POWER PONG SERVICE MANUAL

VERSION 1.0

MANUFACTURED BY:	
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For Additional Information or for an Electronic Copy of This Manual Visit Our Website

www.JENNISONGAMES.com

TABLE OF CONTENTS

NOTE: SOME PAGES MAY BE INTENTIONALLY LEFT OUT OF THIS MANUAL. SOME VERSIONS OF THE MANUAL DO NOT INCLUDE A PARTS LIST. CONTACT SPT OR JET FOR CURRENT PARTS LIST IF NOT INCLUDED.

Through out the use of this manual, certain areas require special attention for the safety of the service personal. Please take note of the following notifications and be certain to read the information contained within. Failure to follow the given information could lead to personal injury or property damage. Follow all instructions contained within this manual and do not make any modifications to the game without first contacting Jennison Entertainment Technologies.

DANGER

All danger messages are marked in RED boxes. Failure to adhere to these messages could result in personal injury or injury to others.

WARNING

All warnings will be marked in ORANGE boxes. Failure to follow these warnings could lead to damage to the unit and or personal property.

CAUTION

Caution messages are marked in YELLOW boxes. Failure to follow these caution messages could result in damaging the unit.

ATTENTION

Attention boxes are in BLUE. These messages are provided in cases where service personal must follow directions provided by J.E.T.

NOTICE

Notices are given in GREEN boxes. These messages are provided for the operator's convenience.

EPILEPSY DANGER

A very small percentage of people may experience a seizure when exposed to certain visual images, including flashing lights or patterns that may appear in video games. Even people who have no history of seizures or epilepsy may have an undiagnosed condition that can cause these "photosensitive epileptic seizures" while watching video games.

These seizures may have a variety of symptoms, including lightheadedness, altered vision, eye or face twitching, jerking or shaking of arms or legs, disorientation, confusion, or momentary loss of awareness. Seizures may also cause loss of consciousness or convulsions that can lead to injury from falling down or striking nearby objects.

Immediately stop playing and consult a doctor if you experience any of these symptoms. Parents should watch for or ask their children about the above symptoms - children and teenagers are more likely than adults to experience these seizures.

The risk of photosensitive epileptic seizures may be reduced by taking the following precautions:
Play in a well-lit room
Do not play when you are drowsy or fatigued

If you or any of your relatives have a history of seizures or epilepsy, consult a doctor before playing.

DANGER

DO NOT perform repairs or maintenance on the game with the power ON. Always turn the power OFF and unplug the unit from the wall before servicing.

DANGER

DO NOT remove the game from its shipping pallet or skid without first reading the entire installation guide in this manual!

POWER PONG, CAUTIONS, & NOTICES

WARNING

Make sure that the 115/230 VAC selector switch is properly selected on all power supplies for the correct line voltage at the installation site.

WARNING

This unit is suitable for INDOOR use only. The game should not be placed in damp environments or in areas within close proximity to the ocean.

WARNING

If the power cord is damaged - replace it with a new one. DO NOT attempt to use a damaged or repaired power cord.

WARNING

Always plug the game into a grounded circuit and verify the total voltage draw on the circuit does not exceed its capacity.

CAUTION

Use appropriate care when servicing the game and ensure that all removed components are away from facility guests and children.

CAUTION

Only qualified service personal should service POWER PONG. Contact J.E.T. first with any questions before replacing any part.

FCC COMPLIANCE

The Federal Communications Commission requires that all amusement machine devices used in commercial applications comply with guidelines for the amount of interference the internal components produce. POWER PONG complies with this requirement and the following statement is posted on all units.

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.

Canadian Emissions Statement

(According to Industry Canada Notice ICES-003, Issue 4)

This Class "A" digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique da la classe "A" respecte toutes les exigences du Réglement sur le matériel brouilleur du Canada.

RoHS COMPLIANCE

The RoHS Directive stands for "the restriction of the use of certain hazardous substances in electrical and electronic equipment". This Directive bans the placing on the European Union market, new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants.

Jennison Entertainment Technologies has taken steps to comply with this directive while sourcing the parts for all machines. If available to the industry, these certified components were used in the construction on POWER PONG.

As of January 2014, Jennison Entertainment Technologies has tested all components used in the manufacturing of POWER PONG. All components have been found to be within the standards set forth for RoHS compliance by the European Union. Test reports are available and will be provided upon request.

To verify that your machine has RoHS Compliant parts, look for the following logo on the information sticker on the back of all our units.

With our unique testing equipment, Jennison Entertainment Technologies can test components from ANY SUPPLIER from ANY COUNTRY where we source our parts. The tools we utilize allow us to spot check suppliers who have also self declared their components to be compliant ensuring you and your guests safety.

COMPLIANCE TO UL 22 STANDARDS

Jennison Entertainment Technologies has had POWER PONG tested by TUV Rheinland to ensure that it meets or exceeds the safety standards set forth by UL 22 Standards.

POWER PONG HAS BEEN TESTED TO THE FOLLOWING STANDARDS:

UL 22: 2008 R7 . 10

CAN/CSA-E60335-2-82:13

CAN/CSA C22 . 2 NO. 60335-1-11

CU 72140978 01

THE ABOVE MARK IS POSTED ON EACH GAME

DIMENSION INFORMATION

POWER PONG CABINET DIMENSIONS (ASSEMBLED)

LENGHTH		WIDTH		HEIGHT*		WEIGHT	
INCHES	MM	INCHES	MM	INCHES	MM	POUNDS	KG
75 1/4"	1911	38 1/2"	972	32 1/4"	819	525	238

* HEIGHT INCLUDES THE LIGHTED MARQUEE INSTALLED ONTO THE GAME

POWER PONG SHIPPING DIMENSIONS

LENGHTH		WIDTH		HEIGHT		WEIGHT	
INCHES	MM	INCHES	MM	INCHES	MM	POUNDS	KG
78"	1982	30"	762	40 1/4"	1023	650	295

POWER PONG ships on one MDF (medium density fiberboard) skid within the United States, Canada, and Mexico. In some cases, the MDF skid may be secured to a wooden pallet if common carrier freight companies are involved in the transportation of the unit. Be sure to inspect the packaging when the unit arrives and notate any damage with the driver and on the BOL before signing for the unit. JET is not responsible for any damage sustained during the transportation of the unit between our dock and your location.

DANGER

IF USING A FORK LIFT - DO NOT ALLOW ANYONE TO GET UNDER THE UNIT WHILE IT IS BEING LIFTED

ELECTRICAL REQUIREMENTS

POWER PONG ELECTRICAL REQUIREMENTS			
	VOLTS	HERTZ	AMPS
DOMESTIC POWER REQUIREMENTS	110 - 120 VAC	60 HZ	1.5 AMPS (MAX)
FOREIGN POWER REQUIREMENTS	215 - 230 VAC	50 HZ	1.5 AMPS (MAX)

DANGER

IF YOU CHOOSE TO CONVERT YOUR UNIT TO A DIFFERENT LINE VOLTAGE THAT IT WAS AT INITIAL TIME OF DELIVERY, YOU MUST ALSO SELECT THE NEW INPUT AC VOLTAGE ON THE POWER SUPPLY

DANGER

DO NOT OVERLOAD ANY CIRCUIT WITH THE ADDITION OF POWER PONG. ENSURE THAT THE OUTLET HAS PROPER VOLTAGE BEFORE TURNING ON THE UNIT

INSTALLATION

THIS INSTALLATION MANUAL HAS BEEN DESIGNED IN COLOR COORDINATED SECTIONS. EACH COLOR HAS A DIFFERENT MEANING AS SEEN IN THE FOLLOWING CHART. FAILURE TO FOLLOW THIS MANUAL IN ITS ENTIRITY COULD LEAD TO SERIOUS BODILY INJURY. IF THERE IS ANY DOUBT DURING THE INSTALLATION OF THIS UNIT - CONTACT JENNISON ENTERTAINMENT TECHNOLOGIES OR YOUR DISTRIBUTOR PRIOR TO CONTINUING. NEITHER J.E.T. OR YOUR DISTRIBUTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED DURING IMPROPER INSTALLATION PROCEDURES.

RED SECTIONS

RED SECTION AREAS REQUIRE 2 OR MOR PEOPLE MINIMUM TO SAFELY COMPLETE - EACH PERSON SHOULD BE ABLE TO LIFT 100 POUNDS EASILY. THESE SECTIONS SHOULD NEVER BE ATTEMPTED TO BE COMPLETED BY LESS THAN 2 PEOPLE.

YELLOW SECTIONS

YELLOW SECTION AREAS REQUIRE CAUTION TO SAFELY COMPLETE.

BLUE SECTIONS

BLUE SECTION AREAS CAN BE SAFELY COMPLETED BY ONE PERSON WORKING BY THEMSELVES. THE INSTALLAER SHOULD STILL EXERCISE CAUTION WHEN WORKING AROUND GUESTS.

THOUGHOUT THE TEXT IN THIS MANUAL - THERE ARE SEVERAL REFERENCES TO DIFFERENT PARTS OF THE CABINET. THE ABOVE DIAGRAM SHOULD BE REFERENCED DURING INSTALLATION IN ORDER TO DETERMINE WHAT SECTION THE INSTRUCTIONS ARE REFERENCING.

INSTALLATION INSTRUCTIONS

Step # 1

Check the packaging for any damage

POWER PONG is shipped complete in one MDF carton. When the unit arrives, please check the outside packaging for any damage and notate all damage with the delivery carrier before signing the delivery receipt.

NOTICE

PACKAGING AND PALLET MAY BE DIFFERENT THAN SEEN IN PHOTO

Check Box When This Step is Complete ☐

Step # 2

Removing Metal side straps

Using a philips headed screw driver or drill with attachement remove the metal corner straps from the outside of the container, be causious not to cut yourself on the straps sides might be sharp.

NOTICE

PACKAGING AND PALLET MAY BE DIFFERENT THAN SEEN IN PHOTO

Check Box When This Step is Complete ☐

Step # 3

Opening the box

Open the box from the top using a pry bar or crowbar, this requires a little force due to nails holding MDF box together. Walk your way down the box prying upwards as you go.

NOTICE

PACKAGING AND PALLET MAY BE DIFFERENT THAN SEEN IN PHOTO

Check Box When This Step is Complete ☐

INSTALLATION INSTRUCTIONS

Step # 4

Opening the Box

After removing the top of the container, using the same method as before, remove all four sides making sure to pull boards away from the game at all times.

NOTICE

PACKAGING AND PALLET MAY BE DIFFERENT THAN SEEN IN PHOTO

Check Box When This Step is Complete ☐

Step # 5

Inspecting the included components

Once the container is openend make sure all components are included, you should see the Power Pong, spare parts box, two red side cup holders, two blue side cup holders, and one white front control. Inspect the game packaging for any damage during shipment. Please note that you must notate any damage to the equipment on the Bill of Lading during the delivery process. Any claims for damage must be made directly with the shipping or freight company. Jennison Entertainment Technologies and (or) the distributor the equipment was purchased through, is NOT RESPONSIBLE for any damage received during shipping and CANNOT help with the filing of the damage claim.

NOTICE

PACKAGING AND PALLET MAY BE DIFFERENT THAN SEEN IN PHOTO

Check Box When This Step is Complete ☐

Step # 6

Removing Power Pong from the skid

Before lifting the game remove the wooded blocks holding the legs to the pallet. With the help of at least one other lift the Power Pong off the skid by placing your hands on the lower panel inside of the legs to protect your hand in case of the game falling over (This game weight 525 pounds the more help you have the better). Once the game is on the ground rotate the legs counter clockwise to raise the legs. From this point moving the game around should be easy with the aid of the caster wheels already installed on the game.

Check Box When This Step is Complete ☐

INSTALLATION INSTRUCTIONS

Step # 7

Cutting the stretch wrap

Carefully cut the stretch wrap from the game using either scissors, box cutters, or a protected razor blade. Be careful not to scratch the game, acrylic, or the graphics while cutting off the stretch wrap.

NOTICE

DO NOT PENETRATE TOO DEEP WITH A RAZOR BLADE AS IT COULD DAMAGE ACRYLIC

Check Box When This Step is Complete ☐

Step # 8

Inspecting the sides of the unit

Inspect both sides of the game and sure there is no damage.

Check Box When This Step is Complete ☐

Step # 9

Inspecting each player station

Inspect both player stations and ensure that there is no damage.

Check Box When This Step is Complete ☐

INSTALLATION INSTRUCTIONS

Step # 10

Unwrapping the side cups and player console

Make sure your game came with two red side cups, two blue side cup along with the player console, unwrap all parts making sure all parts are undamamged, they will have wiring pigtails with molex conectors be sure not to cut the wires.

Check Box When This Step is Complete

Step # 11

Installing the side cups

To begin installing the side cups, first open the side access door with the supplied key in the spare parts box, and feed the six pin molex connector through one of the two wire wire feed holes (depending the location of the wire on the side cup assembly the feed hole will de different).

Check Box When This Step is Complete

Step # 12

Installing the side cups

Use six included machine screws and securely attach the side cup assembly to the main cabinet using a long handled philips headed srew driver. Be careful not to over-tighten the screws.

Check Box When This Step is Complete

INSTALLATION INSTRUCTIONS

Step # 13

Installing the side cups

After installing the side cups, connect the six pin molex connector making sure no pins are pushed out durring installation. Then using the flexible wire retainer alreay installed inside the cabinet secure the wire harness above the access door.
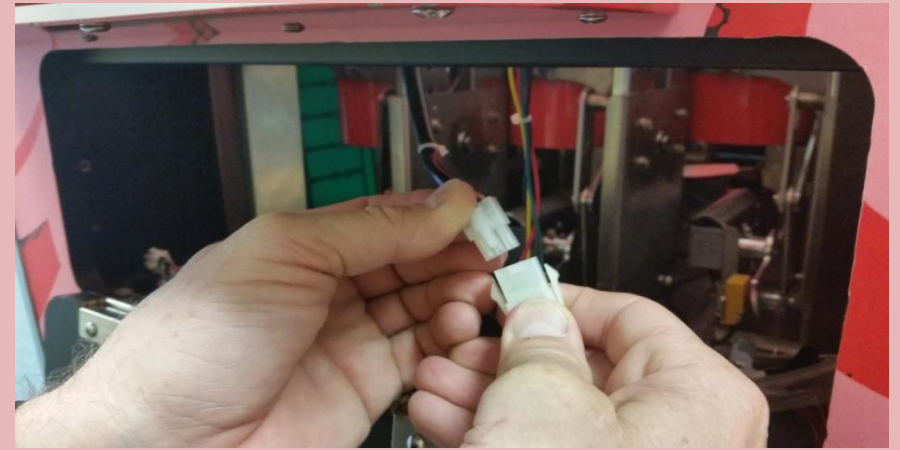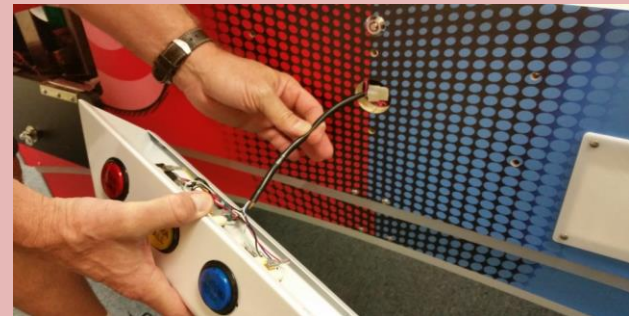
Check Box When This Step is Complete

Step # 14

Installing the player console

To begin installing the player console, first open the playfield access door with the supplied key in the spare parts box, and feed the eight pin molex connector through the access hole on the front side of the cabinet.

Check Box When This Step is Complete

Step # 15

Installing the player console

Using a short handled philips headed screw driver install the supplied machine screws to the player console from inside the main cabinet, be careful not to over-tighten the screws. Then connect the eight pin molex connector making sure all pins inside the connector are secure.
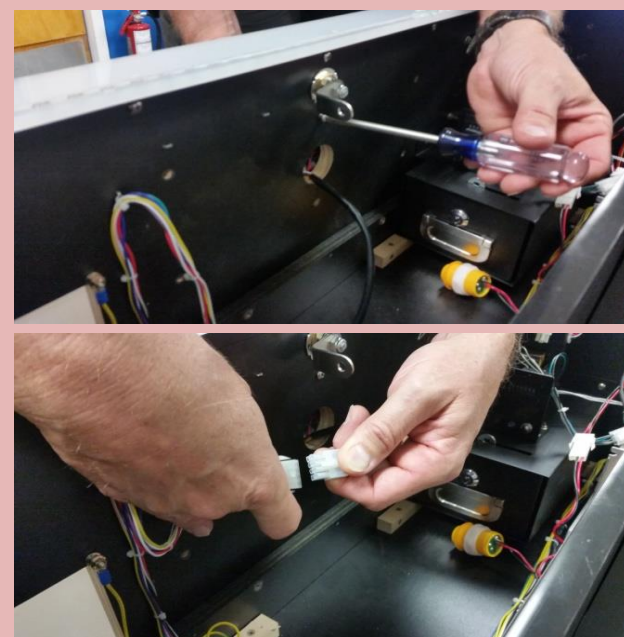
Check Box When This Step is Complete

INSTALLATION INSTRUCTIONS

Step # 16

Locating the cashbox

The cash box is located under the coin mechanism inside of the cadinet, accessed by the playfield door.

Check Box When This Step is Complete ☐

Step # 17

Locating the I/O board & Dip Switch Settings Chart

The I/O Board is mounted on the inside of the cabinet under the playfield access door. All the programmable functions of the game is done though this board with the dip switches. These functions include things as cup re-racks, cost per play, balls per game, and many other functions. These settings are shown on page   of this manual.
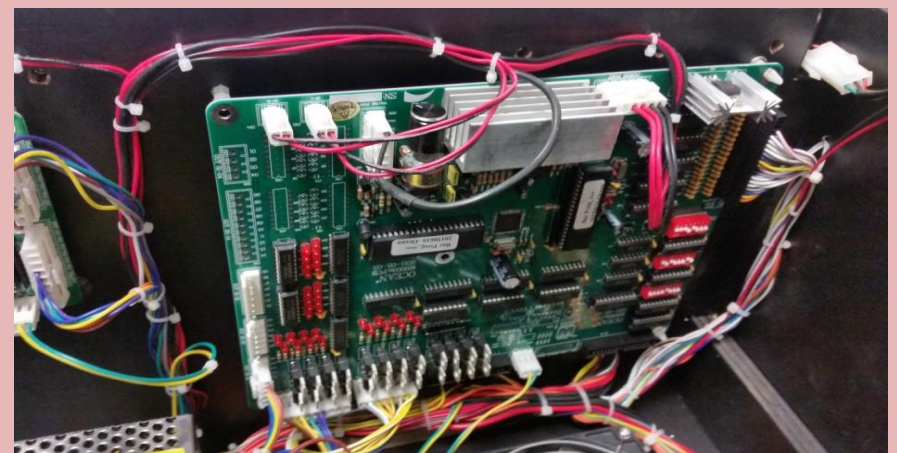
Check Box When This Step is Complete ☐

Step # 18

Selecting the proper line power

You game has already been properly set to the expected line voltage at your location; however, it is always best to ensure that the selector switch is set to the proper power before turning the game on. The selector switch is located on top of the power supply. The switch is set properly when you can read the voltage at the your location. For example: If you can see "115V" then the power supply is set to 115V. If you can see "230V", then the power supply is set to 230V.
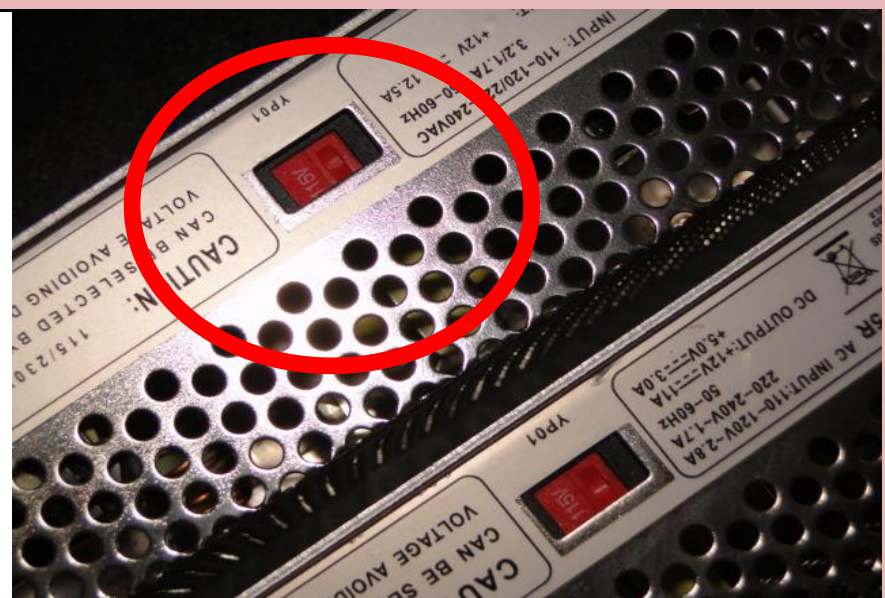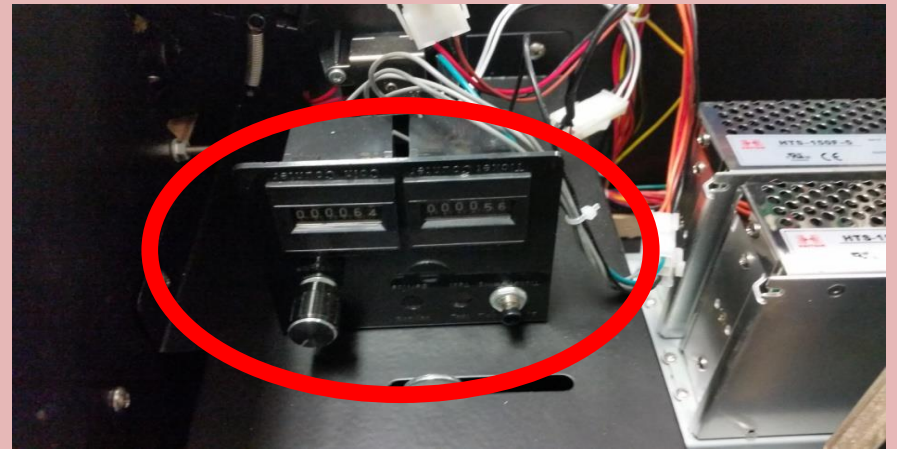

Check Box When This Step is Complete ☐

INSTALLATION INSTRUCTIONS

Step # 19

Locating volume and controling game sounds

Above the cash box is the ticket/coin counter and volume controls. Inceasing volume is clockwise and decreasing is the opposite.

Check Box When This Step is Complete

Step # 20

Plugging in the power cord into the power switch

Locate the power cord inside the parts box and plug the female end into the power switch located on one of the blue player side (side1) legs.

Check Box When This Step is Complete

Step # 21

Plug the power cord into a grounded outlet

Plug the power cord into a properly grounded outlet. Ensure that you do not overload the circuit with the additional of this game.

CAUTION

PLUG THE CORD INTO A PROPERLY GROUNDED OUTLET. ENSURE THAT YOU DO NOT OVERLOAD THE CIRCUIT WITH THE ADDITION OF THIS GAME

Check Box When This Step is Complete

INSTALLATION INSTRUCTIONS

Step # 22

Turning the power switch on

Turn to the power switch ON.

Check Box When This Step is Complete ☐

Step # 23

Checking the LED lights

Check to make sure all LED boards and lights are working. There are lights on all sides and all cups and side cup assemblies should be on.
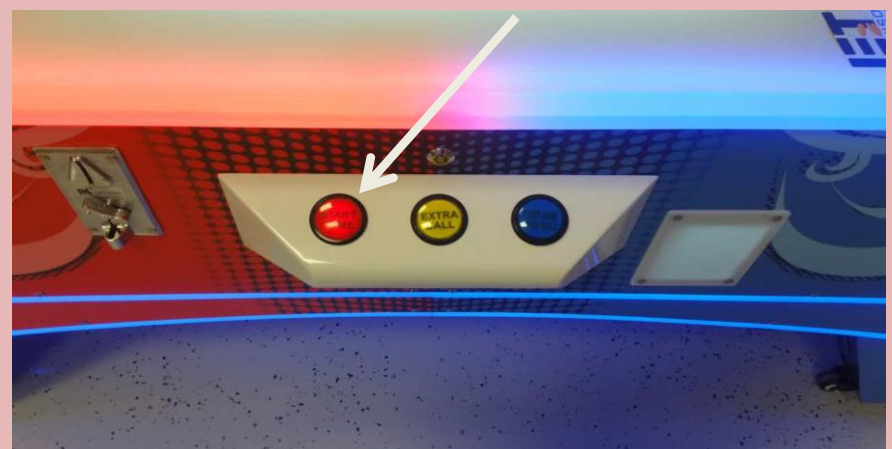

Check Box When This Step is Complete ☐

Step # 24

Selecting play functions

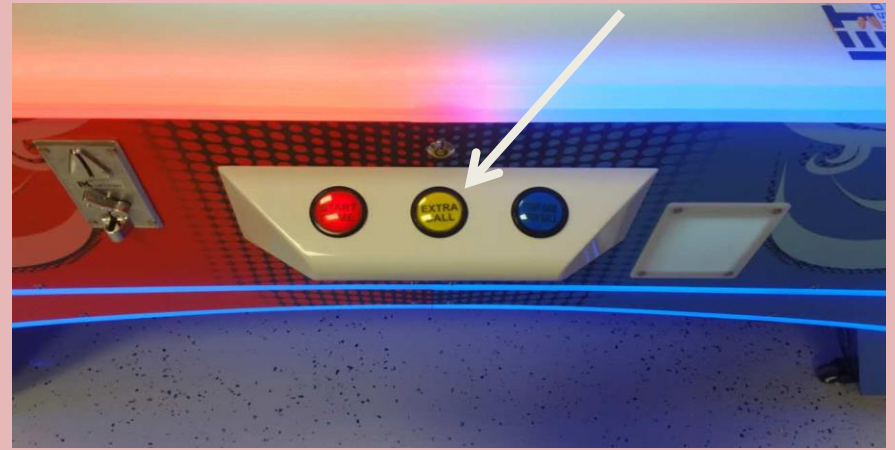The red button to the right starts a game (After being credited) without dispensing balls.

Check Box When This Step is Complete ☐

INSTALLATION INSTRUCTIONS

Step # 25

Selecting play functions

The Yellow button in the middle dispenses an extra ball once the game has start and the game is recredited.

Check Box When This Step is Complete ☐

Step # 26

Selecting play functions

The Blue button on the right is used to play the game and dispense a predetermined number of balls oncethe game has been properly credited. (All credit amounts can be changed by the operator using the Dip switch setting found later on in the manual).
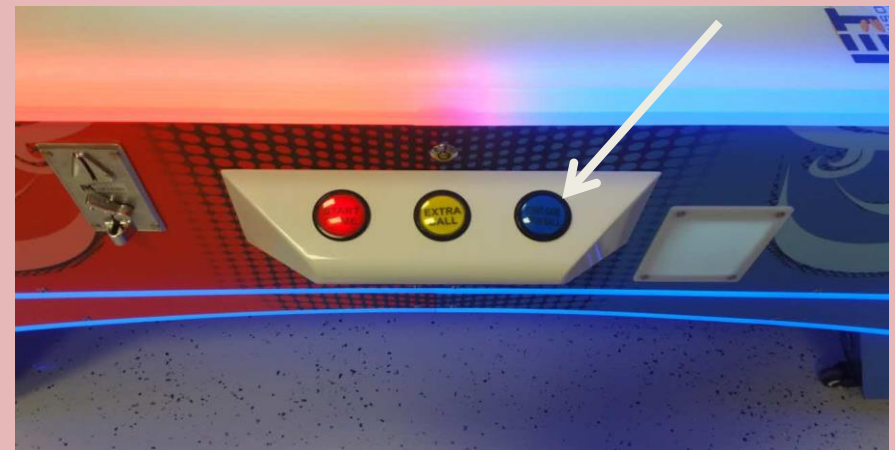
Check Box When This Step is Complete ☐

Step # 27

Installing free play button (for home use or rental use)

With the game off, Identify the block off plate located to the lower right of the player console, and remove from the inside of the cabinet the five 7mm nuts holding the yellow ground strap and mounting screws. Remove block off plate and leave inside cabinet for potential future use.
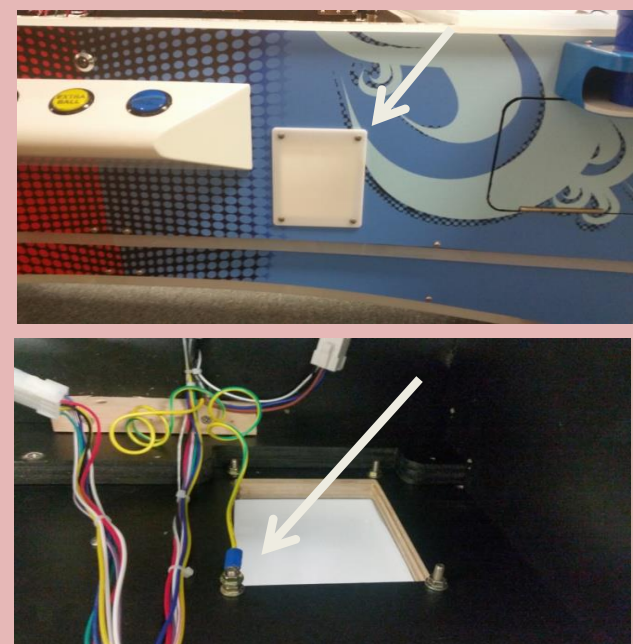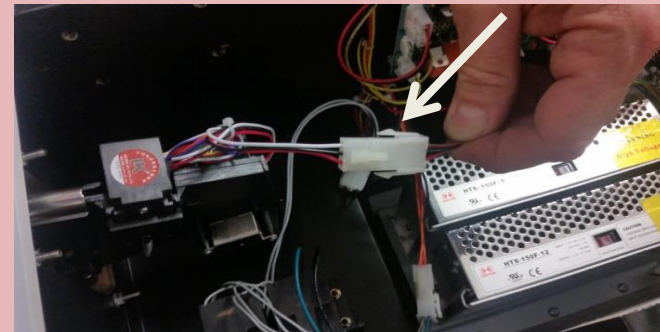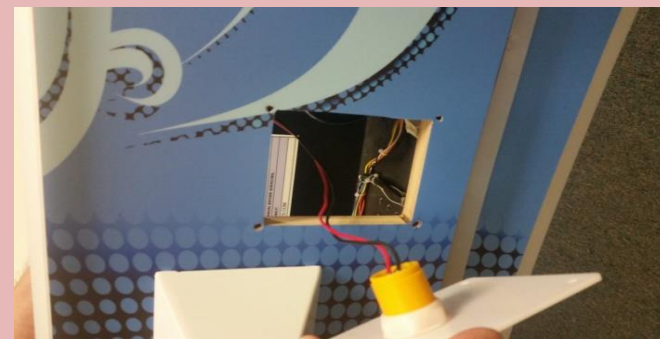

Check Box When This Step is Complete ☐

INSTALLATION INSTRUCTIONS

Step # 28

Installing free play button (for home use or rental use)

Install free play button plate by first feeding wires though the cabinet and using existing hardware, bolt new plate with the five 7mm bolts remembering the ground strap. Discontect the three pin molex connector from the coin mechanism (red, black, white wires).

Check Box When This Step is Complete

Step # 29

Installing free play button (for home use or rental use)

Connect the female end of the molex connector from the ticket mechanism, to the male end of the free play button.

Check Box When This Step is Complete

Step # 30

Installing free play button (for home use or rental use)

Power on the game and check for function, one button push is equal to one coin. Enjoy

Check Box When This Step is Complete

GAME SETTINGS & PROGRAM

POWER PONG has been designed to include a software program where all game settings are easily managed through the use of a simple dip switch changes Although the software is very simple to navigate, we highly recommend reading the following programming section to fully understand how to make changes to the software and how each change will affect the machine. Should you have any questions about changing the programming, or need to make a change outside the capability of the current software, please contact Jennison Entertainment directly.

The chart below should be used to record an changes in the software and the reasons for the change. This will allow you to track which software version is installed or allow another technician to service the unit and quickly identify what has been changed since delivery.

SOFTWARE UPDATE RECORD		
DATE	SOFTWARE VERSION	REASON FOR CHANGE
INITIAL	20140124	INITIAL PROGRAM INSTALLED AT FACTORY

STATE OF NEW JERSEY APPROVED SOFTWARE

Under the rules and regulations governed by the State of New Jersey Legalized Games of Chance Control Commission, there are certain requirements for amusement and redemption games. A certain version of software has been designed to allow Power Pong to be operated within the State of New Jersey. This version of the software complies with the following requirements:

1) Maximum allowable wager per player dose not exceed $10.00 per game. In Power Pong (20151015) the game will not accept more than 4 coins on $1.00 Play or 8 coins on $2.00 Play.

2) Maximum allowable accumulation of inserted credits does not exceed $10.00. In Power Pong (20151015) the game will not accept more than 4 coins on $1.00 Play or 8 coins on $2.00 Play.

3) Device must lockout after $10.00 is inserted. Power Pong will not accept more than $2.00 maximum.

4) Device must lockout after maximum wager per game is inserted, unless a discount is offered. The coin mechanism in Power Pong will not accept more than $2.00.

5) Device must not escrow inserted credits for more than one game's play unless a discount is offered.

6) Device must award tickets, tokens or prizes immediately upon completion of the game, or offer player an option to collect or accumulate winnings.

7) Device must not possess a "Knock-Off" mechanism.

8) Device should possess meters for "Coin In" and "Token/Ticket Out"

9) Device must not award cash prizes - only tickets, vouchers or tokens which may be redeemed for prizes within the facility.

10) Device must not be capable of awarding a prize in excess of $10,000.00.

11) Device must not incorporate a reflexive outcome determination or auto-percentaging

12) Device must retain tickets or tokens owed upon power interruption

The above requirements are published here for your information and obtained from Eclipse Compliance Testing in conjunction with the New Jersey Legalized Games of Chance Control Commission. In order to operate Power Pong within the State of New Jersey - you must operate a version of the software which complies with the above requirements. **Call your local distributor to order this software before operating the game. The version of software which complies with these requirements can be found below.**

## State of New Jersey Approved Software

Verifying the installed software version

To view the installed software version, locate the main IC chip on the I/O board and view the label printed onto the IC. In order to operate the game in the State of New Jersey - you must only use this version of software.
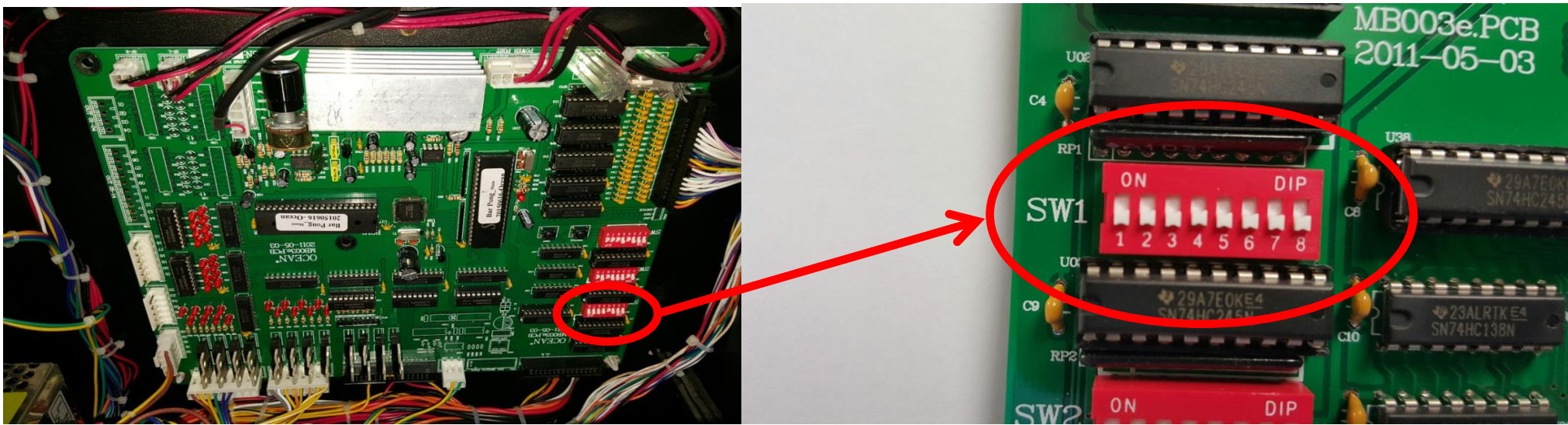
New Jersey Game Software Version

2 0 1 5 1 0 1 5

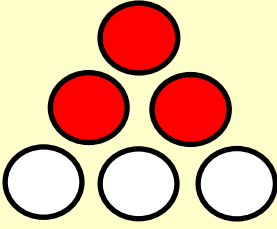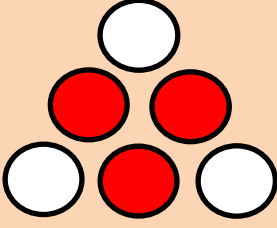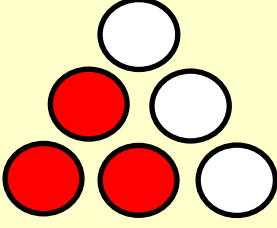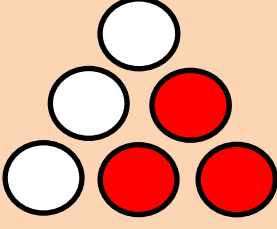The installed software version can be viewed at any time by viewing the label on the main IC.
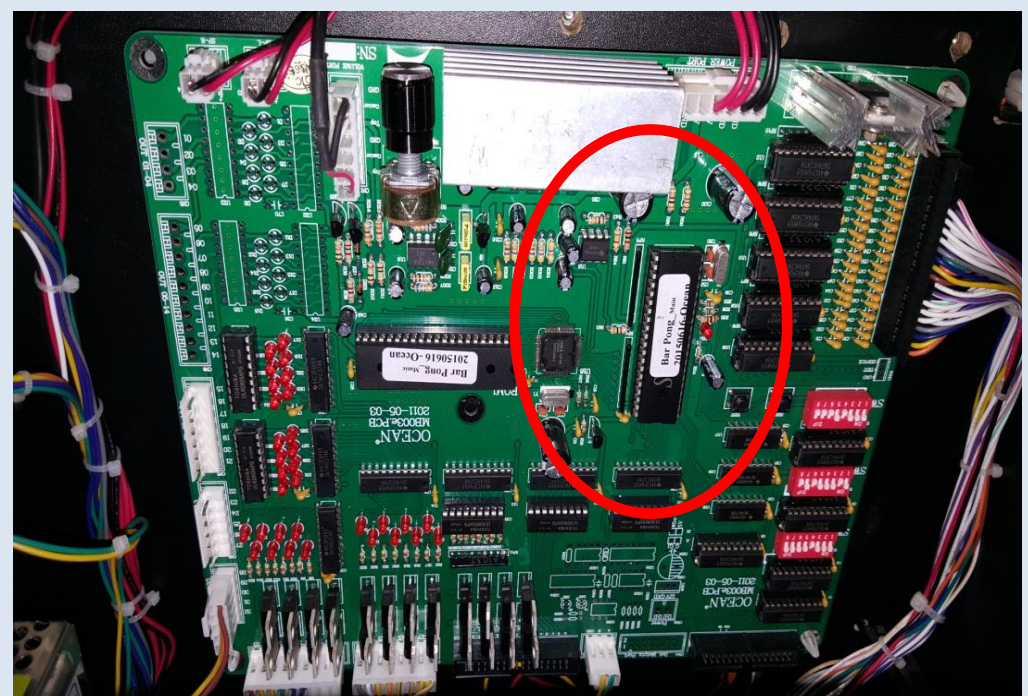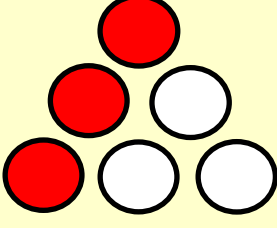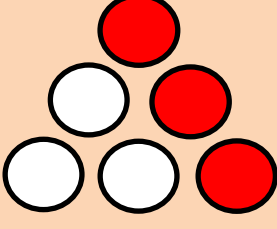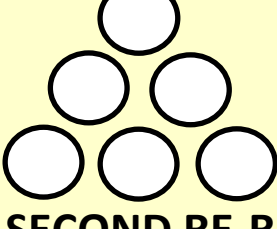
All game settings in Power Pong can be programmed using the three dip switch banks on the I/O board. The switches are Switch # 1 (SW1), Switch # 2 (SW2), and Switch # 3 (SW3). Reference the chart below to make program changes including the number of coins required to start the game, the length of game play, and the re-rack options for SWITCH # 1 (SW1). To operate the program, move each switch to the ON or OFF position. Switches moved towards the word ON are ON. Switches moved away from the ON towards the numbers are OFF.
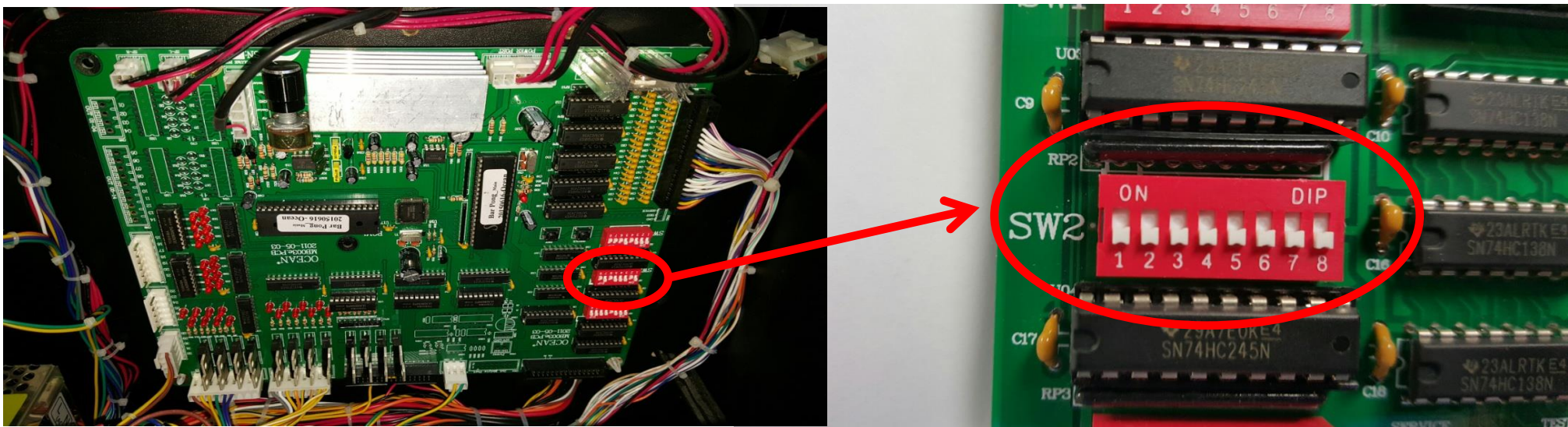
ITEM DESCRIPTION	CONTENT	SWITCH # 1							
		SW11	SW12	SW13	SW14	SW15	SW16	SW17	SW18
Coins, Credits,Tokens Required This setting is to adjust the number of coins or credits required to start the game. Operator can choose between 1 and 4 coin(s) or token(s) per game	1	ON	ON						
	2	OFF	ON						
	3	ON	OFF						
	4	OFF	OFF						
Game Time	3			ON	ON	ON			
	4			OFF	ON	ON			
	5			ON	OFF	ON			
	6			OFF	OFF	ON			
	8			ON	ON	OFF			
	10			OFF	ON	OFF			
	15			ON	OFF	OFF			
	UNLIMITED			OFF	OFF	OFF			
Second Re-Rack Option - Cup Re-Rack Design After Sinking Three Balls (See Next Page For Greater Detail)	1						ON	ON	ON
	2						OFF	ON	ON
	3						ON	OFF	ON
	4						OFF	OFF	ON
	5						ON	ON	OFF
	6						OFF	ON	OFF
	NO SECOND RERACK						ON	OFF	OFF

ITEM DESCRIPTION	DESIGN	SWITCH # 1 (EXPANDED)							
		SW11	SW12	SW13	SW14	SW15	SW16	SW17	SW18
	1						ON	ON	ON
	2						OFF	ON	ON
	3						ON	OFF	ON
	4						OFF	OFF	ON
	5						ON	ON	OFF
	6						OFF	ON	OFF
NO SECOND RE-RACK	7						ON	OFF	OFF

○ **CUP LOWERED INTO TABLE**

● **RAISED CUP LOCATION**

All game settings in Power Pong can be programmed using the three dip switch banks on the I/O board. The switches are Switch # 1 (SW1), Switch # 2 (SW2), and Switch # 3 (SW3). Reference the chart below to make program changes including the number of coins required to start the game, the length of game play, and the re-rack options for SWITCH # 2 (SW2). To operate the program, move each switch to the ON or OFF position. Switches moved towards the word ON are ON. Switches moved away from the ON towards the numbers are OFF.

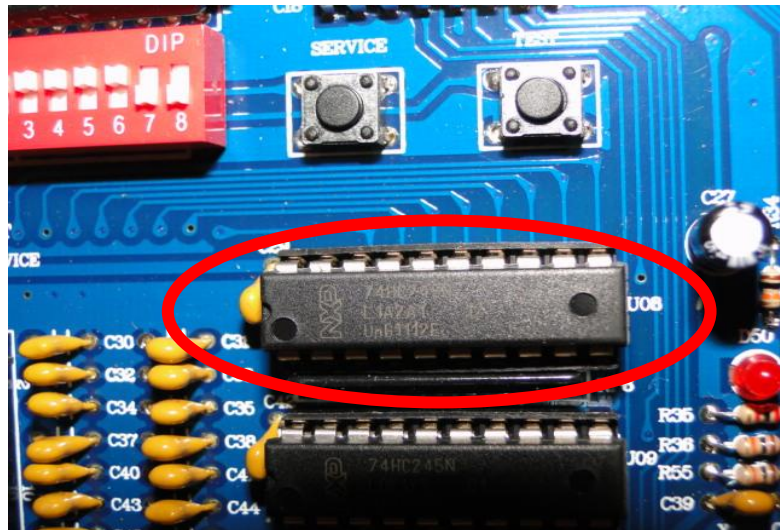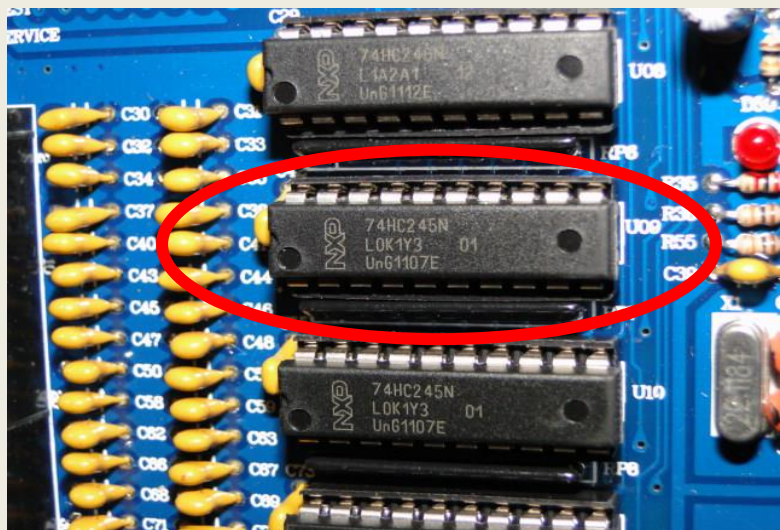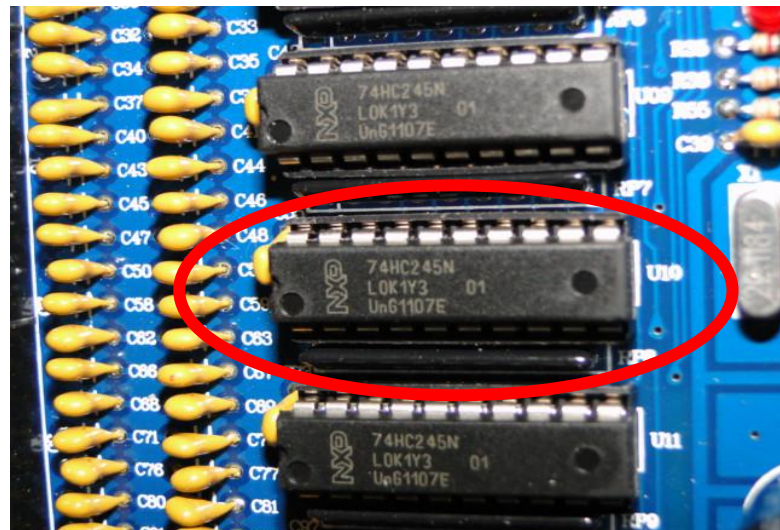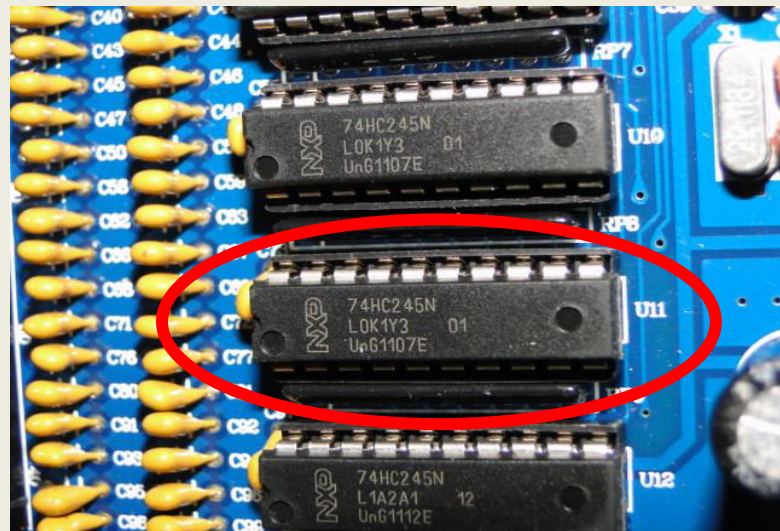| ITEM DESCRIPTION	CONTENT	SWITCH # 2							
		SW21	SW22	SW23	SW24	SW25	SW26	SW27	SW28
Cup Layout (All Cups Down During Re-Rack)	1	ON							
	2	OFF							
Ball Quantity (Extra Ball Button)	0		ON	ON	ON				
	1		OFF	ON	ON				
	2		ON	OFF	ON				
	3		OFF	OFF	ON				
	4		ON	ON	OFF				
	5		OFF	ON	OFF				
	6		ON	OFF	OFF				
	7		OFF	OFF	OFF				
Ball Quantity (Start Game With Ball Button)	1					ON	ON	ON	
	2					OFF	ON	ON	
	3					ON	OFF	ON	
	4					OFF	OFF	ON	
	5					ON	ON	OFF	
	6					OFF	ON	OFF	
	7					ON	OFF	OFF	
	8					OFF	OFF	OFF	
Game Time	1 (MIN)								ON
	0 (MIN)								OFF

GAME SETTINGS - DIP SWITCH SETTINGS (SWITCH # 3)
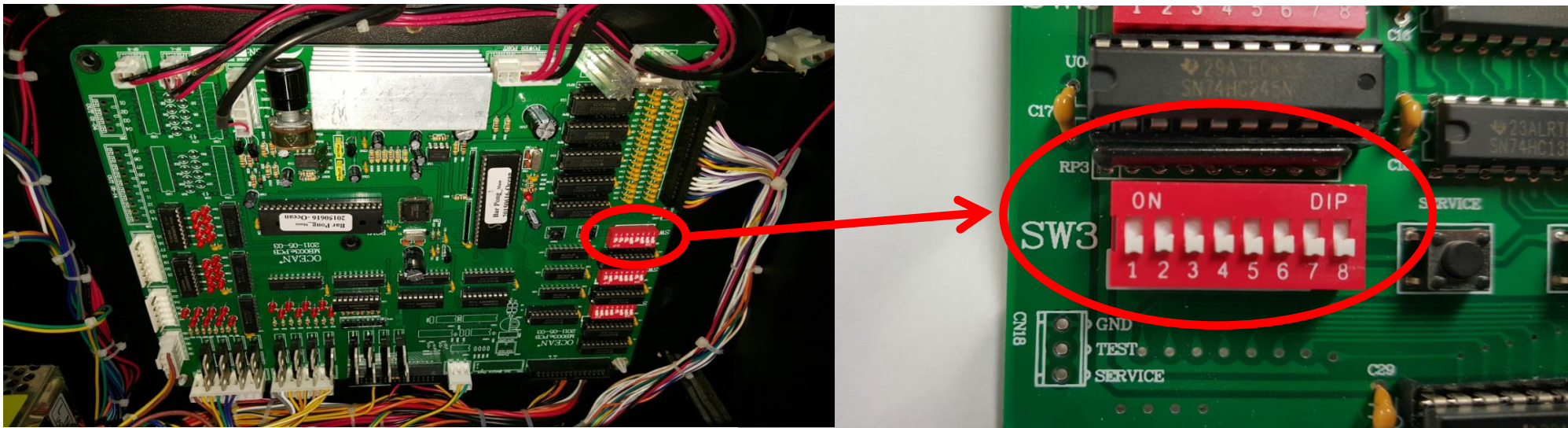
All game settings in Power Pong can be programmed using the three dip switch banks on the I/O board. The switches are Switch # 1 (SW1), Switch # 2 (SW2), and Switch # 3 (SW3). Reference the chart below to make program changes including the number of coins required to start the game, the length of game play, and the re-rack options for SWITCH # 3 (SW3). To operate the program, move each switch to the ON or OFF position. Switches moved towards the word ON are ON. Switches moved away from the ON towards the numbers are OFF.
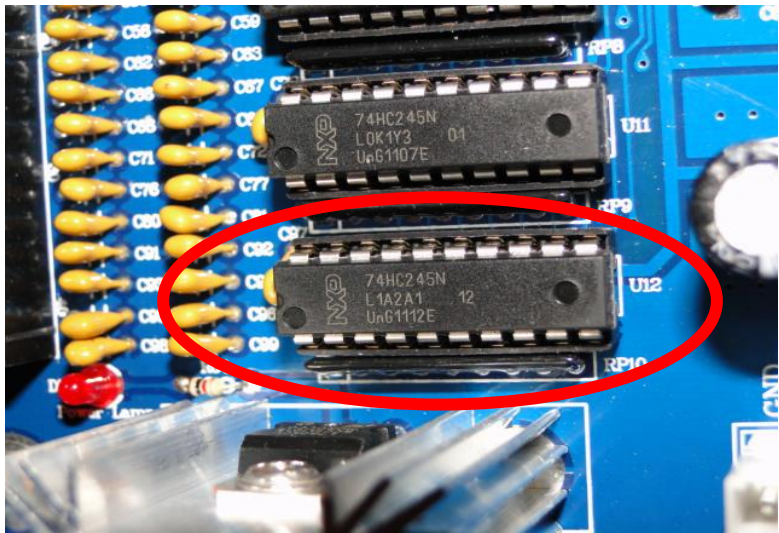
ITEM DESCRIPTION	CONTENT	SWITCH # 3							
		SW31	SW32	SW33	SW34	SW35	SW36	SW37	SW38
Extra Ball (Coin)	1	ON	ON						
	2	OFF	ON						
	3	ON	OFF						
	4	OFF	OFF						
Start Game With Ball (Coin)	0			ON	ON	ON			
	1			OFF	ON	ON			
	2			ON	OFF	ON			
	3			OFF	OFF	ON			
	4			ON	ON	OFF			
	6			OFF	ON	OFF			
	8			ON	OFF	OFF			
	10			OFF	OFF	OFF			

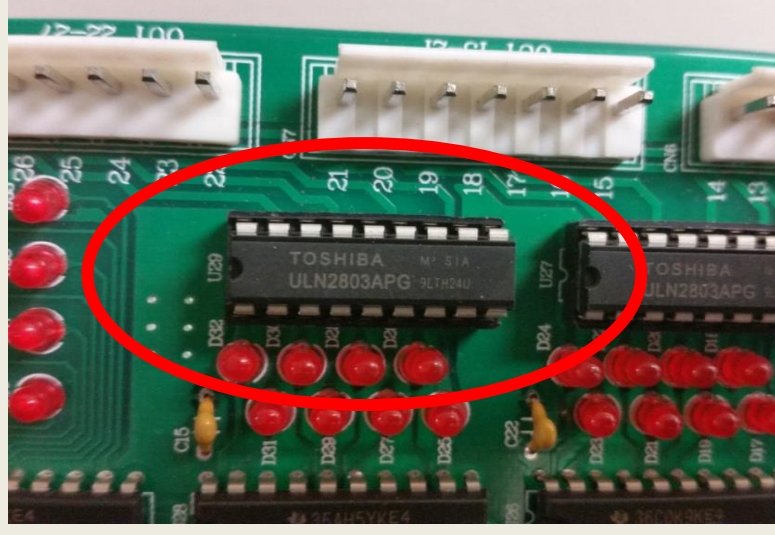NOTE: Dip switches 36, 376,38 must be left off for proper game function

MAIN BOARD INPUTS
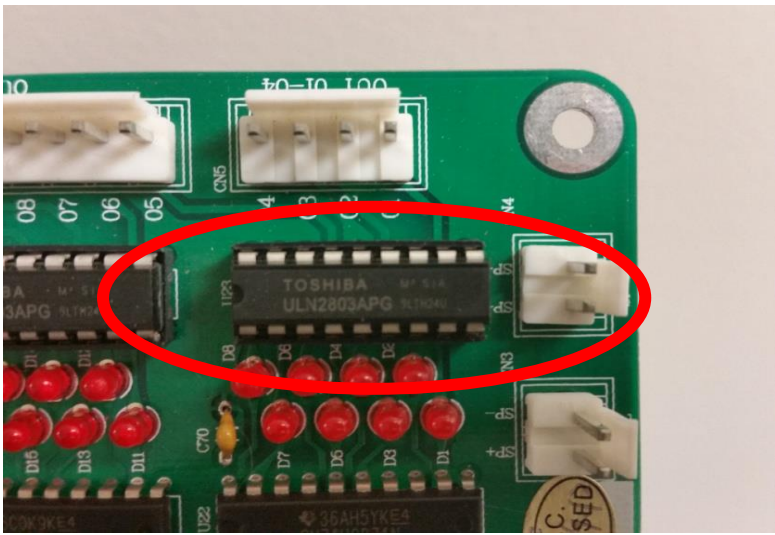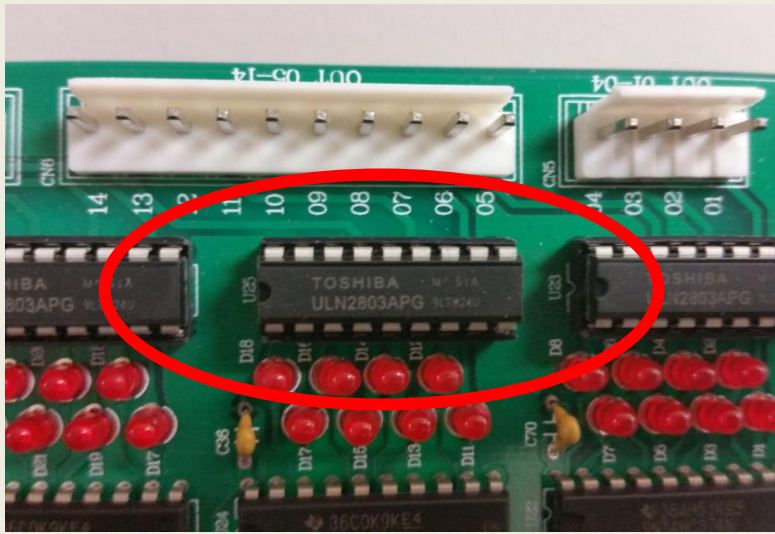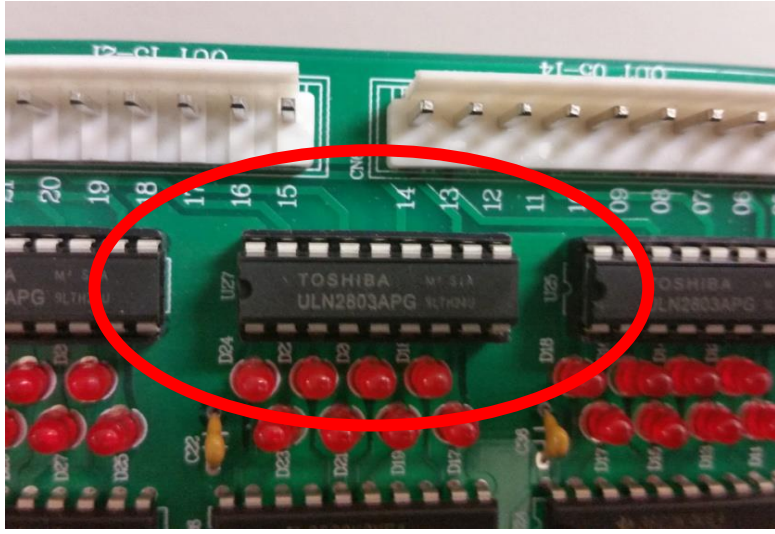
POWER PONG - MAIN BOARD INPUT IC (74HC245N) CHART

IC	INPUT #	CONTENT	PICTURE
U08	1	COIN UP SIGNAL	
U08	2	EXTRA BALL RESET	
U08	3		
U08	4	PLAYER # 1 - MOTOR SENSOR # 1	
U08	5	PLAYER # 1 - MOTOR SENSOR # 2	
U08	6	PLAYER # 1 - MOTOR SENSOR # 3	
U08	7	PLAYER # 1 - MOTOR SENSOR # 4	
U08	8	PLAYER # 1 - MOTOR SENSOR # 5	
U09	9	PLAYER # 1 - MOTOR SENSOR # 6	
U09	10	PLAYER # 1 - SCORE SENSOR # 1	
U09	11	PLAYER # 1 - SCORE SENSOR # 2	
U09	12	PLAYER # 1 - SCORE SENSOR # 3	
U09	13	PLAYER # 1 - SCORE SENSOR # 4	
U09	14	PLAYER # 1 - SCORE SENSOR # 5	
U09	15	PLAYER # 1 - SCORE SENSOR # 6	
U09	16		
U10	17		
U10	18		
U10	19		
U10	20	PLAYER # 2 - MOTOR SENSOR # 1	
U10	21	PLAYER # 2 - MOTOR SENSOR # 2	
U10	22	PLAYER # 2 - MOTOR SENSOR # 3	
U10	23	PLAYER # 2 - MOTOR SENSOR # 4	
U10	24	PLAYER # 2 - MOTOR SENSOR # 5	
U11	25	PLAYER # 2 - MOTOR SENSOR # 6	
U11	26	PLAYER # 2 - SCORE SENSOR # 1	
U11	27	PLAYER # 2 - SCORE SENSOR # 2	
U11	28	PLAYER # 2 - SCORE SENSOR # 3	
U11	29	PLAYER # 2 - SCORE SENSOR # 4	
U11	30	PLAYER # 2 - SCORE SENSOR # 5	
U11	31	PLAYER # 2 - SCORE SENSOR # 6	
U11	32	BALL HOPPER SENSOR	
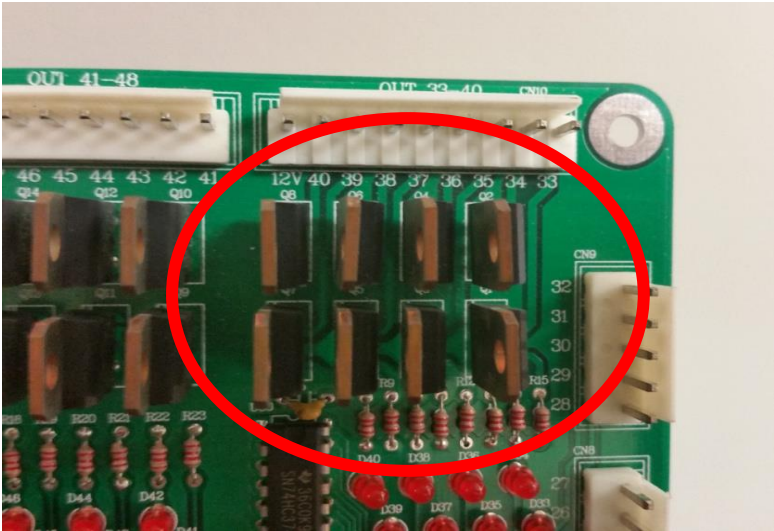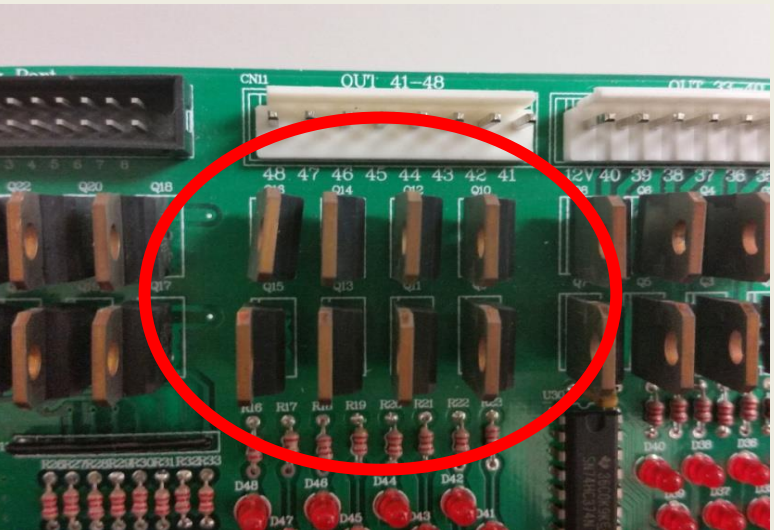
GOALIE ALL STARS - MAIN BOARD INPUT CHART CONTINUED

| IC	INPUT #	CONTENT	PICTURE
U12	33	GAME START BUTTON	
	34	EXTRA BALL BUTTON	
	35	GAME START W/ BALL BUTTON	
	36		
	37		
	38		
	39		
	40		

The Power Pong input/output board utilizes 5 input IC's to control all inputs used within the game. In Power Pong, all FIVE of the FIVE IC's are used. These are no spare input IC's on the board that can be used to replace the other input IC's should one become corrupt.

GOALIE ALL STARS - MAIN BOARD IC (ULN2803) OUTPUT CHART

IC	OUTPUT #	CONTENT	PICTURE
U23	1	**U23** IS NOT UTLIZED IN POWER PONG. THIS SPARE IC CAN BE USED IN **U29** TO RECITFY POTENTIAL ISSUES WITH THOSE IC'S. IF YOU SWAP IC'S, BE SURE TO PUT THE DEFECTIVE IC BACK INTO **U23** BEFORE POWERING THE UNIT ON. IF THIS FIXES YOUR PROBLEM, BE SURE TO RECORD THAT THE IC IN **U23** IS NOW DEFECTIVE AND CANNOT BE USED AGAIN IN ANOTHER SOCKET	
U23	2		
U23	3		
U23	4		
U23	5		
U23	6		
U23	7		
U23	8		
U25	9	**U25** IS NOT UTLIZED IN POWER PONG. THIS SPARE IC CAN BE USED IN **U29** TO RECITFY POTENTIAL ISSUES WITH THOSE IC'S. IF YOU SWAP IC'S, BE SURE TO PUT THE DEFECTIVE IC BACK INTO **U25** BEFORE POWERING THE UNIT ON. IF THIS FIXES YOUR PROBLEM, BE SURE TO RECORD THAT THE IC IN **U25** IS NOW DEFECTIVE AND CANNOT BE USED AGAIN IN ANOTHER SOCKET	
U25	10		
U25	11		
U25	12		
U25	13		
U25	14		
U25	15		
U25	16		
U27	17	**U23** IS NOT UTLIZED IN POWER PONG. THIS SPARE IC CAN BE USED IN **U29** TO RECITFY POTENTIAL ISSUES WITH THOSE IC'S. IF YOU SWAP IC'S, BE SURE TO PUT THE DEFECTIVE IC BACK INTO **U27** BEFORE POWERING THE UNIT ON. IF THIS FIXES YOUR PROBLEM, BE SURE TO RECORD THAT THE IC IN **U27** IS NOW DEFECTIVE AND CANNOT BE USED AGAIN IN ANOTHER SOCKET	
U27	18		
U27	19		
U27	20		
U27	21		
U27	22		
U27	23		
U27	24		
U29	25		
U29	26		
U29	27		
U29	28	COIN METER DRIVER	
U29	29	BALL HOPPER METER DRIVER	
U29	30	START GAME BUTTON LED	
U29	31	EXTRA BALL BUTTON LED	
U29	32	START GAME W/ BALL BUTTON LED	

GOALIE ALL STARS - MAIN BOARD OUTPUT CHART

IC	OUTPUT #	CONTENT	PICTURE
Q1-Q8	33	PLAYER # 1 - MOTOR DRIVER # 1	
	34	PLAYER # 1 - MOTOR DRIVER # 2	
	35	PLAYER # 1 - MOTOR DRIVER # 3	
	36	PLAYER # 1 - MOTOR DRIVER # 4	
	37	PLAYER # 1 - MOTOR DRIVER # 5	
	38	PLAYER # 1 - MOTOR DRIVER # 6	
	39		
	40		
Q9 - Q16	41	PLAYER # 2 - MOTOR DRIVER # 1	
	42	PLAYER # 2 - MOTOR DRIVER # 2	
	43	PLAYER # 2 - MOTOR DRIVER # 3	
	44	PLAYER # 2 - MOTOR DRIVER # 4	
	45	PLAYER # 2 - MOTOR DRIVER # 5	
	46	PLAYER # 2 - MOTOR DRIVER # 6	
	47	BALL HOPPER MOTOR DRIVER	
	48	LOGO LED	

Out41-48   Out 33-40

Indicate Led:41-48

Indicate Led:33-40
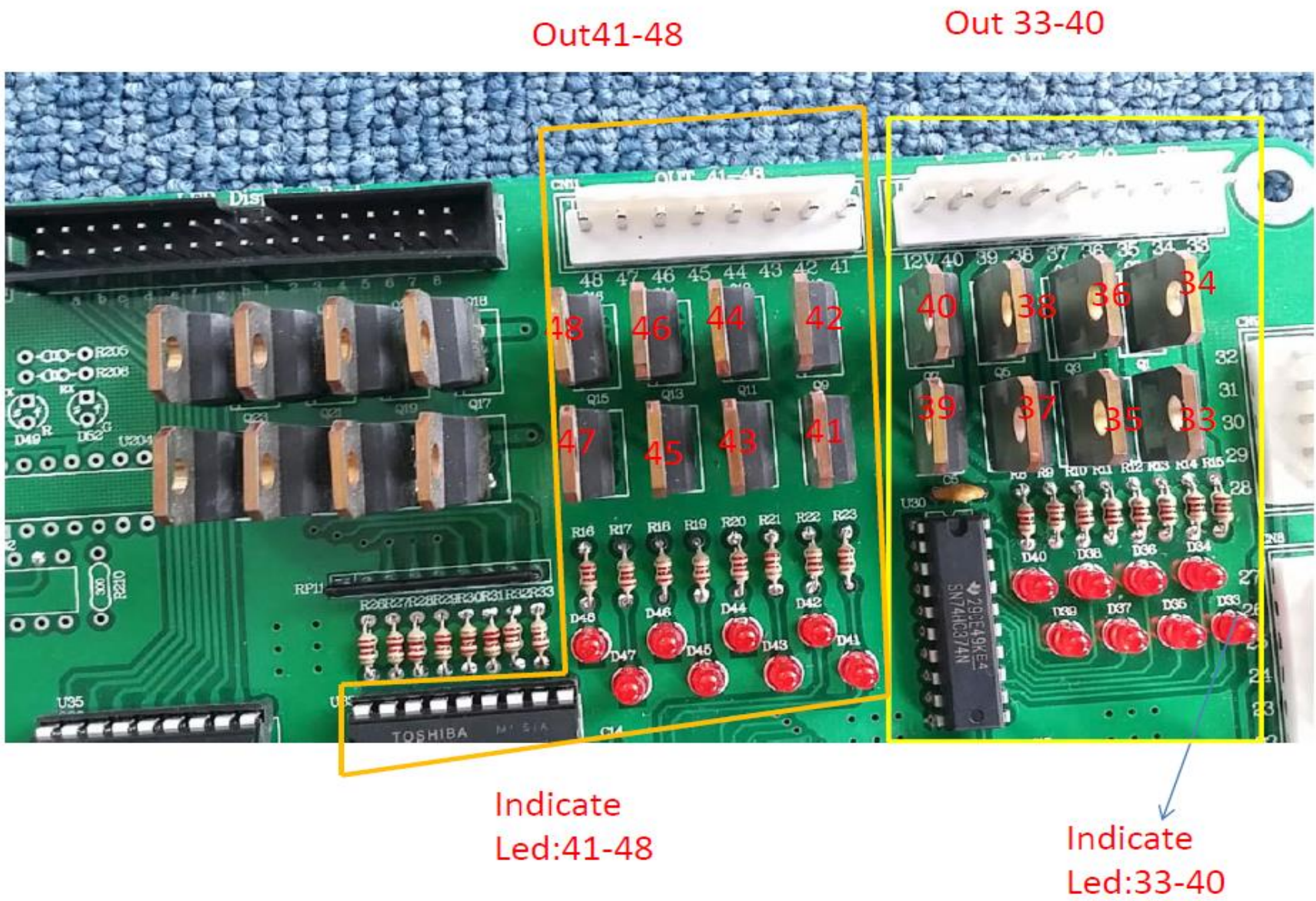
POWER PONG TROUBLESHOOTING GUIDE

The troubleshooting section of this manual is to be used as a guide for determining what component maybe faulty and what steps are recommended to rectify the problem. Before contacting your distributor, please check to make sure that the unit is in fact plugged in and receiving power and that there are no loose connections. Should you have any questions, please contact the JET SERVICE DEPARTMENT before servicing the unit. Servicing the unit in a way not described in this manual could void any warranties on the unit.

As in all parts of this manual, the troubleshooting guide is color coordinated in order to quickly identify the problem, the probable cause, and the solution. When diagnosing a problem - always check the most simple things first.

FOR ALL SERVICE OR TO ORDER PARTS - PLEASE CONTACT THE FOLLOWING

JENNISON ENTERTAINMENT TECHNOLOGIES

822 SOUTH NOVA ROAD
DAYTONA BEACH, FLORIDA 32114

MAIN PHONE: + 1-(386)-255-1599

TOLL FREE (WITHIN THE USA): 1-855-JET-GAME
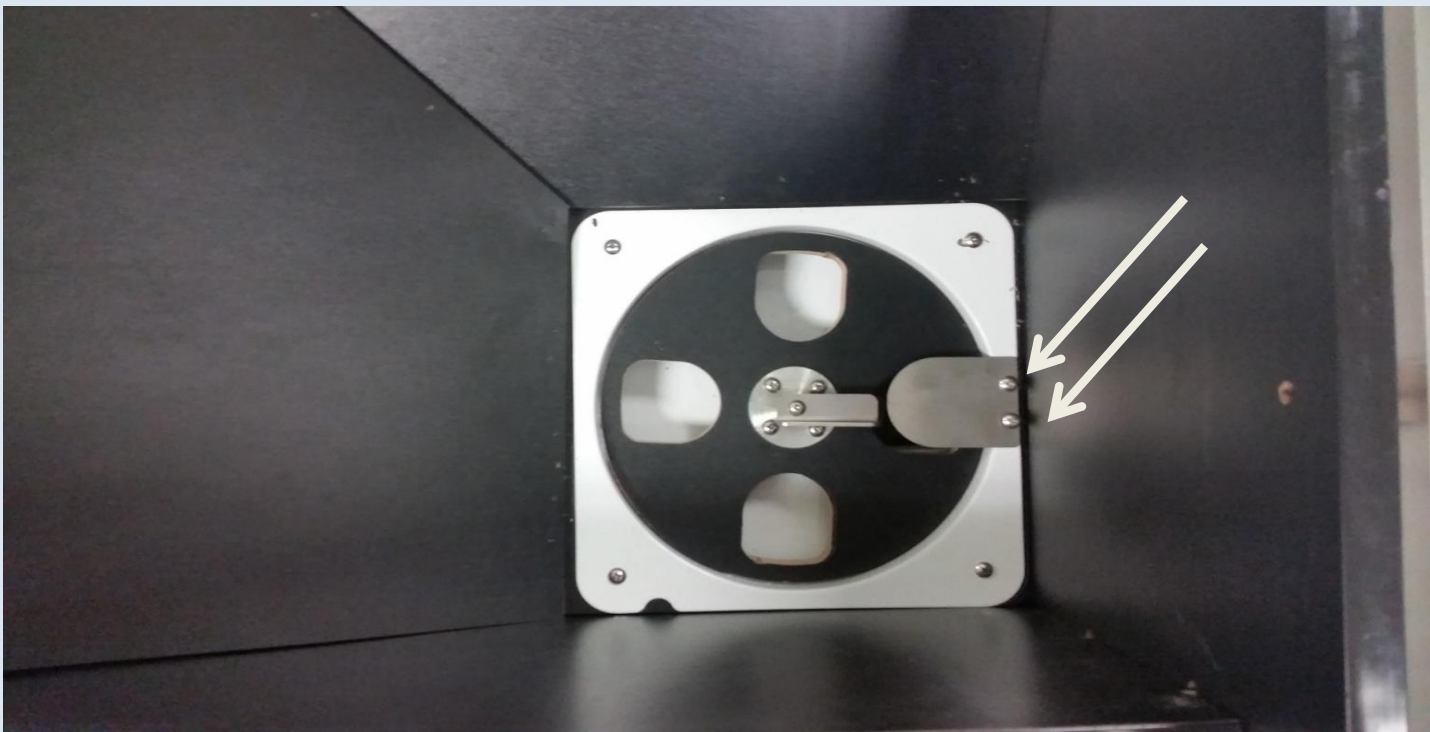
YOUR LOCAL DISTRIBUTOR

CLEANING A BALL JAM FROM THE HOPPER SYSTEM

Problem: Balls do not dispense when playing the game either with the "game with ball function" or "extra ball" function. First step is to check the hopper and have sure there is suffient balls in the hopper. Secondly is to check for a ball jam. Before pulling balls out of the hopper first power down the game, then remove all balls from the hopper. If there is a ball jammed, remove damaged ball from hopper and restart game. If ball is jammed further in the game follow steps below. Please contact JET technical support for advise on what could be causing the problem. Only proceed with the following instructions after you have contacted JET and are directed to do so.

Step # 1

Clearing ball hopper system

Remove all balls from he hopper area and remove the two philips headed screws holding the block off plate to the metal housing.

Step # 2

Clearing ball hopper system

After removing the block off plate, remove the ball agitator by removing the single philips head screw in the middle of the assembly remember the orientation because the ball agitator is notched to only go one the shaft one way.
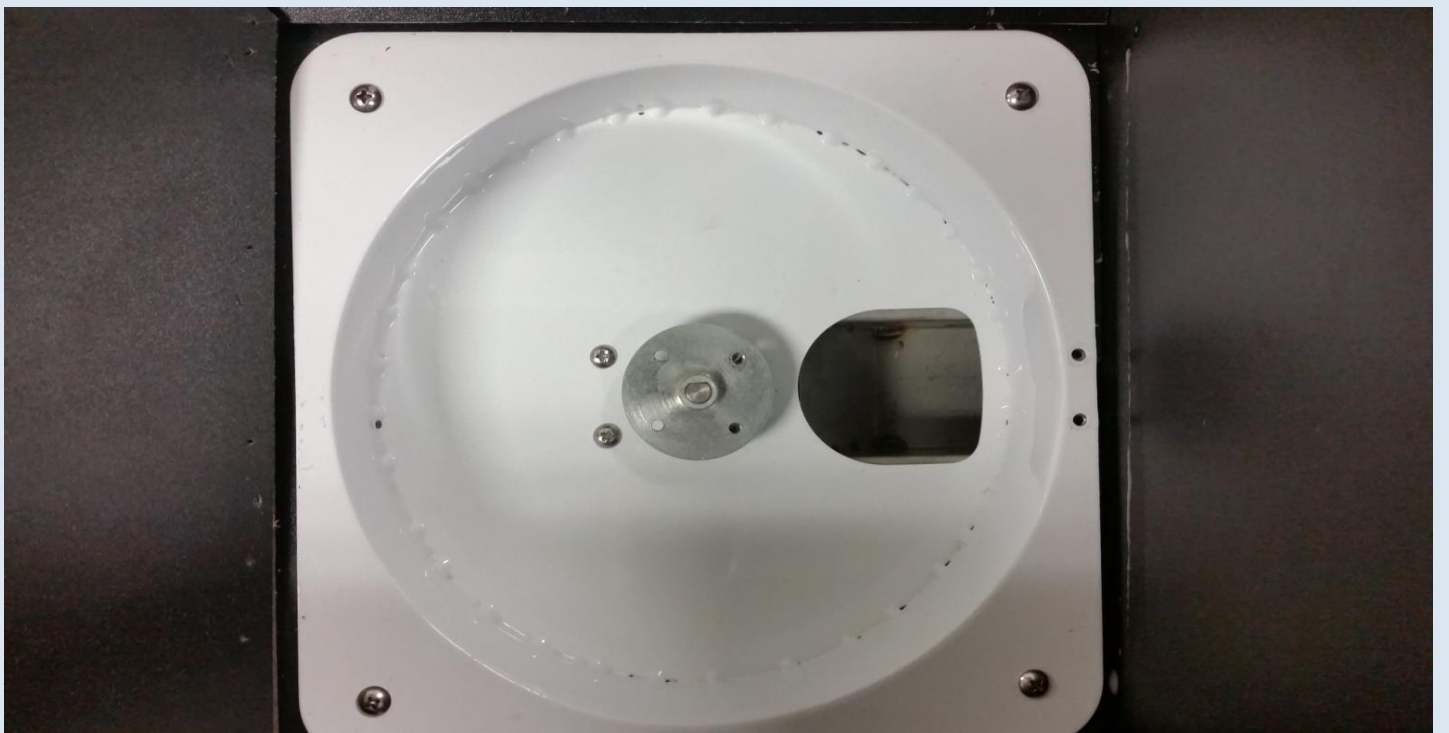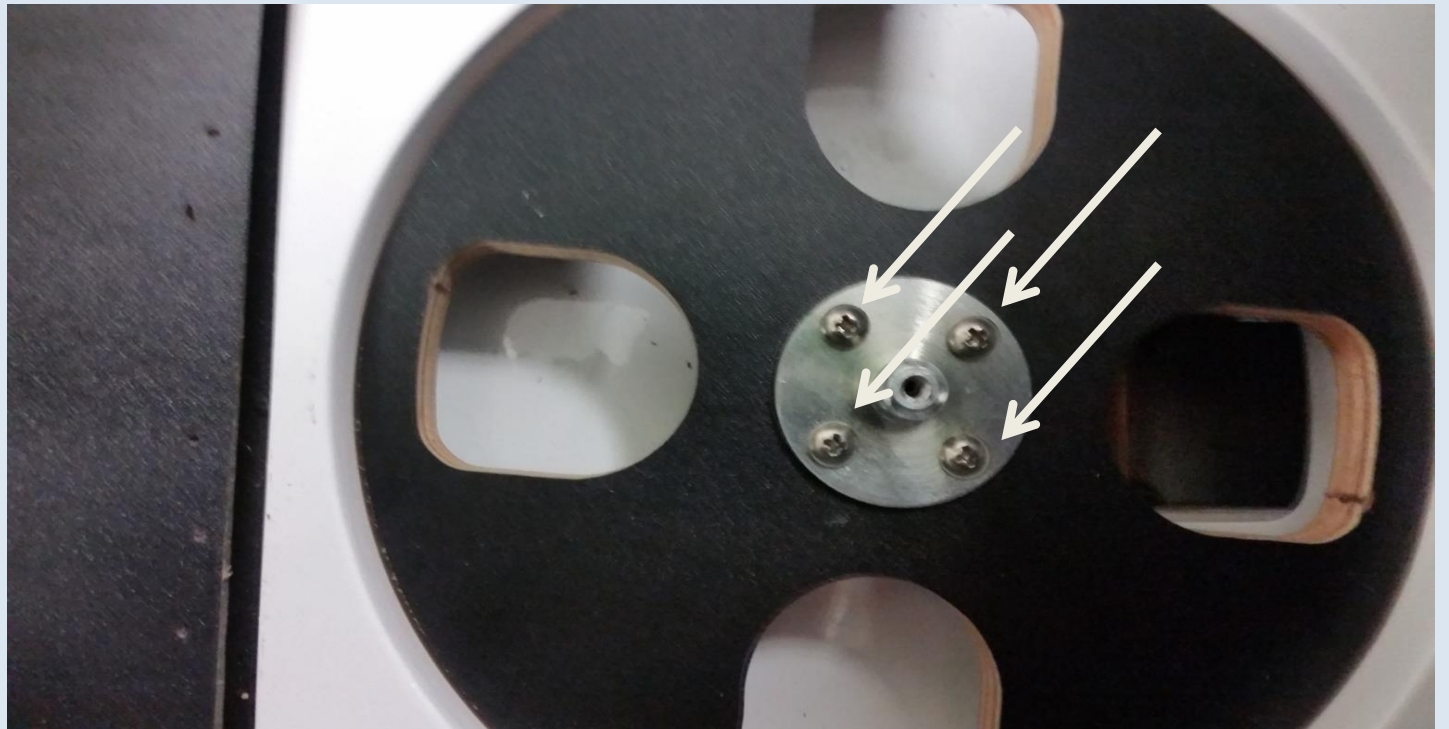
Step # 3

**Clearing ball hopper system**

After removal of the ball agitator, remove the four philip headed screws from the ball selector wheel. Once the screws are removed pull upward on the selector wheel, the wheel should release from the motor shaft fairly easily. Once removed this is should be seend, the area should be clean and free of debris.

Step # 4

Clearing ball hopper system

After removing the ball selector wheel check the opening for balls trapped inside the highlighted area. Make sure everything is clean and safely away from the hopper system and power the game on, test the extra ball button , checking to see the motor function. While apart clean hopper system for proper maintance. These steps are also used when removing the hopper motor, the two screws on ope would be removed the other two are access from the bottom of the game.
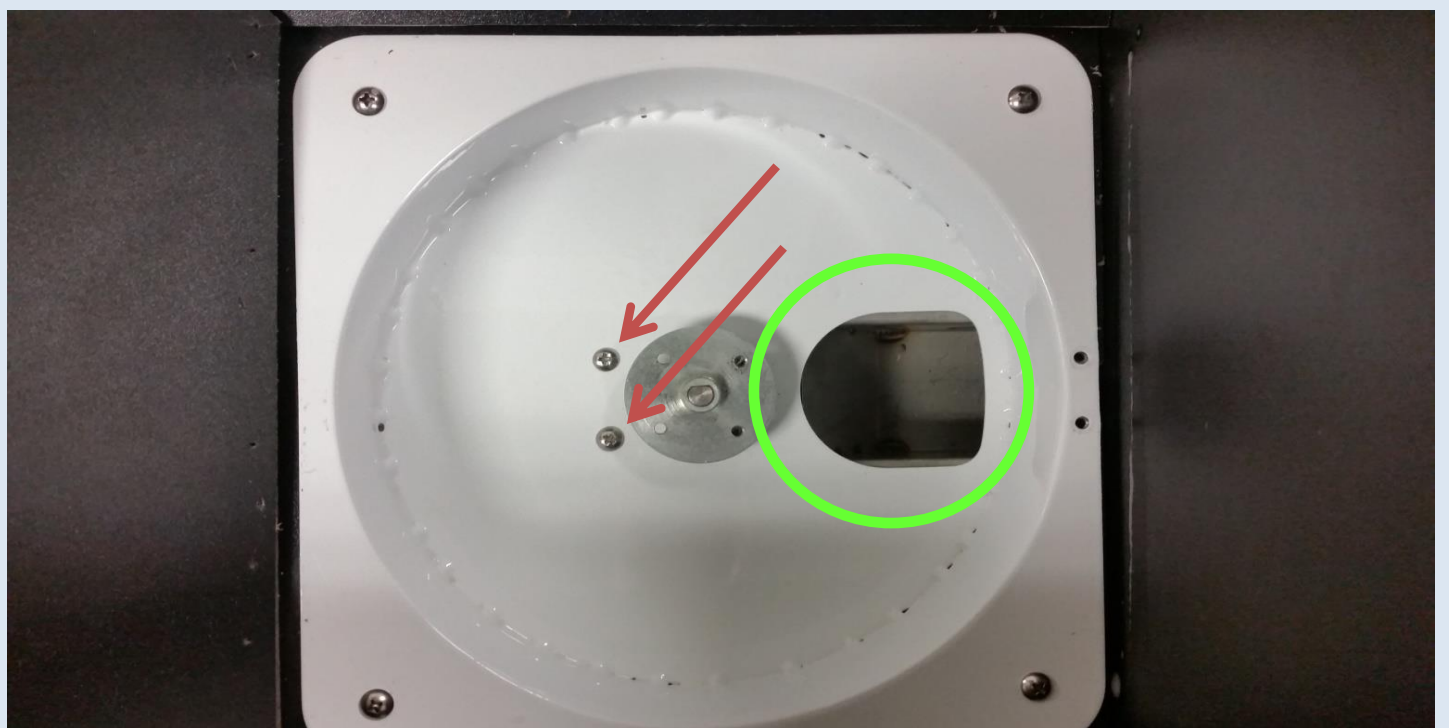
DIAGNOSE MOTOR / SENSOR FAULT AND REPLACEMENT PROCEDURE

Step # 1

Identifing molex concetions for Cup assembily

The molex connections shown in this step can been seen by opening the side access door under the side cup assembly. There are three bundles of three wires on each side of the main cup assembly. The wires can be identified by their molex conectors, the four pin goes to the ball sensor, the three pin molex goes to the cup sensor, while the two pin molex goes to the cup motor.
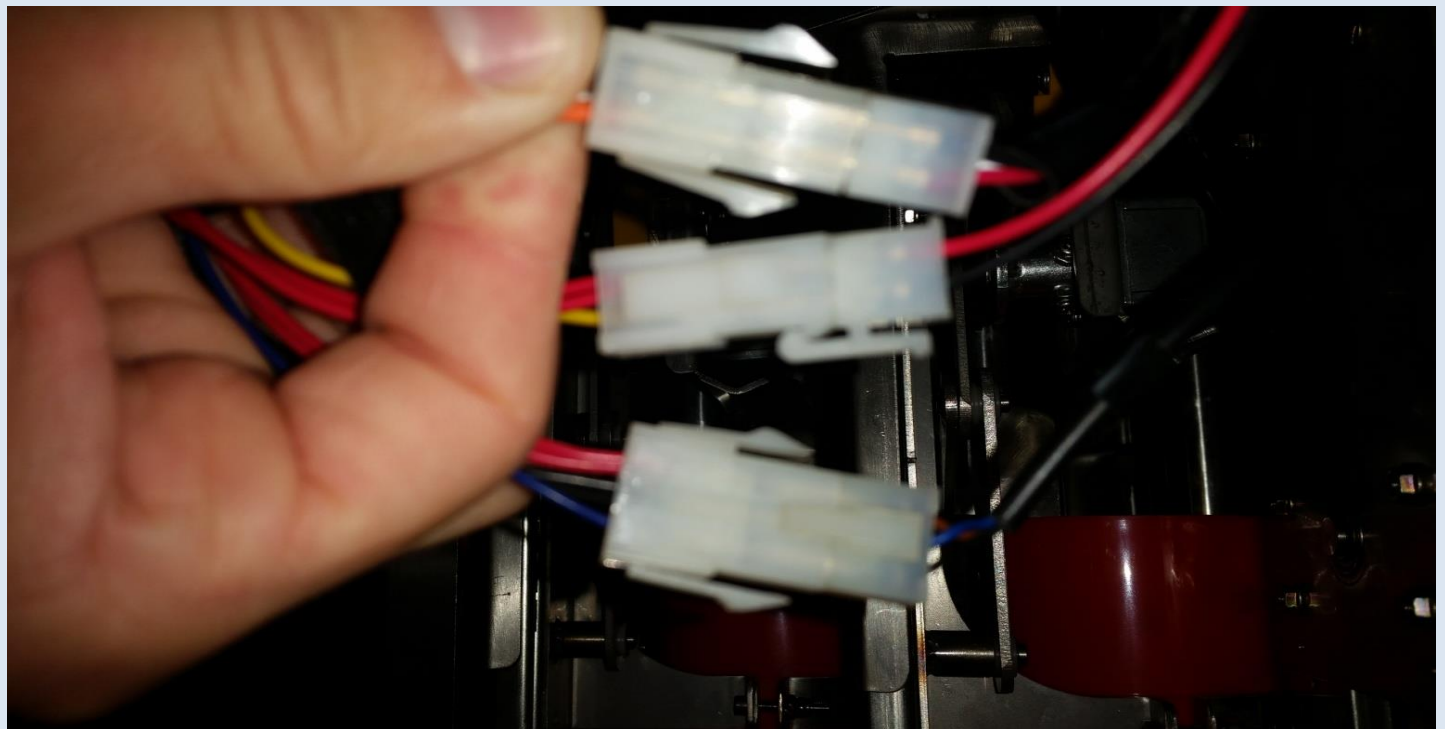
Step # 2

### Determining if Cup sensor is the problem

First step in diagnosing the problem is checking to see if the cup sensor is working properly. In the cup down posistion, with the game powered on, the sensor should show a red light indicating that it is sensing the cup. If the sesor is not working check the connection at the molex listed above, there may be a loose pin that needs to be reseated. If the light is on check connection on the motor molex.

Step # 3

Replacing Cup motor or Cup sensor

If the cup sesor and cup motor connections are not the problem and the I/O board outputs (outputs are covered in the I/o charts) have been check and are in good condition, follow the procedures listed below to replace the cup motor. Locate and remove the eight 2.5 mm hex headed bolts holding down the pyramind playfield acrylic. Please note the shorter of the screws goes in the middle of the acylic.
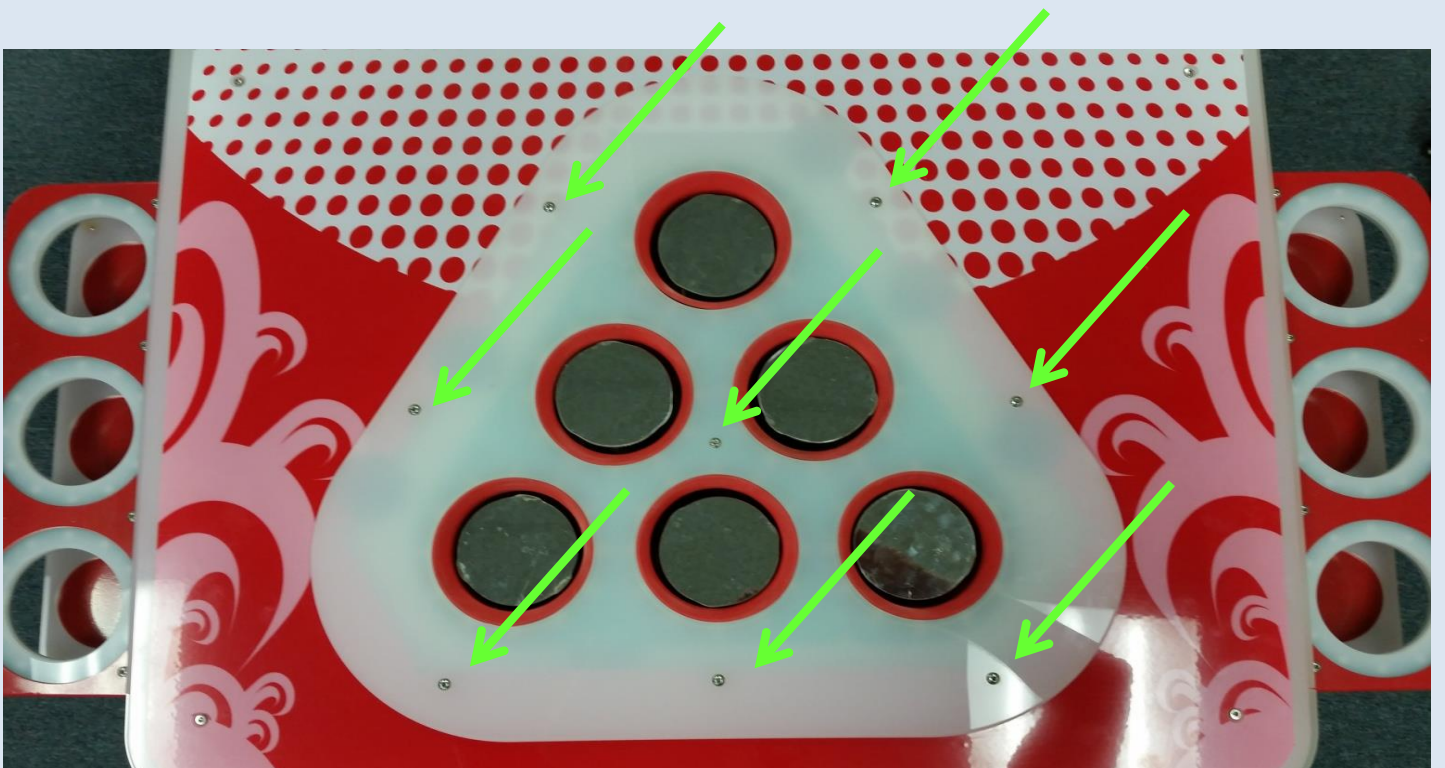
DIAGNOSE MOTOR / SENSOR FAULT AND REPLACEMENT PROCEDURE

Step # 4
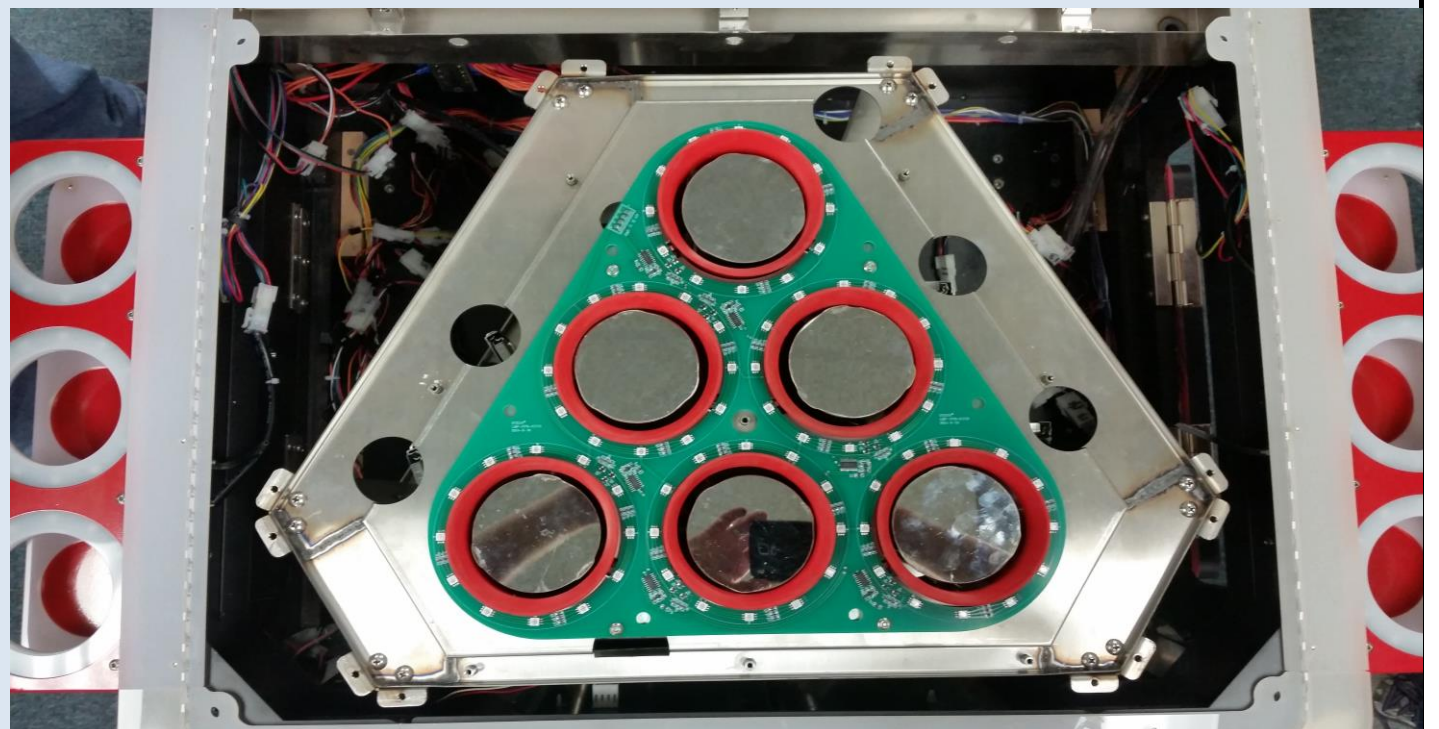
Replacing Cup motor or Cup sensor

After removal of the eight screws holding down the pyramind playfield acrylic, pull up on the white acrylic, you will have some resistance because of the rubbr cup lips. Once the acrylic has been removed there are four 3 mm hex headed screws that need to be removed before removal of the table top graphic acrylic.

Step # 5
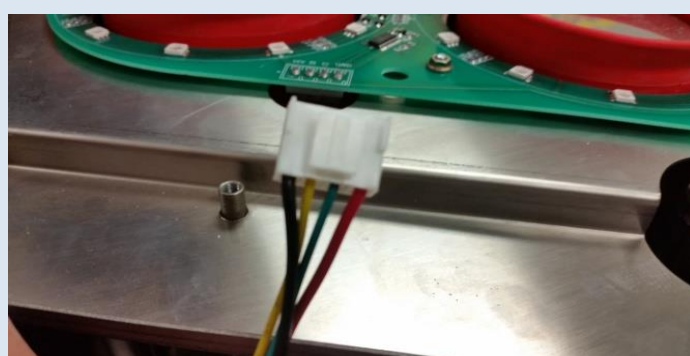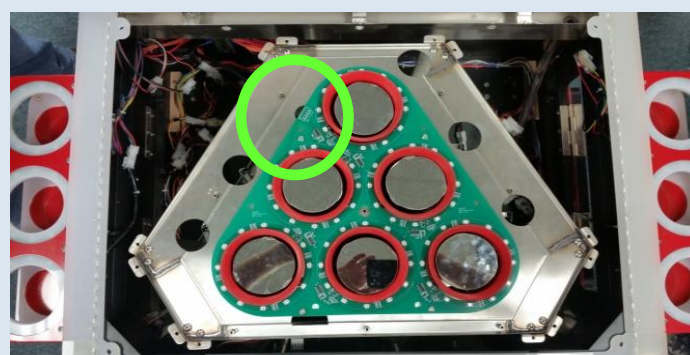
Replacing Cup motor or Cup sensor

After table top acrylic has been removed there are three groups of three molex connections that need to be removed from each side of the main cup assembly, one molex that attaches to the underside of the LED cup PCB board (green light board), and a ground strap, that need to be disconnected before the main cup assembly can be removed.

Step # 6

Replacing Cup motor or Cup sensor

The molex connection for the LED board can be found on the underside of the board in the area specified in the circle, the connector should look like the one in the picture to the lower right.

DIAGNOSE MOTOR / SENSOR FAULT AND REPLACEMENT PROCEDURE

Step # 7

Replacing Cup motor or Cup sensor

Lable each side of the molex conectors for all of the three groups of three molex conection points on each side of the main cup assembly (shown in the circle), then disconnect them. Also shown is the yellow ground strap that needs to be removed prior to removal of main cup assembly (held in with a philip headed screw and nut retainer.
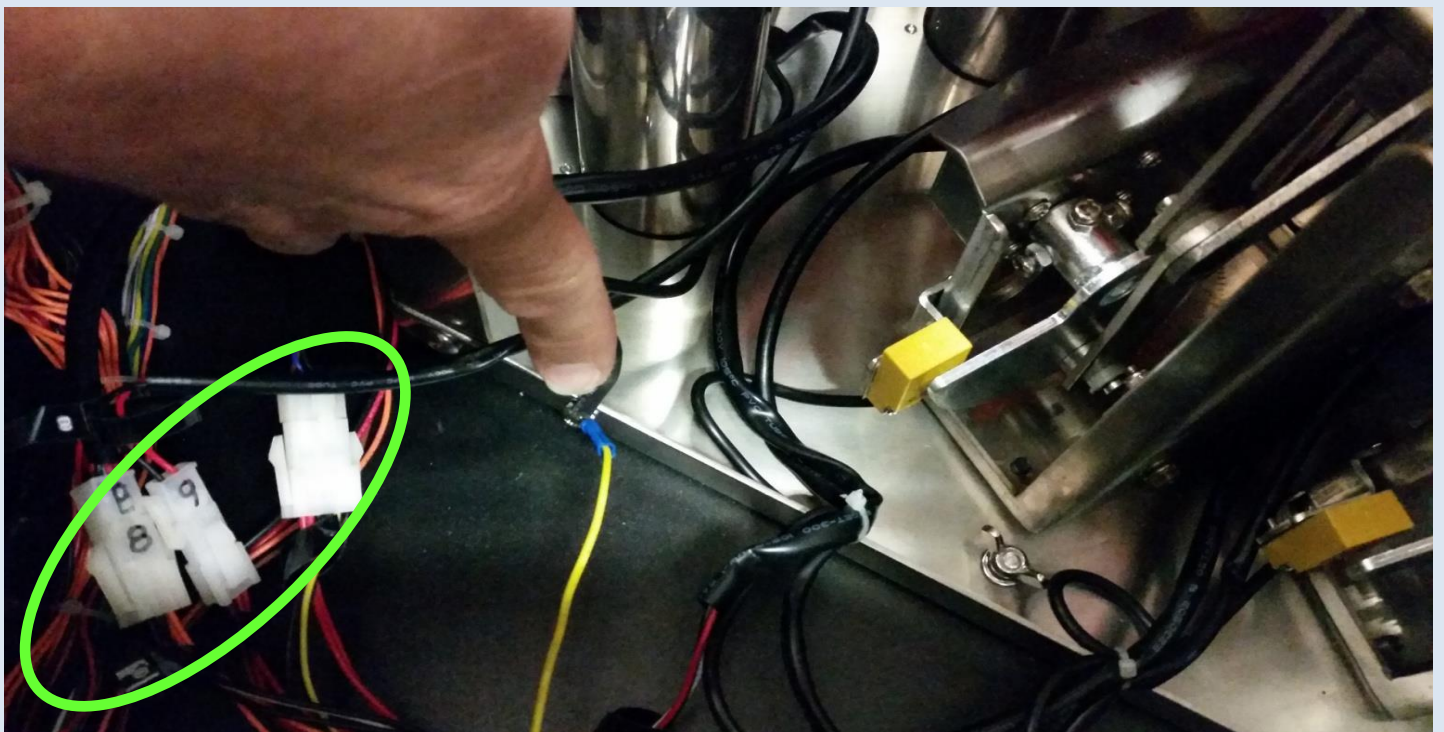
Step # 8

Replacing Cup motor or Cup sensor

After all connections have been removed from the main cup assembly (20 in total), remove the six butterfly screws (three on each side) holding down the main cup assembly and lift unit out from the cabinet. The unit is bulky so it is recommended that two people lift main cup assembly from the cabinet.
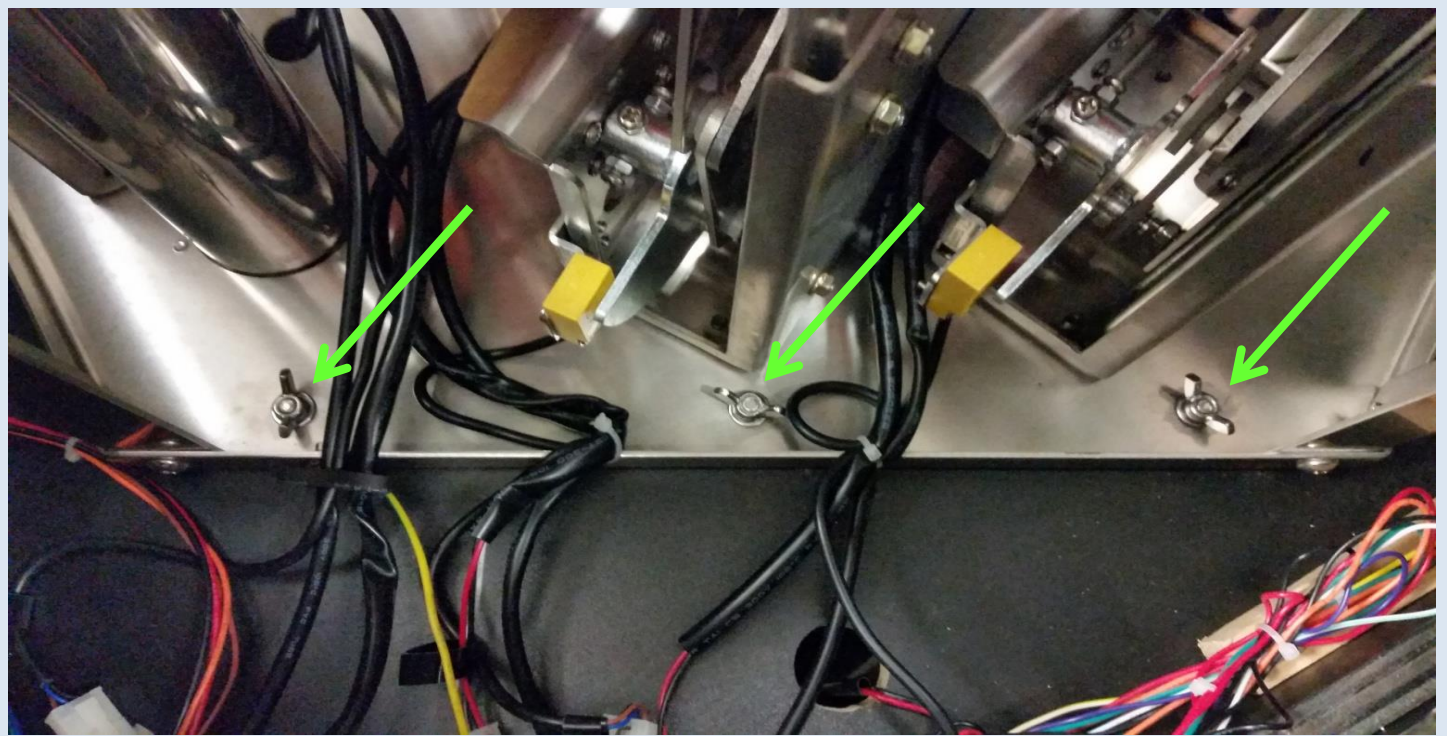
Step # 9

Replacing Cup motor or Cup sensor

After removal of the main cup assembly from the cabinet place the assembly on a padded work bench (the ball sensors are located on the bottom of the assembly) and remove the 12 philips headed screws holding down the top of the assembly. Carefully remove the top of the main cup assembly noting that the rubber cup rims will provide a little resistance to removal.

DIAGNOSE MOTOR / SENSOR FAULT AND REPLACEMENT PROCEDURE
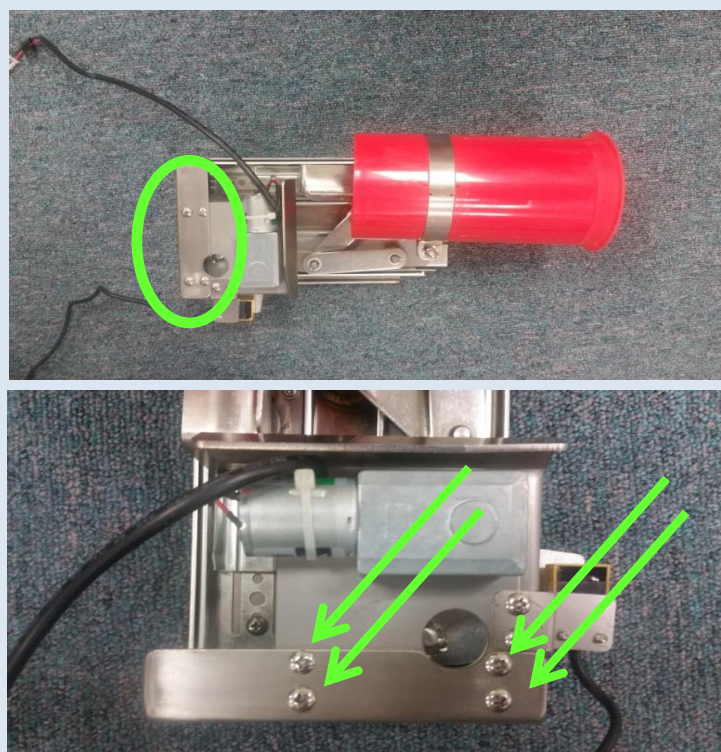
Replacing Cup motor or Cup sensor

After removing the top, place the main cup assembly on it's side and remove the four philip head screws that coorespond to the cup location that needs to be removed. Make sure to support the single cup assembly while removing it from the main assembly. If replacing the cup sensor the screws will be easily accessable at this point.
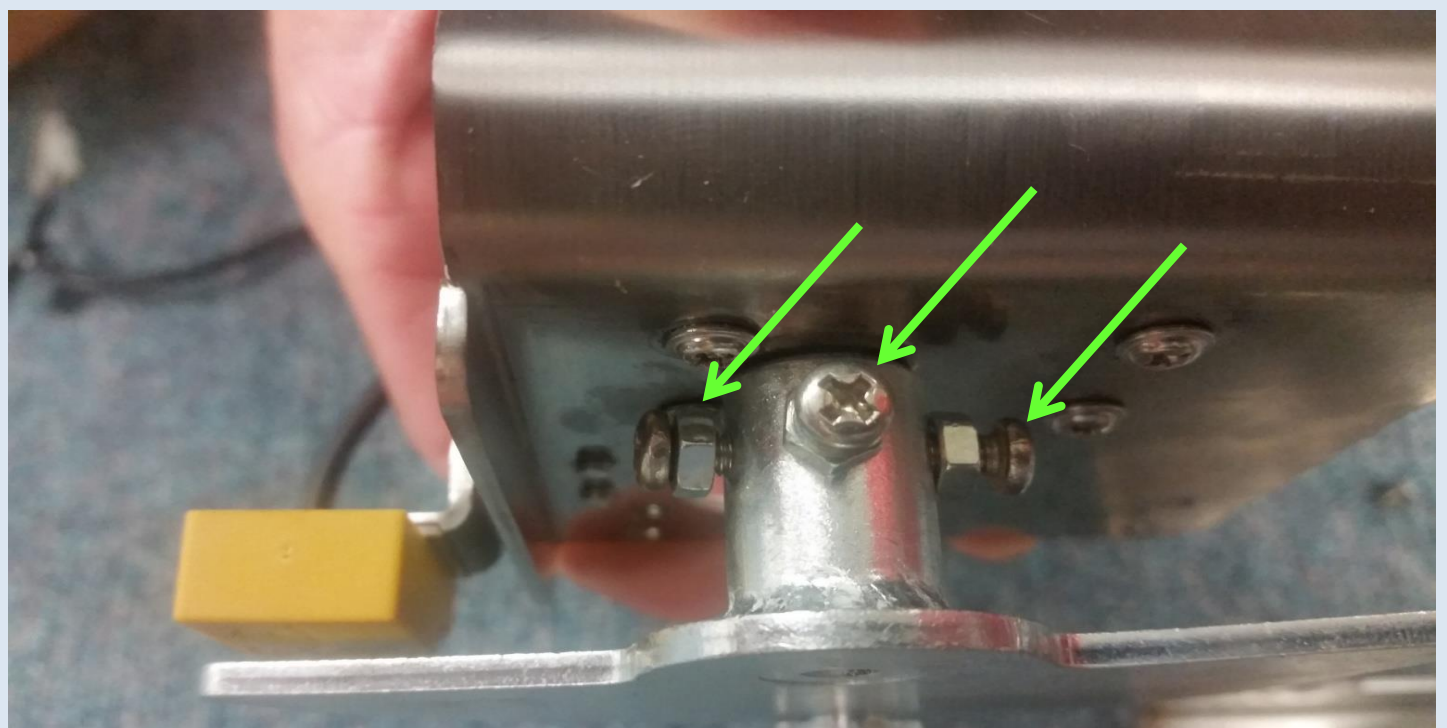
Replacing Cup motor

After removing the single cup assembly, remove the four philip headed screws holding the motor plate to the assembly. Be careful when unbolting the motor plate, there are still three screw to loosen before the motor cam will be released and motor plate can be removed.

Replacing Cup motor

The three screws needed to be loosened are shown to the right. Once they are loosened the motor shaft will slide out of the motor cam and then can be removed with the motor plate from the assembly.
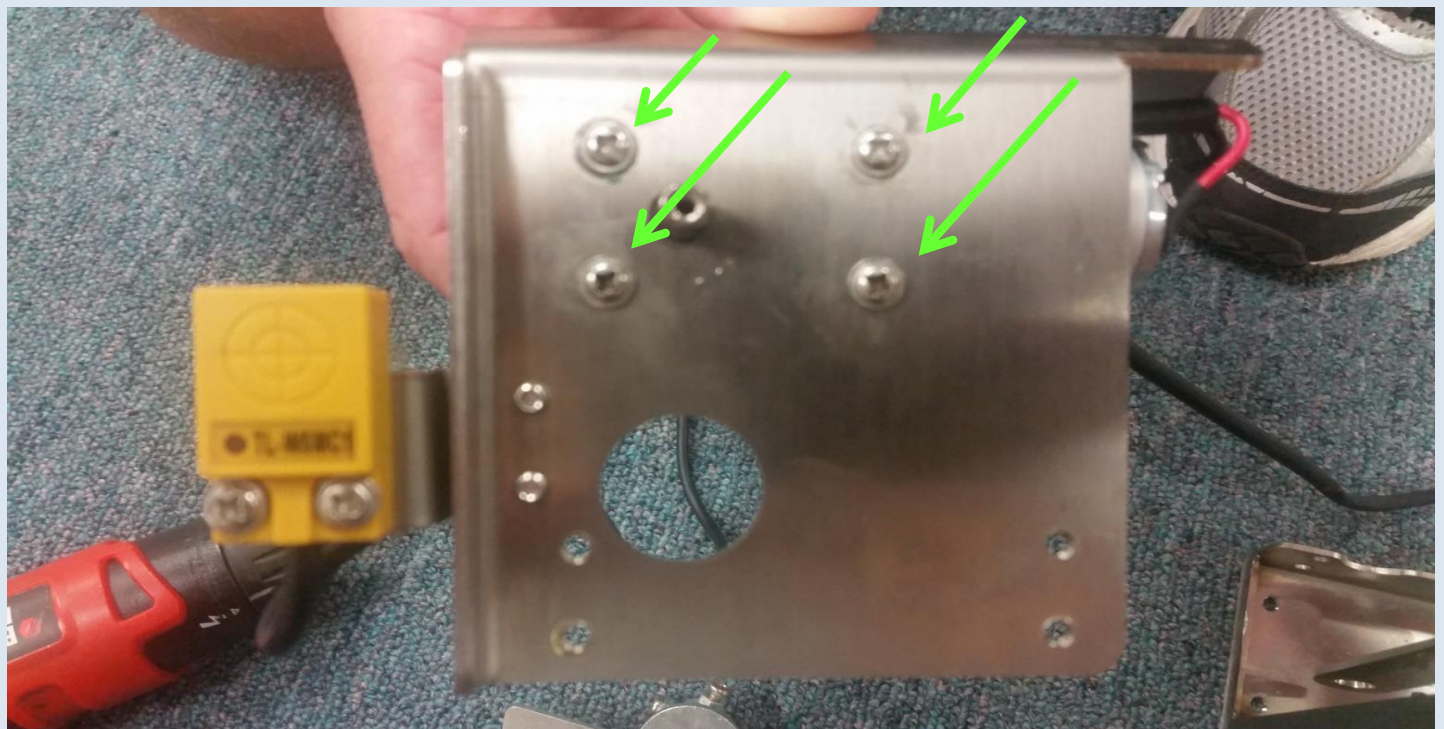
DIAGNOSE MOTOR / SENSOR FAULT AND REPLACEMENT PROCEDURE

Step # 13

Replacing Cup motor

Turn the motor assembly over and remove the four philip headed screws holding the motor to the motor plate. Replace motor and reassemble in the reverse order till you get to the pyramid cup acrylic. Making sure not to overtighen any or the hardware.

Step # 11

Replacing Cup motor

Once the main cup assembly is reinstalled into the game and all connections are made, including the main cup assembly ground strap, and LED PCB board, power up the game and make sure all is functioning properly. To reinstall the pyramid cup acrylic power down the game while the cups arein the up position to add in installation. Start in the lower right corner working from that cup accross and upwards.

Step # 12

Replacing Cup motor

Making sure all rubber cup lips fed though the acrylic untill all six cups are though. Note: sometimes it is easyier to fed them though with your hand under the acrylic as shown here. Remember that the shorter of the 2.5 mm hex headed screws goes in the middle location of the acrylic.