
400 1000
BALL SCORE 8 420
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WARNINGS

Read this manual thoroughly before assembling your game. Failure to follow the instructions could cause damage to your game and void your warranty. In addition, the manual explains the game in detail and the options you have so that you and your players can enjoy the game to its fullest.

A. The power cord must be plugged into a grounded, three-prong outlet. Failure to do so could cause permanent injury or game damage.

B. This game is suitable for indoor use only. The game should not be installed outdoors or in areas directly exposed to sunlight, high humidity, direct water contact, dust, high heat or extreme cold. Installation in any such environment shall void the warranty.

C. Replacement of fuses, lamps and any other servicing on the product should be conducted by trained personnel.

D. When removing channel covers, remove key immediately after unlocking to prevent damage to the runway carpet when placing the channel cover on the alley.

SPECIFICATIONS

BASIC ALLEY

	10FT	13FT
Height	81”	81”
Width	29 1/2”	29 1/2”
Length	120”	154”
Weight	615 lbs. Uncrated	680 lbs. Uncrated
	630 lbs. Crated	730 lbs. Crated
Power Maximum:	115 VAC, 3.0 AMPS	115 VAC, 3.0 AMPS
	345 WATTS	345 WATTS
Average:	115 VAC, 1.0 AMPS	115 VAC, 1.0 AMPS
	115 WATTS	115 WATTS

JACKPOT SIGN ADD-ON

Total Height	81”	81”
Jackpot Power Maximum:	115 VAC, 3.0 AMPS	115 VAC, 3.0 AMPS
	345 WATTS	345 WATTS
Idle Average:	115 VAC, 2.25 AMPS	115 VAC, 2.25 AMPS
	115 WATTS	115 WATTS

ALLEY LED ADD-ON

LED Power Maximum:	115 VAC, 0.4 AMPS	115 VAC, 0.4 AMPS
	45 WATTS	45 WATTS
Average:	115 VAC, 0.25 AMPS	115 VAC, 0.25 AMPS
	24 WATTS	24 WATTS

TOOLS REQUIRED

5/32” Hex Drive Bit	Bolt the Nets to the Back Cabinet
5/16” Allen Wrench (provided)	Attach Alley to the Back Cabinet

ASSEMBLY INSTRUCTIONS

PRE-ASSEMBLY

Remove all parts from the shipping boxes and inspect for any possible damage during handling. Use the list on the specifications page to inventory the items. If any part(s) are missing, call your salesperson immediately. If shipping damage is noted, call the trucking company making the delivery.

Part Number	QTY	Description
- 990224-1	1	Manual, Skee-ball 2010
- 801850-4	1	5/16 x 6in Hex Allen Wrench
- 212024-1	1	Cage, Left Side
- 212025-1	1	Cage, Right Side
- 212027-1	1	Cage, Top
- 800179-52	5	Ball, 3-1/8in, Brown, Plastic
- 801374-1	1	Cable, Linking, 9ft (in electronics area)
- 800109-2316	5	Key, 2316
- 212009-3	1	Decal, Ticket, Skee-Ball 2010
- 801122-9	8	Button Head Cap Screw, ¼-20 x ¾ Black

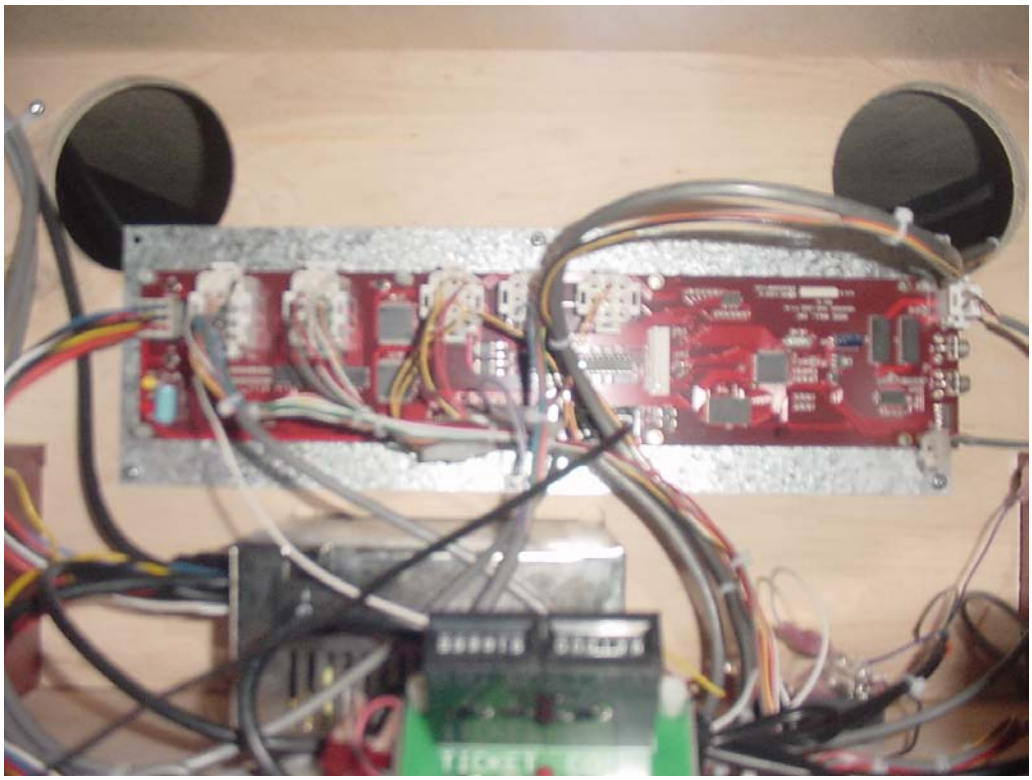
ASSEMBLY

1. Attach nets to the back cabinet using hardware provided and the 5/32 hex drive bit.

2. Move Alley nearly into position and connect cables.

3. Move Alley tight against Back Cabinet and fasten using the 5/16 Allen Wrench provided.

4. Connect the linking cables. Insert cable into one of the two ‘phone jacks’. On two side-by-side games, to create a ‘daisy chain’. Routing cable through the large holes in the rear of the electronics area or the Alley. If a Jackpot Sign is being used, connect it to the game on one end.



5. Power up games and check that programming options as desired. (See programming Options pages 25 thru 30)

FUNCTIONAL DESCRIPTION

MAJOR GAME COMPONENTS

Back Cabinet Assembly

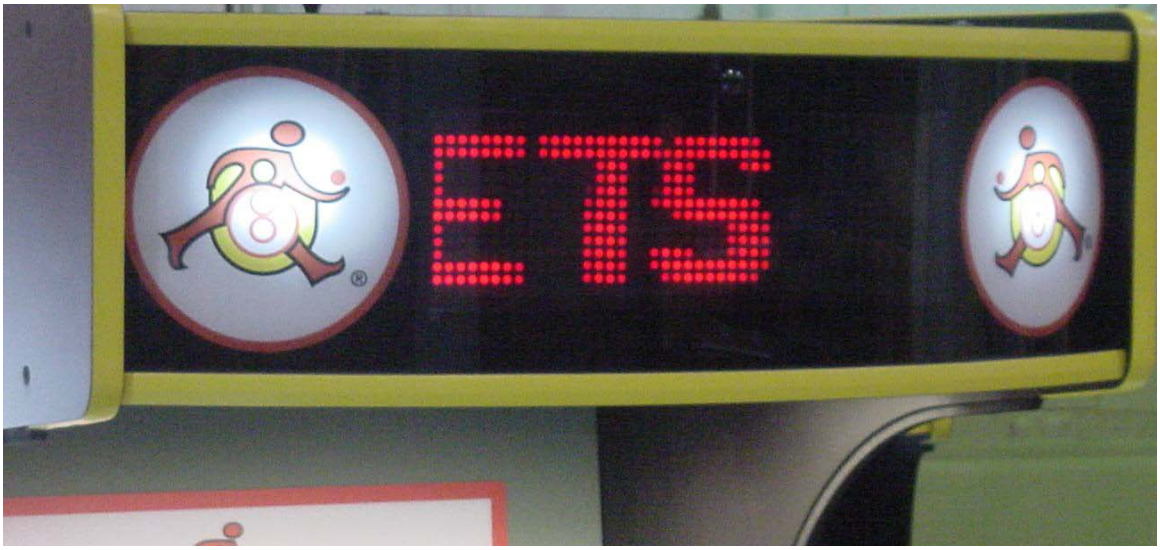
This portion of the game houses the score display panel and target board assembly.

Runway Assembly (Alley)

This assembly houses the ball release assembly, coin mech., ticket dispenser, ball count sensor, ball release sensor, ticket counter, coin counter and prog/aux switches, and all control electronics.

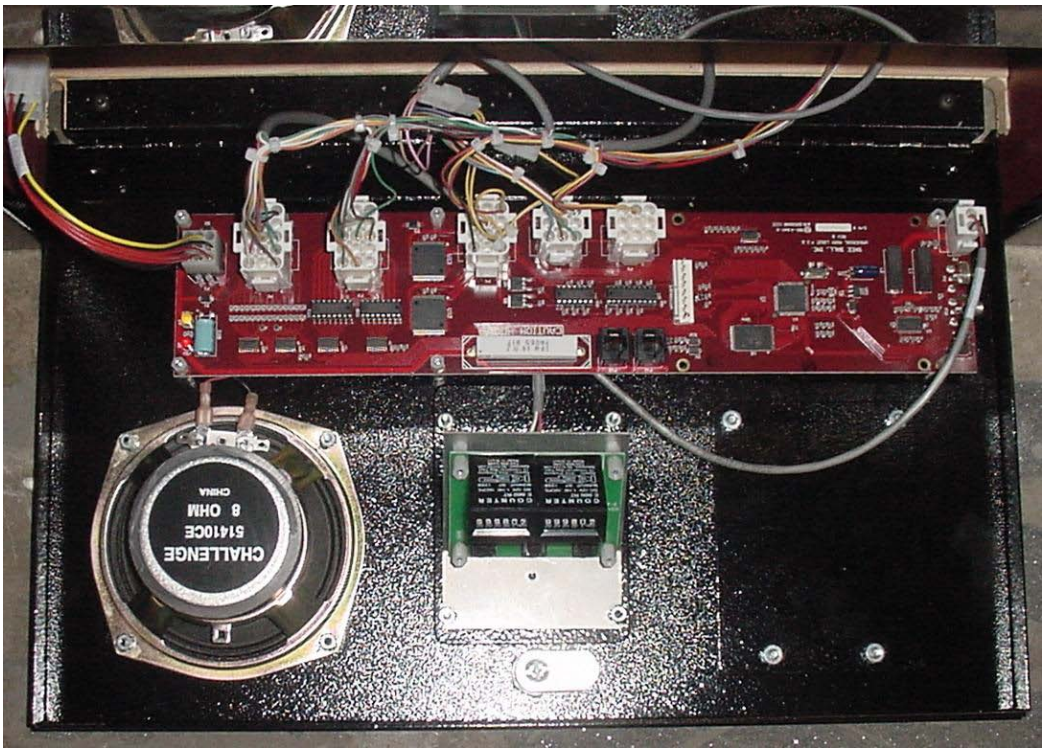
Scoreboard Display Cover

Located in front of the score panel. It is easily removable by bowing slightly and pulling on the knob at the top center to gain access to the light bulbs, and display board.

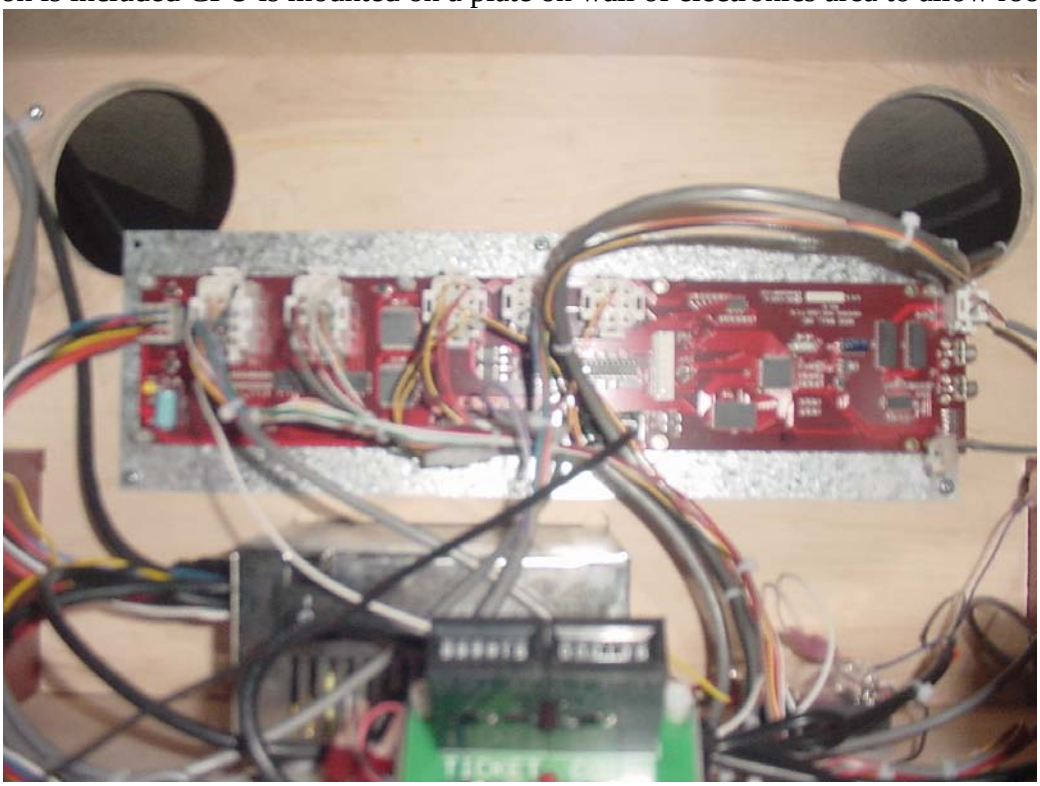


Controller Assembly

This assembly is located in the electronics area below the runway at the front of the game. The CPU is on one printed circuit board and is referred to as the Universal Controller (P/N 632065-10), normally mounted on door.

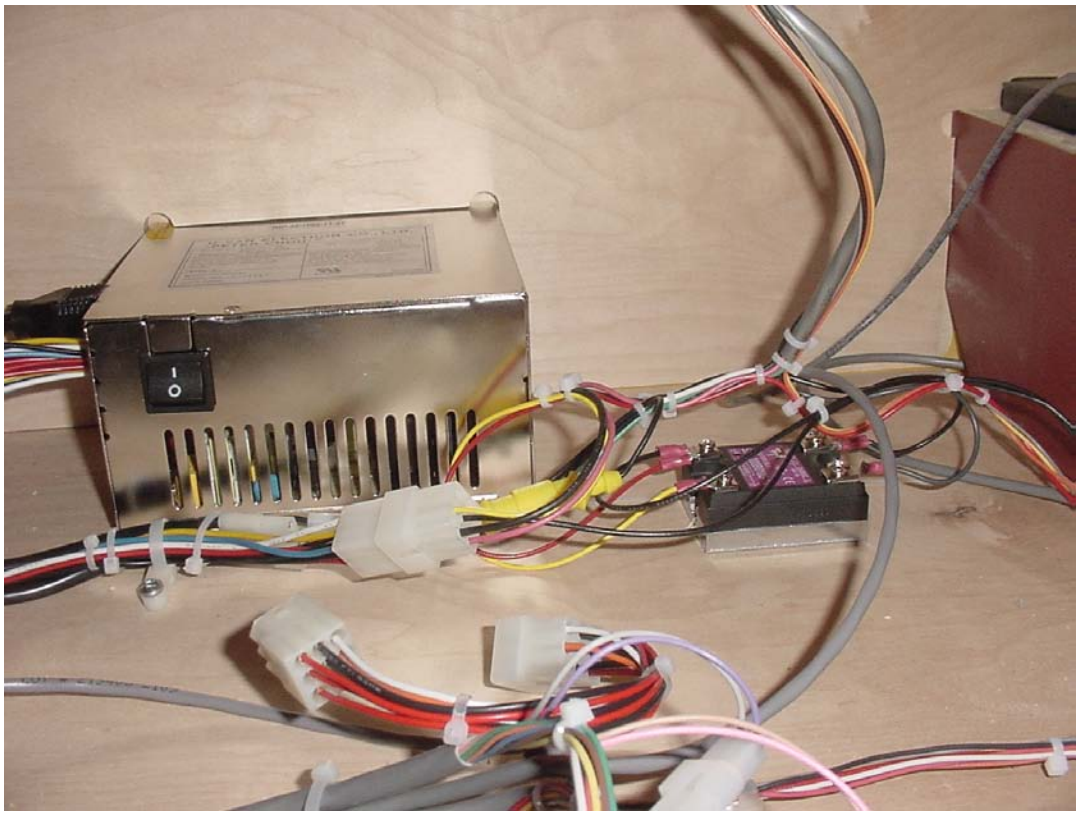


When DBA option is included CPU is mounted on a plate on wall of electronics area to allow room for DBA.



Power Supply and Solenoid Relay

The Power Supply (P/N 800758-1) and the Solenoid Relay (P/N 801716-1) are located in the electronics area, below the runway at the front of the game.

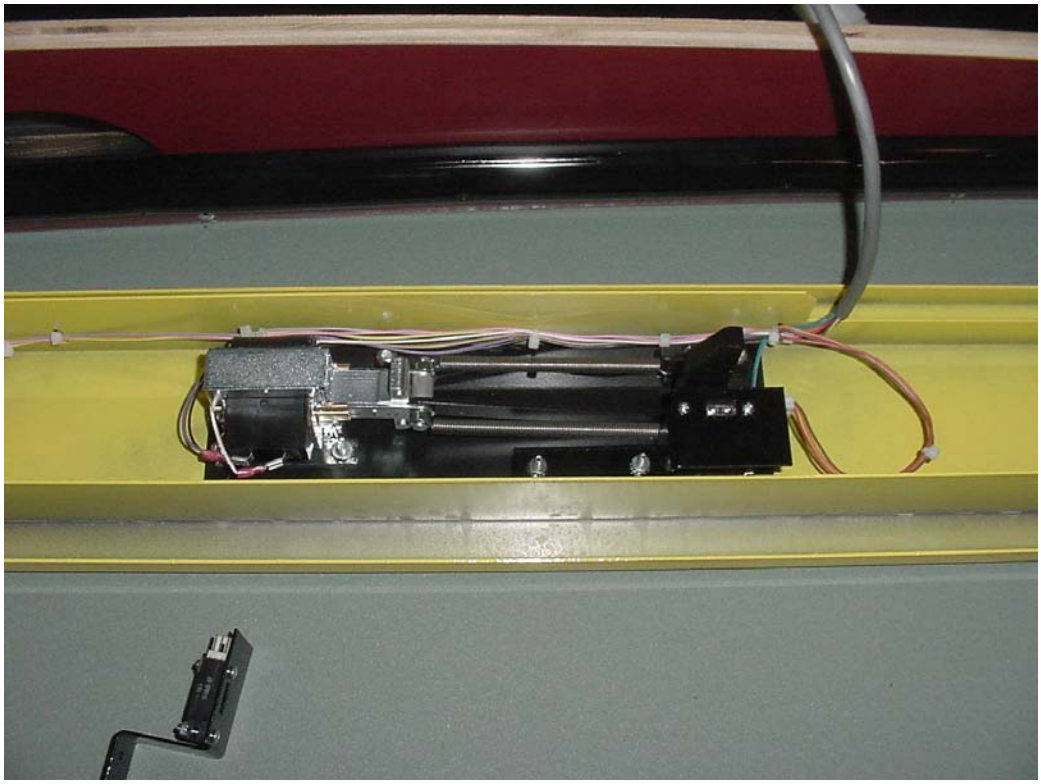


Opto-Sensors

Used at all pockets on target board, they are Omron Opto-interrupters (P/N 800773-3). They are located on a rail and two small brackets, on the underside of the target board. This part is also used for the ball count and ball release functions.

Single Ball Release Assembly

Located on underside of the right side channel cover. It has a solenoid connected via linkage to a release arm. Upon start of the game the solenoid engages and allows the balls to roll down to the player. The Ball Release Sensor, which is mounted in front of this assembly, counts the balls as they are being released. After counting the appropriate amount of balls, the solenoid disengages and is able to prevent any more balls from being released due to the pressure applied by the springs. Example: The game is typically set for 9 balls per play but you may only have 1 ball loaded into the game. In this case, solenoid will engage to allow the ball to pass until the sensor detects the 9 balls and will then immediately disengage.

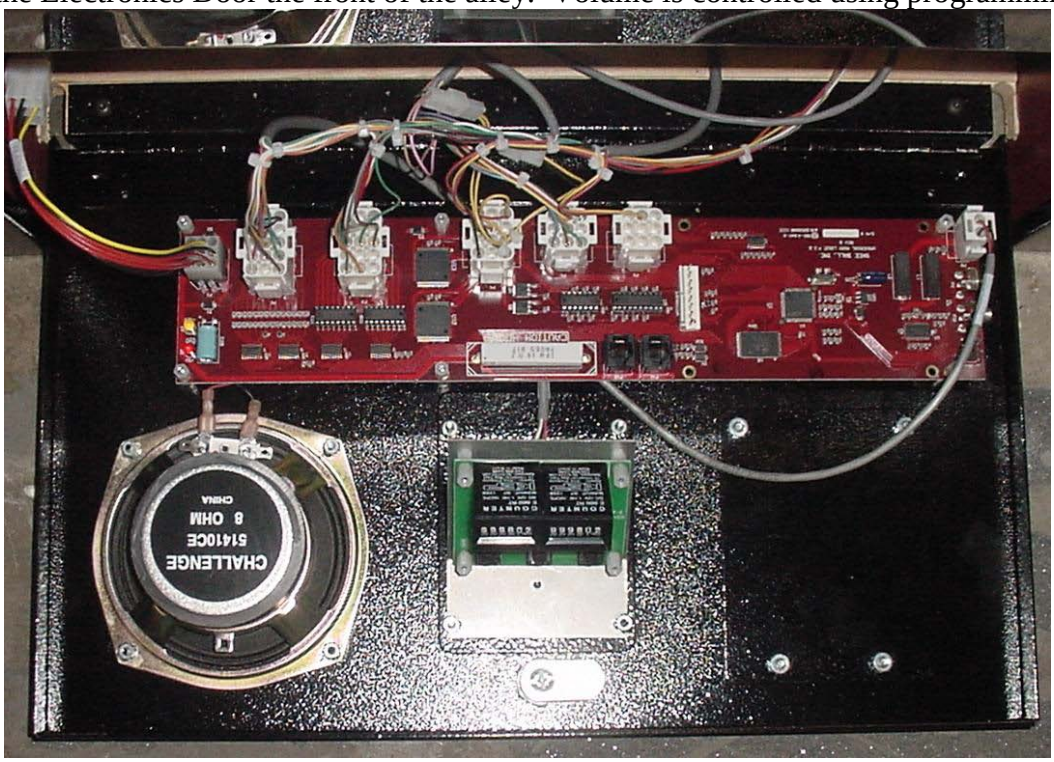


Ball Count Sensor

Located in the right side ball return channel and mounted to the rear end of the alley right side Channel Cover. It counts balls that are played. The main function is to count balls that do not enter a pocket and it decides the game end when the total number of balls is returned.

Speaker

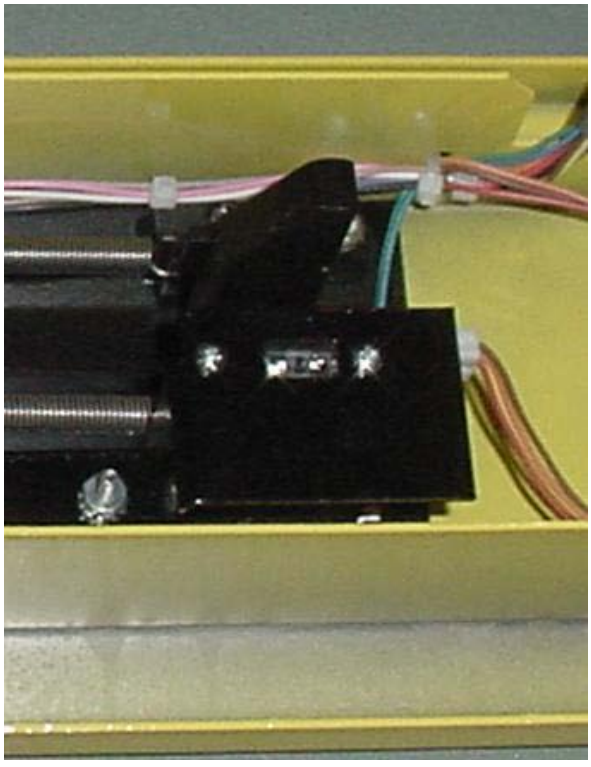
Located inside the Electronics Door the front of the alley. Volume is controlled using programming option #2.



Target Board Protective Net (Cages) - There are 3 different panels fabricated out of hard PVC frame and metal mesh. These are fastened to the back cabinet assembly to protect the Target Board from players trying to cheat by throwing balls directly into the targets and to reduce the possibility of the ball going astray.

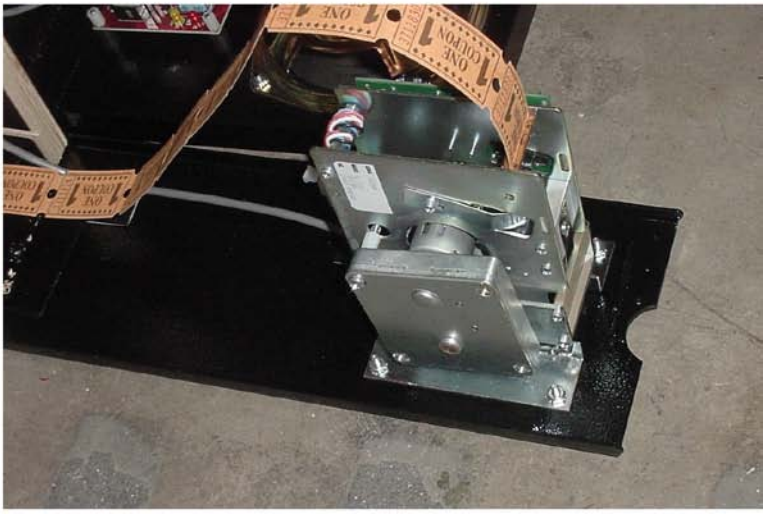
Ball Release Sensor

Located on a bracket in front of the Ball Release assembly. This sensor counts the number of balls that have been released to the player.



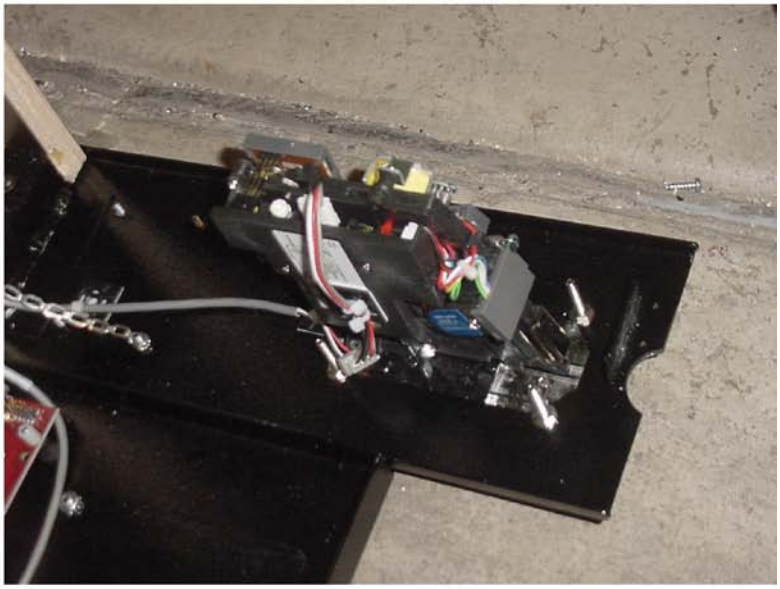
Ticket Dispenser

Located in the left front portion of the alley behind Ticket Door. This device dispenses tickets to the player.



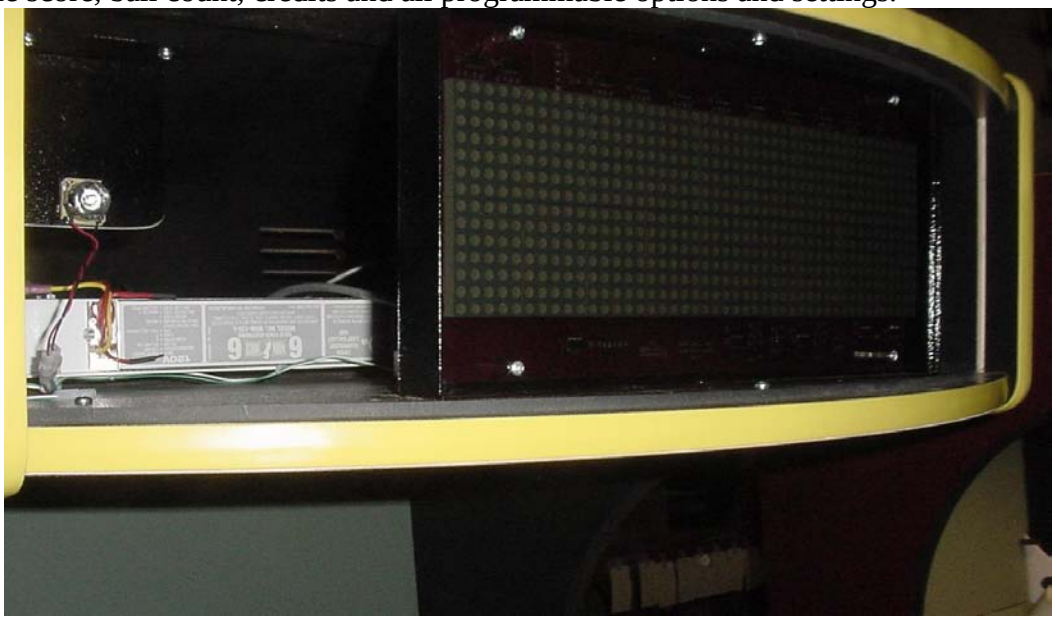
Coin Mech / Cash Box

Located in the right front portion of the alley inside the Coin Door. This unit collects coins/tokens and contains the cash box.



Display

Located behind the display panel. This display is referred to as 14x45 Tricolor Display (P/N 632084-1). This LED display shows the score, ball count, credits and all programmable options and settings.



DBA (Optional)

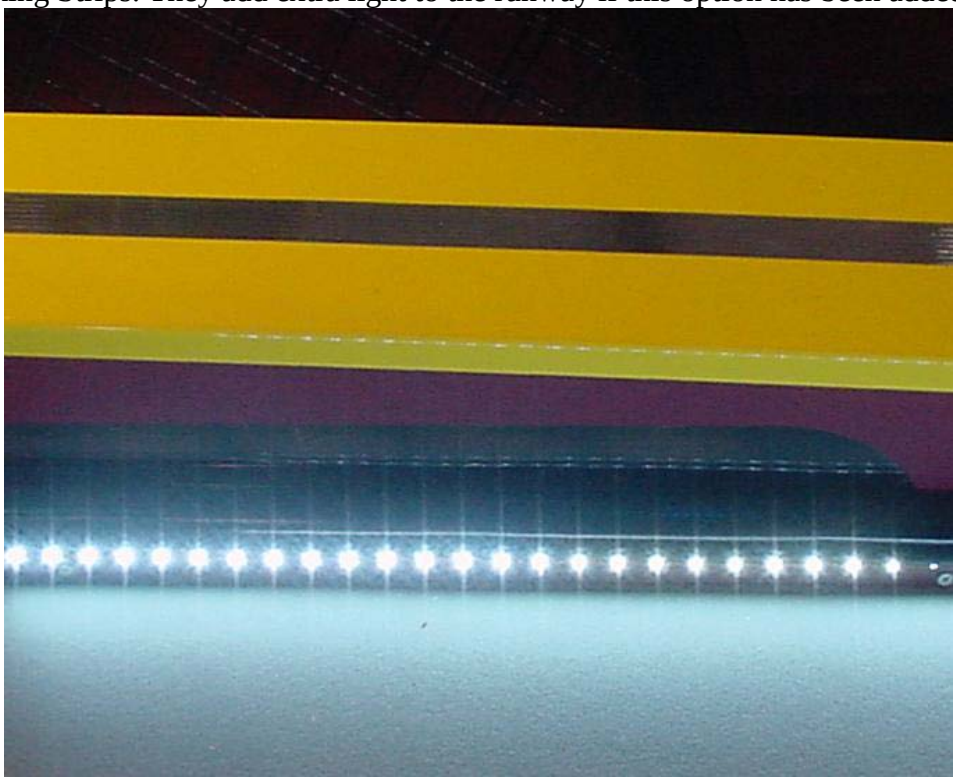
An optional Dollar Bill Acceptor maybe located on the right side of the electronics area door.

PROGRAM/COUNTER PCB:

Located in the electronics area below the runway at the front of the game. Is used to programs all game options, and counts tickets and coins.

RUNWAY LED OPTION:

Located under Banking Strips. They add extra light to the runway if this option has been added.



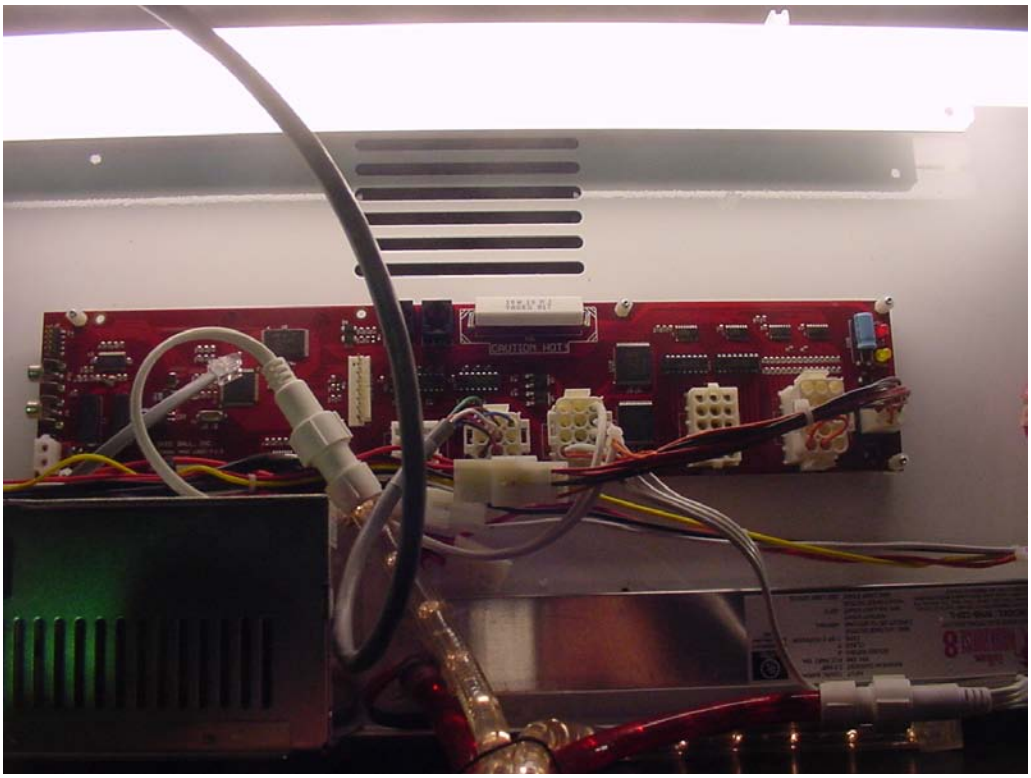
BALANCE BUTTON:

Located under right front channel cover. Press to release balls to balance without coining up game.

MAJOR JACKPOT SIGN COMPONENTS

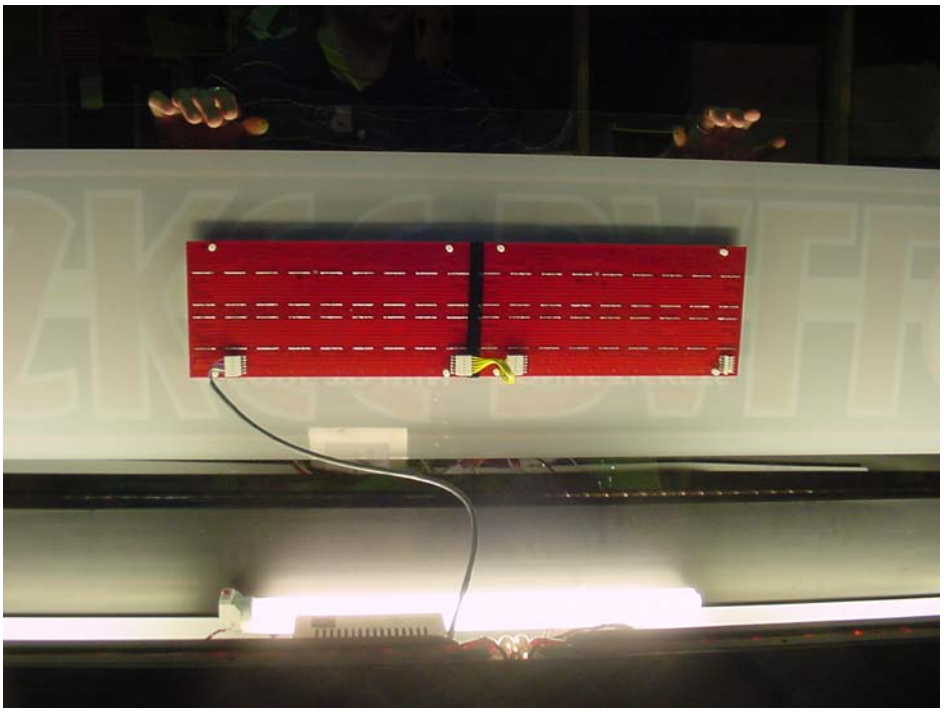
Jackpot Controller Assembly

This assembly is located inside the Jackpot Sign, directly behind the display. It is attached to a plate mounted in the rear. The CPU is on one printed circuit board and is referred to as the Universal Controller (P/N 632065-10). The Power Supply (P/N 800758-1) and three fluorescent light fixtures. **Note: power supply can be turned on/off in two locations. Always use switch to the back the display, not the internal one. To prevent having to reopen display to control supply as desired.**



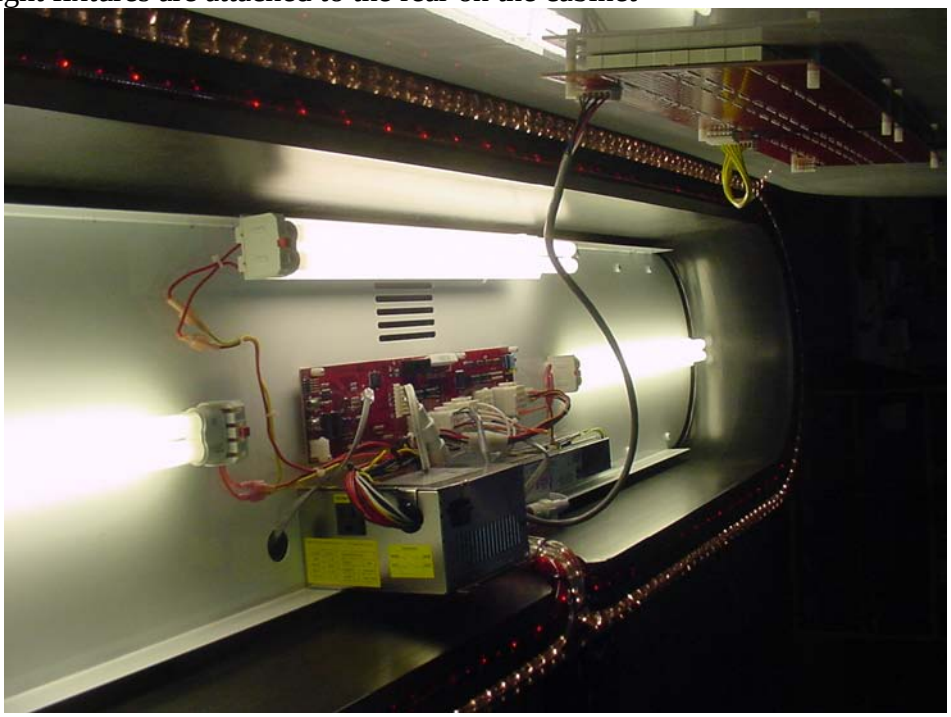
Displays

Attached to the rear of the display panel. This display is referred to as 14x45 Tricolor Display (P/N 632084-1). These LED displays show the overall score, jackpot value, scrolling messages and all programmable options and settings.



Fluorescent Lights:

Three Fluorescent light fixtures are attached to the rear on the cabinet



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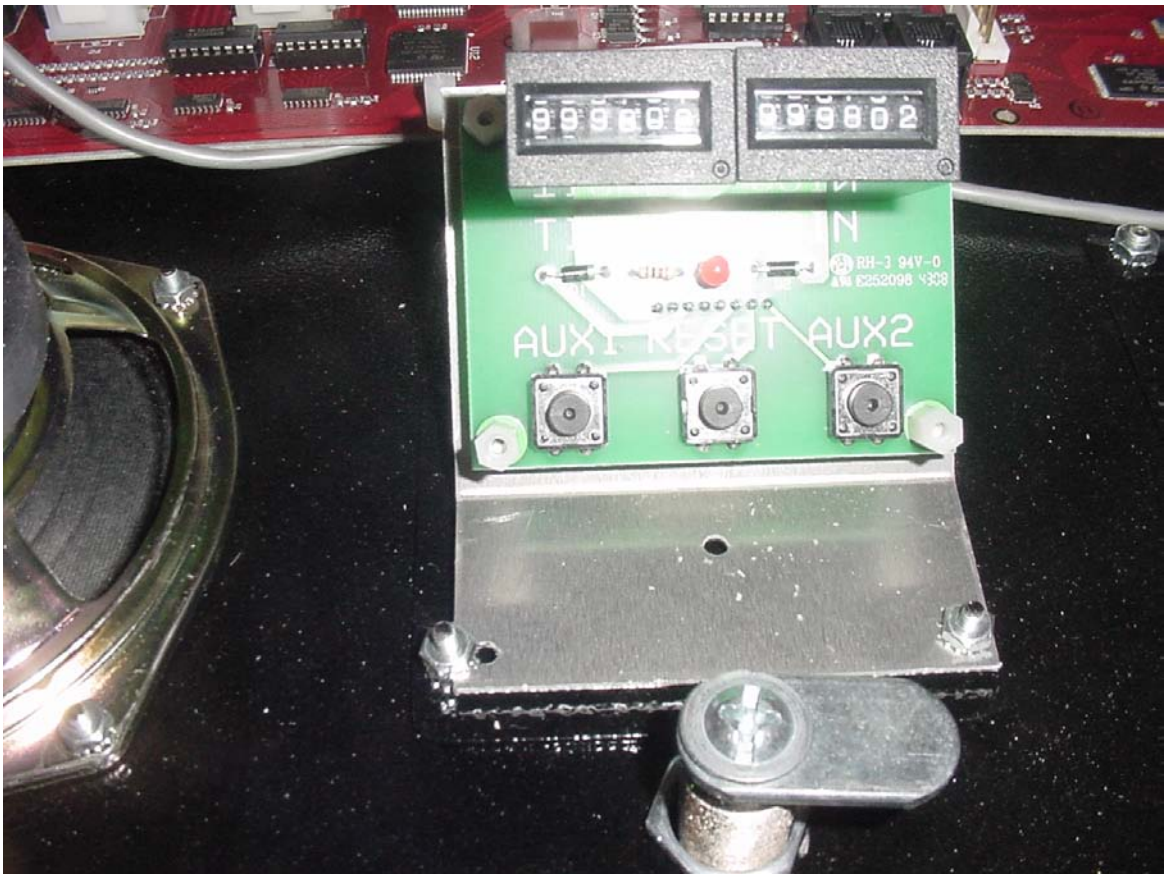
Rope Light:

Used to accent sign, two strands run around along the outside edge of the sign.

PROGRAMMING OVERVIEW

The programming mode is entered and exited by pushing the **"RESET"** button on the prog/counter pcb located on the inside of the electronics area, under the front of the alley, on the door.



NOTE: PROGRAMMING INFORMATION WILL BE SHOWN ON THE DISPLAY PANEL OF THE GAME.

To **VIEW** the various game options, use the **AUX 1** button on the counter / control panel of the game.

To **CHANGE** the **VALUE** or **PARAMETER** of an option, use the **AUX 2** button on the counter / control panel.

To **EXIT** and **SAVE** the option settings, press the **RESET** button once again on the counter / control panel.

NOTES FOR INITIAL LINK SET UP...

Link the games together as described in the game unit id section below.

Once the games are linked together, all games will program together.

From then on, setting one game will set them all. Any game can be used to program the games or jackpot sign.

Games must be linked together with the supplied link cables to work together.

Up to 12 games plus a jackpot sign can be linked together.
Jackpot Sign is default id #13

GAME OPTIONS PROGRAMMING

GAME UNIT ID

This option is used to **LINK** the games together when multiple games are used.

For initial set up, put each game into the programming mode and advance each game **SEPARATELY** to the **GAME UNIT ID** option.

NOTE: FOR LINKED GAMES, IF THE GAMES ARE NOT CONNECTED TOGETHER NOW, CONNECT THEM TOGETHER WITH THE SUPPLIED LINKING CABLES.

Change the option value from **"NOT LINKED" to "1"**. Then each game should be set to a different game ID by hitting the **"AUX2"** button on the control panel. The games will usually pick the new unused ID automatically.

Exit the programming mode to save the game ID's then re-enter programming to continue setting game options.

NOTE: FROM THEN ON, SETTING ONE GAME WILL SET THEM ALL. ANY GAME CAN BE USED TO PROGRAM THE GAMES OR OPTIONAL JACKPOT SIGN.

IMPORTANT: AFTER PROGRAMMING WITH ONE OF THE GAMES, SCROLL THROUGH ALL PROGRAMMING OPTIONS TO BE SURE THAT ALL GAMES ARE PROGRAMMED PROPERLY BEFORE EXITING PROGAMMING.

VOLUME

The game volume is adjusted by changing the numbers from **1-10**. The larger the number, the higher the volume. The default value for this option is **(7)**.

BACKGROUND THEME (MUSIC)

Setting a **"1"** turns the theme on. Setting a **"2"** turns it off. The default value for this option is **"1"** (on).

TO PLAY (MONEY)

This option is used to set what the player sees when they walk up to the game as far as inserting money is concerned. Controls the wording of the messages, based on what you set. The options for this are as follows:

COINS
TOKENS
SWIPE CARD
INSERT CARD
INSERT BILL

NOTE: IF YOU CHOOSE ANY OF THE CREDIT OPTIONS, THE DISPLAY WILL TELL YOU HOW MUCH MONEY TO INSERT TO PLAY A GAME. EXAMPLE: IF YOU SET "1 CREDIT = .25, AND YOU HAVE THE GAME SET TO PLAY FOR 2 CREDITS, THE GAME WILL SAY, "INSERT .50 TO PLAY".

The default value for this option is **(COINS).**

COIN 1 VALUE IN CREDITS

This option is used to determine how many coins are needed to earn **1** credit. This input is used for the lowest denomination of coin the game will use. For example, if a credit were worth **5** coins, you would set this option to **5** meaning for every **5** coins inserted, **1** credit would be earned. Normally, a quarter or token would be used for this option, so this option would be set to 1.The range for this option is **1-20**. The default value for this option is "**1**".

COIN 2 VALUE IN CREDITS

This option is used as a multiplier for coin **input #1**. Example: If you were using a coin valued at **.25** in the **#1 coin mech** and were using a coin valued at **.25** in coin **input #2**, you would set the value at **"1"**. If you were using a coin valued at **1.00** in coin **input #2**, you would set the value a **"4" (coin value at 4 times that of coin input #1)**. This option makes it easy to use a different value coins in the same game or set up a bill accepter that has only a single pulse output. The range for this option is 1-10.The default value for this option is **"1".**

COST PER PLAY IN CREDITS

This option is used to determine how many credits are needed to buy or start a game. Setting a **"0"** puts the game into **FREE PLAY** mode. The range for this option is **0-4**. The default value for this option is **"1"**.

DISCOUNT IN CREDITS

This option is used to give the player a free game for every **XX** credits they buy at once. This range for this option **is 0-40**. Example: If the option is set to **"2"**, then for every **2** credits bought (at the same time) another game will be given for free. If the game were set to **"4",** then for every **4** credits bought (at the same time) another game will be given for free. The default for this option is **"0" (OFF)**.

INITAL TICKET THRESHOLD

This option determines how many points must be scored before the first ticket will be dispensed. The option for this range is **0-950**.The default value for this option is **"150".**

TICKET SPAN POINTS

This option determines the intervals that tickets will be issued. For example, if the INITIAL TICKET THRESHOLD is set for 150 and the ticket span is set to 30, the first ticket is issued at 150 and the next one

would be issued at 180, then 210, and every 30 points thereafter. The range for this option is **NONE-300**. The default value for this option is "**30**"

TICKET SPAN AMOUNT

This option is used to determine the amount of tickets paid for the INITIAL TICKET THRESHOLD and TICKET SPAN settings. The range for this option is **0-100**. The default value for this option is "**0**" (off).

TICKET MINIMUM

This option determines the **MINIMUM** amount of tickets a player will receive regardless of how many points they have scored or how other ticket options in the game might be set. The range for this option is **NONE-1-10**. Setting **NONE** turns this option off. The default value for this option is **"1"**.

TICKET MAXIMUM

This option determined the **MAXIMUM** amount of tickets the game will pay out for normal game play regardless of other ticket settings. The range for this option is **NONE-1-99**. Setting **NONE** turns this option off. The default value for this option is **"99"**.

NOTE: THIS OPTION DOES NOT AFFECT THE MAXIMUM TICKET PAYOUT FOR WINNING A JACKPOT WHEN A JACKPOT SIGN IS USED. THE MAXIMUM PAYOUT FOR THE SIGN IS SET SEPARATELY.

TICKET ALARM

This option sets two different game parameters. If the ticket alarm is set to **YES**, then whenever the game is out of tickets, the out of ticket alarm will sound for **5** seconds at the conclusion of each game. Also when this option is set to **YES**, the **JACKPOT ALARM** (if Jackpot Sign installed) will sound while paying out tickets **OR** waiting for an attendant to pay out tickets.

When set to **NO**, all visual prompts and functions will remain the same except that no audible alarm will be heard. The range for this option is **YES/NO**. The default value for this option is **YES**.

TICKET VALUE

This option is used to convert the value of tickets. If your ticket is worth **2,3,4, or more**, change the number to the proper setting. The range of this option is **1-10**. The default value for this option is **"1"**.

BALLS PER GAME

This sets the amount of balls per game. The range for this option is option for this is **1-12**. The default value for this option is **"9"**.

EXTRA BALL POINTS

This option allows the operator to give the players extra balls if XX points are achieved during a game. This option is used in conjunction with the EXTRA BALLS QUANTITY option below. The range for this option is **0-900**. The default value for this option is **"0"** (Off).

EXTRA BALL QUANTITY

If the EXTRA BALL option above is active, set this option to determine how many extra balls will be given. The range for this option is **1-10**. The default value for this option is **"3"**.

BONUS POCKET MULTIPLIER

This option is used to DOUBLE the value of the **100 point bonus pocket to 200** for consecutive 100 point scores. The value of the pocket will remain at 200 as long as the player keeps hitting the pocket on consecutive throws. Any miss, resets the 100 point pocket back to 100 points. The range for this option is **OFF/ON**. The default value for this option is **"OFF"**

FREE GAME MODE

This option determines how free games will be given. There are three modes available:

OFF - No free games will be given,

BASE POINTS - Any time the base point requirement is met, a free game will be given. (See FREE GAME POINTS NEEDED)

HIGH SCORE OVERRIDE - In this mode, a free game will be given whenever the high score of the game is broken.

FREE GAME POINTS NEEDED

This mode is used to set the amount of base points needed to win a free game. The range for this option is **00-1500**. Setting **"00"** turns the option off. The default value for this option is **"00"**. (OFF)

ATTRACT MODE SOUND

This option has a range of **0-30 MINUTES**. Setting a **"0"** turns the attract mode sound off. Setting any other number will make the attract mode play at the set interval. The default value for this option is **"2"**.

HIGH SCORE

This option can be set one of 3 different ways:

RESET EVERY 99 GAMES - In this mode, the game will reset to the **MINIMUM HIGH SCORE** value every **99** games regardless of whether or not the game has been shut off.

DOES NOT RESET (NO) - In this mode the **HIGH SCORE** will never reset to the **MINIMUM HIGH SCORE value**.

RESET EVERY POWER UP - In this mode, the game will reset to the **MINIMUM HIGH SCORE** value every time the game is shut down and powered back up.

Default value**" RESET EVERY POWER UP"**

HIGH SCORE BASE VALUE

This option determines what the **MINIMUM HIGH SCORE** displayed on the game will be. The range for this option is **200-500**. The default value for this option is **"360"**.

GAME ABANDON TIMER

The game abandon timer is set up so that if a player walks away for a pre-determined length of time, the game will re-set and be ready for a new game. **ONCE THE GAME RESETS, NO TICKETS FOR THE CANCELLED GAME WILL BE PAID OUT**. The range for this option is **75-360 (seconds)**. The default value for this option is **120** (seconds).

LOST / UNPLAYED BALL TIMEOUT

This option is used in case a ball is lost or not thrown soon enough. If a ball is not played within the allotted time, the ball counter will advance. The time (in seconds) for this option is **0-60**. Setting a **"0"** turns this option off. The default value for this option is **"60"**.

JACKPOT SIGN OPTIONS

IMPORTANT: ALL OF THE FOLLOWING OPTIONS ENTITLED "JACKPOT SIGN....." REFER ONLY TO GAMES WITH A JACKPOT SIGN INSTALLED

JACKPOT SIGN MODE

This option has two settings available:

OFF - In this mode all **SIGN** features are turned off.

BASE POINTS - In this mode, every time a player reaches this amount of points, the **SIGN** will payout the amount of tickets indicated. (See **SIGN POINTS TO WIN** option for base setting).

JACKPOT SIGN HIGH SCORE OVERRIDE

In this mode, the **JACKPOT SIGN** will payout tickets based on the high score that the SIGN shows Each time the player breaks the score indicated, the score he breaks it by now becomes the new score to beat. This number will get larger and larger as time goes on.

JACKPOT SIGN POINTS TO WIN

This is the **BASE** number that is set to win the BONUS. The range for this option is **10-3000**. The default value for this option is **"500"**.

JACKPOT SIGN TICKET ADVANCE

This option is used to add tickets to the base Ticket Value of the **JACKPOT SIGN**. (See **SIGN BASE TICKET PAYOUT** option). In this option setting a **"1"** would mean that each time a game is played and a player does NOT win, the **SIGN VALUE** would go up by **1** ticket.

EXAMPLE: Setting a **"3"** would mean that each time **3** games are played and not won, the **SIGN VALUE** would go up by **1** ticket.

The range for this option is **NONE-1-10**. The default value for this option is **"1"**.

JACKPOT SIGN PLAYER HELPER

This option is used to help players that are not as skilled as others or for use when the **SIGN POINTS TO WIN** has become too high for normal players to win. With this option enabled, the points to win the Jackpot Tickets will lower by **10** every **XX** games. The value will eventually drop as low as **20** if necessary, but will return to the **SIGN POINTS TO WIN** number after a player wins with the lower amount.

JACKPOT SIGN BASE TICKET PAYOUT

This option sets the minimum amount of tickets that will be won if the player matches or breaks the SIGN points to win. The range for this option is **10-5000**. The default value for this option is **"100"**.

JACKPOT SIGN TICKET MAXIMUM

This option is used to set the MAXIMUM amount of tickets a player can win regardless of the other **SIGN** settings. The range for this option is **25-9999**. The default value for this option is **"9999"**.

JACKPOT SIGN PAYOUT

This option is used to determine **HOW** the **SIGN TICKETS** are paid out to the player. There are 3 different ways to dispense the SIGN Tickets.

DISPENSE - In this mode, the tickets are dispensed as soon as the player wins the bonus. **ALSO,** additional games can be played while tickets are being dispensed from the game.

BY ATTENDANT - In this mode, the game that wins will lock up and no tickets are paid out. The **SIGN ALARM** will sound (if enabled) and the attendant must manually payout tickets or a voucher to the player. The attendant must then **RESET** the game by opening the front door of the game and pressing the **AUX2** button on the counter panel.

WAIT FOR DISPENSE - In this mode, the game will pay out tickets but will not allow additional games to be played on the winning game until all tickets have been dispensed.

NOTE: The default value for this option is DISPENSE.

MIDWAY WIN LIGHT

Setting this option to a value will turn a light on when a specific point threshold is reached. The value for this option is **0-900**. Setting a "**0**" turns this option off. The default value for this option is "**0**" (off)

MIDWAY WIN LIGHT TIMER

The values for this option are:

30 SECONDS
60 SECONDS
90 SECONDS
RESET BY OPERATOR
OFF

RESET DEFAULTS

This option has settings that you will use based on the configuration of your game. There is also a setting to use if you use tickets and a SIGN.

RESET WITHOUT SIGN- Use this option to reset Factory Defaults if you DO NOT have a SIGN installed

RESET WITH MARQEE - Use this option to reset Factory Defaults if you have a SIGN installed.

NOTE: FOR FURTHER INFORMATION ON USING THESE OPTIONS, PLEASE CONTACT OUR CUSTOMER SERVICE DEPARTMENT AT 215-997-8900.

GAME PLAY

After the proper number of coins have been inserted, the controller turns the Ball Release Solenoid ON, and the proper number of balls are released. The following conditions should exist:

a. Score is 000
b. Balls played is 0
c. WINNER and GAME OVER lights are OFF
d. COIN-UP tune will play

The alley is now ready to be played. If a ball is rolled and goes into the 50-point pocket, the score will increase by 50. Also, shortly after passing the ball count sensor, the controller will play a tune and the ball count display will increment by one. Each pocket has a unique tone. If, however, during the scoring time a winning score is achieved, the **WINNER SONG** is played instead of the pocket sound. This is also true if a **HIGH SCORE** is achieved. Each achievement has its own sound. If the ball does not go into any of the pockets (a gutter ball), a **GUTTER BALL** tune is played and the **BALLS PLAYED** are increased by one. When the last ball is played, the score will **FLASH** for approximately twenty (20) seconds. After the twenty (20) seconds delay, the machine will go into the **ATTRACT** mode.

TICKET DISPENSER

Basic Electronic Operation of Ticket Dispenser Model DL1275S:

When the control unit calls for a ticket to be issued, the motor in the dispenser is turned on. When a ticket is dispensed, the Opto beam breaker senses a notch in the ticket and sends back a signal to the control unit. At this time the ticket counter is incremented. If no more tickets are called for, the motor is turned off.

Basic Mechanical Operation of the Ticket Dispenser Model DL1275S:

Tickets are moved through the ticket chute by means of a power-driven roller, which is spring-loaded against an idler roller. The power-driven roller is mounted on the output shaft of the motor gear train assembly. The motor assembly is mounted to the pivot bracket assembly in the two Oilite bearings. The motor assembly has a limited free swing, limited by a single pin engaged in the brake sprag. The brake sprag engages the roller as an anti-theft device. With the free swing of the motor assembly, the direction of torque when the electric power is applied is in a direction so as to release the brake sprag. When an attempt is made to pull tickets from the machine with the power off, the torque is reversed and the brake sprag is engaged. In addition, the pulling of tickets will cause the pivot bracket assembly to apply a pressure to the power driven roller against the ticket and idler roller greater than the pre-set spring load. This will cause the course-knurled surface of the roller will then grip the tickets. One ounce of pull will apply 20 lbs. of pressure on the rollers.

Loading of Tickets:

Tickets are entered in the rear of ticket chute and pushed forward. The power driven roller will be spring-loaded against the idler roller and tickets will not pass until the rollers are clear of each other. This is accomplished by use of thumb and index finger, one placed on the block to which the spring is attached, the other on the pivot bracket assembly, then squeeze. Push the tickets through until you see the edge of the ticket. Align the notch in the center of the optic sensor.

Ticket Dispenser Controller Board:

Attached to the ticket machine is a transistor motor controller that provides dynamic braking to ensure accurate and repeatable ticket stopping after issuing any number of tickets. Included as part of the controller is ticket sensing by means of an opto beam breaker sensor. Also included is signal conditioning, which provides high electrical noise immunity. The output of the ticket sensing circuitry is the equivalent to a single pole double throw switch.

Roller Tension Spring:

The roller tension spring keeps constant tension on the tickets, which insures proper delivery and prevents tickets from being pulled through when the dispenser is idle. To increase tension, loosen screw and move spring forward. Tension is adjusted correctly when the tickets cannot be pulled from the dispenser.

Ticket Guide Spring:

The ticket guide spring insures that the notches in the tickets pass through the opto beam breaker sensor. To increase tension, loosen screw and move outer spring up. This changes the tension on the inner spring. Tickets should be snug between the spring and side plate, but not deformed by excess tension. This spring is adjusted at the factory for 1-3/16” wide tickets.

Ticket Stop Adjustment:

The ticket stop adjustment allows positioning of tickets while machine is off. The ticket should protrude through slot approximately 1/16”. The ticket dispenser PC board is mounted with two screws in two slotted holes. Loosening the screws and moving the board forward will allow the tickets to stop farther out beyond the edge of the slot.

Ticket Dispenser Replacement:

The ticket dispenser can be removed and replaced after unlocking and removing the channel cover over the dispenser. Lift out the ticket tray/dispenser assembly and disconnect the connector at the dispenser. Next, remove the 4 screws (2 large and 2 small) on the face of the dispenser assembly (near the ticket meter) and lift out the dispenser. Install the new dispenser in reverse order remembering to reconnect the connector.

Conditions which could cause "HELP" or "CALL":

1. Dispenser out of tickets.
2. Insufficient tension on roller tension spring.
3. Tickets stopping back too far in slot causing tickets to jam.
4. Ticket guide spring not guiding tickets.
5. Dirt on opto beam breaker.
6. Missing notches on tickets.
7. Defective dispenser controller board or motor.

Tickets are available through: **National Ticket Co.,** in **Shamokin, PA (800) 829-0829**. We have found these tickets to be of the best quality for use in Skee-Ball machines.

GENERAL TROUBLESHOOTING

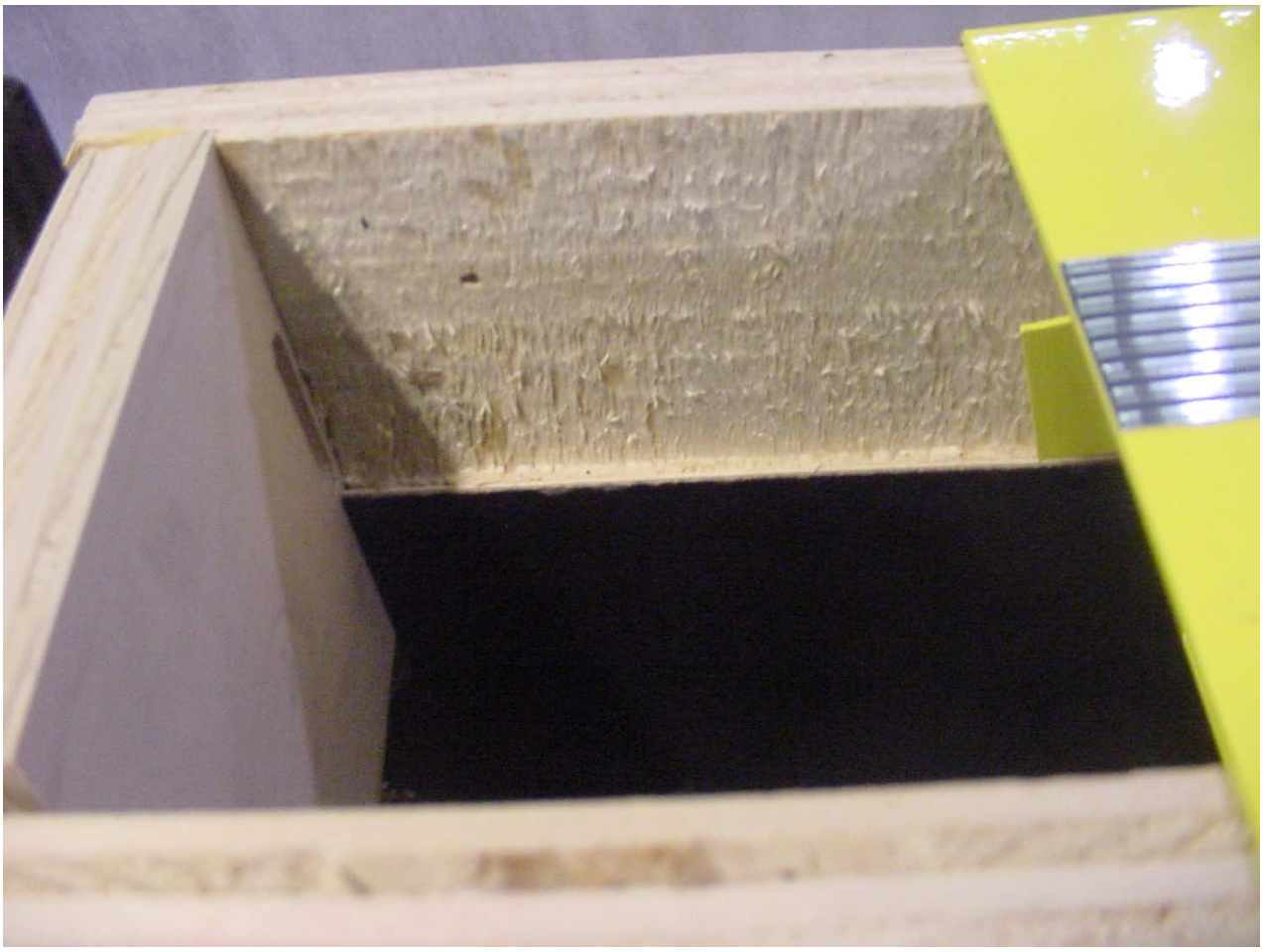
CAUTION: High voltage is present in some areas of the alley (power supply, SCR, solenoid, etc.). Unplug line cord before performing any troubleshooting.

PROBLEM	RECOMMENDATION
No Display	1. Make sure power is applied to the alley. 2. Check the connections on the cable from the controller to the display. 3 Replace display with a known good display. 4. Replace controller.
Display not showing proper readout	1. Inspect cable for good connections. 2. Check connectors 3. Replace display with a known good display.
Ball count not accurate	1. Clean Sensor 2. Adjust ball count sensor towards the ball if it does not count the ball. 3. Adjust the sensor away from the ball if it counts one ball as two.
Missing ball count.	1. Adjust the sensor to make sure it detects the ball. 2. Replace the sensor
Ball release inaccurate	1. Adjust ball count sensor towards the ball if it does not count the ball. 2. Adjust the sensor away from the ball if it counts one ball as two.
Missing ball release count	1. Adjust the sensor to make sure it “Sees” the ball. 2. Replace the sensor.
Coins-up but does not release balls	1. Replace solenoid. 2. Replace controller.
Will not coin up	1. Check the connection at coin comparator. 2 Replace comparator. 3. Replace controller.

MAINTENANCE NOTES:

WHEN REMOVING CHANNEL COVERS, DO NOT LEAVE KEY IN LOCK BECAUSE IT WILL DAMAGE THE RUNWAY CARPET

WHEN REINSTALLING CHANNEL COVERS SLIDE TABS ON REAR OF COVER INTO SLOTS IN THE ALLEY TO SECURE.

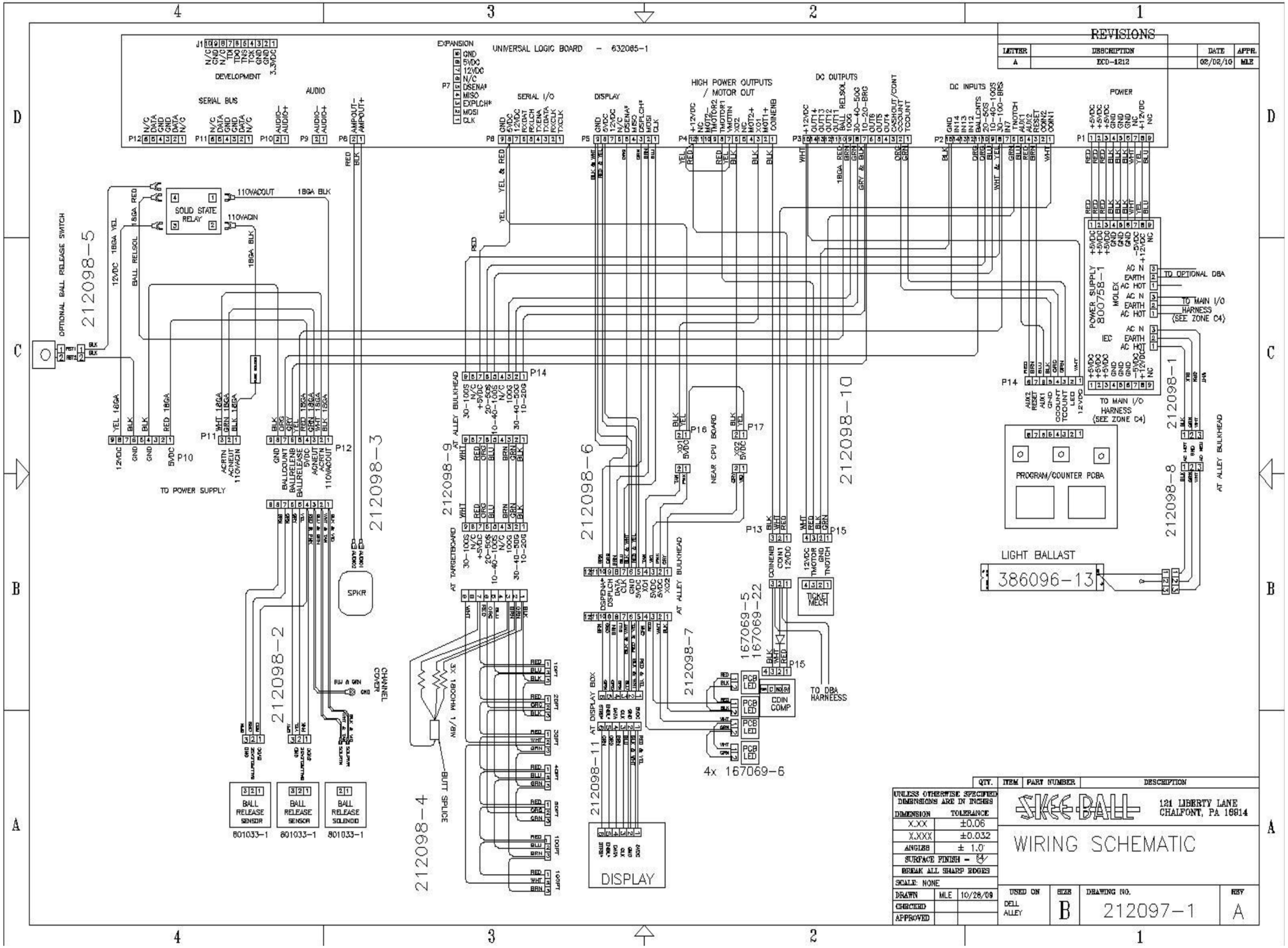


PARTS LIST:

PartNumber	Description SHIPPED ASSY,SKEE-BALL 2010 10FT
212099-1	ART SET,SKEEBALL 2010
212099-2	ART,MARQUEE PANEL
212099-3	ART,TICKET DECAL,SKEEBALL 2010
386096-13	ASSY,BALLAST,DUAL BULB,JACKPOT
212018-1	ASSY,BRACKET,LOCK MTG
212024-1	ASSY,CAGE,LEFT SIDE
212025-1	ASSY,CAGE,RIGHT SIDE
212138-1	ASSY,DOOR,FRONT CTR,WO/DBA
212141-1	ASSY,LOCK MOUNTING,RUNWAY
212023-1	ASSY,MARQUEE FRONT COVER
212123-1	ASSY,TICKET BIN
800179-52	BALL, SKEE 3-1/8" BRN. PLASTIC
212026-1	BRACKET,CAGE
800134-1	BUMPER, BALL DEFLECTOR, BLACK PT#0698W-26012
212098-8	CABLE,ALLEY,AC POWER,EXT,M/ML
212098-6	CABLE,ALLEY,DISPLAY/LED
212098-9	CABLE,ALLEY,TARGETBD,MATRIXED
212098-7	CABLE,BACK CAB,DISPLAY/LED
212098-5	CABLE,BALL RELEASE,SWITCH OPT
212098-2	CABLE,CHNL CVR,SENSOR&SOLENOID
212098-11	CABLE,DISPLAY,PIGTAIL,16IN
212098-10	CABLE,MAIN I/O
212098-4	CABLE,POCKET SENSOR,MATRIXED
212098-1	CABLE,POWER,AC,8FT,IEC/MOLEX
212098-3	CABLE,SPEAKER,21IN,ML/FASTON
800091-1	CAM, BENT SBL/SBX TD DOOR
212021-1	CARPET,BACK CAB,GRN CORK
212133-1	CARPET,RUNWAY,GREEN CORK,10FT
212005-1	CLEAT,J,TARGET BD
800050-25	COIN,MECH,ELECTRONIC ROLLDOWN
212028-1	COVER,CABLE,BACK CAB
212096-1	DECAL,9BALLS PER GAME
212096-4	DECAL,BALL BALANCE BUTTON
212096-6	DECAL,CHANNEL COVER REMOVAL
212096-3	DECAL,PROGRAMMING
212096-2	DECAL,SKEEBALL,BACK CABINET,26
212096-5	DECAL,TURN OFF POWER
212015-1	EDGE PROTECTOR,BACK CAB
212022-1	HOOK,TARGETBOARD
800065-2	LOCK/KEY ASSY,2316 1-1/16 L
212126-1	PANEL,BALL RETURN LINER
212140-1	PANEL,COVER,BALLVIEW

632084-1	PCBA,DISPLAY,COLOR DOT MATRIX,DELL
632065-10	PCBA,UNIVERSAL LOGIC, SKEE-BALL 2010 ALLEY
800758-1	POWER SUPPLY,110V,5V20A,12V8A -5V.5A ON/OFF SW,ALLEYS,TP
100125-1	ROD, OBSTACLE
800773-3	SENSOR, BALL 415
800142-2	TICKET MECH,WIDE FACE,H DL-1275H
212027-1	WELDMENT,CAGE,FRONT
212136-1	WELDMENT,CHANNEL COVER,LEFT
212128-1	WELDMENT,CHANNEL COVER,RIGHT
212139-1	WELDMENT,FRONT CENTER DOOR
212119-1	WELDMENT,COIN DOOR
212122-1	WELDMENT,TICKET DOOR

SCHEMATICS & WIRING DIAGRAMS: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PROGRAM/COUNTER PCBA
LIGHT BALLAST
386096-13
TICKET MECH
COIN COMP
DISPLAY
SPKR
BALL RELEASE SENSOR
BALL RELEASE SOLENOID
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4x 167069-6
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CHALFONT, PA 18914
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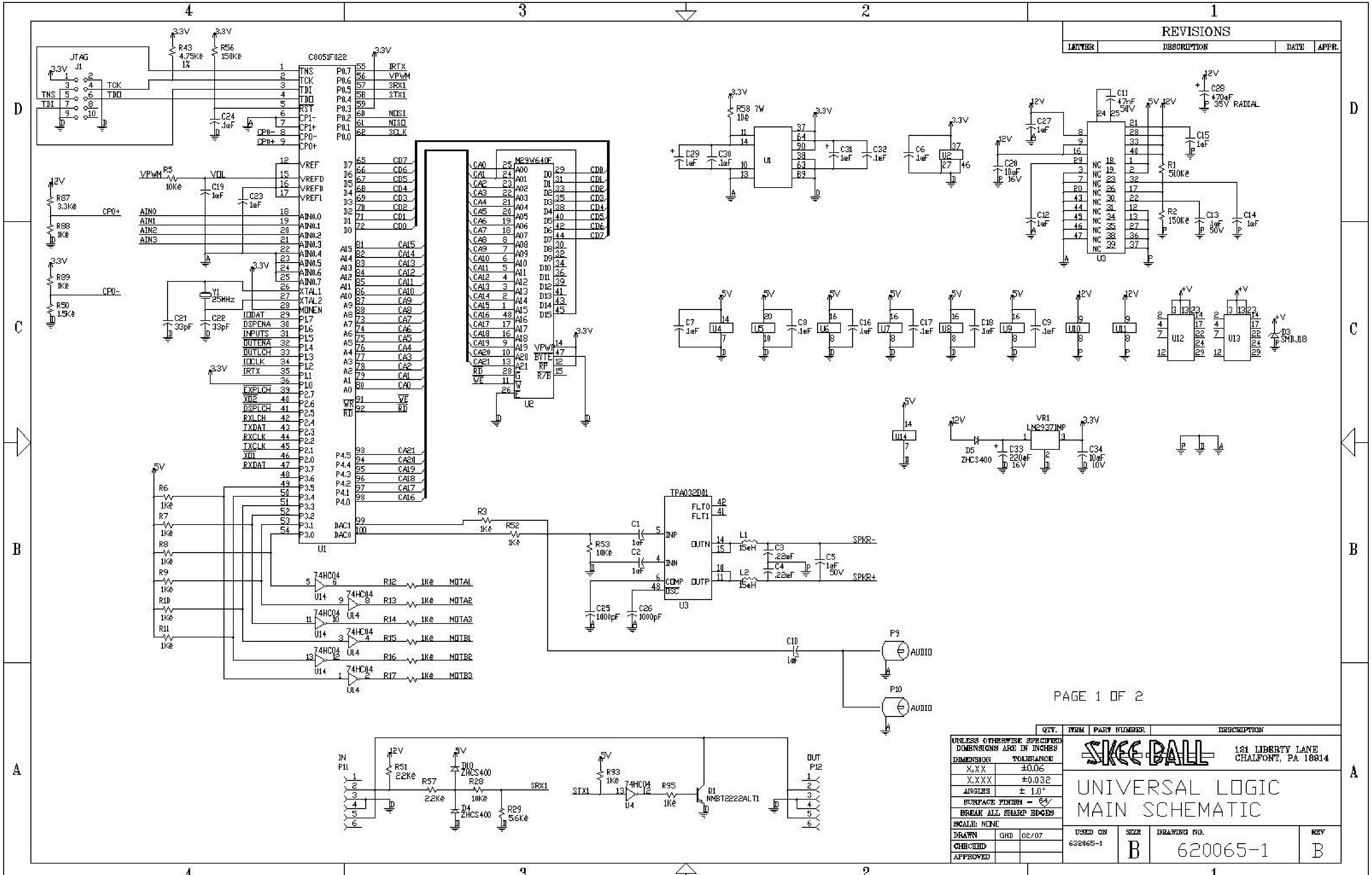
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X.XXX ±0.032
ANGLES ± 1.0°
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CHECKED
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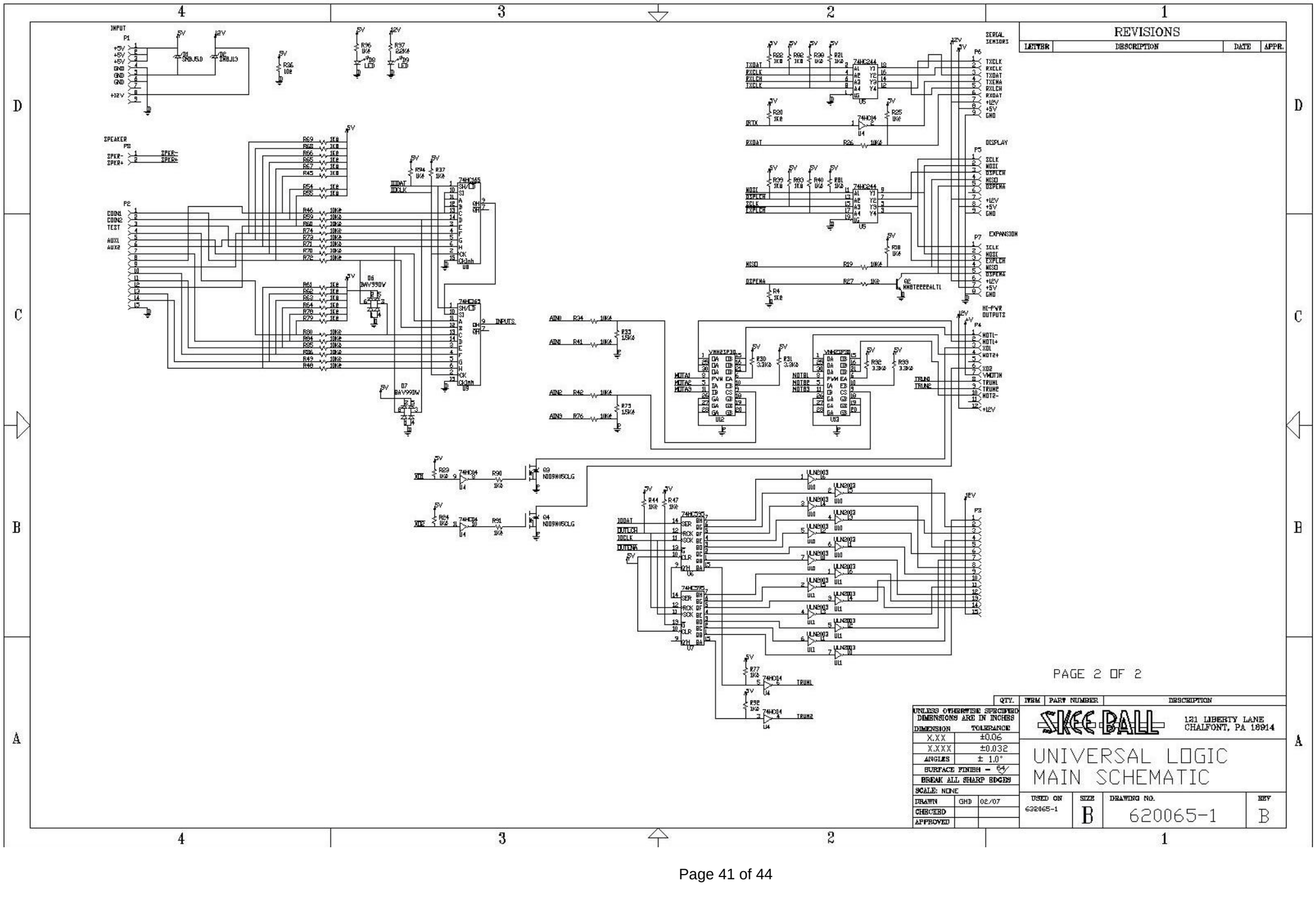
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PART NUMBER
DESCRIPTION
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X.XXX ±0.032
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SCALE: NONE
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CHECKED
APPROVED
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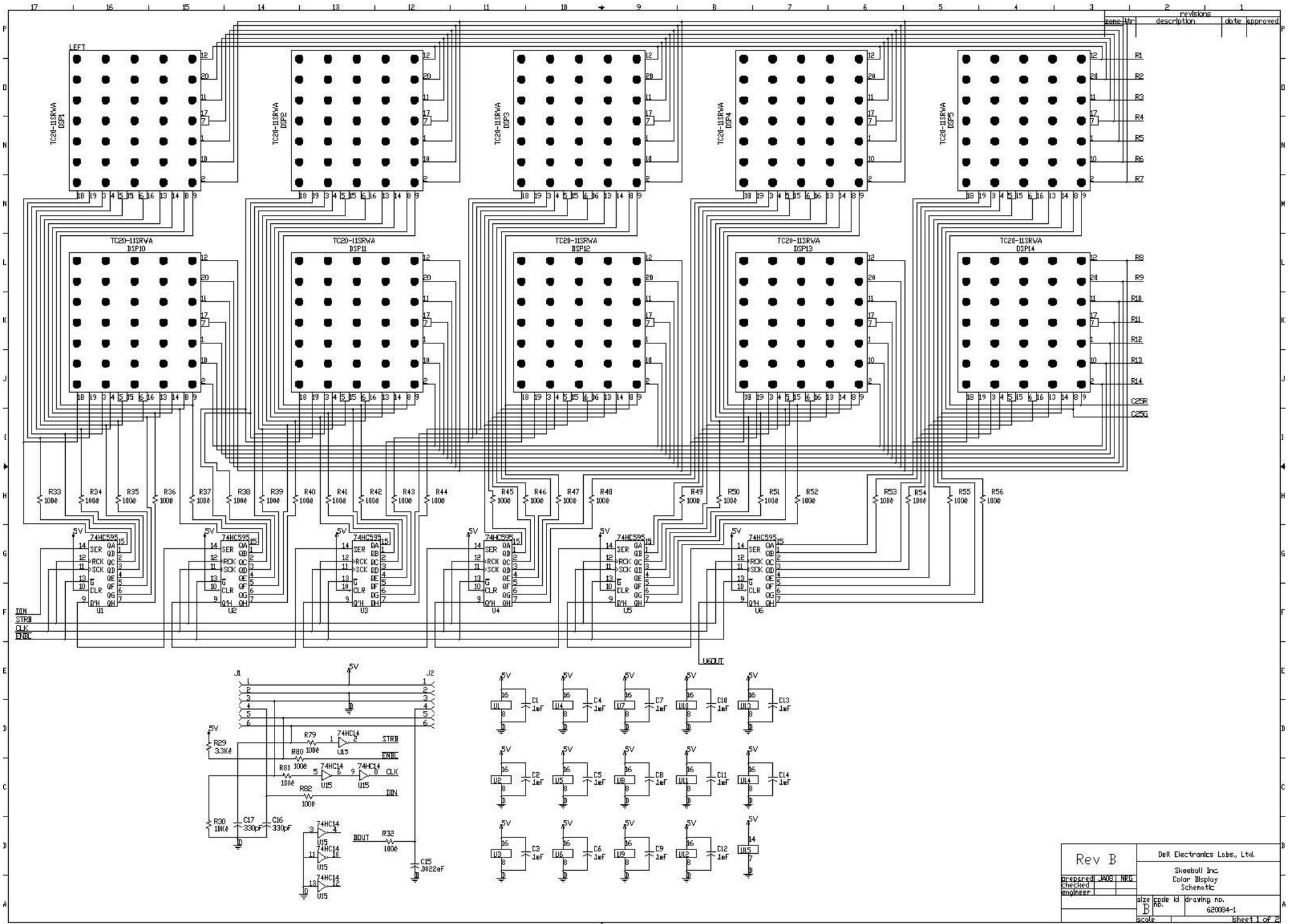
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U2
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U4
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U6
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C2 .1uF
C3 .1uF
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C7 .1uF
C8 .1uF
C9 .1uF
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Skeeball Inc.
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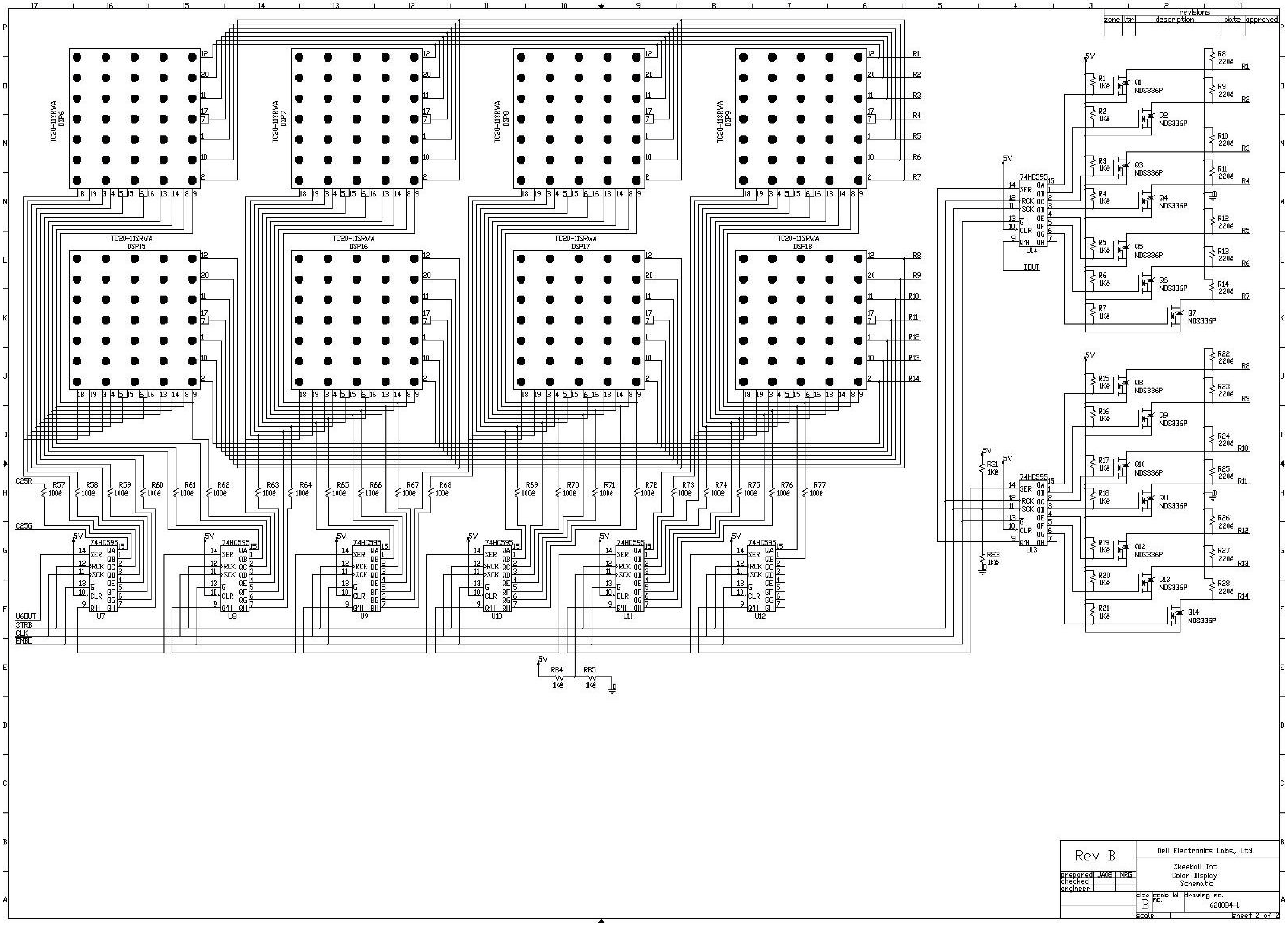
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Skeeball Inc.
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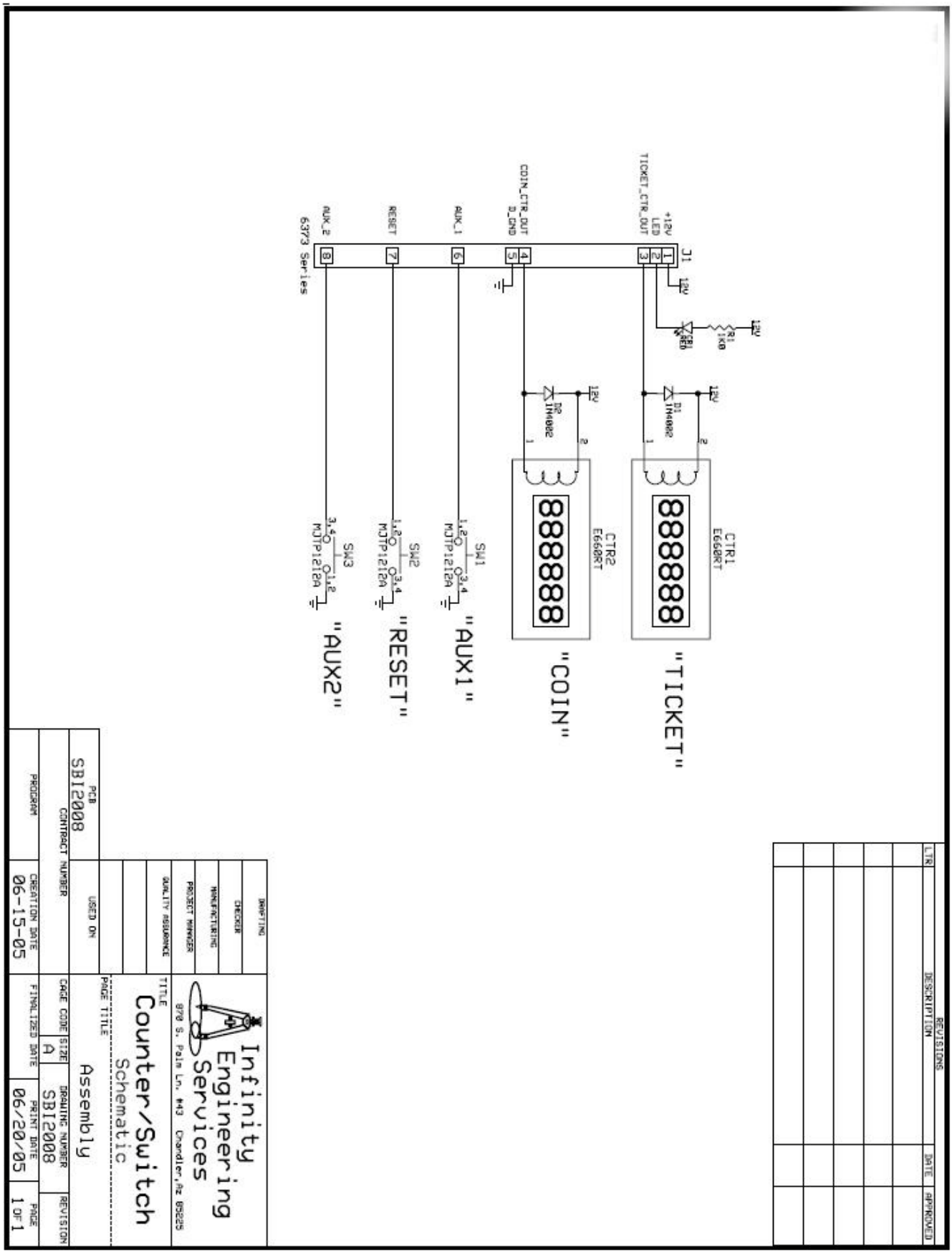
Schematic
620084-1
sheet 2 of 2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DATE
APPROVED
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COIN_CTR_OUT
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RESET
AUX_2
CR1 RED
R1 1K0
D1 1N4002
D2 1N4002
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CTR2 E660RT
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SW2 MJTP1212A
SW3 MJTP1212A
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"COIN"
"AUX1"
"RESET"
"AUX2"
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CHECKER
MANUFACTURING
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USED ON
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Infinity Engineering Services
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