BLIZZARD BLAST SERVICE MANUAL

VERSION 0.5

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

www.JENNISONGAMES.com

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.

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.

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. BLIZZARD BLAST 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.

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 BLIZZARD BLAST.

As of January 2016, Jennison Entertainment Technologies has tested all components used in the manufacturing of BLIZZARD BLAST. 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.

GAME SETTINGS & PROGRAM

BLIZZARD BLAST 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	20151120	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 Blizzard Blast 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 Blizzard Blast (20160110) 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 Blizzard Blast (20160110) 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. Blizzard Blast 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 6 0 1 1 0

The installed software version can be viewed at any time by viewing the label on the main IC.
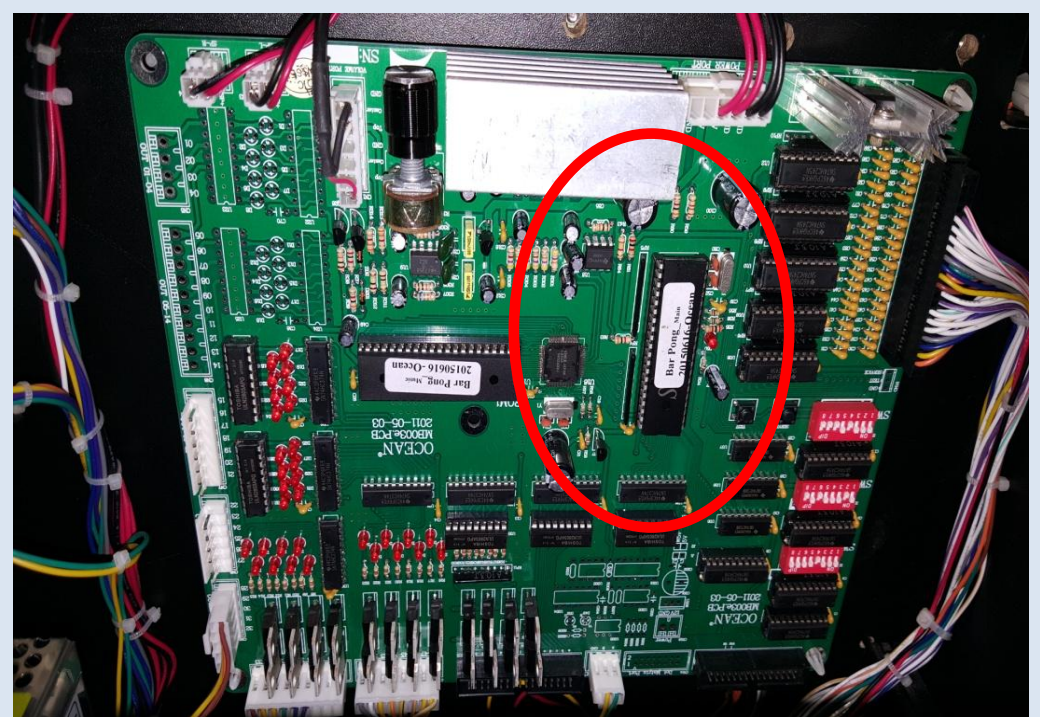
ADJUSTING THE PAYOUT PERCENTAGE

NOTICE

This ticket payout table is for reference only. These numbers have been determined after considerable testing in field locations. This chart assumes a ticket cost of USD 0.01 (one Penney) and a desired payout of 30-35%

USD $0.25 GAME PLAY (NOT CURRENTLY USED)

BONUS					
SEG # 4					
SEG # 3					
SEG # 2					
SEG # 1					

USD $0.50 GAME PLAY - (SCORE STATE A)

BONUS	50	10	100	10	500
SEG # 4	8	20	8	40	8
SEG # 3	20	4	10	4	20
SEG # 2	8	10	8	10	8
SEG # 1	4	8	10	4	8

USD $1.00 GAME PLAY - (SCORE STATE B)

BONUS	70	10	250	20	500
SEG # 4	30	10	50	10	70
SEG # 3	10	20	10	30	10
SEG # 2	16	8	16	8	16
SEG # 1	6	10	8	6	10

USD $1.50 GAME PLAY - (SCORE STATE C)

BONUS	100	50	500	10	500
SEG # 4	10	50	10	40	10
SEG # 3	20	10	20	10	30
SEG # 2	10	16	10	16	10
SEG # 1	8	10	8	10	8

USD $2.00 GAME PLAY - (SCORE STATE D)

BONUS	100	250	500	100	1000
SEG # 4	30	40	50	30	40
SEG # 3	18	20	18	20	18
SEG # 2	12	14	16	12	14
SEG # 1	6	10	12	6	10

GAME SETTINGS - DIP SWITCH SETTINGS (SWITCH # 1)
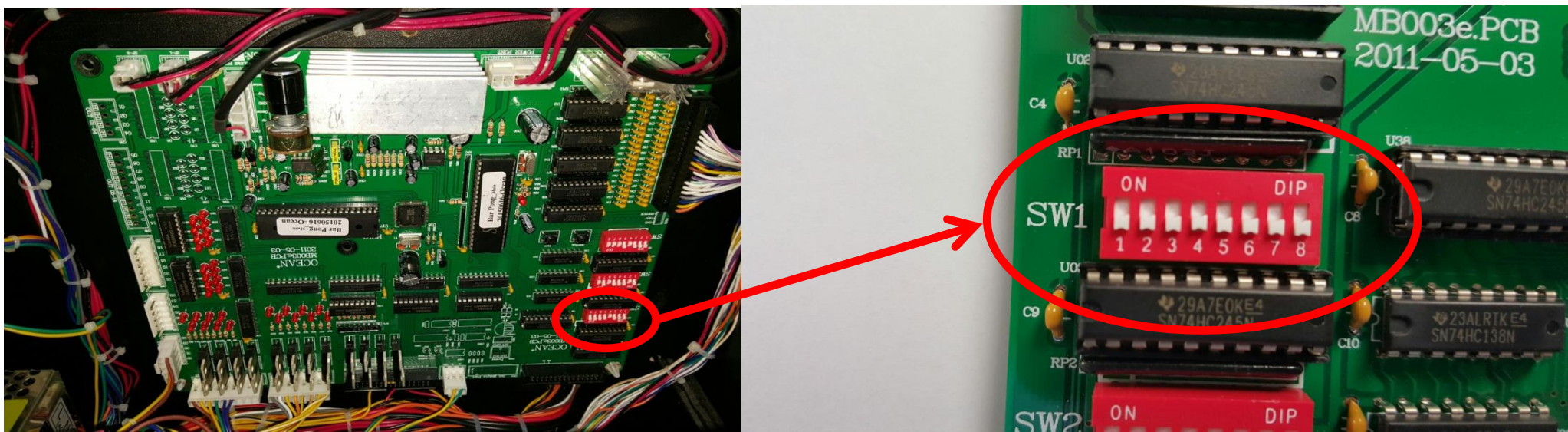
All game settings in Blizzard Blast can be programmed using the three dip switch banks on the I/O board. The switches are Switch # 1 (SW1), Switch # 2 (SW2), and Switch # 3 (SW3). Reference the chart below to make program changes including the number of coins required to start the game, the length of game play, and the score group 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.
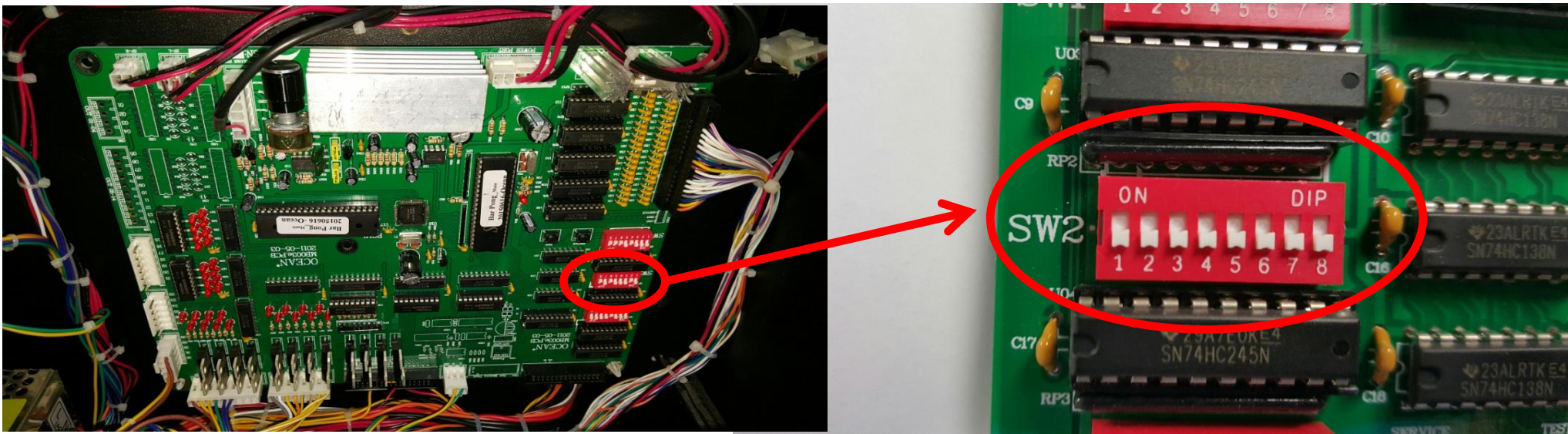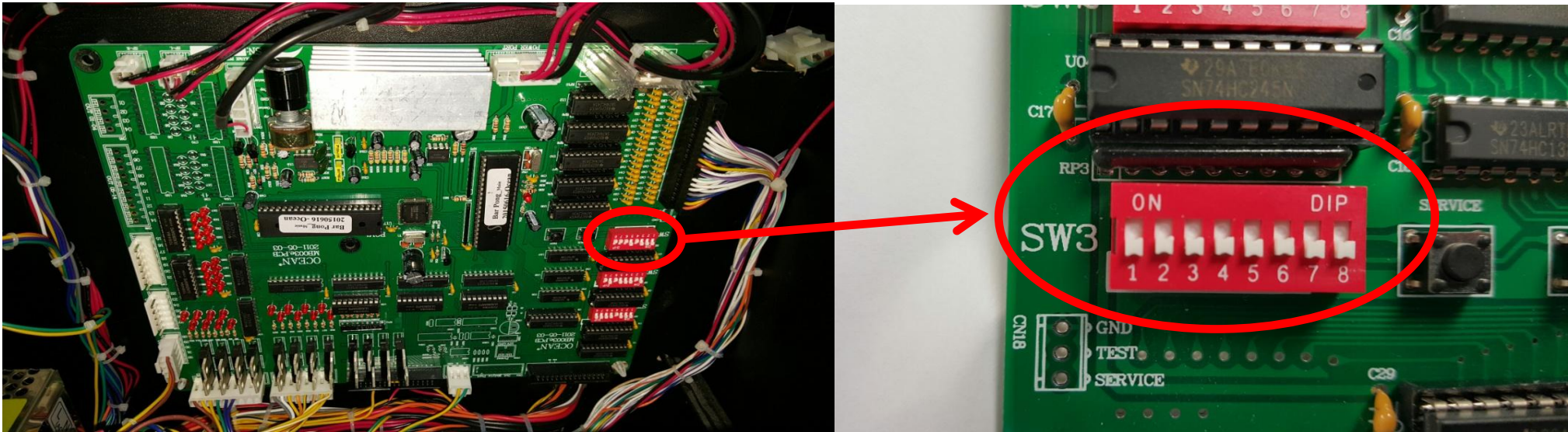
ITEM DESCRIPTION	CONTENT	SWITCH # 1							
		SW11	SW12	SW13	SW14	SW15	SW16	SW17	SW18
Coins, Credits,Tokens Required This setting is to adjust the number of coins or credits required to start the game. Operator can choose between 1 and 7 coin(s) or token(s) per game	1	ON	ON	ON					
	2	OFF	ON	ON					
	3	ON	OFF	ON					
	4	OFF	OFF	ON					
	5	ON	ON	OFF					
	6	OFF	ON	OFF					
	7	ON	OFF	OFF					
	FREE PLAY	OFF	OFF	OFF					
Game Time	30				ON	ON	ON		
	35				OFF	ON	ON		
	40				ON	OFF	ON		
	45				OFF	OFF	ON		
	60				ON	ON	OFF		
	75				OFF	ON	OFF		
	90				ON	OFF	OFF		
	100				OFF	OFF	OFF		
Score Group	A							ON	ON
	B							OFF	ON
	C							ON	OFF
	D							OFF	OFF

ITEM DESCRIPTION	SCORE STATE	SWITCH # 1 (EXPANDED)							
		SW11	SW12	SW13	SW14	SW15	SW16	SW17	SW18
$0.50 GAME PLAY	A							ON	ON
$1.00 GAME PLAY	B							OFF	ON
$1.50 GAME PLAY	C							ON	OFF
$2.00 GAME PLAY	D							OFF	OFF
NOT CURRENTLY USED	E								
NOT CURRENTLY USED	F								
NOT CURRENTLY USED	G								

All game settings in Blizzard Blast 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 tickets per score, shake time, and the handle speed frequency 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.

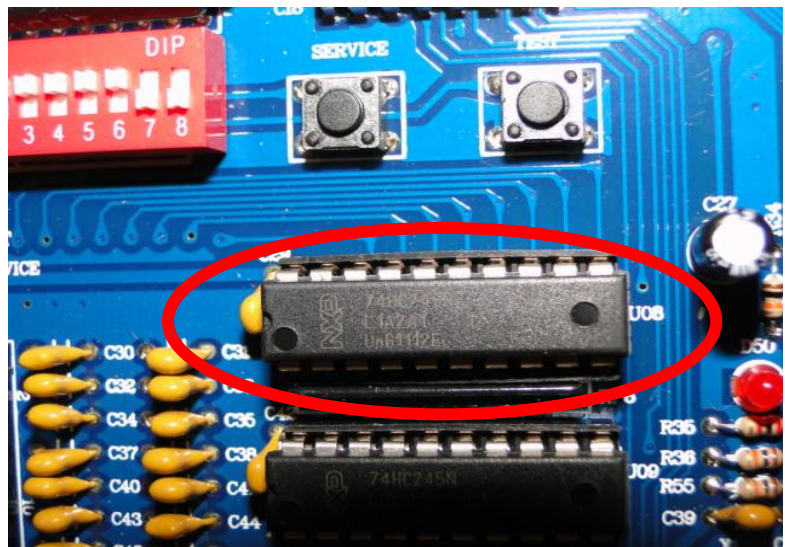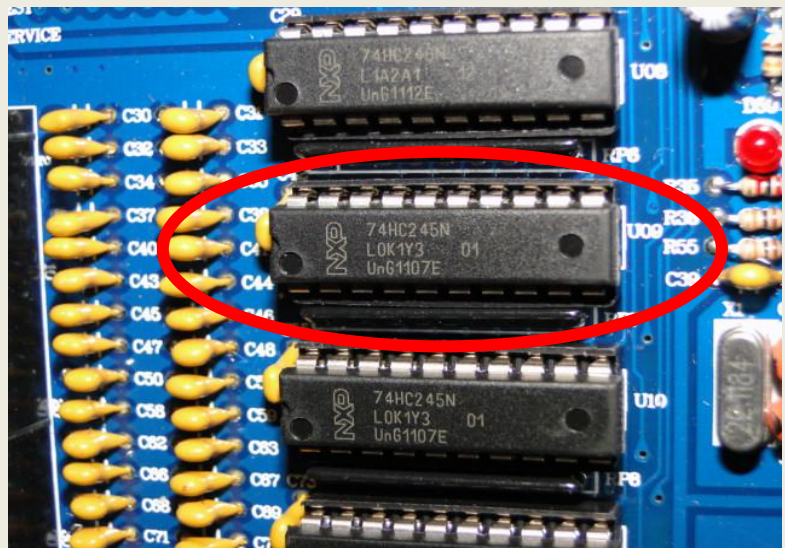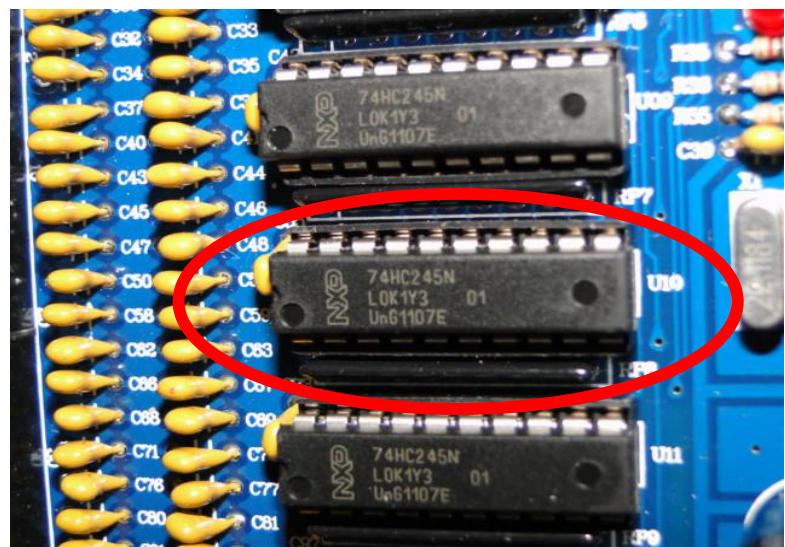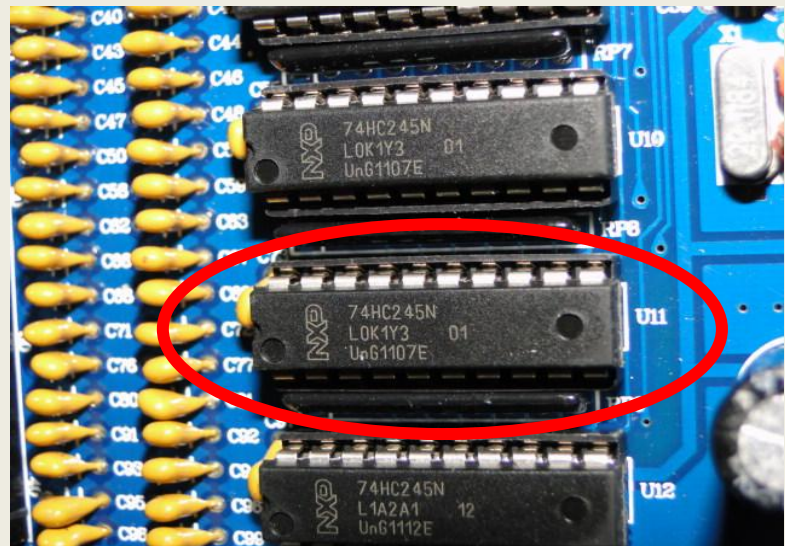| ITEM DESCRIPTION	CONTENT	SWITCH # 2							
		SW21	SW22	SW23	SW24	SW25	SW26	SW27	SW28
Ticket Per Score (THIS VALUE IS DIVIDED BY THE TOTAL AMOUNT OF TICKETS WON. (FOR 2 POINT TICKETS, SELECT "DIVIDE BY 2"- IF 100 TICKETS ARE WON, 50 TICKETS WILL BE DISPENSED)	1	ON	ON	ON					
	DIVIDE BY 2	OFF	ON	ON					
	DIVIDE BY 5	ON	OFF	ON					
	DIVIDE BY 10	OFF	OFF	ON					
	DIVIDE BY 20	ON	ON	OFF					
	DIVIDE BY 30	OFF	ON	OFF					
	DIVIDE BY 50	ON	OFF	OFF					
	NO PAY	OFF	OFF	OFF					
Shake Time	2 + 1				ON	ON			
	3 + 1				OFF	ON			
	4 + 1				ON	OFF			
	5 + 1				OFF	OFF			
Handle Speed Frequency	0.35 SECOND						ON	ON	
	0.30 SECOND						OFF	ON	
	0.27 SECOND						ON	OFF	
	0.25 SECOND						OFF	OFF	

All game settings in Blizzard Blast 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 double score play, duel meters, and various testing 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.

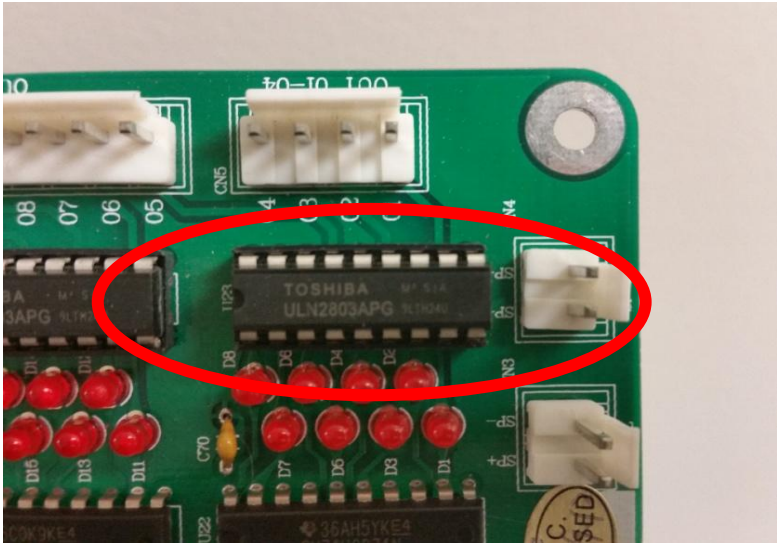| ITEM DESCRIPTION	CONTENT	SWITCH # 3							
		SW31	SW32	SW33	SW34	SW35	SW36	SW37	SW38
2	2 TIMES	ON							
Double Score	3 TIMES	OFF							
Coin Meter	SINGLE		ON						
	DOUBLE		OFF						
Hit Test	NORMAL			ON				OFF	OFF
Display	TEST			OFF					
Coin Lock	ON					ON			
	OFF					OFF			
Crash	YES						ON		
Alarm	NO						OFF		
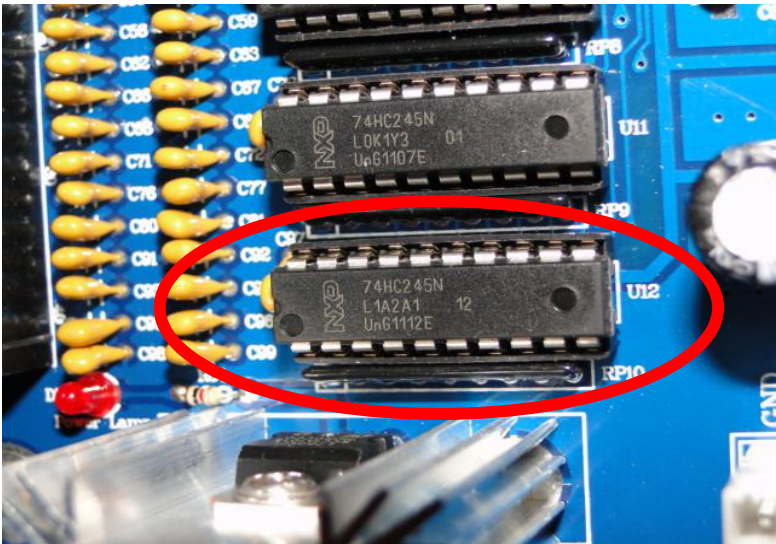
MAIN BOARD INPUTS

BLIZZARD BLAST - MAIN BOARD INPUT IC (74HC245N) CHART

IC	INPUT #	CONTENT	PICTURE
U08	1	COIN UP SIGNAL	
	2	BILL ACCEPTOR	
	3	TICKET RESET	
	4	TICKET SIGNAL # 1	
	5	TICKET SIGNAL # 2	
	6	BLIZZARD BUTTON # 1	
	7	BLIZZARD BUTTON # 2	
	8	MIDDLE SENSOR	
U09	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
U10	17	LEFT HANDLE SENSOR	
	18	RIGHT HANDLE SENSOR	
	19		
	20		
	21		
	22		
	23		
	24		
U11	25		
	26		
	27		
	28		
	29		
	30		
	31		
	32		
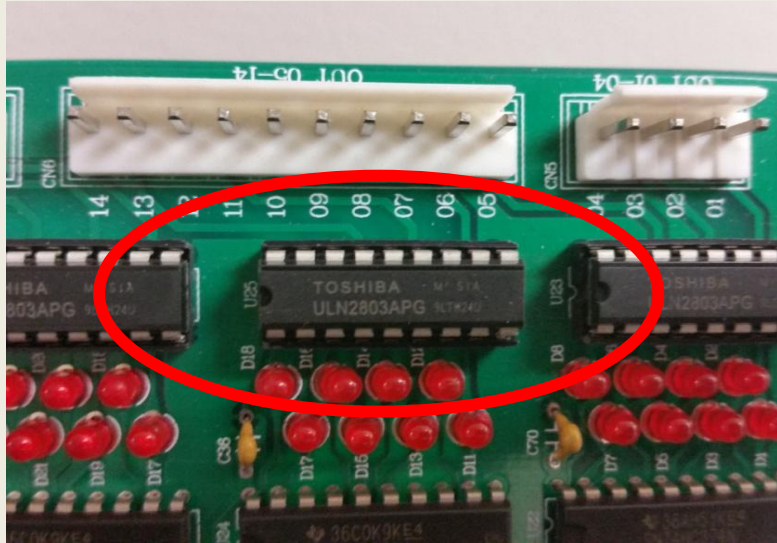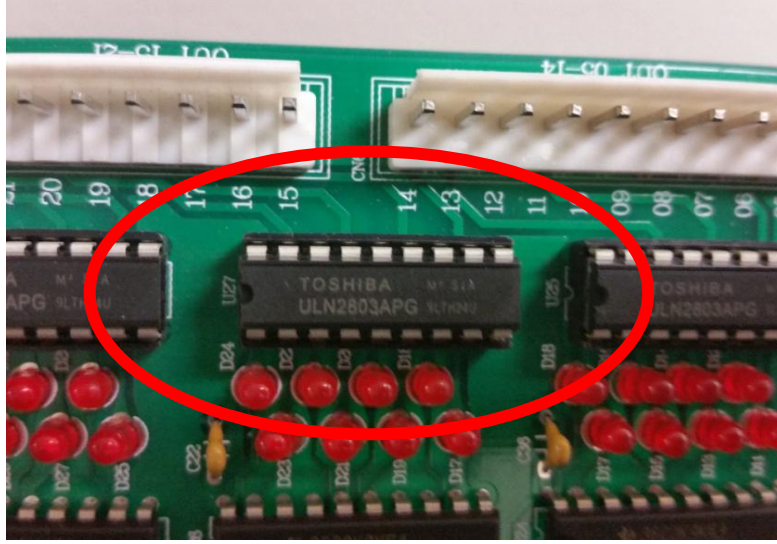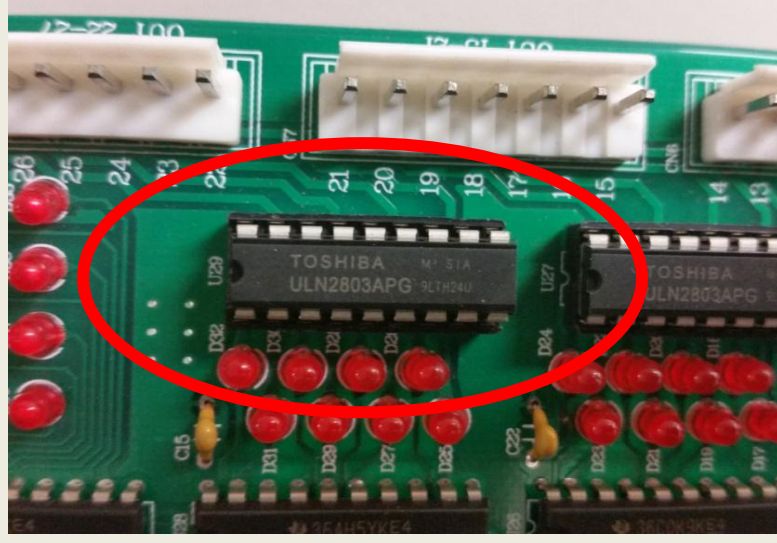
BLIZZARD BLAST - MAIN BOARD INPUT IC (74HC245N) CHART

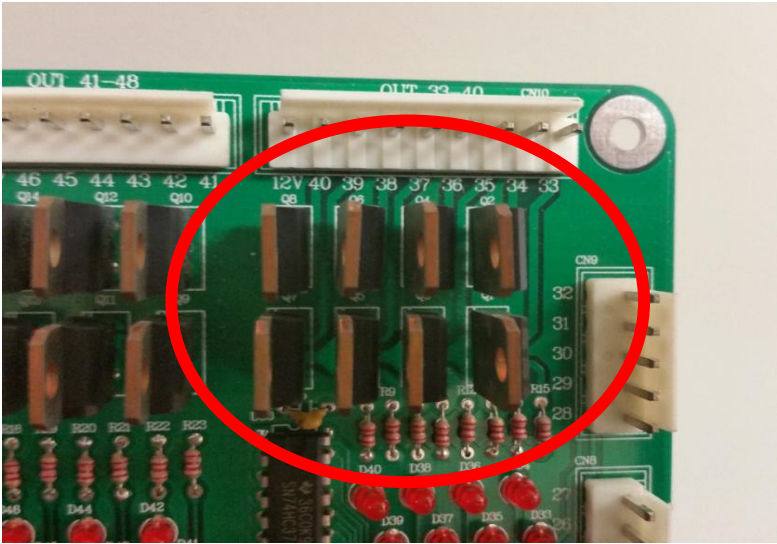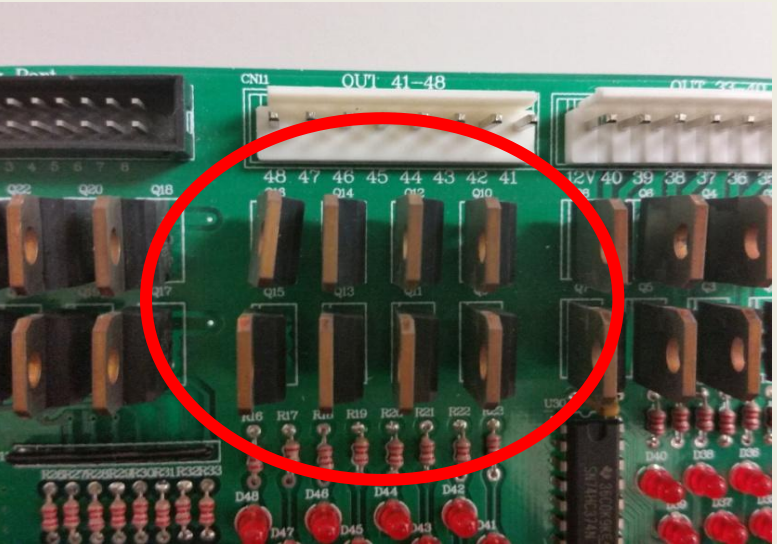| IC	INPUT #	CONTENT	PICTURE
U12	33		
	34		
	35		
	36		
	37		
	38		
	39		
	40		

The Blizzard Blast input/output board utilizes 5 input IC's to control all inputs used within the game. In Blizzard Blast, only TWO of the FIVE IC's are used. You may use the THREE spare input IC's in U09, U11, & U12 on the board in order to replace the other input IC's should one become corrupt.

MAIN BOARD OUTPUTS

BLIZZARD BLAST - MAIN BOARD IC (ULN2803) OUTPUT CHART

IC	OUTPUT #	CONTENT	PICTURE
U23	1	U23 IS NOT UTLIZED IN BLIZZARD BLAST. THIS SPARE IC CAN BE USED IN U27 OR 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 BLIZZARD BLAST. THIS SPARE IC CAN BE USED IN U27 OR 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	CLUTCH DRIVE # 1	
U27	18		
U27	19	CLUTCH DRIVE # 2	
U27	20		
U27	21		
U27	22	RED LED FAN LIGHTS	
U27	23	GREEN LED FAN LIGHTS	
U27	24	BLUE LED FAN LIGHTS	
U29	25	FAN DRIVE LIGHTS 1	
U29	26	FAN DRIVE LIGHTS 2	
U29	27	FAN DRIVE LIGHTS 3	
U29	28	FAN DRIVE LIGHTS 4	
U29	29		
U29	30	AMPLIFIER	
U29	31	RED BLIZZARD BUTTON LIGHT	
U29	32	BLUE BLIZZARD BUTTON LIGHT	

BLIZZARD BLAST - MAIN BOARD IC (ULN2803) OUTPUT CHART

IC	OUTPUT #	CONTENT	PICTURE
Q1-Q8	33	COIN COUNTER	
	34	TICKET COUNTER	
	35	TICKET DRIVE # 1	
	36	TICKET DRIVE # 2	
	37	COIN LOCK	
	38	SINGLE PLAYER SENSOR	
	39	DOUBLE PLAYER SENSOR	
	40		
Q9 - Q16	41		
	42		
	43		
	44		
	45		
	46		
	47		
	48		

Out41-48   Out 33-40
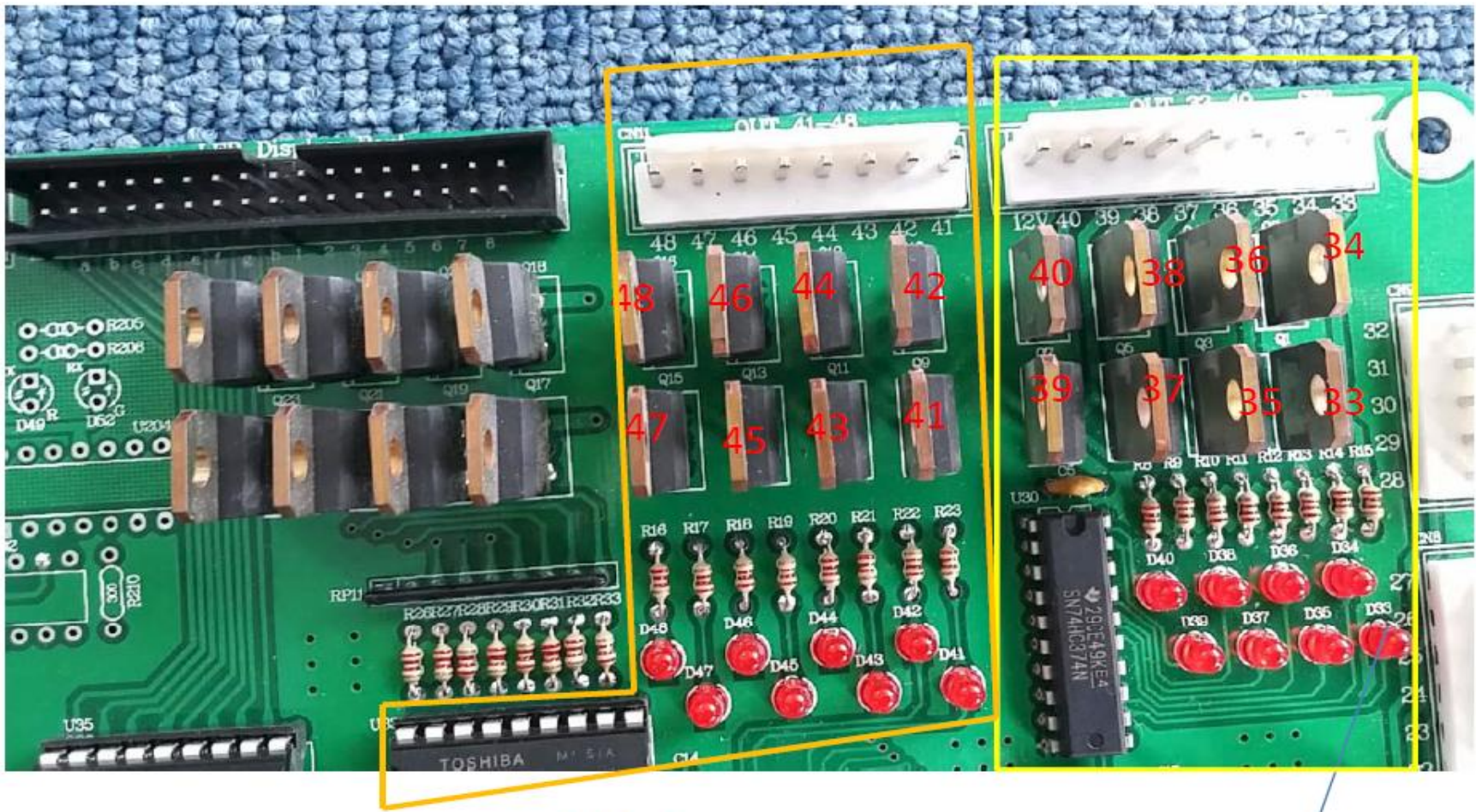
Indicate Led:41-48

Indicate Led:33-40