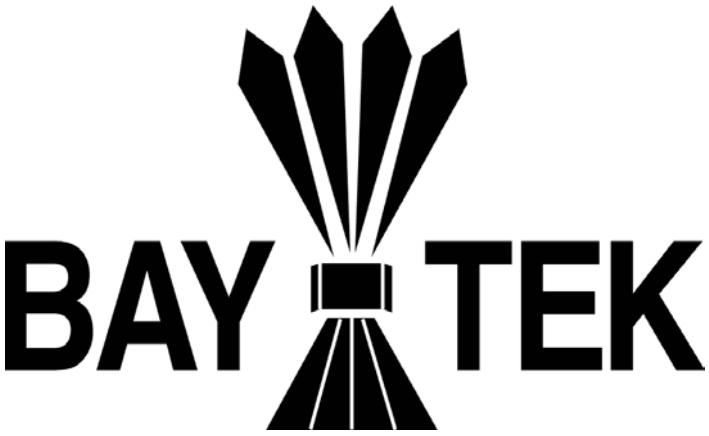

RED ZONE

OWNER'S MANUAL

Version 1.10

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Sales: ..... (920) 822-3951

TABLE OF CONTENTS

OPERATION AND SETUP SECTION

Safety Precautions

CAUTION: ***Electrical Shock Hazard.***
Do not perform maintenance or repair of this equipment with power ON. Unplug the unit from the wall outlet or shut off power at the power strip inside the cabinet.

CAUTION: ***Electrical Shock Hazard.***
Always plug game into a grounded circuit.

CAUTION*: Cutting Hazard.*
Always replace broken or scratched glass panels with tempered glass. Never use window glass in this game.

CAUTION: ***Use of flammable substances can cause severe burns or personal injury.***
Always use non-flammable solvents for cleaning parts and surfaces of this game. Do not use flammable substances such as gasoline, kerosene or thinners.

CAUTION: ***Choking Hazard.***
Small prizes, balls and marbles awarded by this game are not suitable for children under three years of age.

How the Game Works

Figure 1 Track Playfield

Red Zone is a game of skill. The ball track is made up of 25 segments. Each segment contains a ball toggle lever and each is lined on both sides with small triangular lights. The number of lights lit-up during play (1 to 6 segments) determines the size of the target RED ZONE. For each ball played, a different area of the track is lit-up. Beginning with the largest zone of 5 or 6 lights, the size of the zone is reduced by one or two lights for each ball played until the end of the game. The track toggles are designed to allow the ball to proceed freely up the track but not roll backward into the previous segment.

The player, using a pinball type plunger, shoots a ball up the track trying to land the ball anywhere within the RED ZONE. If successful, a “Red Zone Hit’ light will illuminate on the track board. The total number of balls played, and the number of balls required to land in the RED ZONE to win, are preset by the owner. The number of balls landing in the RED ZONE determines prizes.

Prizes available to winning players are located at the ends of each rack of the rotating carousel. Each rack is numbered. The player presses the ‘Push to Change Prize” button until the rack number of the desired prize appears on the display. The player then presses the ‘Claim Prize’

button to dispense the prize. The carousel will stop when the desired prize is located over the drop chute and the prize will be dispensed.

Unpacking, Assembly and Installation

1. Inspect the game for any damaged, loose or missing parts. If damage is found please contact the carrier first. Then contact Bay-tek at: service@bay-tek.com, or phone (920) 822-3951 to order replacement parts.

CAUTION: ***Lifting Hazard. Lifting heavy objects can cause back, neck and other injuries. Be sure adequate lifting and moving devices are available when unloading, unpacking and moving this game.***

2. Place the game near the final location and remove the keys taped in the coin return and open the front door panel.

IMPORTANT: *Be sure that the power outlets match the game requirements. See outlet labeling at rear bottom of game cabinet.*

3. Uncoil the power cord and feed the cord through one of the holes in the bottom board at the back of the cabinet. Plug the power cord into the wall outlet.

4. Place the game in its final position and lock the front wheels to prevent movement. The game must be reasonably level to prevent unintended alarms due to game tilting. If leveling is necessary, use adequate shims and blocking to prevent tipping.

5. Remove the tape from the fluorescent lamps. Place the ball, found in the cashbox, in the track in front of the plunger.

6. Turn power ON at the power strip located inside the cabinet at the bottom of the rear panel. The game is factory set to the Standard Play Mode. This mode requires two coins per credit and the number of zone lights per cycle is set to 5, 3, 2 and 1. Other play and difficulty variations are listed in the Programming section.

Figure 2 Circuit Breaker Power Strip

7. Load prizes as described below and play the game a few times to make sure that everything is working. (For testing, open the front panel and trip one of the coin count levers a few times to establish game credits). If something is not working properly, review the troubleshooting section first. If the problem cannot be resolved, contact the Bay-tek service department at: service@baytek.com, or phone (920) 822-3951.

8. Once everything is set and working properly, close and lock the front panel. Use glass cleaner and a soft clean cloth to clean all the glass on the game. Do not use solvents to clean the game decal surfaces. The game is now ready to play.

Alarm/Sounds

A plum bob mechanism will sound an audible alarm if the game is tilted too hard. During normal play, the alarm will automatically stop and the game will be reset. One credit will be lost. If the alarm sounds during prize loading or maintenance, open the cabinet door and press the 'Alarm Cancel/Jog' button to cancel the alarm.

A voice chip announces play results such as ball number to be played, missed zones, hits and other game information to enhance the visual effects of the game.

To cancel playing credits, open the cabinet door and press the 'Credit Clear/Home Set' button.

Counters

Two counters are mounted inside the front door panel. One counter tracks the number of games played and the other counter tracks the number of prizes dispensed. When in the maintenance mode of operation, these counters are not advanced. The counters cannot be reset.

Figure 3 Game Counters

Playing Modes

Standard Mode: Small size/value prizes must be loaded on the top and middle racks. Larger size/value prizes must be loaded on the bottom rack only. Up to four balls are played. When a player misses the RED ZONE two times, the game ends. Three balls must land in the RED ZONE to claim a smaller prize. Four balls must land in the RED ZONE to claim a large prize.

Three Ball Mode: Large or higher value/size prizes are loaded on any rack. Up to three balls can be played. All three balls must land in the RED ZONE to claim a prize. Any ball that lands outside the RED ZONE will immediately end the game.

Four Ball Mode: The most difficult mode. Large or higher value/size prizes are loaded on any rack. Up to four balls can be played. All four balls must land in the RED ZONE to claim a prize. Any ball that lands outside the RED ZONE will immediately end the game.

Loading Prizes

First, place the game in Maintenance Mode by opening the front door panel and pressing both the 'Exit Setup' and the 'Alarm Cancel/Jog' buttons simultaneously. The credits display will show a decimal point after the right digit and the prize carousel motor will stop.

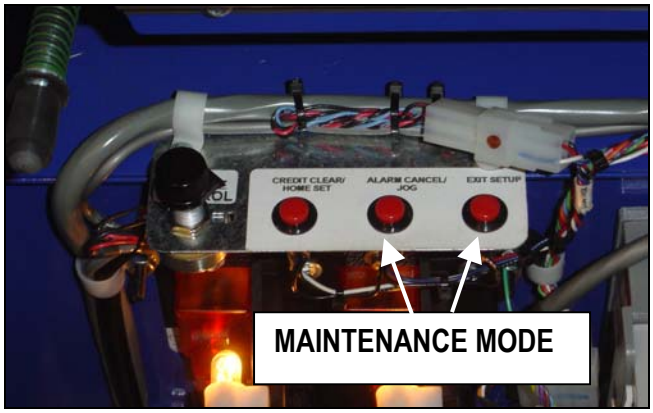


Figure 4 Maintenance Buttons

For 'Standard' mode of operation (factory default), the upper two racks are used for smaller, lower price/size prizes and the bottom rack is used for larger higher priced items.

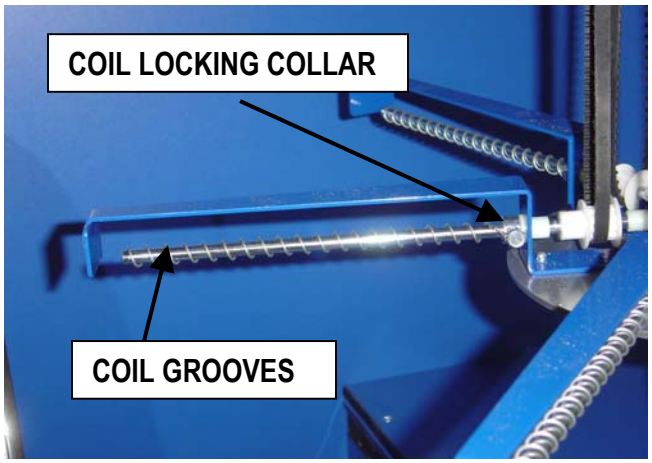


Figure 5 Prize Rack Detail

Load appropriate prizes on the carousel racks. Prizes should be loaded no closer than two coil grooves from each other and start at least two coil grooves from the end of the rack. This will prevent prizes from being shaken off. Larger size prizes can be spaced farther apart. The shaft will automatically stop turning after a prize is

dispensed. When loading prizes always check to insure that the coil locking collar is tight.

NOTE: Due to clearance between the lower racks and the discharge chute, larger prizes should not be longer than 9-1/2".

NOTE: During normal play, the carousel will automatically begin to rotate after 20 seconds if a prize is not dispensed, therefore always load the rack fully or place prizes toward the outer end of the shaft. Use the 'Jog' button to rotate the carousel as needed.

When all prizes are loaded, press the 'Exit Setup' button to return to normal operating mode.

BAY TEK

PROGRAMMING SECTION

Programmable Options

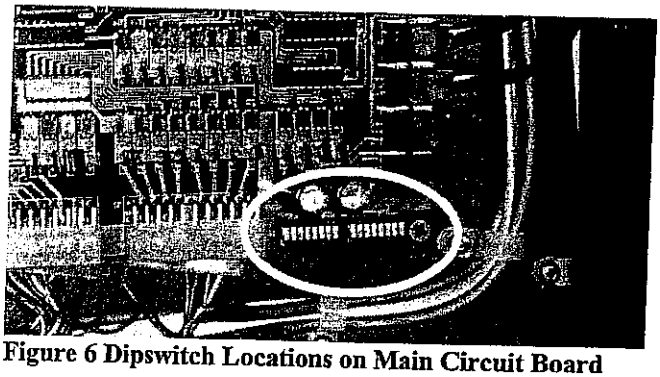
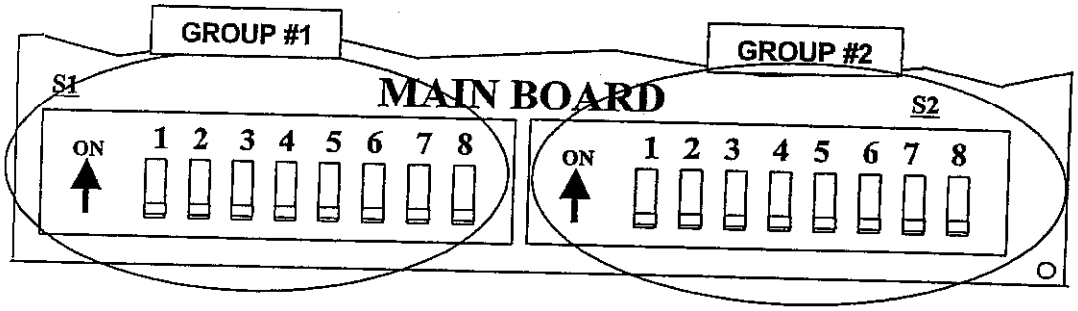


Figure 6 Dipswitch Locations on Main Circuit Board

The number of coins required for each game credit, zone size and play mode are programmable by dipswitches located on the main circuit board. See programming instructions below for details.

The main circuit board is located on the inside back wall of the cabinet. Be sure power is off before setting these switches.

Dipswitches



X – Closed or ON position
O – Open or OFF position

* - Indicates the default setting.

IMPORTANT: *Power must be OFF to the game when setting dipswitches. Turn OFF the power strip inside the cabinet. Set the dipswitches to the desired settings, wait 30 seconds and then turn ON power at the power strip.*

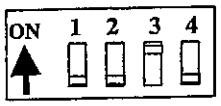
Group #1 (S1)

COINS TO PLAY

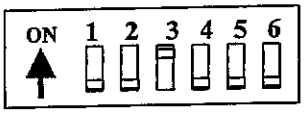
SWITCH #	COINS		DESCRIPTION
1 2 3 O O O O O X O X O O X X X O O X O X X X O X X X	1 2 * 3 4 5 6 7 8	S1 ON 1 2 3	Dipswitches #1, #2 and # 3 (S1) are used to set the number of coins or tokens that are required to get one credit on the game. The drawing to the left shows the default factory setting of '2'. This setting would represent $0.50 or two tokens.

Red Zone

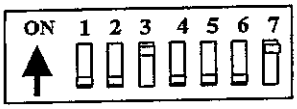
NJ SELECT

SWITCH #	DBA		DESCRIPTION
4 O X	**Disable *** **Enable**	S1 	Dipswitch #4 (S1), when enabled, allows the DBA (Dollar Bill Acceptor) to award one extra game credit when more than the cost of a single game is inserted into the DBA. Another extra game credit is not allowed until all game credits are cleared. The drawing to the left shows the default factory setting of 'disable'.

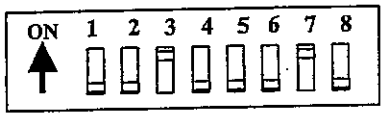
UNUSED DIPSWITCHES

SWITCH #			DESCRIPTION
5 6 O O X X	**Disable *** **Enable**	S1 	Dipswitches #5 and #6 (S1) are not used on this game and should remain in the disabled/off position.

ATTRACT MODE

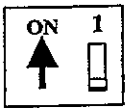
SWITCH #	ATTRACT		DESCRIPTION
7 O X	**Disable** **Enable ***	S1 	When dipswitch #7 (S1) is enabled, the game will run in 'Attract' mode for 2.5 minutes every 5.5 minutes. During the 'Attract' mode, the attraction lighting will light up, and the audio will play select tracks from the audio bank embedded in the software. The drawing to the left shows the default factory setting of 'enable'.

UNUSED DIPSWITCH

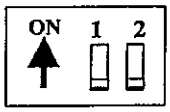
SWITCH #			DESCRIPTION
8 O X	**Disable *** **Enable**	S1 	Dipswitch # 8 (S1) is not used on this game and should remain in the disabled/off position.

Group #2 (S2)

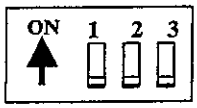
UNUSED DIPSWITCH

SWITCH #			DESCRIPTION
1 O X	**Disable*** **Enable**	S2 	Dipswitch #1 (S2) is not used on this game and should remain in the disabled/off position.

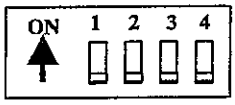
FIRST ZONE SIZE

SWITCH #	1ST ZONE		DESCRIPTION
2 O X	**5 Lights*** **6 Lights**	S2 	Dipswitch #2 (S2) sets the size (number of toggle levers and lights) of the first zone at the start of each game. The drawing to the left shows the default factory setting of '5' (a 5 light zone).

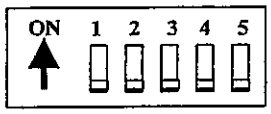
SECOND ZONE SIZE

SWITCH #	2ND ZONE		DESCRIPTION
3 O X	**3 Lights*** **4 Lights**	S2 	Dipswitch #3 (S2) sets the size (number of toggle levers and lights) of the second zone. This zone will come into play if the player is allowed a second ball. The drawing to the left shows the default factory setting of '3' (a 3 light zone).

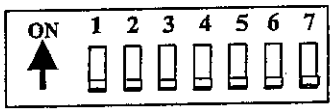
THIRD ZONE SIZE

SWITCH #	3RD ZONE		DESCRIPTION
4 O X	**1 Lights** **2 Lights***	S2 	Dipswitch #4 (S2) sets the size (number of toggle levers and lights) of the third zone. This zone will come into play if the player is allowed a third ball. If the game is set to three-ball mode, this would be the last zone. The drawing to the left shows the default factory setting of '2' (a 2 light zone).

FOURTH ZONE SIZE

SWITCH #	4TH ZONE		DESCRIPTION
5 O X	**1 Lights*** **2 Lights**	S2 	Dipswitch #5 (S2) sets the size (number of toggle levers and lights) of the fourth and final zone. This zone will come into play if the player is allowed a fourth ball. This switch is only relevant if the game is set to either four-ball mode or standard mode. The drawing to the left shows the default factory setting of '1' (a 1 light zone).

GAME MODE OPTION

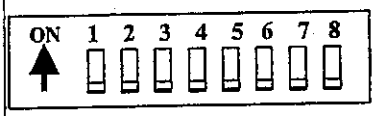
SWITCH #	MODE		DESCRIPTION
6 7 O O O X X O	**Standard *** **Four Ball** **Three Ball**	S2 	Dipswitches #6 and #7 (S2) control the number of balls required to play, (three or four) and the required number of balls to land in the RED ZONE for a win.

STANDARD MODE
This is the factory default setting with dipswitches #6 and #7 set to the open/OFF position. Four balls can be played. The player must land in the RED ZONE with three balls to win a small prize and four balls to win a larger prize. If the player misses the target zone with any two balls, the game ends and no prize is won. See modes of operation earlier in this manual for prize setup.

THREE-BALL MODE
Dipswitch #6 is in the closed/ON position and dipswitch #7 is in the open/OFF position. Three balls can be played. The player must land in the RED ZONE with all three balls to win a prize. If the player misses the target zone at any point during play, the game ends and no prize is won. See modes of operation earlier in this manual for prize setup.

FOUR-BALL MODE
This is the most difficult setting. Dipswitch #6 is in the open/OFF position and dipswitch # 7 is in the closed/ON position. Four balls can be played. The player must land in the RED ZONE with all four balls to win a prize. If the player misses the target zone at any point during play, the game ends and no prize is won. See modes of operation earlier in this manual for prize setup.

PRIZE DISPENSER TEST

SWITCH #	TEST		DESCRIPTION
8 O X	**Disable *** **Enable**	S2 	The function of dipswitch #8 (S2) is to test the operation of the carousel assembly. IMPORTANT: Power to the game MUST be turned OFF at the power strip near the main circuit board. Move Dipswitch #8 to the closed/ON position then turn the power strip ON. The carousel will rotate, then slow down and stop at one of the rack spindles. The solenoid will engage the gears and the vending motor will rotate the rack coil to dispense a prize. To return to normal game mode, shut off power, move Dipswitch #8 to open/OFF position and turn power back on.

MAINTENANCE SECTION

Maintenance Schedule

Use the following maintenance schedule as a guide only. Actual maintenance will depend on usage and environmental conditions at the location of the game.

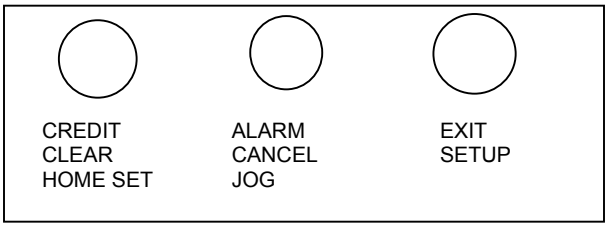
Keep a log of all inspections, even if no problem exists, with date and time of inspection, action taken.

This game does not require any lubrication however periodic cleaning is required.

IMPORTANT: *Do not use cleaning solvents on game graphics. Use only a mild soap solution and dry with a clean lint free cloth.*

	Daily	Weekly	Monthly
Check prize spacing and fill as necessary.	X		
Inspect game for physical damage. Repair as necessary.	X		
Test to insure game is working properly.	X		
Clean outside surfaces and glass	X		
Empty coin tray if necessary.	X		
Inspect playfield and ball track for debris.	X		
Clean dollar bill acceptor with bill reader cleaning card (DBA models only)		X	
Open game and clean playfield and inner surfaces as necessary.		X	
Inspect all lamps, chasing lights, track lights and displays. Replace or repair as necessary.		X	
Test the prize-dispensing sensor.		X	
Inspect timing belts on prize carousel.			X
Insure coil locking collars on prize racks are screwed on tight.			X
Check operation of the plunger. Tighten screws if loose.			X
Inspect track for broken or non-functioning track toggles.			X
Check all hardware for tightness.			X
Test track sensors			X

Maintenance Mode: The game must be in Maintenance Mode for some troubleshooting and testing procedures. To enter Maintenance Mode, open the front panel and press both 'Exit Setup' and 'Alarm Cancel/Jog' buttons simultaneously. The credits display will show a decimal point after the right digit and the prize carousel motor will stop. To return to normal operating mode, press the 'Exit Setup' button for approximately 2 seconds.



Located on inside of front panel.

TROUBLESHOOTING & DIAGNOSTICS SECTION

Troubleshooting Chart

Problem	Probable Cause	Remedy
No power to the game.	a. Unplugged. b. Blown fuse c. Circuit breaker tripped.	a. Check wall outlet. b. Check transformer fuse (220v applications only). c. Reset power strip breaker switch.
No Audio	a. Volume too low. b. Loose wire. c. Main circuit board malfunction.	a. Increase the volume at the volume control at the inside of the front door panel. b. Check audio cable connections to speaker, volume control and main circuit board. c. Replace main board with board from another Gen 5 game if possible to isolate the problem to the main circuit board.
Carousel does not stop to dispense prizes.	Carousel Code sensor faulty.	Test and replace sensor as needed. See testing procedure below.
Multiple prizes are dispensed. Carousel continues to rotate in prize mode.	Chute Dispenser sensor faulty.	Test and replace sensor as needed. See testing procedure below.
Carousel stops but no prize is dispensed.	a. Timing belts slipping. b. Coil loose on shaft. c. Faulty gear engagement solenoid.	a. Check and replace loose belts. b. Tighten coil locking collar screw. c. Test and replace solenoid as necessary. See testing procedure below.
Scores a ‘Hit’ or ‘Miss’ by itself during play.	a. Track sensor may be shorted. b. Toggle lever stuck.	a. Test track sensors. See testing procedure below. Replace as needed. b. Clean track of debris.
Track toggle levers keep cycling up and down.	Motor ‘Home’ sensor or cable faulty.	Replace sensor.
Track toggles do not reset.	a. Motor cam on motor shaft loose. b. Spring connector disconnected. c. Gearmotor or motor wiring faulty.	a. Align flat of motor shaft to set screw in cam and tighten. b. Secure spring connector at both ends. c. Check for broken or disconnected wires. Replace gearmotor assembly.
Error Code - Err 1	d. Bent dispenser flag wire causing flag to block sensor. e. Dispenser sensor board or cable problem.	d. Repair or replace. All flags must swing freely. e. Replace board or cable as necessary.

Problem	Probable Cause	Remedy
Error Code – Err 2	Carousel code sensor malfunction.	Check and replace wiring harness. Replace carousel sensor.
Error Code – Err 9	a. Track sensor may be shorted. b. Toggle lever stuck.	a. Test track sensors. See testing procedure below. Replace as needed. b. Clean track of debris.

Troubleshooting Strategy

Use common sense and a systematic method of troubleshooting to determine the exact problem, probable cause and remedy. Use the process of elimination to find the faulty component. Always check for the simple and obvious causes first such as unplugged, loose or broken wires and bad sensors, bent, pinched, stuck or jammed components.

Testing Procedures

Prize Dispenser Sensor Test: Open the front panel and turn the power strip OFF. Set the S2 # 8 dipswitch to the closed/on position then turn the power ON. This will cause the carousel to rotate and dispense a prize. The carousel should then immediately begin rotation. If not, the sensor is faulty. The carousel will automatically begin to rotate after 20 seconds if the sensor is faulty and the game will remain in prize dispensing mode. Be sure to shut the power off and reset the dipswitch after repairs.

Prize Dispensing Gear Solenoid Test: Open the front panel and turn the power strip OFF. Set the S2 # 8 dipswitch to the closed/on position then turn the power ON. This will cause the carousel to rotate and dispense a prize. Using a suitable ladder or step, open the trap door located on top of the game and observe the gear assembly when the carousel stops. The small gear should rotate downward against the carousel gear to rotate the belt. If not the solenoid is faulty. Be sure to shut the power off and reset the dipswitch after repairs.

Track Toggle Lights and Motor Test: Enter the Maintenance Mode by opening the front panel and pressing both 'Exit Setup' and 'Alarm Cancel/Jog' buttons simultaneously. Press the "Push to Change Prize" button on the game console to raise all toggle levers. If they do not come up, the toggle gearmotor may be faulty or the linkage is broken or disconnected. Check and Repair.

Once all the toggles are in the upright position, manually press each toggle down, starting at the front of the game. The light immediately after the toggle will illuminate. If not, the LED is bad. When the last toggle is depressed, the credit and prize number displays should flash on and off. Replace the appropriate board(s) as described in the repairs section of this manual.

Track circuit board diagnostics: The track zones are grouped onto four separate circuit boards as shown in figure 7 and are mounted to the underside of the ball track. Communication between the main circuit board and the four sub-boards is critical. To quickly check for proper communication, each board is equipped with a small green LED light. For the two outside boards, (1) and (2), these lights should be flashing slowly, indicating that the processors are operating correctly. If they are not flashing at all, the cable may be bad or the processor is faulty. The LED's for the two inside boards, (3) and (4), will flash rapidly to confirm proper operation. If they are flashing slowly, it is an indication of a bad cable or processor.

Unless the proper tools and training have been acquired, it is best to replace the entire circuit board when sensor or processor problems arise. See Service and Repair on page 17 for details.

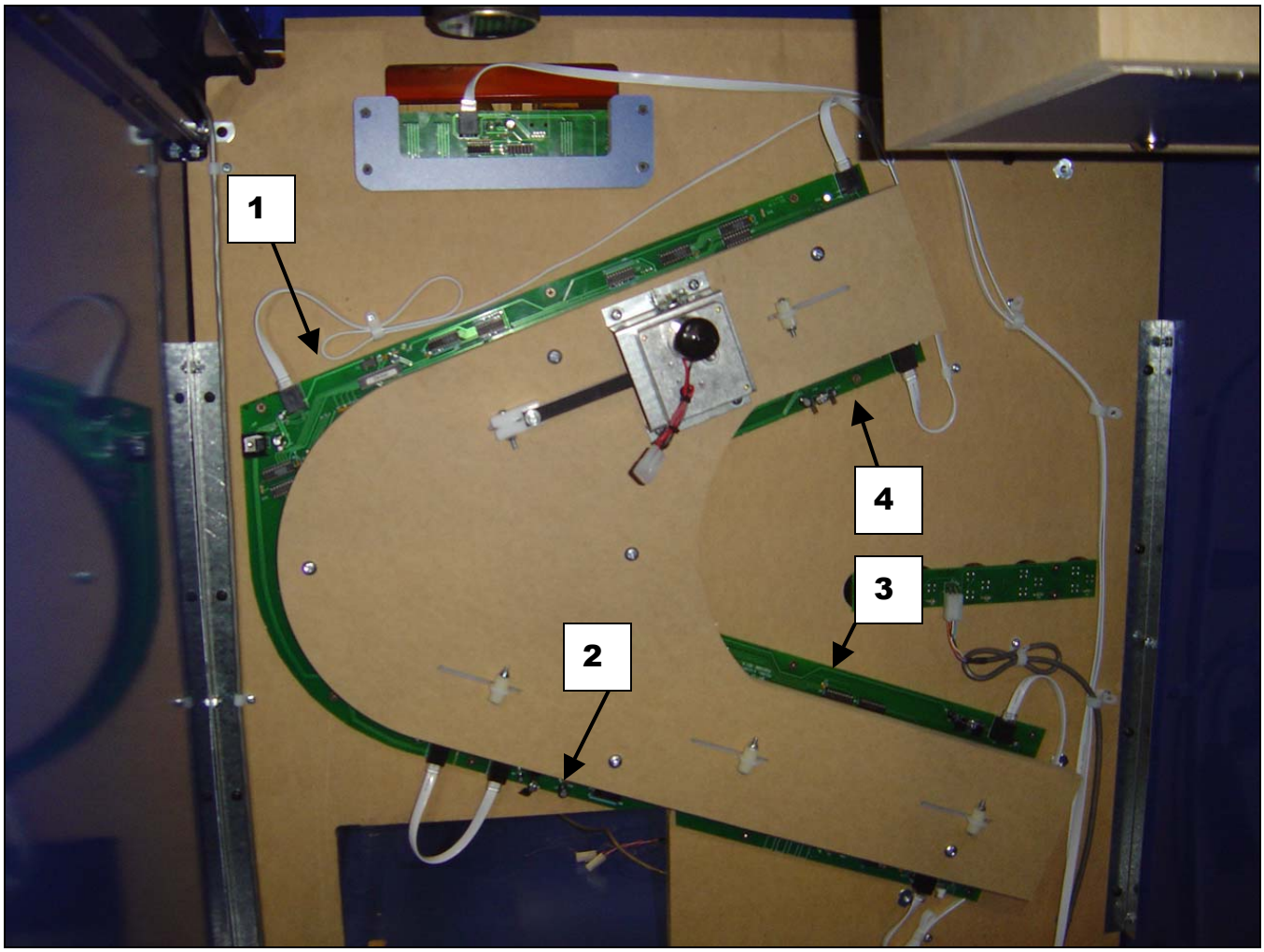


Figure 7 Circuit Board Locations

Diagnose Power Supply Test

Use the following procedure to check the power supply for Gen 5 games.

Check the small green LED light on the power supply circuit board. If the light is out there is a short somewhere. If the light dims, there is an overload in one of the circuits such as a bad solenoid.

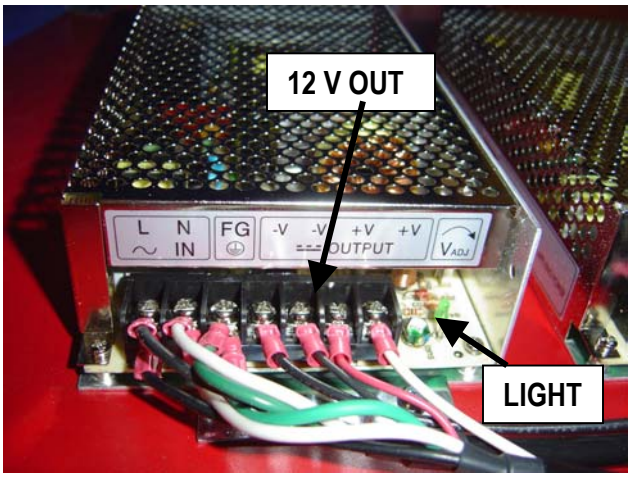


Figure 8 Power Supply

Turn power OFF. Disconnect all 12 volt output wires only. Turn power ON.

Green LED Light comes ON.

Green LED Light remains OFF.

Replace Power Supply.

Turn power OFF. Unplug all outputs from Main Circuit Board. Reconnect the 12 volt output wires to the Power Supply. Turn power ON.

Green LED Light comes ON.

Green LED Light remains OFF.

Short in Main Board - Replace.

Turn power OFF. Reconnect the outputs at the Main Circuit Board one at a time. Wait 3 minutes between tests to turn power ON.

Green LED Light remains OFF.

That cable or related component is shorted out. See Jumper Cable Pin-Outs to see which component might be at fault.

Green LED Light dims.

A related component such as a solenoid is causing an overload. See Jumper Cable Pin-Outs to see which component might be at fault.

Green LED Light comes ON.

That cable is OK.

SERVICE AND REPAIR SECTION

CAUTION: ***Static electricity could harm circuit boards and processor chips. Always ground yourself by cable or by touching metal surfaces prior to removing or servicing electronic equipment in this game. Avoid working on carpeted surfaces.***

CAUTION: ***Electrical Shock Hazard.***
Do not perform maintenance or repair of this equipment with power ON. Unplug the unit from the wall outlet or shut off power at the power strip inside the cabinet.

Dispenser Sensor Replacement

The dispenser sensor is made up of an emitter and a detector, located on opposite sides of the drop chute. The drop chute must be removed to gain access to the sensor. Both emitter and detector should be replaced at the same time.

Unplug the emitter and detector and remove the screws securing the components to the chute frame. Replace the sensor components and reconnect the cables.

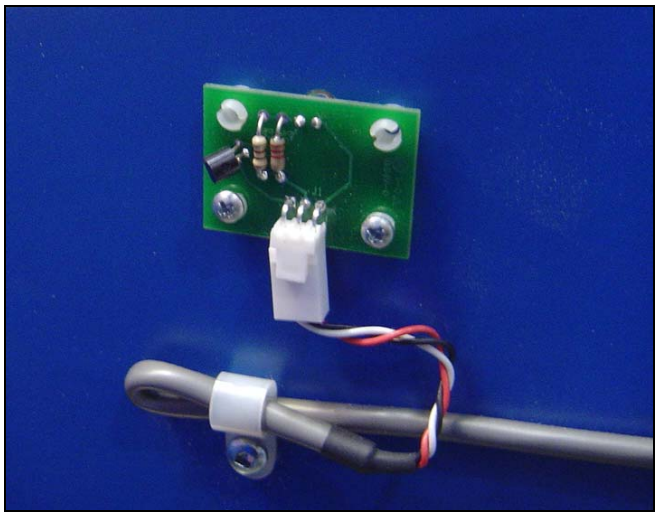


Figure 9 Emitter

Reposition the chute and secure to the floor of the game cabinet.

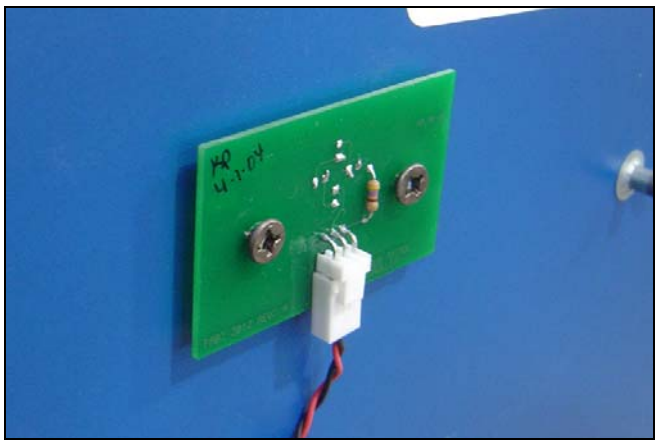


Figure 10 Detector

Test the sensor again for proper operation. See Testing Procedures on page 14.

Carousel Code Sensor Replacement

The code sensor is located inside the trap door at the top of the game.

Unplug the sensor and remove the two machine bolts securing the sensor to the sensor mount. Replace the sensor and reconnect the cable.

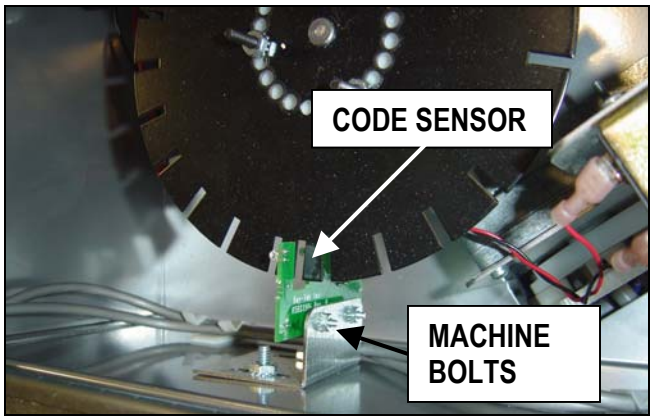


Figure 11 Code Sensor

Retest the sensor for proper operation. See testing procedures on page 14.

Dispensing Gear Solenoid Replacement

The solenoid is located inside the trap door located at the top of the game.

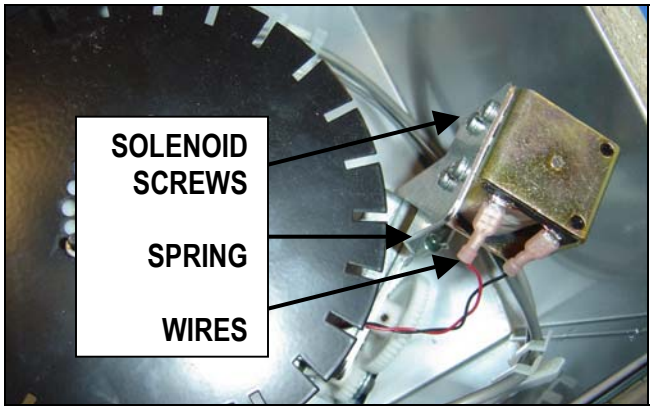


Figure 12 Dispensor Solenoid

Remove the two wires connected to the solenoid base. Remove the four Phillips head screws securing the solenoid to the mounting bracket. Unhook the spring from the solenoid plunger and remove the solenoid.

Reinstall the new solenoid in the reverse order. Connect the wires (it doesn't matter which wire is connected to each terminal) and retest the solenoid for proper operation.

Track Sensor Board Replacement

The track zone sensors consist of an emitter and a detector located on either side of the ball track. When the ball rolls back against a toggle lever, the lever breaks the sensor beam and sends a signal to the processor to record a hit or a miss. The emitters and detectors are grouped onto four circuit boards mounted under the track play field.

Once the location of the faulty sensor is determined through testing, the faulty circuit board can be replaced.

Figure 13 Track Layout

Unplug the cable (A – figure 13) running from the main circuit board to the track assembly.

While supporting the circuit board assembly, remove the six screws (B – figure 13) securing the mounting board to the underside of the track.

Lay the plywood board on a suitable workbench, with the circuit boards facing up.

Unplug the faulty board cable, and then remove the mounting screws holding the circuit board to the plywood mount.

Install the new board, ensuring that it is mounted securely in place and emitters and detectors are aligned properly. Plug in the track circuit cable.

Re-install the assembly in the game and plug into the main circuit board.

Re-test the game for proper operation before putting it into normal operation.

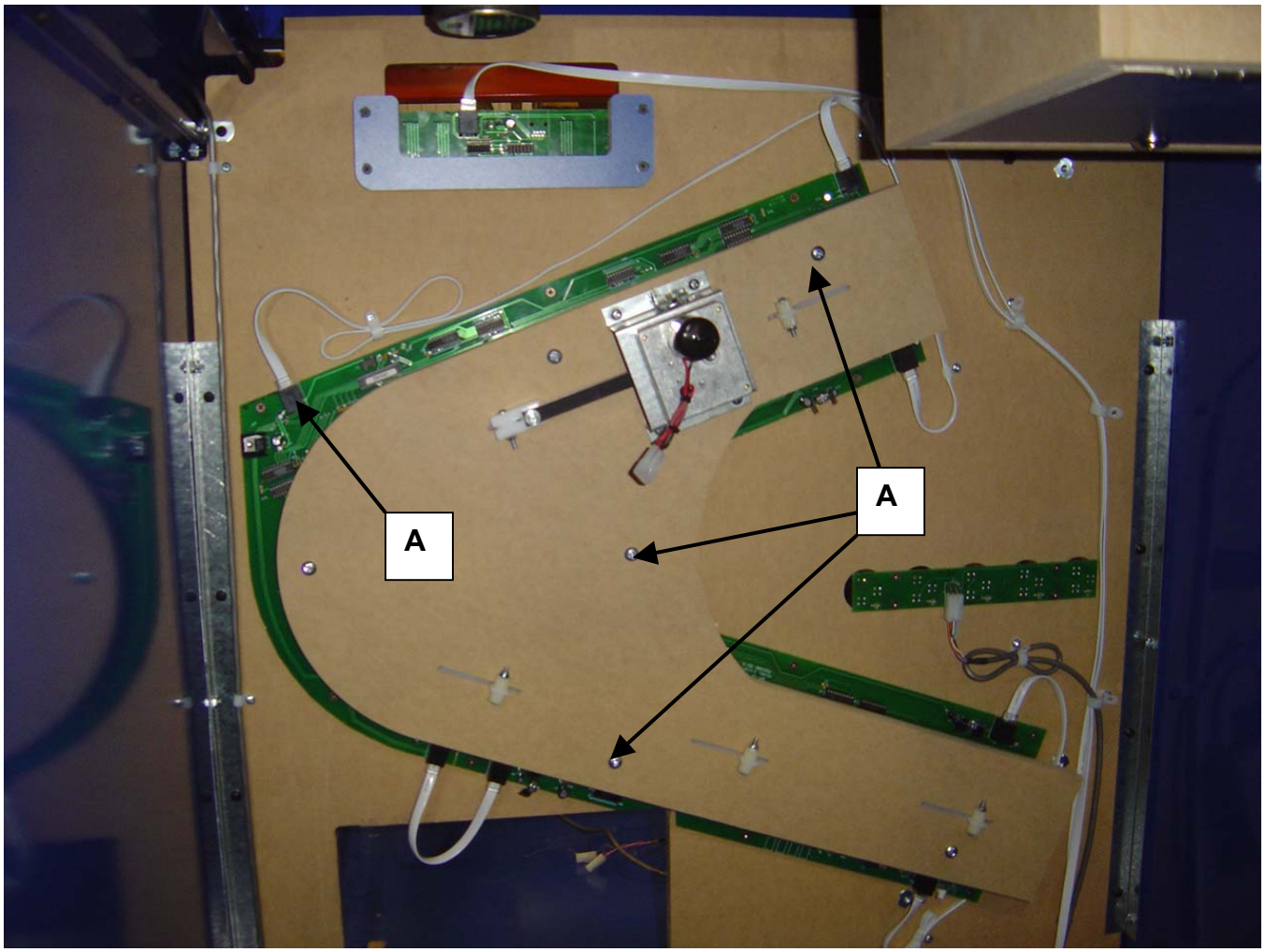


Figure 14 Track Circuit Board Mounting

Plunger Spring

The plunger spring is a special heavy duty spring and should be replaced with a new Bay-Tek spring. See Spare Parts listing on page 34 for part number.

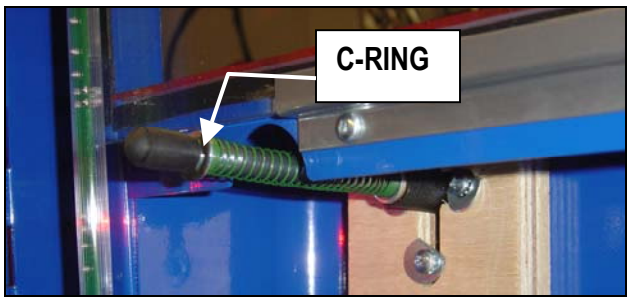


Figure 15 Plunger Spring

1. Remove the rubber tip on the end of the plunger.
2. Remove the C-ring and the old spring.
3. Install the new spring, C-Ring and rubber plunger tip.
4. Test Operation.

Toggle Reset Motor Replacement

The toggle reset gearmotor assembly is easily accessible under the play field.

1. Disconnect the motor wiring at the connector near the motor.

2. Remove the setscrew holding the motor cam to the motor shaft. Pull the cam from the shaft.

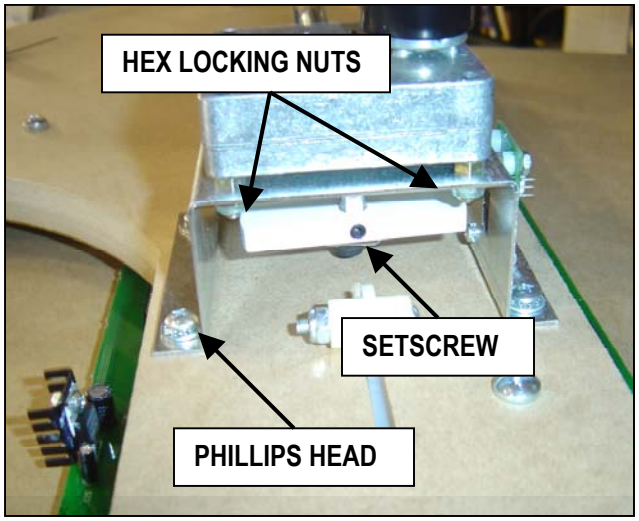


Figure 16 Toggle Gearmotor Replacement

3. It is easier to replace the gearmotor if you remove the entire motor mount assembly from the game. Remove the four Phillips head wood screws, star washers and plain washers holding the bracket to the underside of the play field.

4. Remove the four hex nuts and washers from the gearmotor assembly and lift off the gearmotor.

5. Replace with a new gearmotor and re-assemble in reverse order of disassembly. Test for proper operation.

6. Check fasteners at each end of the spring arm, at the connector cam and the toggle reset cam.

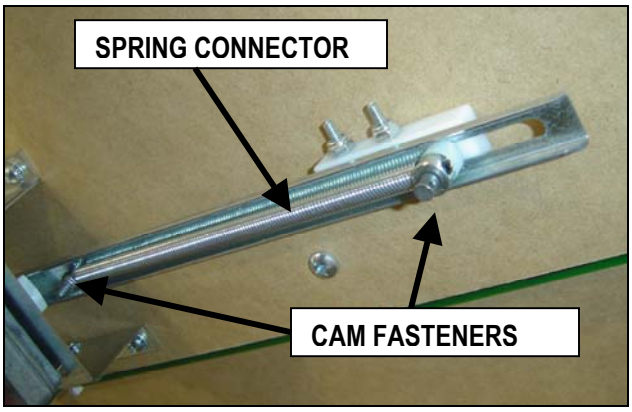
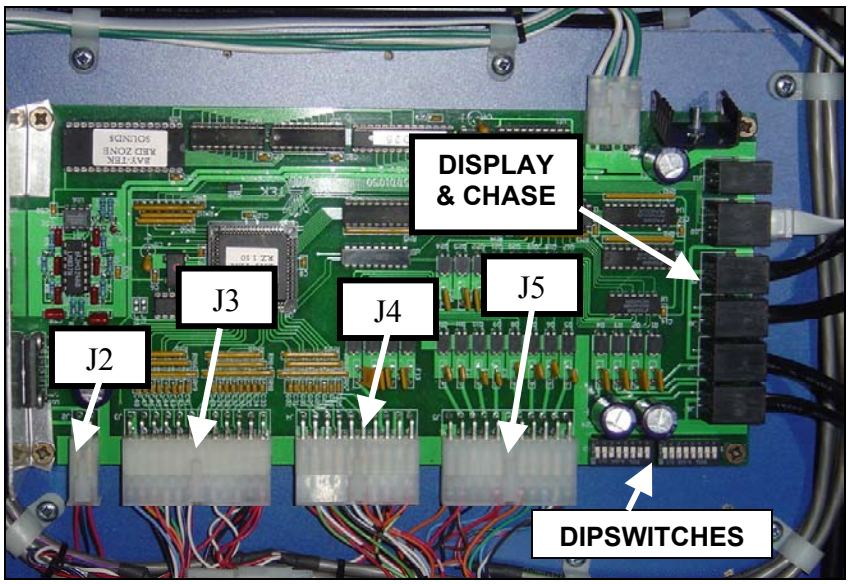
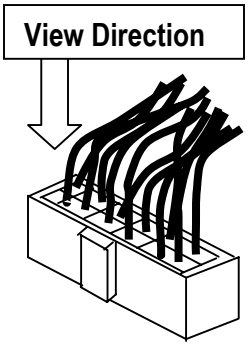


Figure 17 Spring Connector to Toggle Cam

ELECTRICAL DRAWINGS SECTIONS



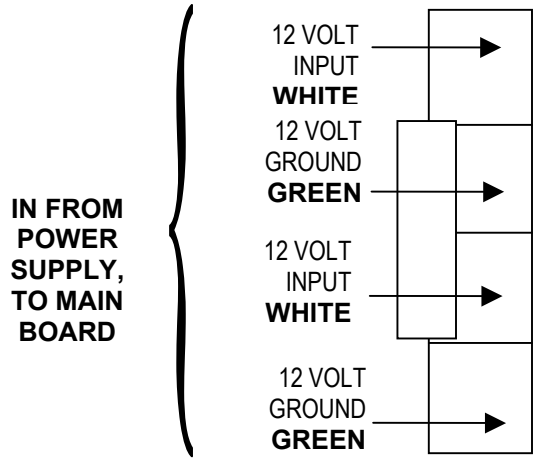


All connector drawings are as Viewed from the pin out position.

Figure 18 Typical Gen 5 Board - References

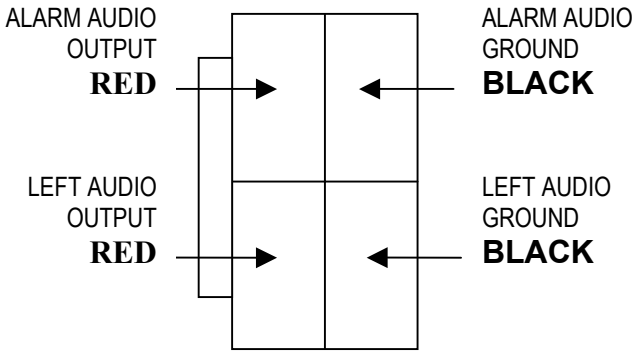
12 Volt Jumper Cable (J1) Connector

PIN – OUT

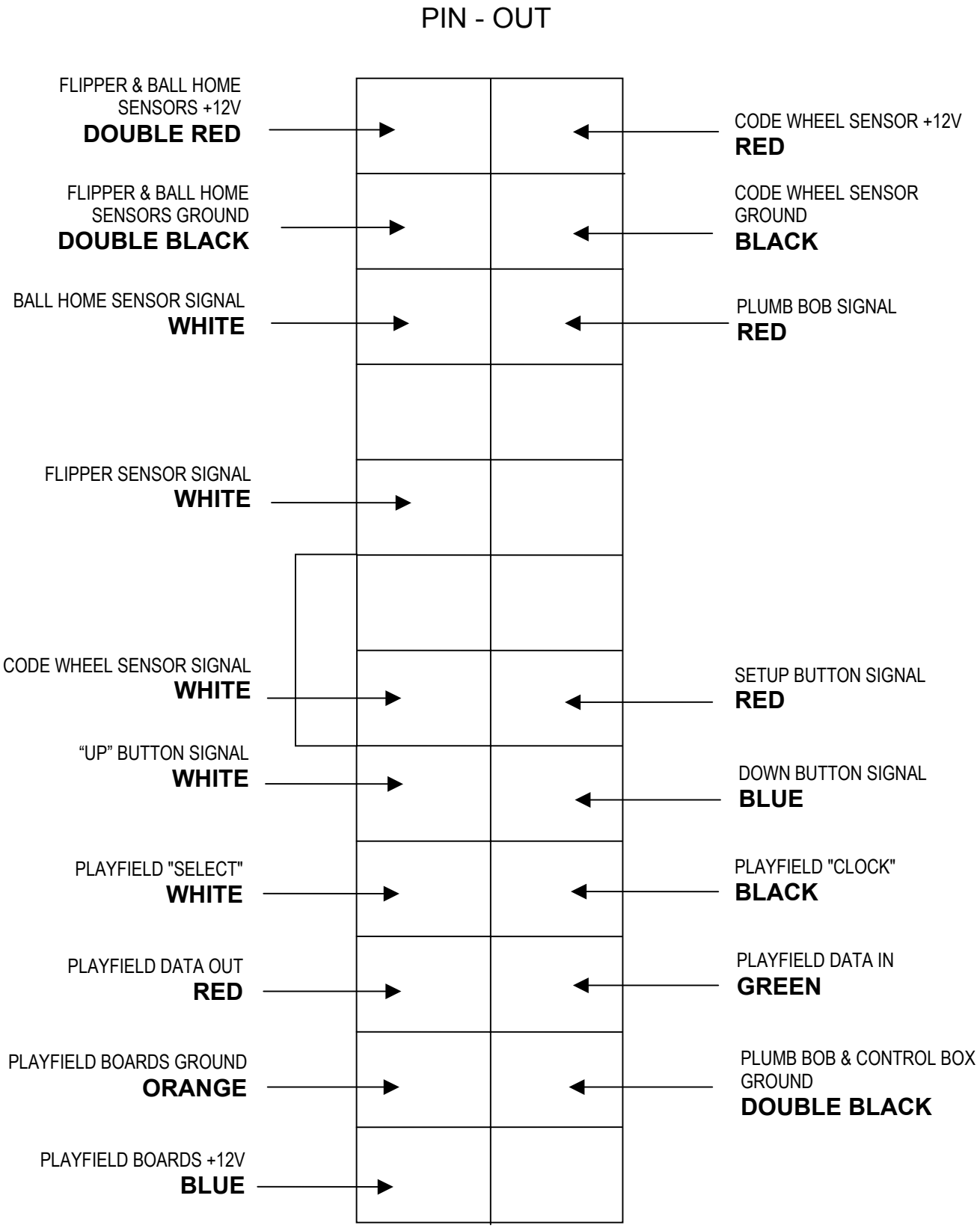


Volume Cable (J2) Connector

PIN – OUT

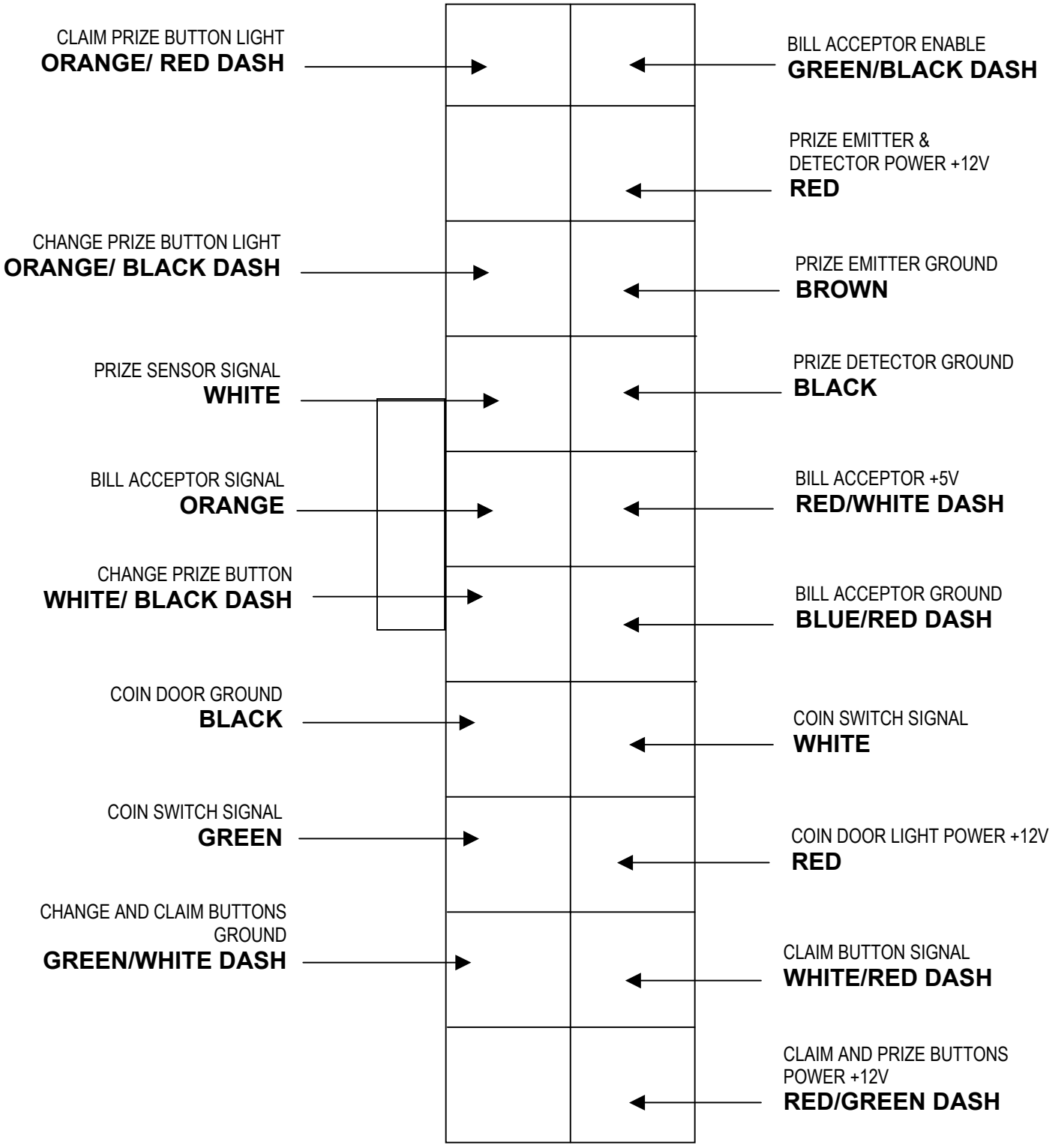


Jumper (J3) Connector

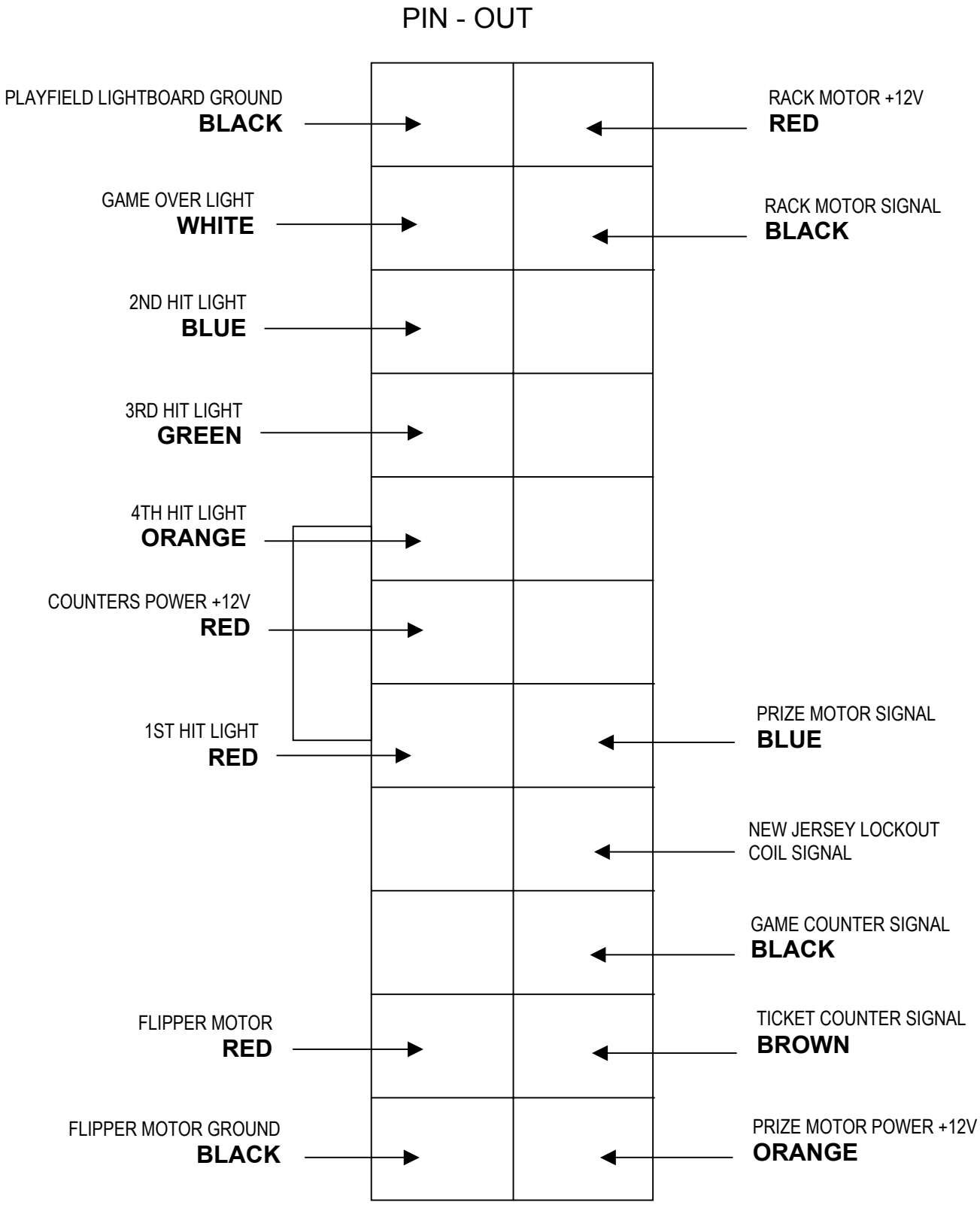


Jumper (J4) Connector

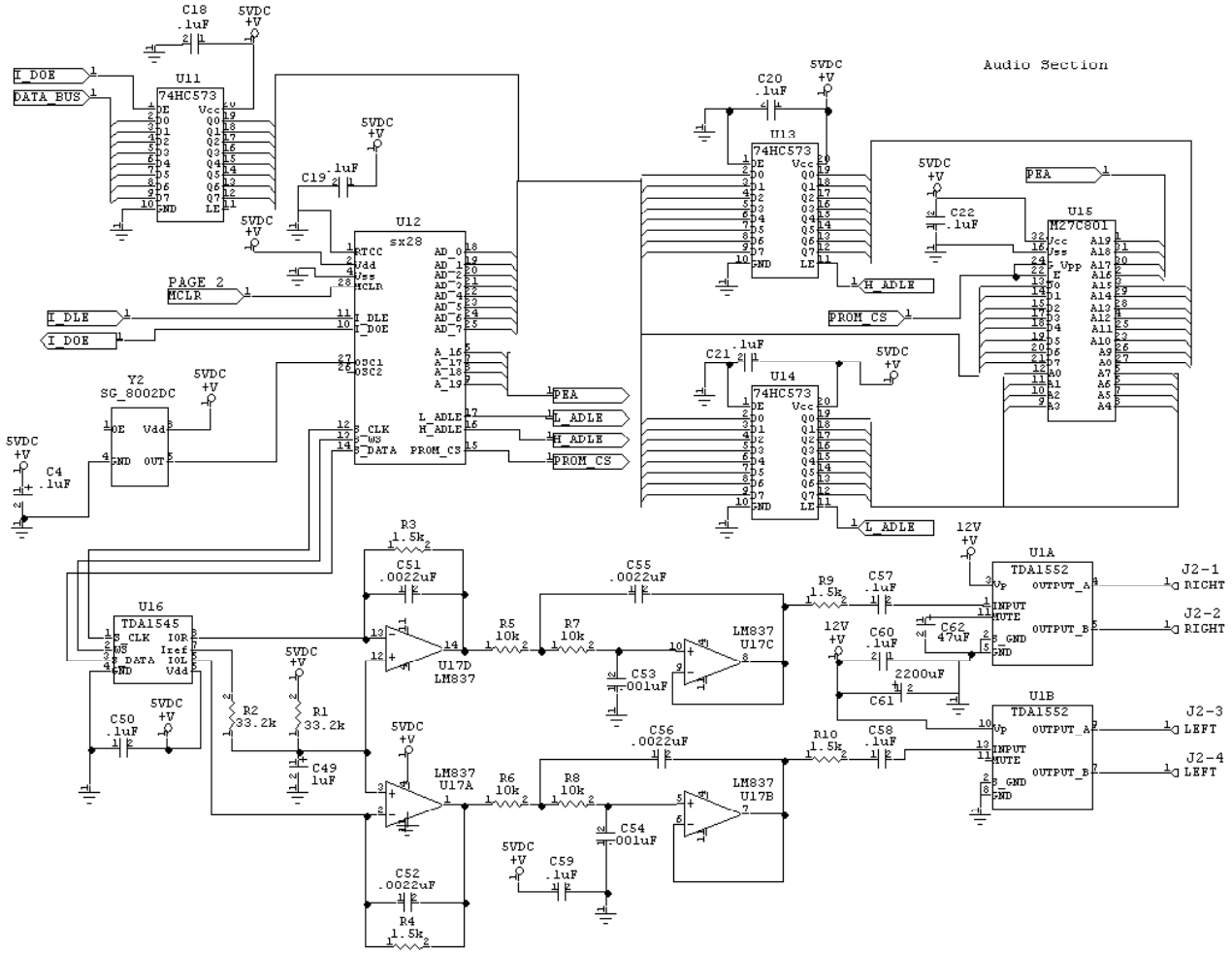
PIN - OUT



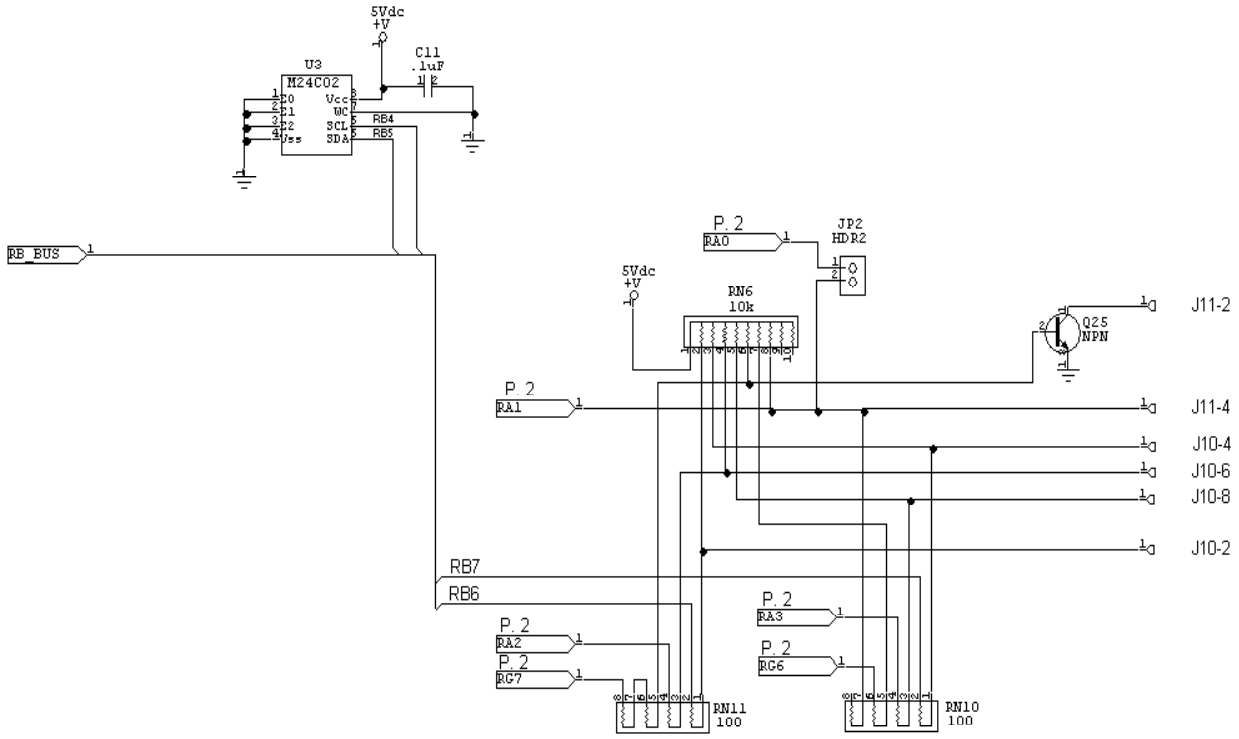
Jumper (J5) Connector



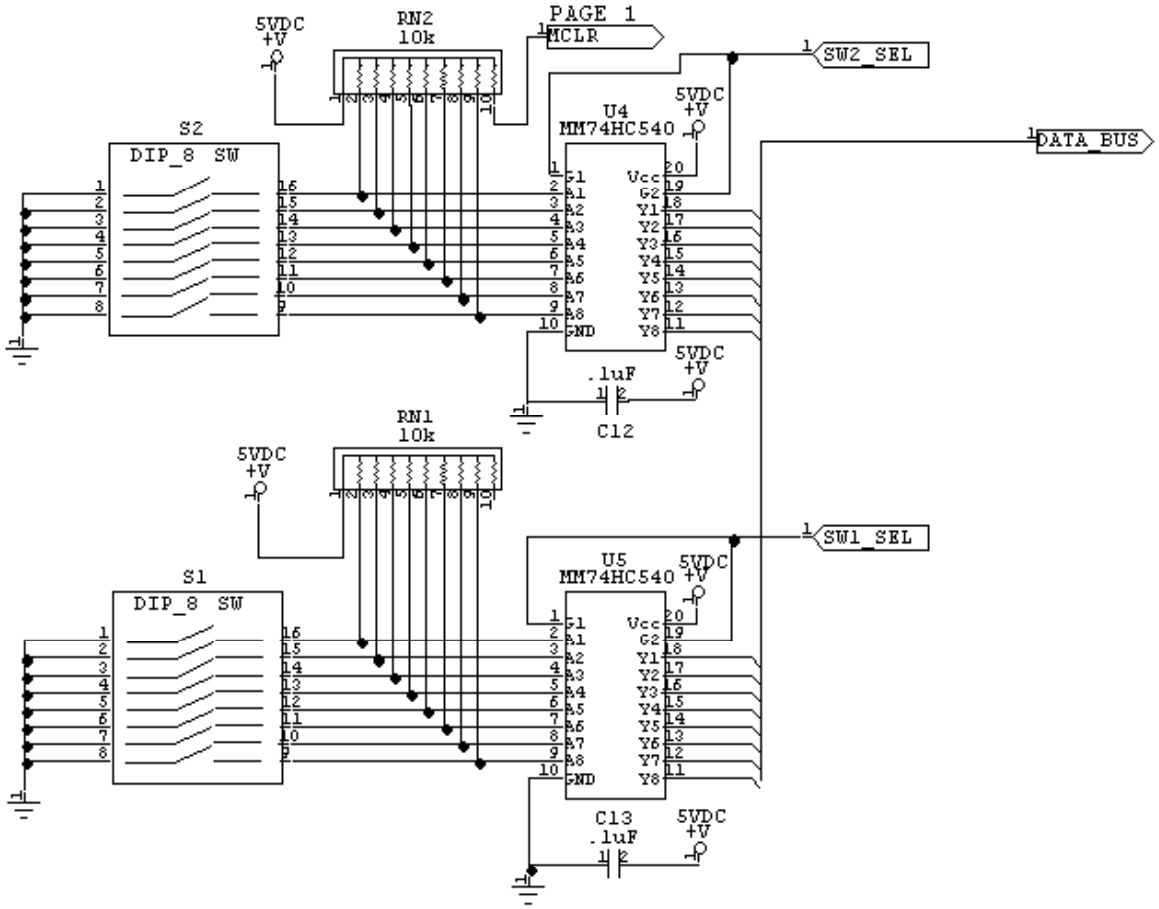
Gen 5 Main Board Schematics



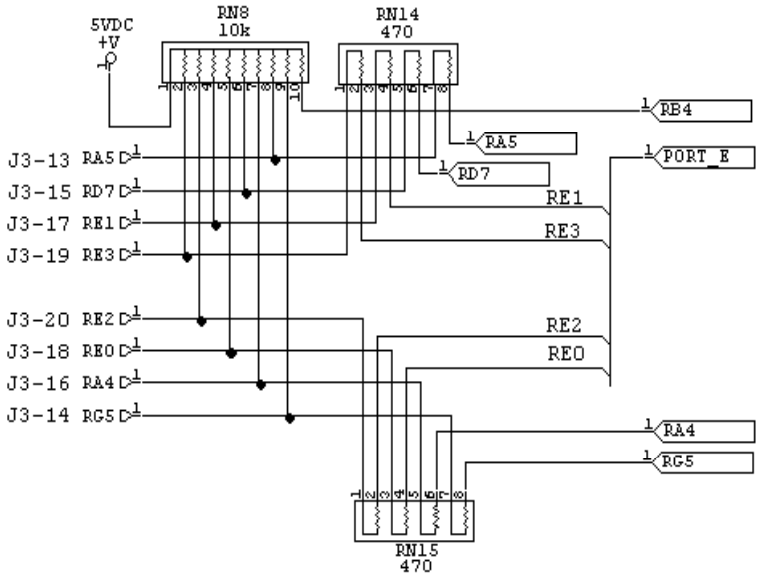
Communications – Serial EEprom

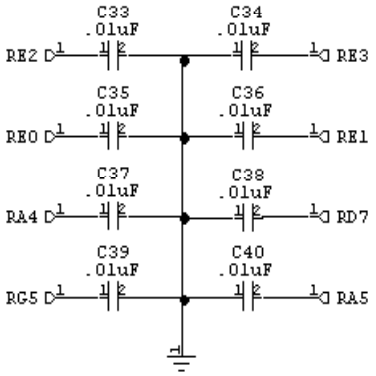


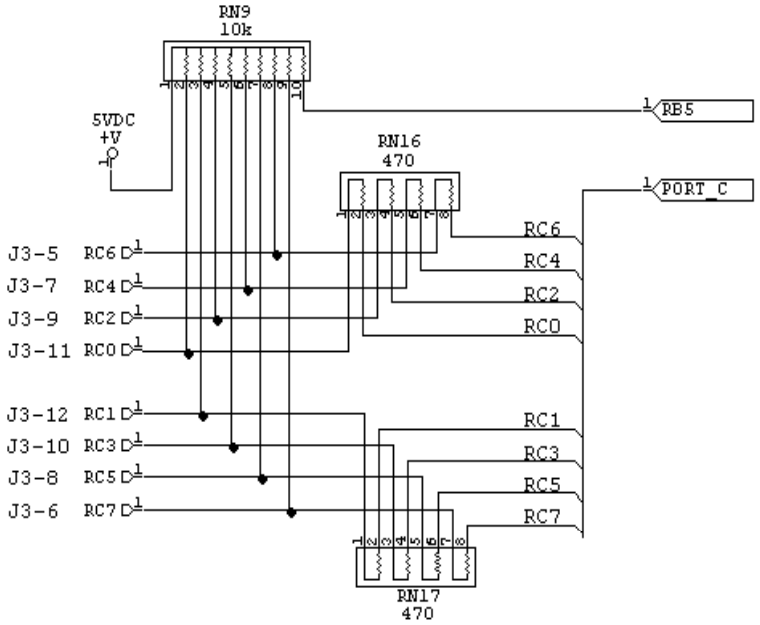
Input Section A – Configuration Switches

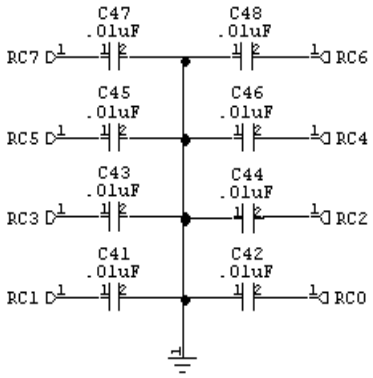


Input Section B – Inputs RE, RC

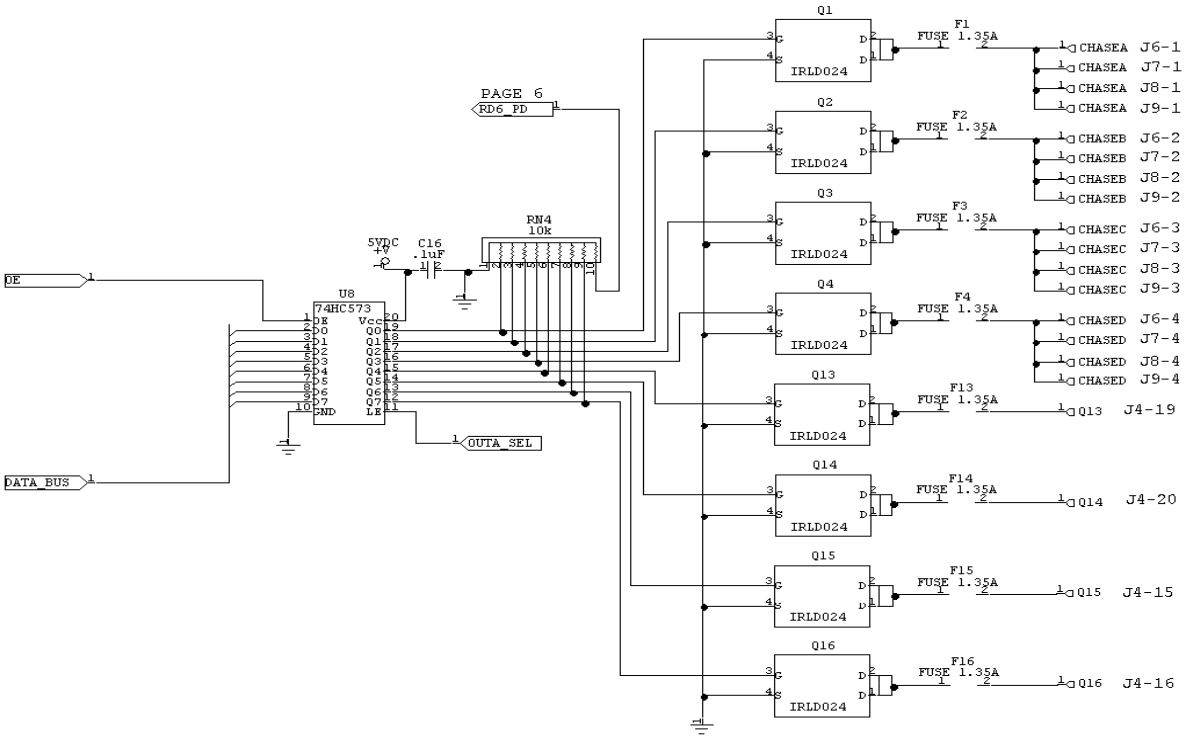




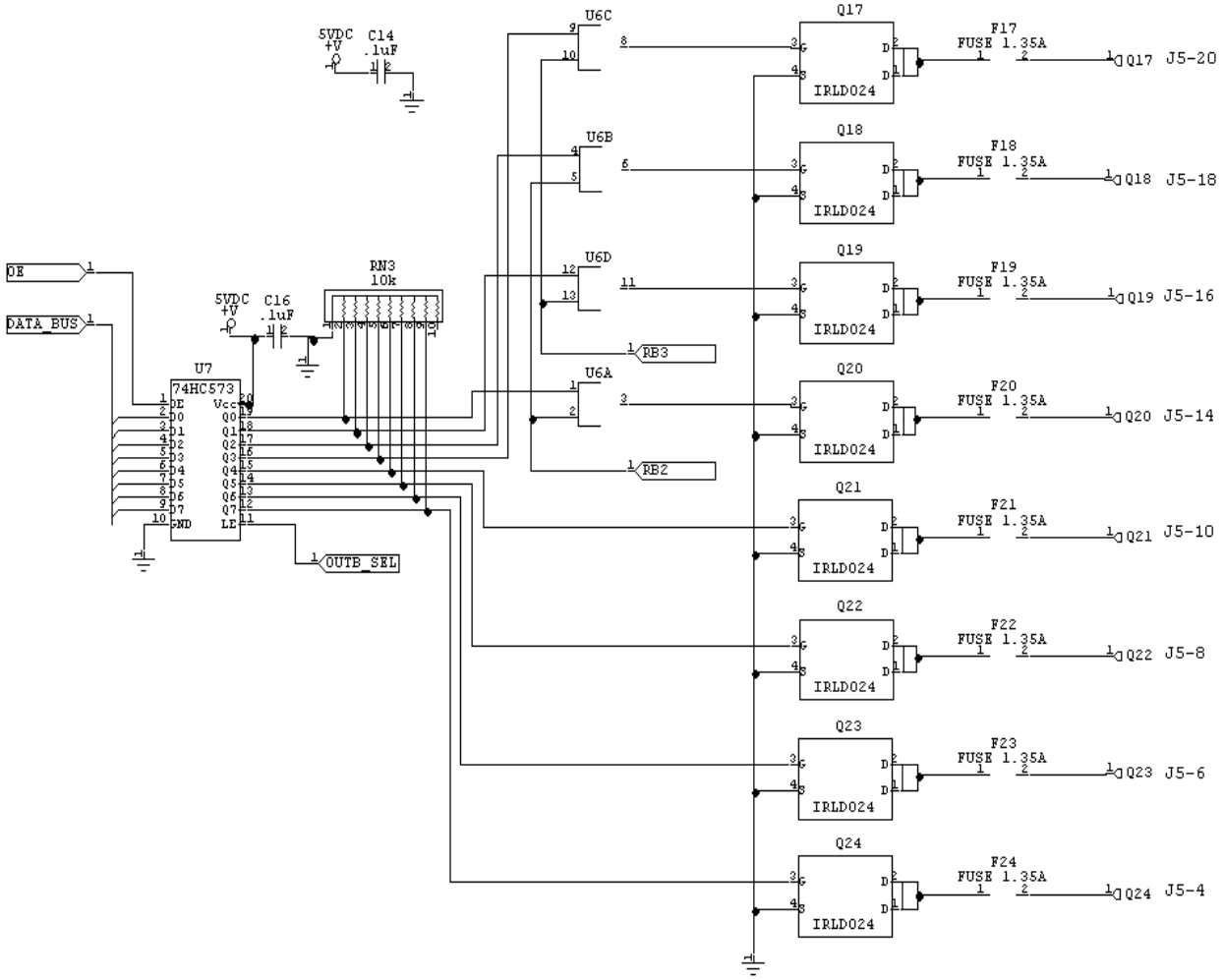




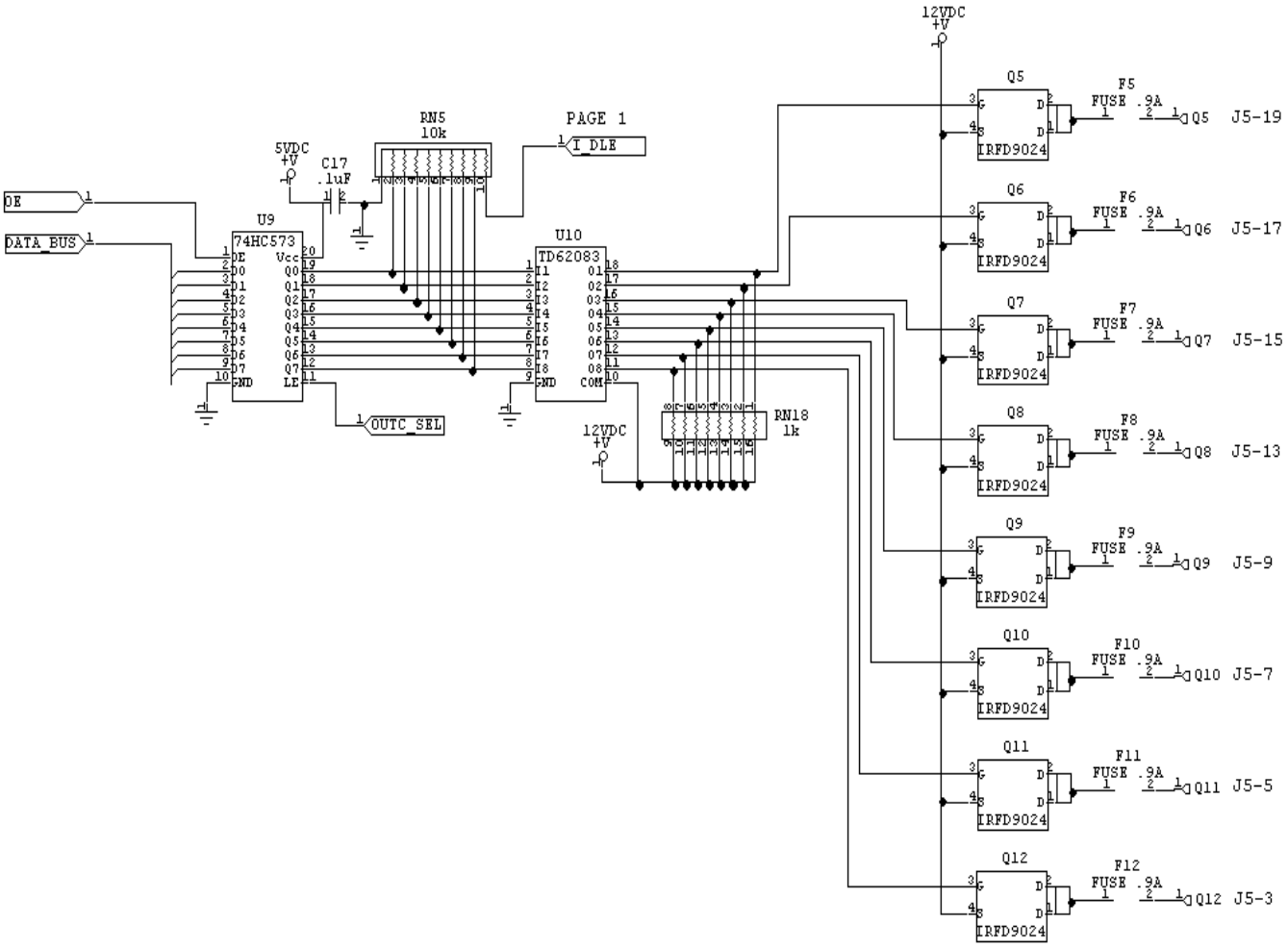
Output Section A – Chase Lights, Q13 - Q16



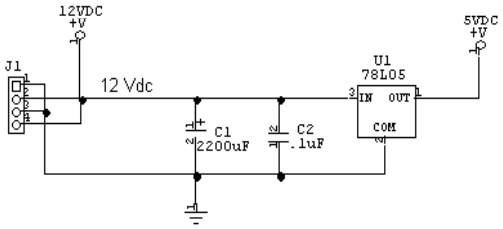
Output Section B – Q17 – Q24

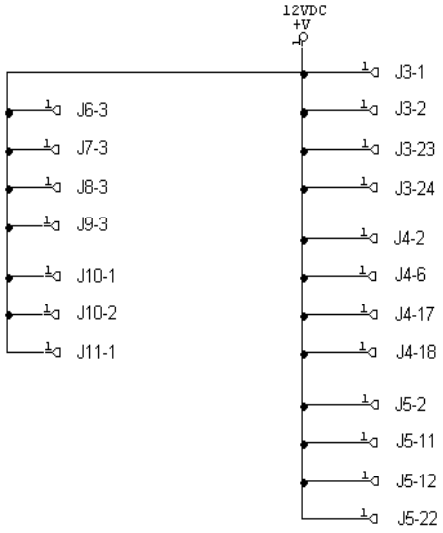


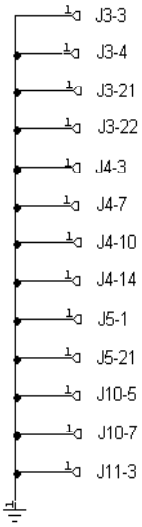
Output Section C – Q5 – Q12



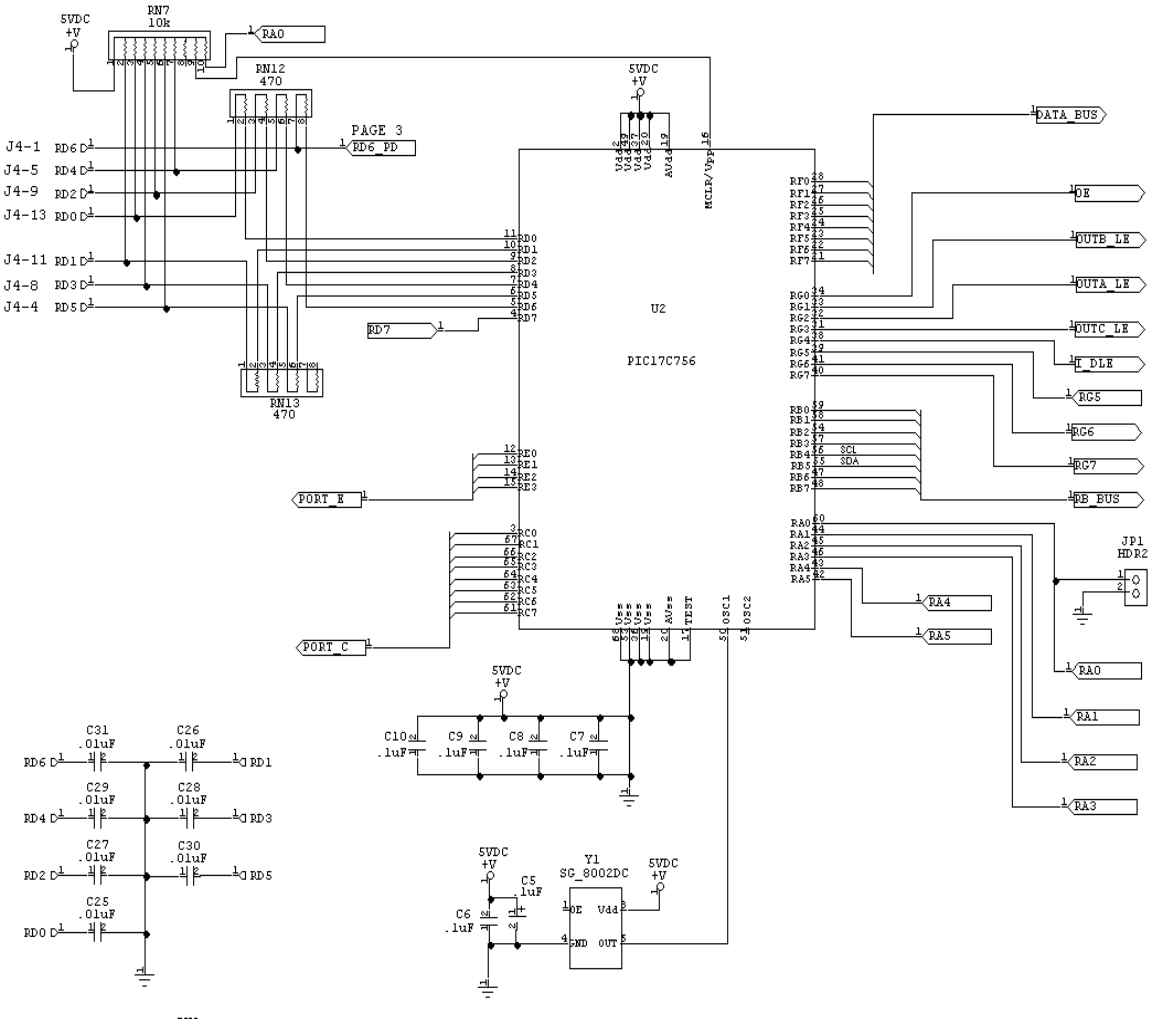
Power Section







Processor Section – Input RD



SPARE PARTS - RED ZONE

Always use genuine Bay-Tek replacement parts. For 24 hour pricing and ordering visit our web site at www.bay-tek.com.

Description	Part #
Bill Acceptor	A5AC9091
Cleaning Card For Acceptor	A5CC9000
If no bill acceptor, use this plate	A5PL9097
Control Panel Faceplate Plexiglas	A5FP3901
Big Red Push Button	A5PB8000
Lamp/Switch Holder	A5LH8000
Lamp, 14v	A5LP0161
Control Panel Decal	A5DC3911
Prize Door Decal	A5DC3904
Red Zone Front Decal	A5DC3905
Red Zone Side Decal	A5DC3900
Plunger	A5HA4021
Plunger Spring	A5SP3903
Red Ball	A5BA3010
Speaker	A5SP1050
Speaker Grill	A5GR2010
Caster Wheel	A5CA1001
Caster Wheel with Brake	A4CA1002
Tilt Plumb Bob	A5TI1001
Front Door Lock Handle	A5HA1001
Front Door Lock Plug	A5LK1001
Push Button Bracket Assy.	AAPBR6905
GLASS	
Side Tempered Glass	A5TG3900
Side Glass Top Decal	A5DC3901
Front Tempered Glass	A5TG3901
Front Glass Top Decal	A5DC3902
LIGHTING	
Chase Lights (4 Per)	AACI3901
Halogen Lamp, 20 Watt	A5LA9050
Fluorescent Light Assembly	AAFL6901
ELECTRONIC BOARDS	
Power Supply	A5PS1001
Main Board	AAMB5A
Audio EPROM, RZ	AAEP-RZ
Microcontroller, RZ	AAMC-RZ
PRIZE SENSOR	
Spring, Prize Hits (9 Per)	A5SP3902
Detector Prize Sensor	AABD3905
Emitter Prize Sensor	AABD3907

Description	Part #
PLAYFIELD ASSEMBLY (AAPF3900)	
Arm For Motor	A5AR1002
Cam, Ball Return	A5CA3900
Cam	A5CA3901
Flipper (27 Per)	A5FL3900
Faceplate, Game Board	A5FP3900
Pivot Pins (27 Per)	A5PI3900
Rear Inner Tog Sensor Board	AABD3900
Rear Outer Tog Sensor Board	AABD3901
Front Inner Tog Sensor Board	AABD3902
Front Outer Tog Sensor Board	AABD3903
Display Board	AABD3906
Encoder Sensor	AASE3900
Motor, Toggle Reset	AAMO3901
Sensor For Toggle Reset Motor	AASE5010
TOP WHEEL ASSEMBLY (AAWH3900)	
Spiral Vend – Bottom	AASB3900
Spiral Vend – Middle	AASM3900
Spiral Vend – Top	AAST3900
Spiral Vend Motor With Coil	AAMO3900
Wheel Drive Motor	AAMO3902
Timing Belt	A5BE3902
Number Sheet Decals	**A5DC3903**
Security Package	AAWS-SP

WARRANTY INFORMATION

Bay-Tek, Inc. warrants to the original purchaser that the game will be free of defects in workmanship and materials for a period of six months from the date of installation.

Bay-Tek, Inc. will, without charge, repair or replace at its option defective product or component parts upon notification to the factory service department. Serial number identification will be required for warranty consideration.

Warranty replacement part(s) will be shipped immediately via ground service, along with a Return Material Authorization (RMA) number for the return of the defective part(s). Defective parts must be shipped back to Bay-Tek, Inc. unless otherwise instructed.

This warranty does not apply in the event of any misuse or abuse of the product, or as a result of any unauthorized repairs or alterations. This warranty does not apply if the serial number is altered, defaced or removed from its original position.

Should your game need servicing, determine the serial number from the logic unit of the game, and call 920-822-3951 or email service@bay-tek.com

REPAIR OF NON-WARRANTY UNITS

Should your game need servicing, determine the serial number from the logic, and call 920-822-3951 or email service@bay-tek.com. An estimate of repair charges will be quoted to you for approval.

Proceed in one of the two following ways:

Request immediate shipment of advanced replacement parts.
Send in the defective unit for repair and return.

If advanced replacement(s) are requested, you will receive with your parts an RMA number for the return of the faulty part(s). You must return defective parts within 14 days to avoid additional charges.

Should you choose to return parts for repair, include the following:

Name, address and phone number including area code.
Game serial number information.
A purchase order number, work order number or signed authorization to perform service.

Repair and Return parts will be shipped back using the same mode of transportation under which they were received. Repairs are warranted for a period of thirty (30) days from the date installed into service.

For future reference;

Serial number _____

Date of Installation_____

Installed by _____

Bay-Tek's Fill Kit Information

Contact these quality suppliers for game prize refill kits.

Noel Industries

Chris Noel
PO Box 727
Ozona, FL 34660
Phone: 800-234-8729
Fax: 727-784-6202
cno@prodigy.net
Kits available for:
Red Zone
Whistle Stop
Winners Edge

Playtime Toys

Charles Caplan
6235 Edgewater Dr.
Orlando, FL 32810
Phone: 888-4757-8697
Fax: 407-296-9898
charles@playtimetoys.net
Kits available for:
Red Zone

NOTES

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