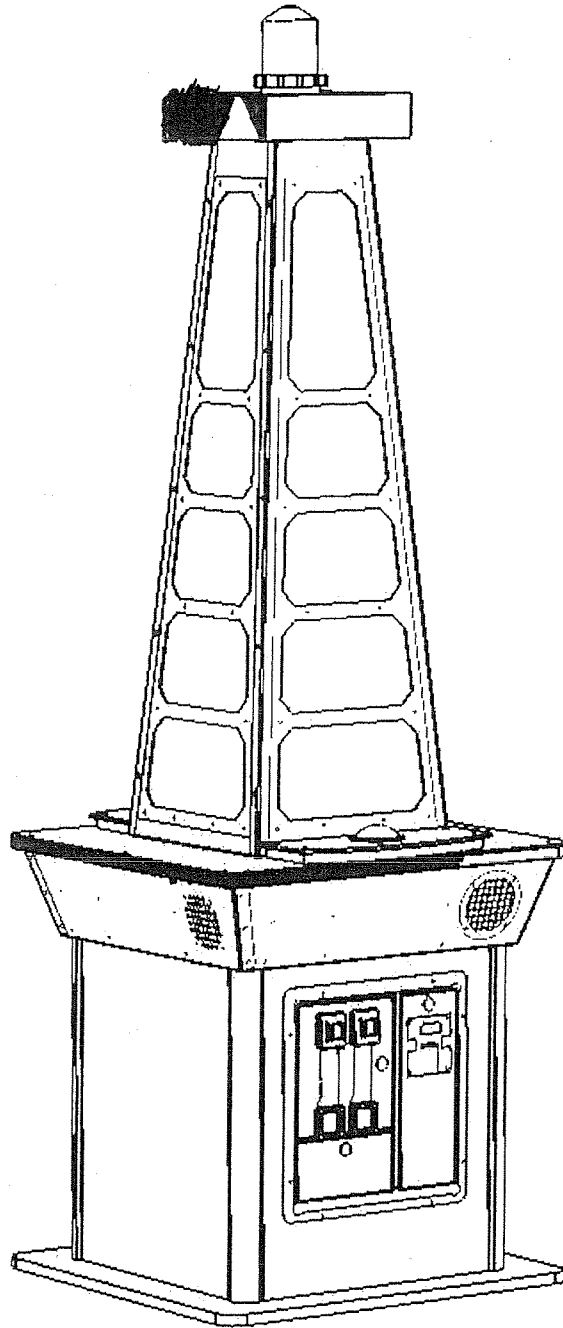


HIT IT BIG

OWNERS AND SERVICE MANUAL



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121 LIBERTY LANE, CHALFONT P.A. 18914

215-997-8900

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INTRODUCTION

INTRODUCTION

Thank you for purchasing the new HIT IT BIG™ game from Skeeball Inc. We have put much effort and years of experience into the development of this product to ensure years of enjoyment to your customers and years of reliability and low maintenance to you, the operator. Please read the entire manual thoroughly to get the most out of your game.

GAME PLAY

The game play for HIT IT BIG™ Combines the best features of a "Quick Coin" game with enhanced and extended play. The object of the game is to "HIT IT BIG" by winning the ticket jackpot. This is accomplished by winning the tickets in ascending levels on the Oil Well's tower. Each time the player hits a target in a level, they win the tickets on that level and advance to the next level on the tower. If they do not hit the target on the level they are playing, the game ends and they win the tickets from the level previously won. (If the player loses on the first level, they are awarded a pre-determined amount of "Just For Playing" tickets. If the player wins through the first 4 levels, they proceed to the top jackpot level and have a chance to win the big amount of "Jackpot" tickets".

FEATURES

GAME CABINET – The cabinet is designed of high Quality wood and plastic components with thick powder coated metal bracketry where needed. All of the trim is designed from a high density polyethylene that is fully washable to keep the game looking good and will not splinter or chip so it remains safe.

ELECTRONICS – The game electronics are of a simple design. Only one Main and three Score display boards per player station control the entire operation of the game making for greater reliability and easier troubleshooting.

SOUNDS – The sounds are all recorded in high fidelity adding to the overall fun feel of the game.

PLUG AND PLAY DESIGN – Just uncrate the game and you're ready to go. (If you run your game on single coin play just try the game settings as they are straight out of the box).

GAME SETTINGS – If you would like to custom tailor your game settings to your location, we have provided a robust programming menu that will accommodate just about any possible need you might have.

GAME INSTALLATION / MAINTENANCE

INSTALLATION OVERVIEW

Please inspect the game immediately after opening and check for any apparent shipping damage. Please make sure that the location for the game has been cleaned out and made ready for use. Plug your game directly into an AC outlet as specified below. An extension cord is acceptable to use. A 16 ga cord may be used for the power supply cable on the game.

MAINTENANCE

Clean the plastic trim or painted metal on the cabinet using Windex or Fantastic. Finish by using a spray furniture polish such as Lemon Pledge.

Occasionally brush out or blow out the ticket dispenser to keep the optical sensor clean and to keep paper debris from the ticket path that could jam the dispenser.

INSTALLATION

Please place your game into it's final location and plug into the proper A.C. power receptacle(s) as indicated above.

WARNING: THIS GAME IS ORIGINALLY DESIGNED TO OPERATE ON 110-130 VOLTS A.C. POWER 50/60 HZ. FOR SOME APPLICATIONS, IT HAS BEEN MODIFIED TO WORK AT 220-260 VOLTS A.C. DO NOT OPERATE THIS GAME AT ANY VOLTAGE OTHER THAT THE SPECIFIED VOLTAGES. FAILURE TO DO THIS WILL VOID YOUR WARRANTY AND COULD CAUSE SEVERE DAMAGE TO THE GAME.

Once your game has been properly installed, please refer to the PROGRAMMING section of the manual to be sure the game is properly set up for your location.

PROGRAMMING OPTIONS

OVERVIEW

The option programming mode is entered and exited by pushing the **"RESET"** button inside the front coin door. The **RESET** button is located on the counter assembly located just inside the coin door on the left hand side.

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

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

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

GAME OPTIONS

VOLUME - The game volume is adjusted by changing the numbers from **1-10**. The larger the number, the greater the volume. The default value for this option is **(8)**.

COIN 1 VALUE IN CREDITS - This option is used to determine how many coins are needed to earn **1** credit on the coin **1** input of the game. This input is used for the lowest denomination of coin the game will use. For example if a credit is worth **5** coins, you would set this option to **5** and 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**. Then when **2** coins are inserted (**2 credits**) the game would begin.

COIN 2 VALUE IN CREDITS - This option is used as a totalizer 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 acceptor that has only a single pulse output. The default value for this option is **"1"**.

COST PER PLAY - 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 **NONE-1-40**.
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 **"NONE"**

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"**.

PROGRAMMING OPTIONS

TICKETS LEVEL 1 - This option determines how many tickets will be paid out if the player lands in the target area in this level and then LOOSES in the next level. The ticket payout range for this level is 1-99. The default value for this level is "2".

TICKETS LEVEL 2 - This option determines how many tickets will be paid out if the player lands in the target area in this level and then LOOSES in the next level. The ticket payout range for this level is 1-99. The default value for this level is "4".

TICKETS LEVEL 3 - This option determines how many tickets will be paid out if the player lands in the target area in this level and then LOOSES in the next level. The ticket payout range for this level is 1-99. The default value for this level is "8".

TICKETS LEVEL 4 - This option determines how many tickets will be paid out if the player lands in the target area in this level and then LOOSES in the next level. The ticket payout range for this level is 1-99. The default value for this level is "16".

TICKET ALARM - 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.

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 ADVANCE - This option is used to raise the jackpot value after each game if the jackpot is **NOT** won. The amount the value is raised depends on the number of tickets you set. The range for this option is **NONE - 10**. The default value for this option is "1".

JACKPOT BASE - This option determines how many tickets the JACKPOT starts at and how tickets it resets to after a win. The range for this option is **10-5000**. The default value for this option is "50".

JACKPOT MAXIMUM - This option is used to set the MAXIMUM amount of tickets a player can win. The Range for this option is **25-9999**. The default for this option is "150".

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

DISPENSE - In this mode, the tickets are dispensed as soon as the player wins the Jackpot. **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 **JACKPOT 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.

The default value for this option is **DISPENSE**.

PROGRAMMING OPTIONS

JACKPOT WINDOW - This option determines how easy it is to win the jackpot. The display on the Strike It Rich game is divided into 135 vertical rows of LED's. The target light takes around 1 second to go up or down the entire length of the display. This means that each row of LED's is active for approximately **7 milliseconds**. This option further divides that into **14** sections of around **.5 (1/2) milliseconds per section**. The range for this option is **1-14**. The default value for this option is **"6"**. The default value would translate to 2 milliseconds (.5 X 4). To make the game harder to win, pick a smaller number. To make it easier to win, pick a larger number.

ATTRACT INTERVAL - The range for this option is **0-5** minutes per attract sound. The default value is **"0"**. Setting a **"0"** turns this option off.

TICKET MULTIPLIER - 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"**.

RESTORE DEFAULTS - This option can be set to return your game to factory default values. Setting **"YES"** restores your values to those originally set at the factory, and setting **"NO"** will leave the game values set as they are. The default value for this option is **"NO"**.

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

QUICK TROUBLESHOOTING

This section is valuable to give you a good idea of where to look if your game has a problem. The most common problems and solutions are listed here. Please refer to the DETAILED REPAIR section for further information.

Game won't take or add money correctly	Bad Coin Mech Bad Coin Mech Harness Game set improperly Bad Main P.C. Board	Clean or replace Coin Mech Repair Harness Check settings against manual Repair or replace Main P.C. Board
No sound or low sound from game	Bad Speaker/s Bad speaker Harness Game volume set improperly Bad Main P.C. Board	Replace Speakers Repair Harness Check game settings and adjust Repair or replace Main P.C. Board
Game will not score correctly	Bad Main P.C. Board Bad "STOP" button	Repair or Replace Main P.C. Board Check or replace button
Score Displays do not work properly	Bad harnessing Harness not connected Display harness unplugged Bad Score display P.C. Board Bad Main P.C. Board Bad Switching Power Supply	Repair harnessing Check harness to Main PCB Plug harness in Replace bad Score Display Board Repair or replace Main P.C. Board Check voltage or replace
Game does not work correctly (In general)	Bad Main P.C. Board Bad Switching Power Supply Programming options set improperly Bad "STOP" button	Replace Main P.C. Board Check voltage or replace Recheck or reset options Check or replace button
Ticket Dispenser does not work	Dirty ticket sensor on dispenser Pressure wheel not set correctly Tickets jammed Harness unplugged or damaged Ticket options set incorrectly Bad Main P.C. Board	Clean optical sensor Check pressure wheel on dispenser Clean and un-jam dispenser Check and repair harness Check programming options Check or replace Main P.C. Board
Coin or ticket counters do not work	Do not work in free play Counter bad Counter harness bad or unplugged	Proper in this mode Check and replace if necessary Check and repair if necessary

DETAILED REPAIR

INTRODUCTION

In this section, you will find detailed information regarding troubleshooting philosophy, troubleshooting techniques, as well as basic information on repair of the mechanical and electronic componentry of the game.

Please take the time to read this section completely to familiarize yourself with the game.

SAFETY INFORMATION

WARNING: ALWAYS TURN GAME POWER OFF AND UNPLUG FROM THE A.C. RECEPTACLE WHEN PERFORMING SERVICE. FAILURE TO DO SO COULD CAUSE SEVERE INJURY TO YOURSELF OR DAMAGE THE GAME. WHEN IT IS NECESSARY TO HAVE GAME POWER TURNED ON TO DIAGNOSE PROBLEMS, USE EXTREME CAUTION TO AVOID INJURY. USE INSULATED TOOLS AND PROBES WHEREVER POSSIBLE. THIS GAME IS ORIGINALLY DESIGNED TO OPERATE ON 110-130 VOLTS A.C. POWER 50/60 HZ. FOR SOME APPLICATIONS, IT HAS BEEN MODIFIED TO WORK AT 220-260 VOLTS A.C. DO NOT OPERATE THIS GAME AT ANY VOLTAGE OTHER THAN THE SPECIFIED VOLTAGES. FAILURE TO DO THIS WILL VOID YOUR WARRANTY AND COULD CAUSE SEVERE DAMAGE TO THE GAME.

TROUBLESHOOTING PHILOSOPHY

When troubleshooting a game, it always helps to start with the simple things. Unplugged or damaged power cords are always the first thing to look for. Blown fuses are always high on the list as well. Whenever checking a game for problems be consistent in the approach.

Next, check for unplugged or damaged harnessing. Harnesses are very complex and it is always possible that something simple like a wire pulling out of a pin, or a pin not being fully seated in a connector can occur. Also, when components are changed, a connector could be plugged in backwards or be moved over one pin when reinserted. Another thing to be looking for is collateral damage. For instance, if a motor burns out, it might also damage a harness or the electronics that power the motor. Often times when a harness gets shorted out, it will damage electronics in the process.

Refer to the wiring diagrams and schematics often, but always call our Service Department if you are at all unsure of the problem you are dealing with. Our staff will always do our best to give hints and advise on how to proceed.

TROUBLESHOOTING HINTS & TECHNIQUES

The most important tool for troubleshooting problems with your game is YOUR BRAIN. Always take the time to think everything out before jumping into a repair. For instance, if you try to remove a fastener with the wrong tools, you will probably damage the fastener and spend more time trying to remove it later than the time it would take to go and get the proper tool in the first place. If you disconnect harnesses or plug them back in without turning off power, you run the risk of severely damaging components. ALWAYS TAKE YOUR TIME..... In the long run, it will save you a lot more time.

DETAILED REPAIR

The next most important tool in your arsenal (Next to your brain) is a good quality MULTIMETER. Make sure you have a good quality, reliable meter. Meters to troubleshoot this game can be purchased for \$80 and up at reputable electronics supply houses.

You will often times need to do simple but crucial tests with your MULTIMETER. You will need to check AC and DC voltages to be sure they are in the range specified. You may need to do CURRENT checks to make sure that motors are working correctly. (Make sure your meter can read at least 10 AMPS, but 20 is better). Also, last but probably most important is the ability to do CONTINUITY CHECKS with your meter. Try to make sure that your meter is designed to produce an audible "BEEP" when continuity is achieved. this is a very important feature. One of the most common problems in electronic and electro/mechanical games is broken connections.

Make sure you have a good set of QUALITY TOOLS. Cheap import sets use soft metal that will damage the fasteners and cause more problems than they cure. Good tool sets use high quality hardened metal that will minimize the possibility of damaging or breaking fasteners. This is especially important with relatively delicate fasteners such as Torx and Allen bolts, Try to use Phillips Head driver bits that have grip tips, and always use the proper size bit. Always get a helper when possible. This will make the repairs go much quicker, and 2 head are always better than one. With this game, some of the game parts are quite heavy so help is a good thing.

ELECTRONIC REPAIR

WARNING: DO NOT REPLACE ANY ELECTRONIC COMPONENTS UNLESS ALL POWER TO THE GAME HAS BEEN SHUT OFF. FAILURE TO DO SO COULD CAUSE DAMAGE TO THE GAME.

WHEN TESTING ELECTRONICS OR MEASURING VOLTAGES WITH THE GAME POWER TURNED ON, USE EXTREME CAUTION TO AVOID DAMAGE.

MAIN P.C. BOARD

1. Turn off AC power to the game
2. Remove the (4) bolts that hold the player button panel to the cabinet. Remove the panel to gain access to the Main P.C. Board.

NOTE: EACH PLAYER STATION HAS IT'S OWN MAIN P.C. BOARD AND IT IS LOCATED UNDER THE BUTTON PANEL.

3. Remove all connectors to the Main P.C. Board.
4. Remove the (6) nylon spacers that retain the Main P.C. Board to the cabinet.
5. Remove the Main P.C. Board from the game.
6. Install in the reverse order.
7. Play a few games to check for proper game operation.

DETAILED REPAIR

SCORE DISPLAY REPLACEMENT

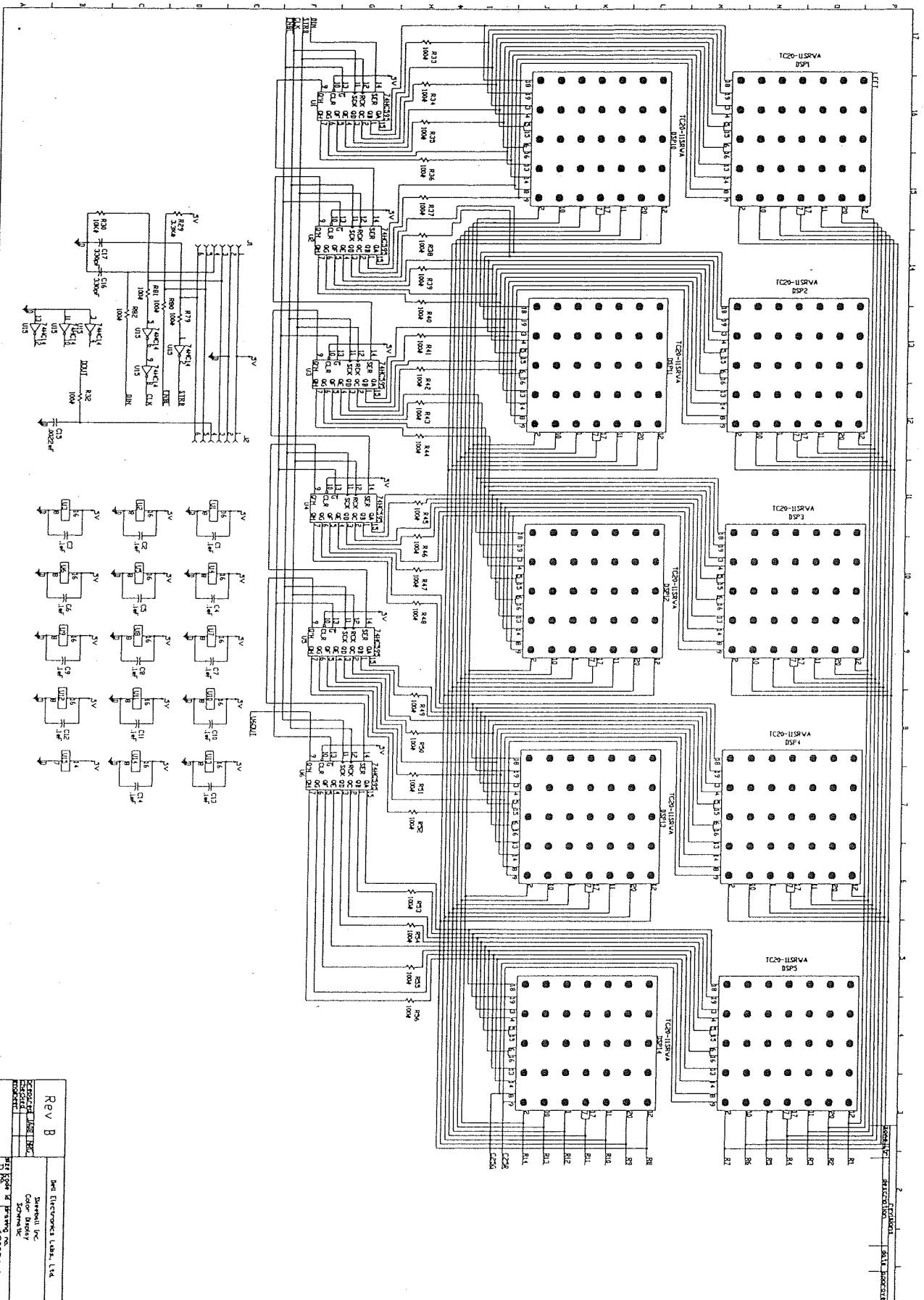
1. Turn off AC power to the game.
2. Remove the (10) bolt that hold the side panel onto the tower.

NOTE: MAKE SURE YOUR ALLEN WRENCH IS GOOD AND DOES NOT STRIP THE BOLT HEADS.

3. Disconnect the score display connectors.
4. Remove the (4) #8 square drive screws that hold the Score Display to the inside of the playfield.
5. Install in the reverse order.
6. Play a few games to check for proper game operation.

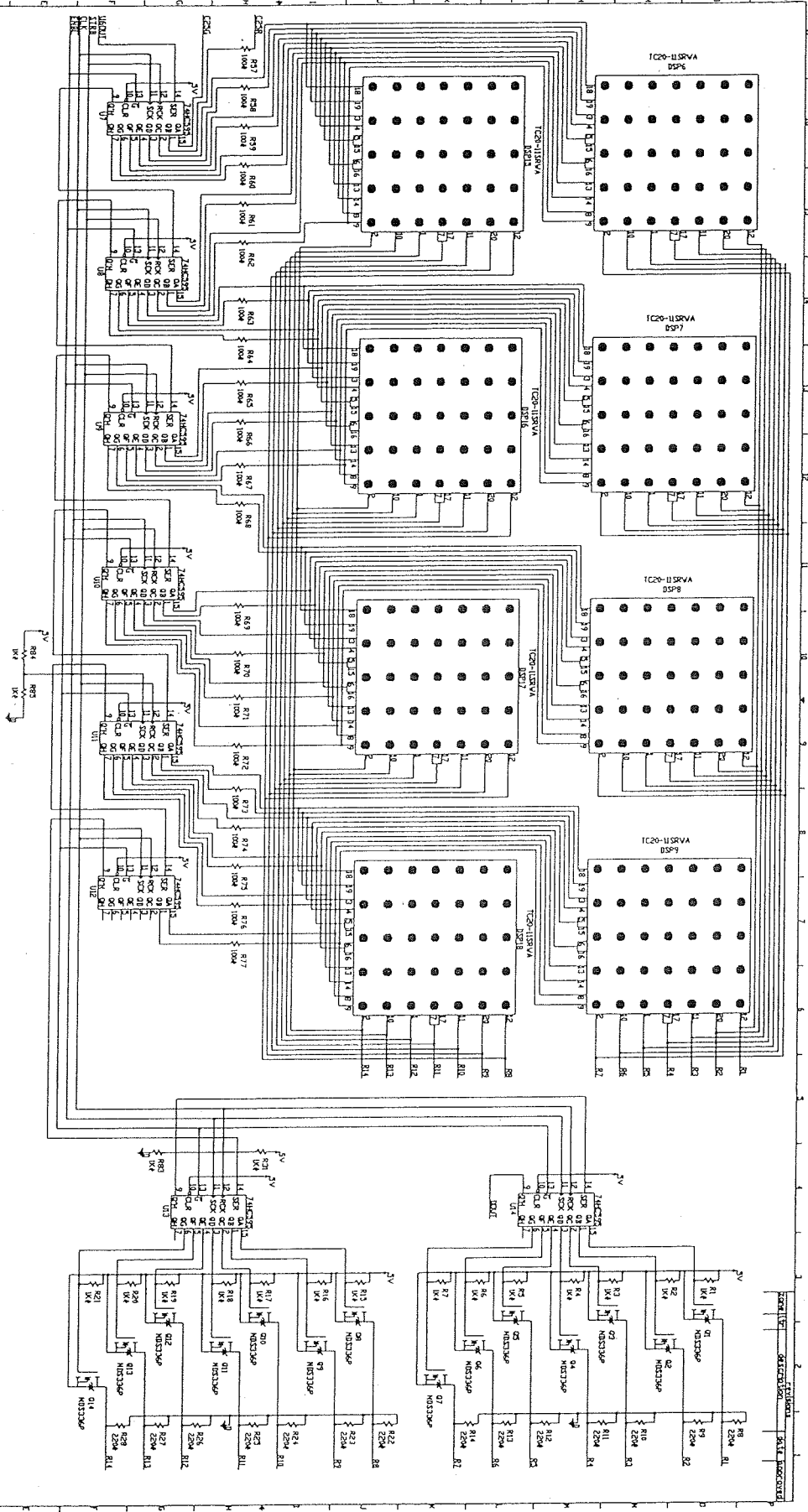
IF YOUR HAVE ANY QUESTIONS OR COMMENTS, PLEASE CALL OUR SERVICE DEPARTMENT AT:

215-997-8900



Rev B
 PROJECT: DSP PCB
 SHEET: 1 OF 1
 DATE: 11/11/94
 DWG NO: 620184-1
 DWG DATE: 11/11/94
 DWG BY: [Signature]
 DWG CHECK: [Signature]
 DWG APPROVE: [Signature]
 DWG SCALE: 1:1
 DWG STATUS: []
 DWG REVISION: []
 DWG COMMENTS: []
 DWG PARTS NO: 620184-1
 DWG SHEET NO: 1 OF 1

DMI Electronics Lab., Ltd.
 Sirehill Inc.
 Cedar Bay
 Sydney
 NSW
 Australia



REV B

Intel Electronics Lab., Ltd.

Shuttle Inc.


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Shuttle Inc. 10000

620084-1

REVISIONS

LETTER	DESCRIPTION	DATE	APPR.


UNIVERSAL LOGIC
MAIN SCHEMATIC

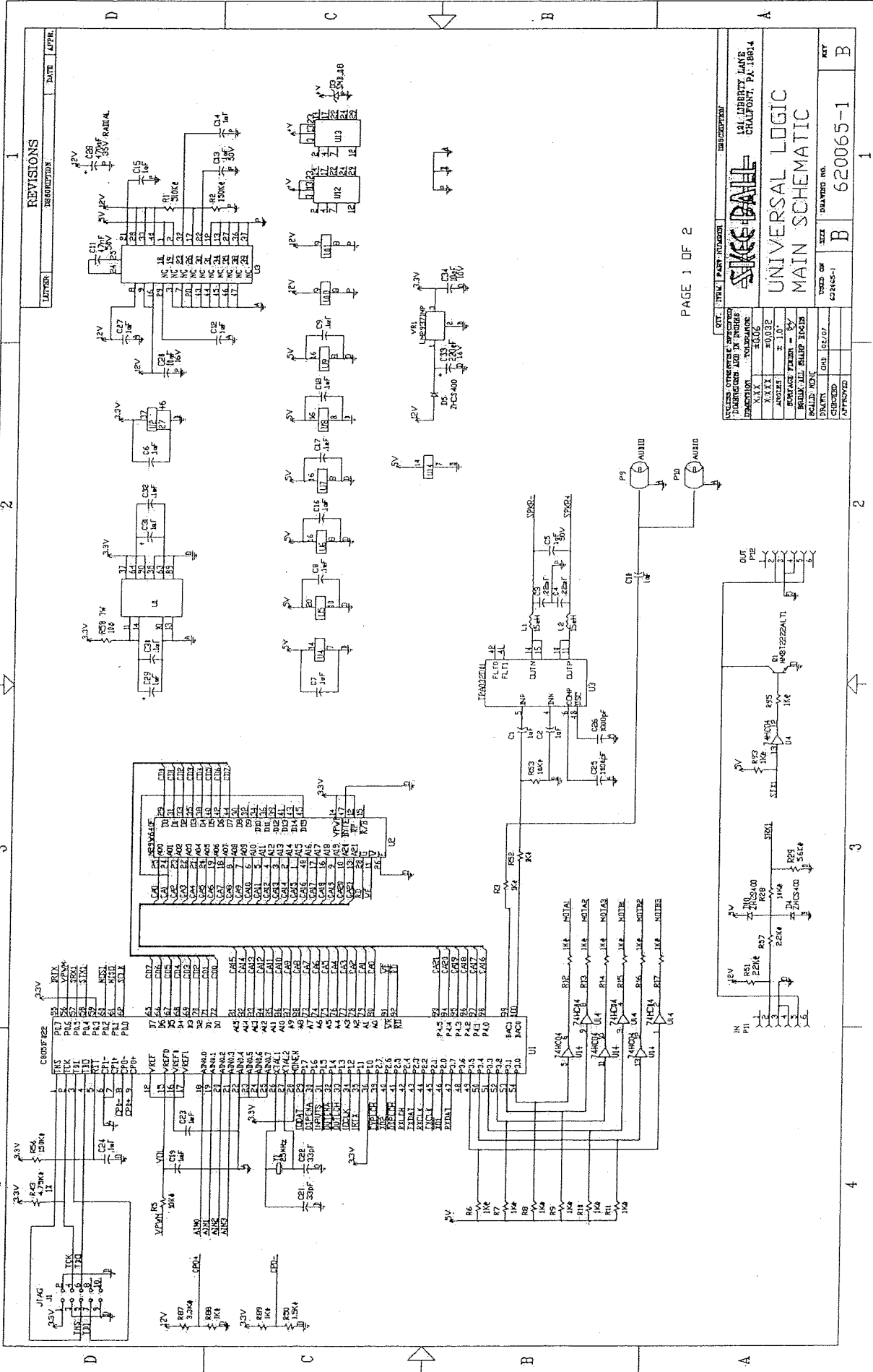
131 LIBERTY LANE
 CHALFONT, PA. 18014

DESIGNED BY	DATE	REVISED BY	DATE

DRY	
CHECKED	
APPROVED	

SIZE	620065-1
REV	B

PAGE 1 OF 2



WARRANTY

Your new HIT IT BIG™ game is warranted to the original end user for a period of 90 days for mechanical components and 1 year for electronics from date of first use. Date of first use is determined by your sales receipt.

To obtain warranty coverage for your game, we may require proof of sale as well as the serial number of the unit which may be found on the back on the game.

Your warranty may be void if the game is modified in any way, or parts other than those approved for use on this product by Skeeball inc. are used. Your warranty will be void if a 3 prong grounded A.C. receptacle is not used. Failure to use a properly grounded receptacle can damage your game since the circuitry is designed to use this safety feature.

For all parts covered under warranty, new or remanufactured parts from the factory may be used. All replacement parts will be warranted for the balance of the original warranty period or for 90 days, whichever is longer.

For electronics, an advance exchange program is offered for the first six months of use. After the first six months of use, your electronics must be sent in for repair which will then be repaired at no charge.

For all warranty returns, you must first call Skeeball Inc. at (215) 997-8900 and obtain a return authorization number (RAN). Failure to obtain a RAN will delay your warranty claim until all pertinent information has been obtained. Also, when returning any electronics for repair, a complete description of the problem should be noted in the packaging. Also, your name and a phone number where you can be reached should also be included.

All warranted parts will be sent to you via ground shipping services free of charge. Any faster method of shipping will be the responsibility of the end user.

TO OBTAIN SERVICE, PLEASE CALL OUR SERVICE DEPARTMENT AT:

215-997-8900