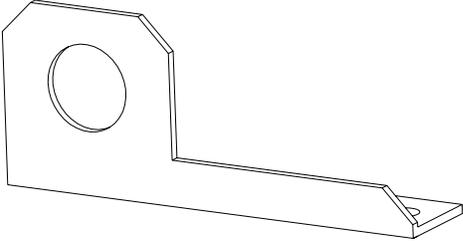
	PUT-MLS-PBTNBRK	Power Button Bracket	**1**
	PUT-MLS-VIDOBRK	Video Support Bracket	**1**
	PUT-MLS-PNLRAIL	Electronics Panel Rail	**1**
	PUT-MLS-ELECPNL	Computer Shelf	**1**
	PUT-CBL-ACPOWER	AC Power Cable	**1**
	PUT-CBL-BALMECH	Ball Mech Cable	**1**
	PUT-CBL-CABGRND	Cab Ground Wires	**1**
	PUT-CBL-COINBOX	Coin Box Cable	**1**
	PUT-CBL-COINDOR	Coin Door Cable	**1**
	PUT-CBL-DBADOOR	DBA Door Cable	**1**
	PUT-CBL-FLORLIT	Floor Light Cable	**1**
	PUT-CBL-FLORPWR	Floor Power Cable	**1**
	PUT-CBL-MARQPOW	Marquee Power Cable	**1**
	PUT-CBL-PCBMECH	PCB Mech Cable	**1**
	PUT-CBL-POWRBRK	Power Brk Cable	**1**
	PUT-CBL-RESET	Reset Cable	**1**
	PUT-CBL-TICKLOW	Ticket Low Cable	**1**
	PUT-CBL-6USBM2F	6' USB Extension Cable	**1**
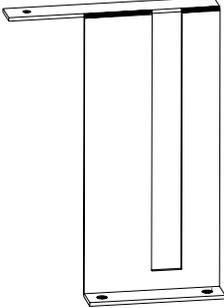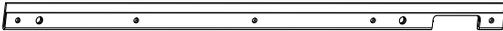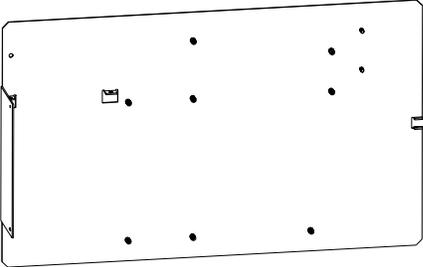
	PUT-ART-MARQUEE	Marquee	**1**
	PUT-MLS-MARQDRM	Marquee Drum	**1**
	000-LMP-18FLORE	18" Fluorescent Lamp	**2**
	000-LMS-18FLORE	18" Fluorescent Light Fixture	**2**
	000-PLE-8507K14	Extrusion, 1/32 x 1/4 x 3/16 x 3/8, Material SBR/Neo. Blend Black	
	PUT-MLT-MRQSPRT	Marquee Support	**2**
	PUT-MLS-DPIMONT	DPI Speaker Mount Bracket	**1**
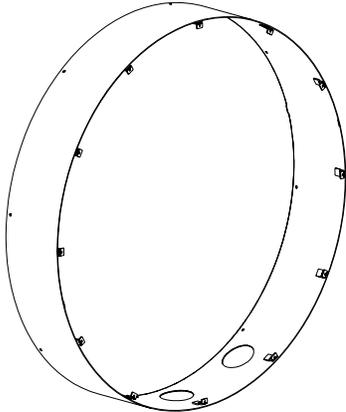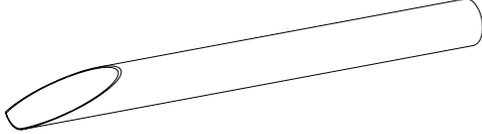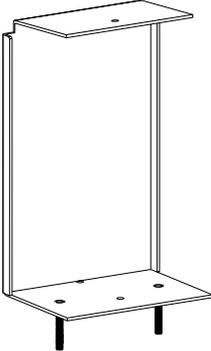
	000-SPK-4IN3WAY	DPI Speaker 4" 3Way 50W, Black	**1**
	PUT-CAB-MONITOR	Monitor Cabinet	**1**
	PUT-ART-UPLEFT	Side Upper Panel Left	**1**
	PUT-ART-UPRIGHT	Side Upper Panel Right	**1**
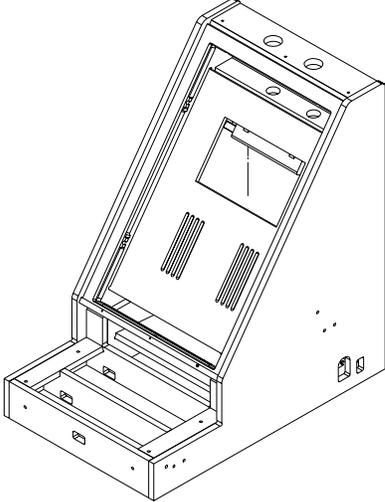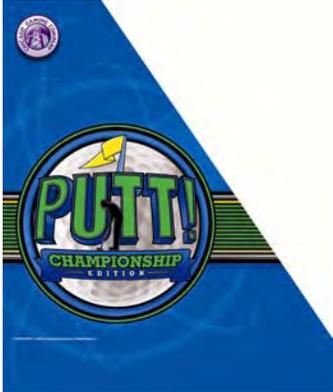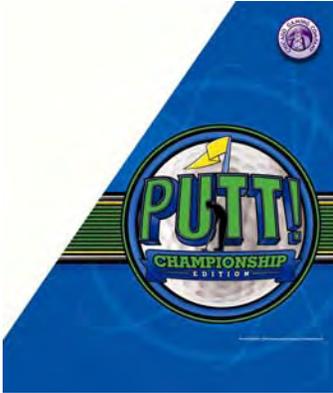
	000-MON-WG32LCD	32" LCD Monitor Wells-Gardner Part # WGF3299-SIAS03J	**1**
	PUT-GLS-BEZLGLS	Front Glass	**1**
	PUT-MLS-GLSMNTL	Glass Mount Lower	**1**
	PUT-MLS-GLSMTGU	Glass Mount Upper	**1**
	PUT-ART-CGCLOGO	Chicago Gaming Logo	**1**
	PUT-ART-WARNING	Suitable for All Ages Decal	**1**
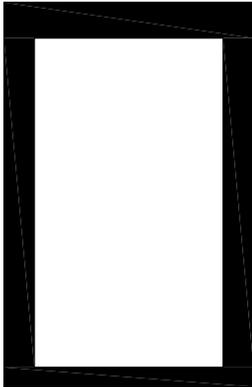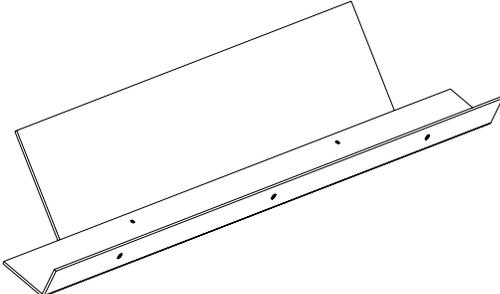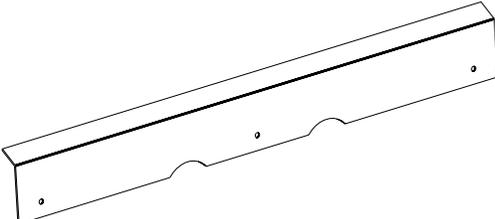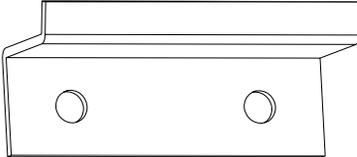
	PUT-MLS-BALMONT	Ball Mount Bracket	**2**
	PUT-PLS-GLSGARD	Glass Guard Plexi	**1**
	PUT-SUB-BALGATE	Ball Gate Subassembly	**1**
	PUT-MLS-BGATHNG	Ball Gate Hinge	**1**
	PUT-MLS-BGATMNT	Ball Gate Mount	**1**
	PUT-MLS-BGATPLT	Ball Gate Plate	**1**
	PUT-MLW-BALGATC	Ball Gate Wires	**10**
	PUT-MLW-GATSPRN	Ball Gate Spring	**10**
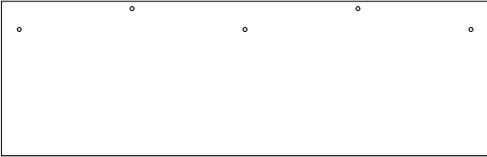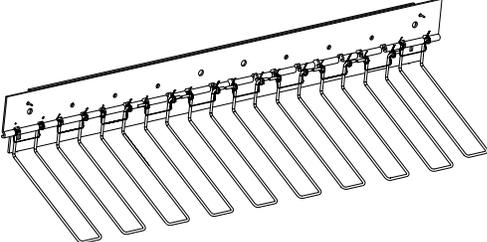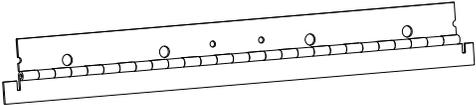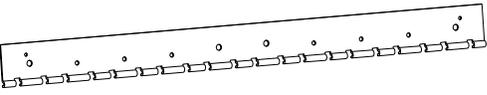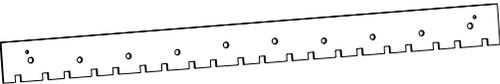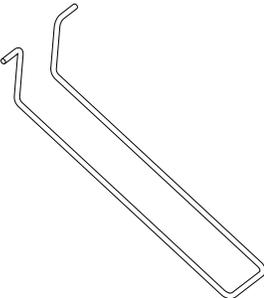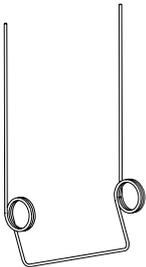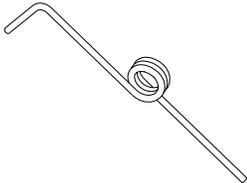
	PUT-MLW-HNGSPNG	Ball Gate Hinge Spring	**2**
	PUT-SUB-BONCPAD	Ball Bounce Board with Padding and Cloth	**2**
	PUT-ELE-WEBCAM	Motion Sensor	**1**
	PUT-MLS-CAMMONT	Motion Sensor Mount	**1**
	PUT-MLS-CAMSTND	Motion Sensor Stand	**1**
	PUT-LMP-GLI106	10-3/4" Fluorescent Lamp, Complete	**1**
	PUT-LMP-10INBLB	10-3/4" Fluorescent, Bulb Only	**1**
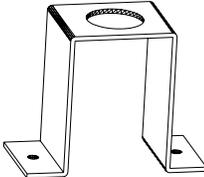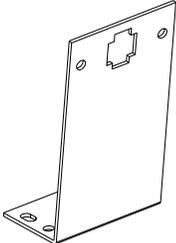
	Part Number	Description	Qty
	PUT-PLS-CAMGUARD	Motion Sensor Guard	**1**
	000-LVR-1213X3	½-13 x 3" Leg Levelers	**4**
	000-LVR-1213X15	½-13 x 1.5" Leg Leveler	**6**
	000-HDW-5LEGPLT	½-13 Leg Leveler Plate	**10**
	000-HDW-3FCASTE	Casters	**2**
	PUT-CAB-BALLMCH	Ball Mech Box Cabinet	**1**
	PUT-ART-LWRIGHT	Lower Right Side Decal	**1**
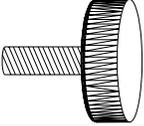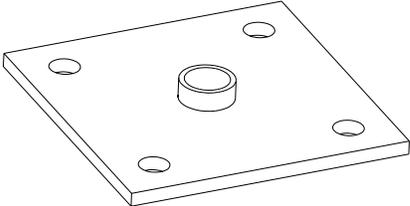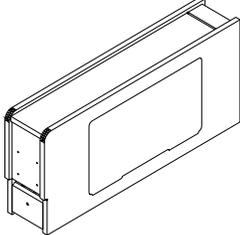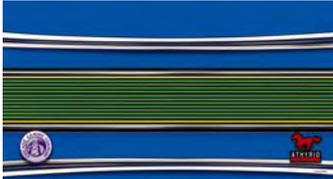
	PUT-ART-INRIGHT	Inner Right Side Decal	**1**
	000-MLS-PWRSWT	Coin-Op Switch Plate	**1**
	000-SWC-ALCO16A	Alco Switch	**1**
	000-CBL-6PWR18G	6" Power Cable	**1**
	000-ELE-FILTINL	Filter, Yunpen 6A, IEC connector	**1**
	000-ELE-FUSHOLD	Fuse Block	**1**
	000-FUS-5A250V	Fuse	**1**
	PUT-MLS-DORHING	Door Hinge	**3**
	PUT-CCC-BALWHEL	Ball Wheel	**1**
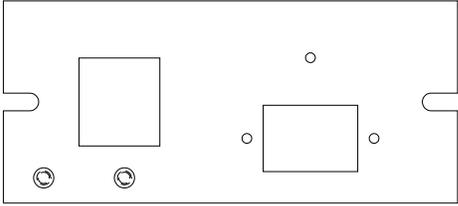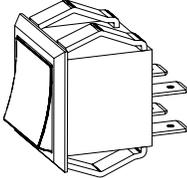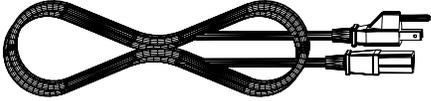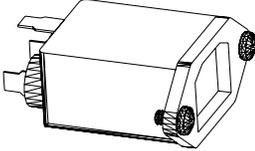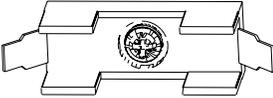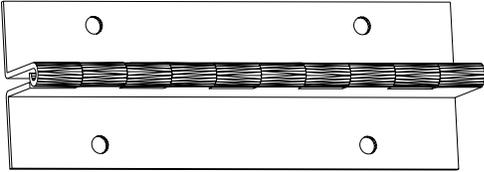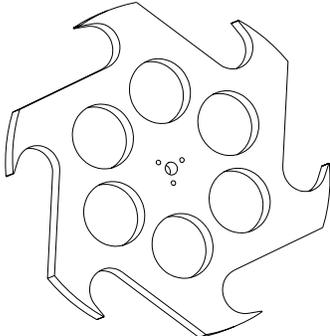
	PUT-MTR-S8153	Motor (Model VF2508, Volts=12, RPM=17, Torque=16, S8153F, .187 Terminal)	**1**
	PUT-MLC-WHELHUB	Ball Wheel Hub	**1**
	PUT-HAP-SWSHOOT	Switch Assembly Shooter with Diode	**1**
	PUT-MLS-BALDVRT	Ball Diverter	**1**
	PUT-PLE-GARDTUB	Guard Bar Rubber Tube	**1**
	PUT-MLT-GARDBAR	Monitor Guard Bar	**1**
	PUT-MLS-BARPLAT	Monitor Guard Bar Plate	**2**
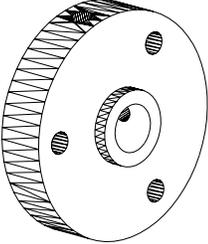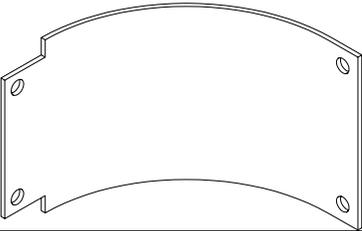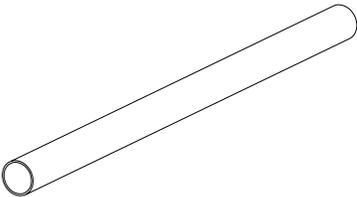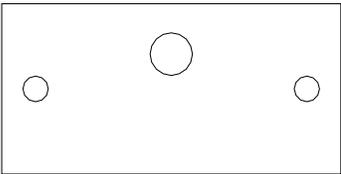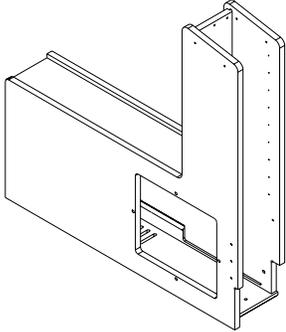
	PUT-CAB-CPTOWER	Control Panel Tower Cabinet	1
	PUT-ART-LWLEFT	Lower Left Side Decal	1
	PUT-ART-INLEFT	Inner Left Side Decal	1
	PUT-MLS-BUTPNL	Button Panel	1
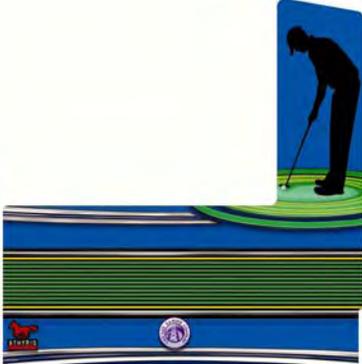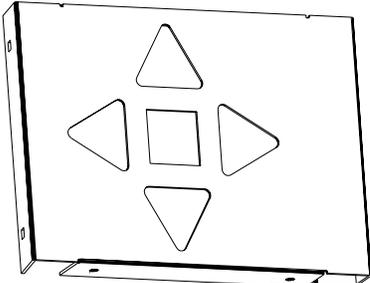
	PUT-ART-CPO	Control Panel Overlay	1
	PUT-HAP-DWNBUTN	Triangular Green Printed Button	1
	PUT-HAP-LFTBUTN	Triangular Yellow Printed Button	1
	PUT-HAP-RGTBUTN	Triangular Yellow Printed Button	1
	PUT-HAP-SQRBUTN	Square Green Printed Button	1
	PUT-HAP-UPBUTN	Triangular Green Printed Button	1
	000-LMP-3LED12V	T3-1/4 LED – 12V Betson Part # 06-900-12V3V	6
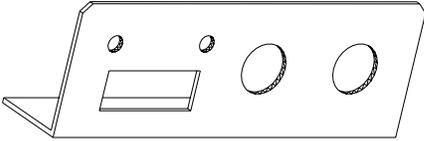
	PUT-MLS-SVCPANL	Service Button Panel	**2**
	000-HAP-MBUTTON	Mini Round Push Button, Yellow with Black Bezel	**4**
	PUT-MLS-2COINDR	Double Coin Mech Door	**1**
	PUT-MLS-DBADOOR	Coin Door For Dollar Bill Acceptor	**1**
	PUT-HAP-PINDOOR	Happ Blank Pinball Door Happ Part # 40-0067-00	**1**
	000-LCK-CH751	Lock Keyed for CH751	**6**
	000-HAP-COINBOX	Coin Box Large Black Plastic	**1**
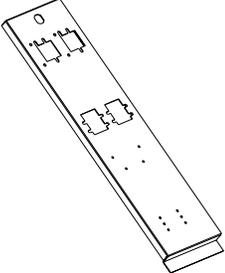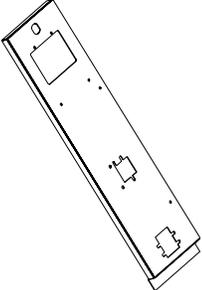
	000-MCH-PRMD540	Pyramid Dollar Bill Validator (OPTIONAL)	**1**
	PUT-HAP-MECHKIT	Replacement Parts Kit for Coin-Door Happ Part # 42-0064-200	**1**
	PUT-HAP-PROMECH	Coin Mech Happ, $.25 USA	**1**
	PUT-PLS-CDORPAD	Coin Door Pad	**1**
	PUT-MLS-CDFLCTR	Coin Deflector	**1**
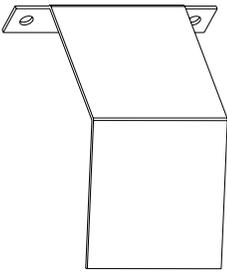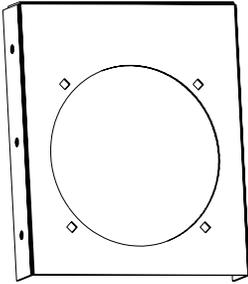
	PUT-MLS-CDORBAS	Coin Door Base	**1**
	PUT-MLS-DORSTOP	Coin Door Stop	**2**
	PUT-MLS-SPKGRIL	Speaker Grill	**2**
	000-SPK-475IN8O	Speakers 4 ¾" 8 Ohm	**2**
	PUT-MLW-FANGARD	Steel Fan Guard, 2.68" Jameco Part# 120038	**2**
	PUT-ELE-60MMFAN	Delta DC Brushless Fan, 12VDC, 60x60x25, 23CFM, 180mA Jameco Part# 114674	**1**
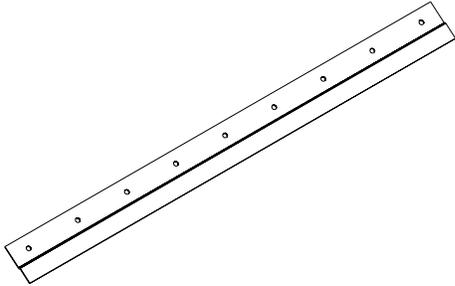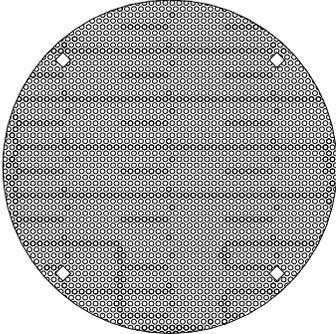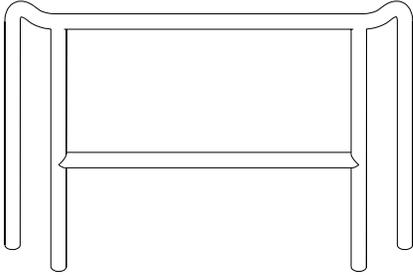
	PUT-MLT-HANDRAL	Handrail	1
	PUT-SUB-FLOOR	Floor Assembly	1
	PUT-CAB-FLOOR	Cabinet – Floor (Wood Only)	1
	PUT-ART-RCRNFLR	Right Corner Floor	1
	PUT-ART-LCRNFLR	Left Corner Floor	1
	PUT-ART-LTFLOOR	Left Floor	1
	PUT-ART-RTFLOOR	Right Floor	1
	PUT-ART-FTFLOOR	Front Floor	1
	PUT-ART-BCRNFL	Rear Floor	2
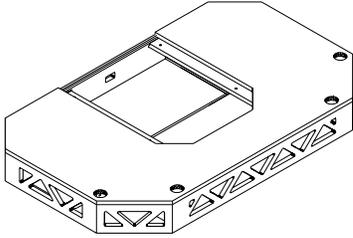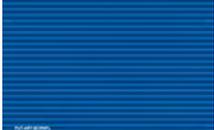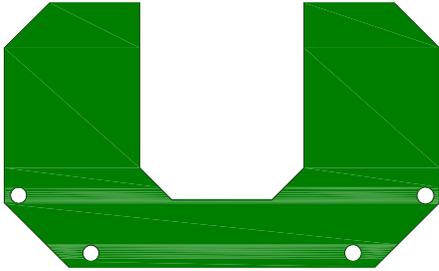
	Part Number	Description	Qty
	PUT-PLS-RUBRMAT	Green Floor Rubber Mat	**1**
	015-MLS-CFBALST	CCFL Inverter Bracket	**3**
	000-LMP-12CCFL	12" CCFL White (2 Bulbs, 1 Inverter)	**1**
	000-LMP-14CCFLW	14" CCFL White (2 Bulbs, 1 Inverter)	**1**
	000-LMP-8CCFLW	8" CCFL White (2 Bulbs, 1 Inverter)	**1**
	000-LMP-8INBLB	Single 8" CCFL Bulb	
	000-LMP-12INBLB	Single 12" CCFL Bulb	
	000-LMP-14INBLB	Single 14" CCFL Bulb	
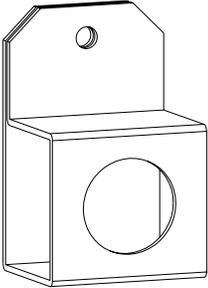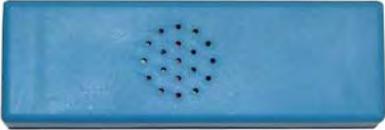
	Part Number	Description	Qty
	000-ELE-INVRTER	CCFL Inverter	
	PUT-MLS-FLORFNT	Floor Front Trim	1
	PUT-MLS-FLORTLF	Floor Trim Left	1
	PUT-MLS-FLORTRT	Floor Trim Right	1
	PUT-SUB-GREEN	Putting Green Assembly	1
	PUT-CAB-GREEN	Cabinet – Green (Wood Only)	1
	PUT-MLS-RALCVRF	Green Rail Front Cover	1
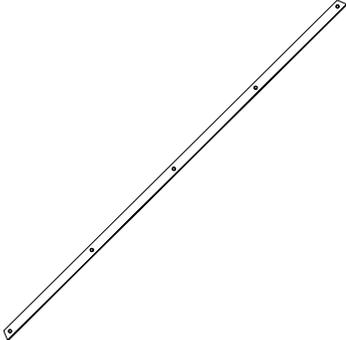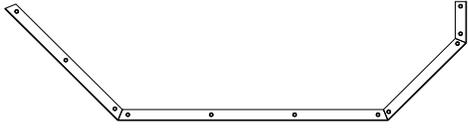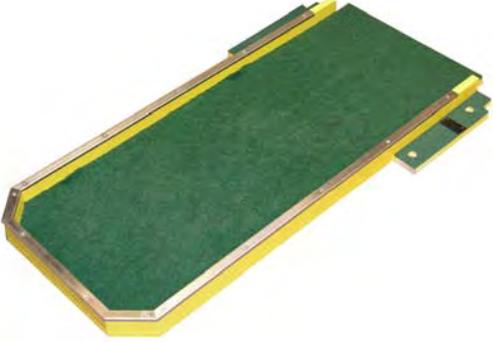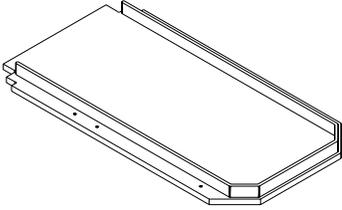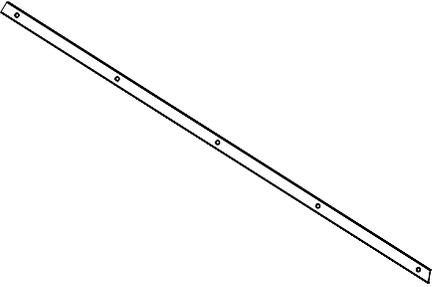
	PUT-MLS-RLCVRL	Green Rail Left Cover	**1**
	PUT-MLS-RLCVRR	Green Rail Right Cover	**1**
	000-MSC-GRNCRPT	Green Carpet	**1**
	PUT-MLS-BALCHUT	Ball Chute	**1**
	PUT-MLS-CHTFOOT	Chute Foot	**1**
	PUT-PLM-GLFBALL	Golf Ball	**5**
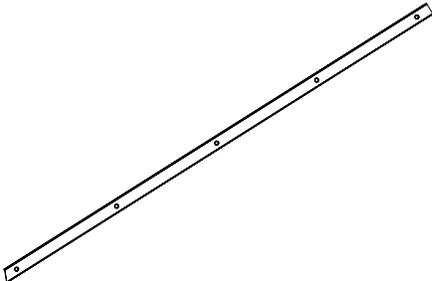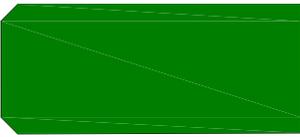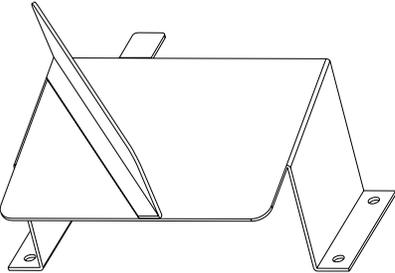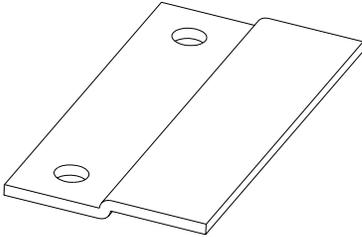
	PUT-SUB-PUTTER	Putter, 35" Black Handle and Rubber Head; With Tether Hardware Attached	**1**
	PUT-SUB-CBLCLMP	Tether Clamp (Top, Bottom and Screw)	**1**
	FSM-252-OEY173C	¼-20 Eye Bolt	**1**
	PUT-MLS-CLUBHOK	Club Hook	**1**
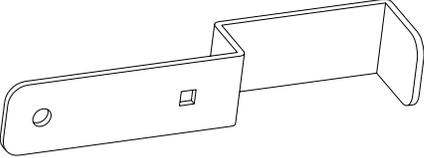
Wiring Diagram
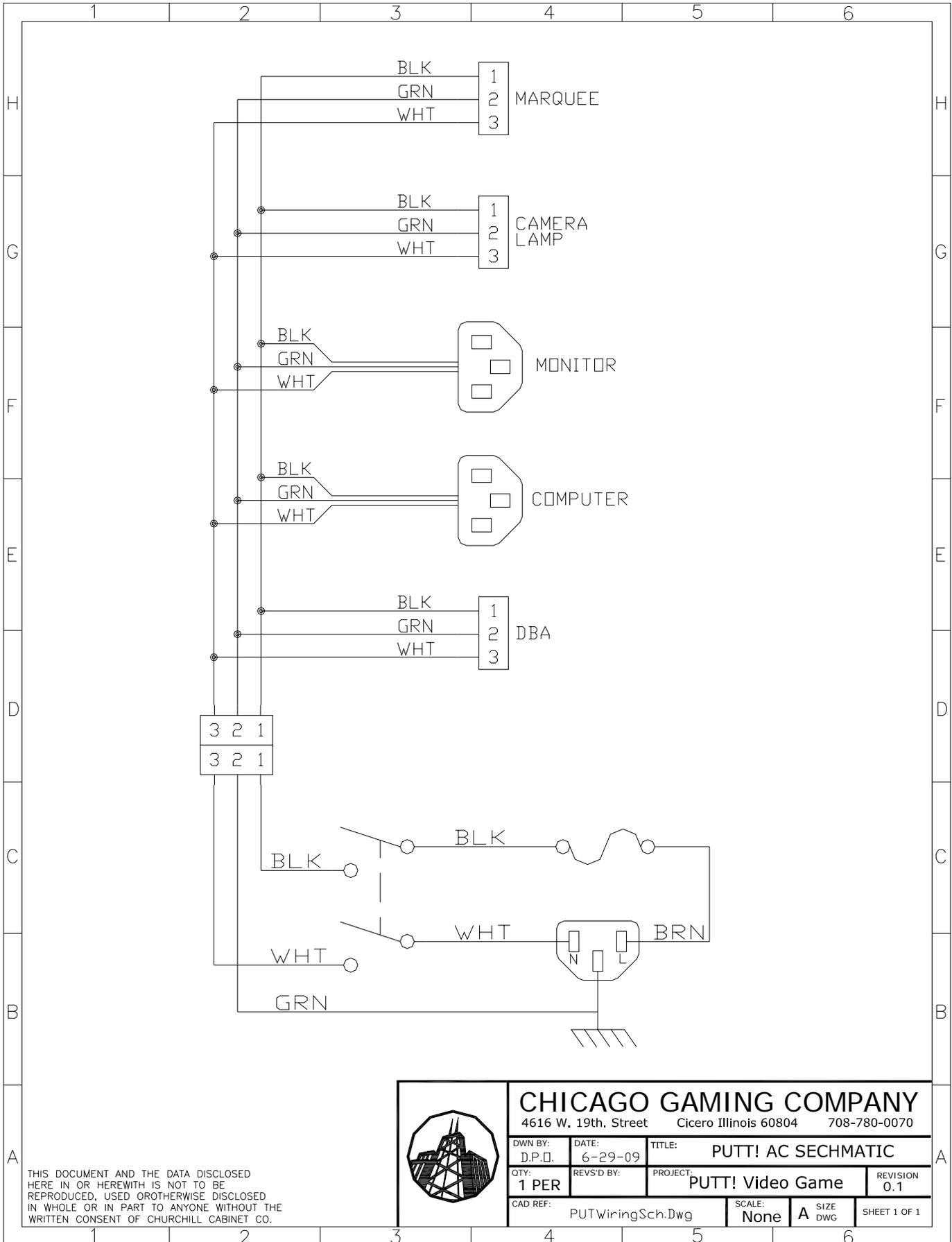
BLK
GRN
WHT
1
2
3
MARQUEE

BLK
GRN
WHT
1
2
3
CAMERA
LAMP

BLK
GRN
WHT
MONITOR

BLK
GRN
WHT
COMPUTER

BLK
GRN
WHT
1
2
3
DBA

3 2 1
3 2 1

BLK
BLK
WHT
WHT
BRN
N   L
GRN

CHICAGO GAMING COMPANY
4616 W. 19th. Street   Cicero Illinois 60804   708-780-0070

DWN BY: D.P.□.	DATE: 6-29-09	TITLE: PUTT! AC SECHMATIC	
QTY: 1 PER	REVS'D BY:	PROJECT: PUTT! Video Game	REVISION 0.1
CAD REF: PUTWiringSch.Dwg		SCALE: None	A SIZE DWG	SHEET 1 OF 1

USB I/O PCB

COIN DOOR

TICK DISP

TICK LAMP

Red

470

NO
NC
+12V
GND

YEL
BLK

GRA TICK COUNT
BLK TICK COUNT

Ball Out

Disp Ball

Motor Stop

Ball Motor

Center Speaker

70" GRA/RED
70" BRN/BLK

BALLMECH

To Ticket Dsp

BALLMECH

SPEAKER

SWITCHES

999999

J10

Out0

J2

J6

GND
DBA
COIN
CoinLite BLU/WHT
+12V YEL
+12V YEL

BLK
WHT
GRA
4
5
6

GND
UP
DOWN
LEFT
RIGHT
ENTER

BLK
BRN/BLK
RED/BLK
ORN/BLK
YEL/BLK
GRN/BLK

TEST
SVC
GND
BLU/BLK
VIO/BLK
BLK

COUNT1
+12V

VIO/WHT
YEL

BLK To Ticket Dsp
BLK GND
BRN MSTOP
RED VMOT
ORN MotRUN
BLU TicketSW
VIO BallOutLite
GRA/BLK SPK-
WHT TicketMot
BLK/WHT MOT1-
GRA/RED SPK+
YEL To Ticket Dsp
GRA Tick Count

+12V YEL
+12V YEL
VIO/WHT COUNT1
BLU/WHT CoinLite
GRN/WHT ENTER
YEL/WHT RIGHT
ORN/WHT LEFT
RED/WHT DOWN
BRN/WHT UP
BLK GND

GND
UP BRN/WHT
DOWN RED/WHT
LEFT ORN/WHT
RIGHT YEL/WHT
ENTER GRN/WHT

+12V YEL

MOTION SENSOR

32" LCD

FLOOR LIGHTS

CCFL

CCFL

CCFL

INVERTER

INVERTER

INVERTER

USB

USB

Mother Board

1 2

70"   GRA/BLU
      BRN/BLK

BRN/BLK

TO COMPUTER

TO COMPUTER

USB
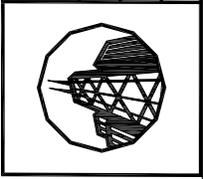
AUDIO IN

ATX Power Supply

1 2 3 4

1 2 3 4

Page 2 of 2

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4616 W. 19th. Street   Cicero Illinois 60804   708-780-0070

DWN BY:	DATE:	TITLE:	PUTT! WIRING SECHMATIC		REVISION
D.P.D.	6-29-09				0.1

REVS'D BY:	QTY:	PROJECT:	PUTT! Video Game		SHEET 1 OF 1
	1 PER				

| CAD REF: | PUTWiringSch.Dwg | SIZE | C | DWG | SCALE: | 1=1 |

45