



# Vacation America



## Owner's Manual



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## **1) SAFETY NOTICES:**

The following safety instructions apply to all game owners. We recommend that you read this page before setting-up your Vacation America Pinball.

Use the following safety guidelines to help protect the system from potential damage and to ensure your personal safety.

- Use with only 115 volts/60Hz.
- To help prevent electric shock, plug the system power cables into properly grounded power sources. These cables are equipped with 3-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.
- To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner or uninterruptible power supply (UPS).
- Do not spill food or liquid on your pinball machine.
- Do not push any objects into the openings of the system. Doing so can cause fire or electric shock by shorting out interior components.
- Keep your game far away from radiators and heat sources.
- Do not block cooling vents.
- **BE SURE TO UNPLUG POWER BEFORE WORKING ON THE MACHINE!**
- Be sure to use fuses that meet the specified rating. Using fuses exceeding the specified rating can cause a fire and electric shock.

## **2) FCC COMPLIANCE:**

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/technician for help.

### **3) INTRODUCTION**

Vacation America was designed to provide consumers with a reliable state of the art pinball machine for the home.

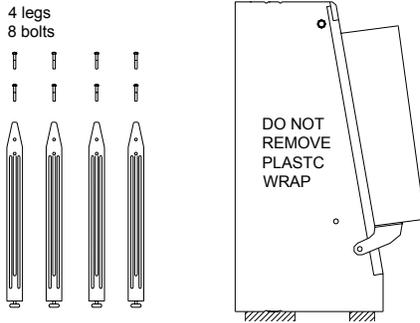
Pinball intrinsically requires maintenance and service. Vacation America was designed to make this service and maintenance manageable in a home environment. Through the use of optical sensors, many of the components that routinely required adjustment will function the life of the machine without adjustment. Mechanisms have been reengineered to be modular, allowing their replacement without a deep understanding of pinball maintenance, utilizing only a Phillips head screwdriver.

This manual will outline the steps to assemble your VACATION PINBALL, it will discuss games rule, scoring and features and it will discuss maintenance and service of your pinball machine.

Vacation America will provide years of entertainment for you, your family, and friends.

## 4) GAME SETUP

### Step 1:



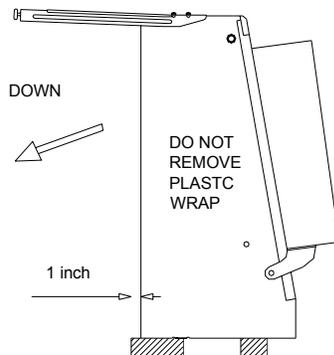
Position box vertically

Open the box; remove the legs and the game hardware bag containing bolts.

Unwrap the 4 legs and take the 8 bolts from the game hardware bag.

Lay the box on its side, slide the game out of the box and position the game vertically.

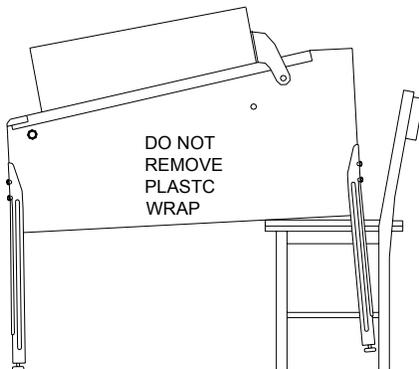
### Step 2: Attach front legs



Using two leg bolts per leg, attach the two front legs to the front of the main cabinet.

The leg bolts will require a 5/8" wrench to tighten them. Tighten the bolts so that they are snug but do not over tighten. The bolts should be "wrist tight", which is as tight as you can comfortably turn a wrench using only your wrist. Over-tightening bolts can damage cabinet.

### Step 3: Attach rear legs



Tilt the game forward so front legs are on the floor.

With one or two assistants, lift the back end of the machine off the floor, and place it on a stool or chair.

Attach the rear legs using two bolts per leg.  
**DO NOT OVERTIGHTEN!**

#### Step 4: Lock backbox



Using scissors or a knife, carefully cut away or remove all packing material holding the backbox down.

Slowly and carefully raise the backbox having your assistants guide the cables and wires through the “neck” of the game.

Lock the backbox in its upright position by turning the included Allen wrench  $\frac{3}{4}$  of a turn **clockwise**.

#### Step 5: Remove the Lockdown Bar:



The lockdown bar is the metal bar that goes across the front of the game and holds the playfield glass in place. It's what you rest your hands on when playing the game.

Open the front door with the key included in the game hardware bag. Locate and release the **two latches** (inside the front wall to the left and right of the opening) that hold the lockdown bar in place. This will release the playfield glass lockdown bar and allow you to remove it by lifting it straight up.

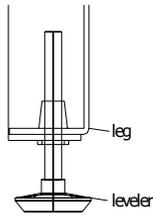
#### Step 6: Install Pinballs:



Locate the three balls packaged with the game hardware. Pull playfield glass down a short distance and place the pinballs on the playfield surface and let them roll down to the ball trough.

Slide the playfield glass back up and secure the lockdown bar with the two latches.

### **Step 7: Level the Machine:**



Place a carpenter's level on the inside of the bottom of the cabinet.

Adjust the leg leveler until the machine is level.

### **Step 8: Power On**



Locate the line cord packaged in the game hardware bag. First, securely plug the female end of the cord into the outlet on the back of the game. Then plug the male end into a grounded wall outlet. We recommend using a surge-protector.



Turn the game on by the main power switch. This switch is located under the right corner of the main cabinet (behind the front right leg) on the bottom of the cabinet. It is in a recessed hole. Flip the switch to the ON position and verify the game powers up and the score display lights, playfield light flash, etc. Most games will take approximately 15 seconds to completely boot up and start.

**Note:** the front door must be closed for machine to power up.

## **5) VOLUME ADJUSTMENT:**

Volume is digitally adjusted during the game boot-up (start up) process. To adjust volume, turn the game off, and then back on. Game will boot-up and the score display will eventually show the volume adjustment for the game, which reads:

### **L FLIPPER FOR VOLUME**

Press the left flipper button while the above message is shown on the score display. The game will then show the current volume setting (factory default is "7"), and allow you to change it.

Use the left flipper button to lower (decrease) the volume setting. Use the right flipper button to raise (increase) the volume setting. The score display will show the current setting you have chosen, and make a sound each time you adjust it.

After you have selected a volume setting, press the “Start” button on the front of the game to lock in the volume setting. The game will then finish starting up and be ready to play.

## **6) GAME PLAY:**

After the game has booted-up, the score display will read “PRESS START”. Press the start button on the front of the game to begin play.

Vacation America is a single-player game, meaning that one player starts and finishes a game at one time. Each game consists of 3 balls per game. The score display will keep track of the player’s score and the current ball in play.

When the game is over, the player’s score will continue to be shown on the score display, and the display will read “GAME OVER” at the top.

Press the start button on the front of the game to start another game.

**Objective:** Visit as many locations as possible on your Vacation across America!

**Skill Shot:** Make flashing top rollover lane on the opening shot for 2X scoring.

**M-A-P Lanes:** Complete M-A-P top rollover lanes for multiplied scoring (2X, 3X, etc.)

**Lane Change:** Use flipper buttons to move lit M-A-P lanes.

**Drive Lane:** Complete D-R-I-V-E lane to light center Super Loop.

**Super Loop:** Shoot lit Super Loop entrance to advance to next location.

**VACATION:** Shoot lit targets to spell V-A-C-A-T-I-O-N to advance to the next location.

**Routes:** Complete route of 3, 4 or 5 locations to light **EXTRA BALL** and **LOCK BALL**.

**Multiball:** When LOCK BALL lamps are lit, lock balls for fast 2 and 3 ball play.

**Double Drain Bonus:** Drain two times through outside ball return for 1 million-point bonus.

There are 24 locations from the Florida Everglades to Hollywood California.

The locations are divided into 6 routes,

- 2 routes of 3 locations
- 2 routes of 4 locations
- 2 routes of 5 locations

Whenever you complete a route you are given the opportunity to initiate MULTIBALL and win an extra ball.

**SCORING & BONUS FEATURES**  
**(Basic Scoring, without Multipliers)**

FEATURE	POINTS
1. "Add –A-Letter" Targets & Rollovers.....	10,000
2. All other Rollovers.....	2,000
3. Spinner.....	3,000
4. Jet Bumpers.....	500
5. Ball Out Hole Poppers.....	2,000
6. Sling Shots.....	30
7. Bonus Rollovers:	
1 <sup>st</sup> time in a game.....	4,000
2 <sup>nd</sup> time in same game.....	1,000,000
9. Drive Lane Rollover.....	2,000
10. Super Loop Rollovers (no arrows Lit.).....	2,000
11. M A P Rollovers.....	500
12. EXTRA BALL.....	10,000 + extra ball
13. COMPLETE LOCATION AND ROUTES:	
Each Location.....	100,000
1 <sup>st</sup> Route (3 Locations).....	250,000
2 <sup>nd</sup> Route (3 Locations).....	500,000
3 <sup>rd</sup> Route ( 4 Locations).....	1,000,000
4 <sup>th</sup> Route (4 Locations).....	2,000,000
5 <sup>th</sup> Route (5 Locations).....	4,000,000
6 <sup>th</sup> Route (5 Locations).....	8,000,000

**7) ACCESS TO PLAYFIELD & GAME INTERIOR:**

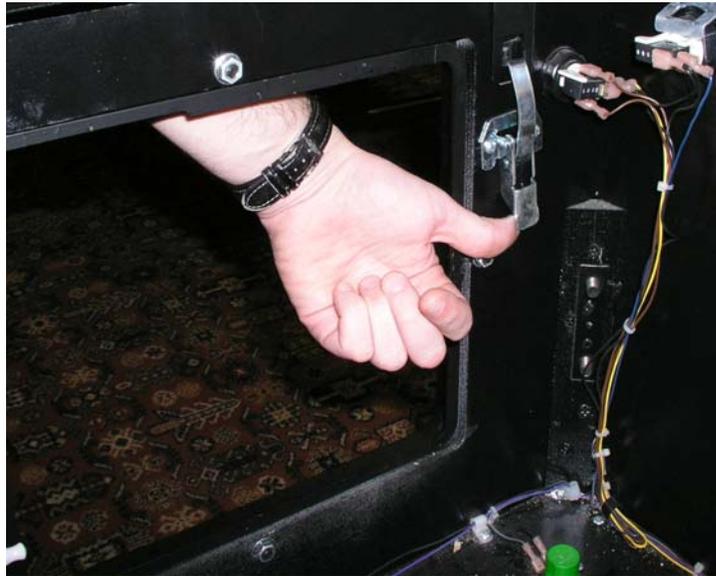
Periodically you will need to get inside the game to perform necessary maintenance and cleaning. It will require adjustments, replacement of rubber rings, light bulbs, balls, and occasional repairs.

**a) Removing the Playfield Glass:**

Access to the game's playfield and the main cabinet of the game is through the front door. Unlock and open the door. If the power is on, the game will automatically shut down

when the front door is opened, to protect you from high voltage, which is present inside the machine. **ALWAYS UNPLUG THE PINBALL MACHINE BEFORE OPENING THE FRONT DOOR!**

With the front door open, reach inside on the left and right sides of the coin door, and release the two latches that hold the lockdown bar on the front of the game. With the two latches released, you can remove the lockdown bar by lifting it straight up. Then slide the playfield glass off to gain access to the top of the playfield. You must carefully support the playfield glass as you remove it to avoid breaking.

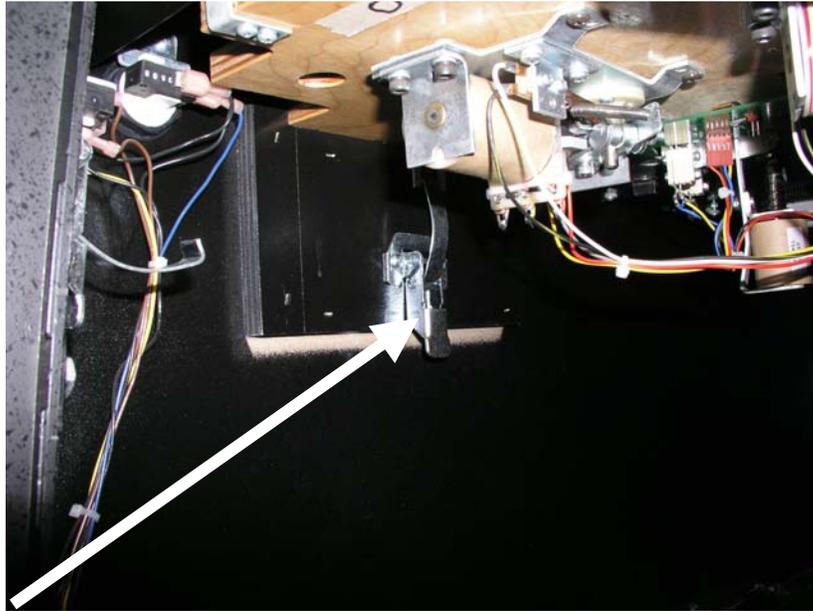


With the playfield glass removed, you will have access to the top surface of the playfield for cleaning, jet-bumper light bulb and ring replacement.

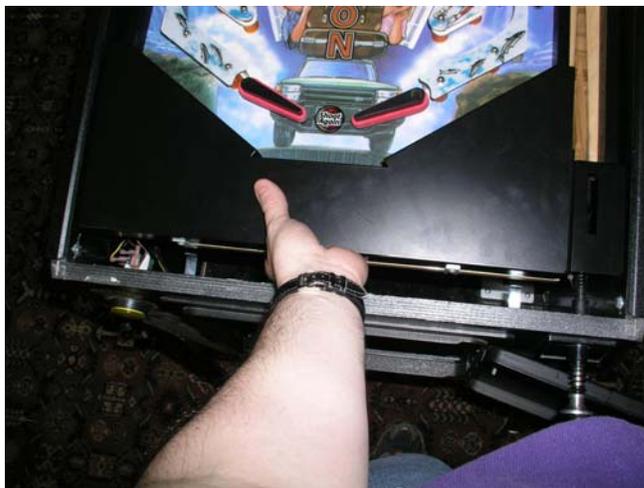
**b) Raising the playfield:**

Before you can lift the playfield to gain access to its underside, or access to the main cabinet interior, you will have to make sure that two more latches inside the game are released, which are used to hold the playfield in its normal position.

Reach inside the coin door and release each of the two latches on the interior sides of the main cabinet.



To raise the playfield, lift with your fingers under the front of the playfield - as shown below. The playfield should lift straight up at the front end, pivoting at the back (much like the hood of your car).



As you raise the playfield, use one hand to block and catch the balls when they fall out of the ball trough, and into the plunger lane. If the balls fall free as you raise the playfield, they may hit plastic playfield parts and break or crack them.

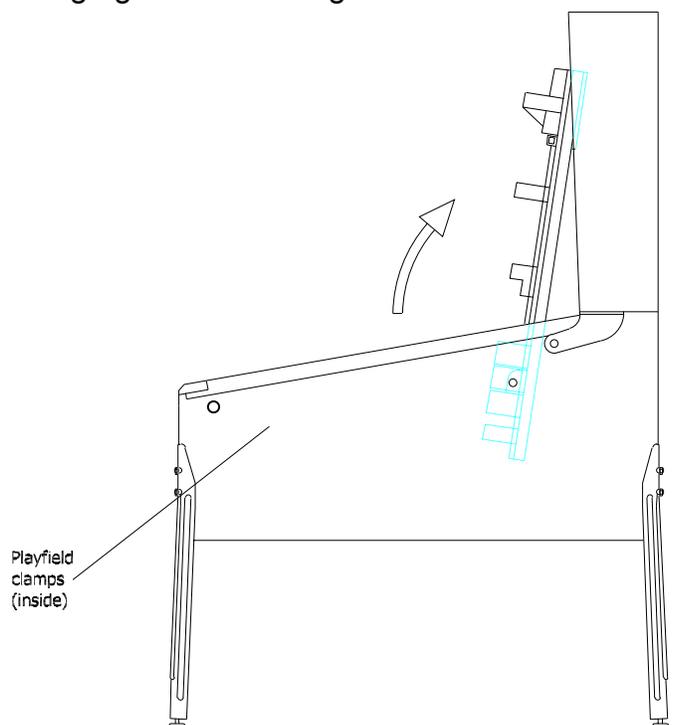


Catch the balls and set them aside. Replace them on the playfield after you have lowered the playfield back down to its resting position.

The playfield can be partially raised, and held at any angle by a helper while you access the underside, or it can also be raised all the way up, and gently rested against the backglass.

If you do rest the playfield against the backglass, do so with caution. We recommend using a cloth or soft rag draped over the top edge of playfield to avoid scratching the glass.

Be sure also not to apply too much pressure (pushing) on the bottom side of the playfield while it is resting against the backglass!



Access to components on the underside of the playfield can now be had as well as access to the main power supply and fuses, located in the bottom of the main cabinet.

### c) **Access to Backbox:**

Access to the interior of the backbox may never be necessary – there are only a few serviceable parts inside it. These include the fluorescent light tube, fluorescent starter, and fuses on the main CPU circuit board unit.

To gain access to the backbox interior, remove the four Phillips head screws that hold the wood molding down at the base of the backglass. Then remove the wood-molding piece.



To remove the glass, first pull the bottom of the glass toward the front of the machine. Once it clears the backbox, lower it down toward the playfield glass. Then carefully remove the backglass and set it in a safe place.

Once the backglass is removed, you will have access to the score display and “map” lights printed circuit board assembly, and the main CPU circuit board assembly, located above and behind the score/map circuit board unit.

## 8) **RECOMMENDED MAINTENANCE:**

The owner can perform general maintenance on the game whether experienced with pinball machines or not.

### a) **Glass Cleaning:**

Both sides of the playfield glass should be cleaned regularly. You can remove the playfield glass as described in the section on “Access to Playfield & Game Interior” earlier in this manual.

DO NOT use excessive glass cleaner on the backglass. Excessive glass cleaner can run down to the bottom of the backglass, and creep up onto the backside. This can cause possible damage to the silkscreened artwork on the backside of the glass and cause it to crack, “lift”, and peel off of the glass over time. The backside of the backglass seldom needs to be cleaned, but if it does, use only a minimal amount of glass cleaner, and make sure it is all wiped completely dry before re-installing the backglass in the game.

**b) Playfield Cleaning:**

The most important and protective maintenance is keeping the playfield clean, including the periodic replacement of rubber rings, bumpers and the balls themselves.

Cleaning should be performed periodically as needed – depending on how much or how often the game is used. When you start to notice some buildup of dirt or grime on the white rubber rings or on the playfield itself from the ball rolling through lanes, etc., then it may be a good time to do some cleaning.

Keeping the playfield clean, waxed, and regularly replacing rubber rings and balls will keep the playfield finish healthy and will help avoid premature wear and tear of the playfield surface and parts, and keep your game in top condition, as well as protecting your investment!

We recommend using a qualified pinball playfield cleaner/polish, and optionally a high quality wax, to keep your playfield finish cleaned and protected.

Our top recommendation for cleaning/polishing is “Diamond Bright” cleaner/polish, which is used to clean and polish the playfield surface. We also recommend following up the Diamond Bright with a coat or two of “Kit Carnauba Wax”, which is a very high quality carnauba wax that will add shine and protection to your cleaned playfield, and drastically help extend the life of your playfield finish.

We also recommend CP-100 cleaner for optional cleaning and restoring of rubber rings and rubber bumpers on your playfield.

DO NOT USE any water-based or abrasive cleaner on your playfield’s surface. Water based cleaners can soak into the wood of the playfield and cause it to split or swell, thus damaging the finish/artwork on your game.

**c) Playfield Opto Switch Cleaning & Maintenance:**

Your pinball machine uses many “opto” switches on the playfield to detect ball movement. These opto switches look like two tiny light bulbs mounted side by side. They reflect an infrared beam off the ball to detect the ball’s presence.

When you clean your pinball playfield, be sure not to use too much cleaner, polish, or wax, in order to avoid getting extra material in the holes where the opto switches are mounted. If an opto switch gets covered up by cleaner, wax, or even if it gets dirty from extensive play, it will not be able to “see” the ball, and consequently will not function.

Be sure to check for clean opto switches after cleaning your playfield. The optos can be easily cleaned by gently using a toothbrush or cotton swab

**d) Replacing Balls & Rubber Rings:**

The balls should be replaced on a regular basis, depending on how much you use the game. We recommend at least once a year. Balls will accumulate scratches and tiny chips on them over time from striking metal parts on the playfield. These tiny scratches

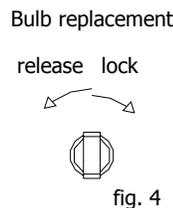
and chips act as an abrasive to the playfield surface and can cause premature wear of the finish. When the balls in your game develop a “hazy” or “foggy” look, or when you can’t clearly see your reflection in the ball’s finish, they should be replaced.

Rubber rings and light bulbs should be replaced as required – when rings show signs of wearing out and when light bulbs periodically burn out.

#### e) **Changing Playfield Lamps:**

To change the playfield lamps, you must raise the playfield. See section 7(b) ‘Raising the Playfield.’ Now you have complete access to most of the playfield lamps. See discussion below.

To remove a bulb, turn the lamp counter-clockwise and pull out. Then pull the bulb out.



#### f) **Game Adjustments:**

Mechanical assemblies on the playfield may require some maintenance and adjustment from time to time. While many assemblies have been reengineered to not require adjustment, the targets and the slingshots may still require adjustment. If you have a slingshot or target that is not responding well, or appears “sluggish” or “over sensitive”, you may need to make a slight adjustment to the leaf-switch used on the device to adjust its sensitivity.

If you’re uncomfortable making adjustments on your game, we can refer you to a independent serviceman in your area.

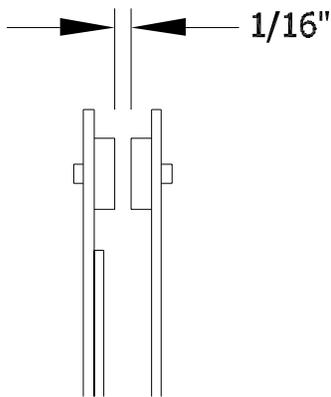
DO NOT apply any lubrication to any of the mechanical devices on the playfield (flippers, bumpers, etc.) These devices are designed to “run dry”, and any added lubricant, while possibly providing a temporary solution, will soon cause the unit to “gum up” and cause more problems. Adding lubricant to devices may also pose a fire hazard. Any lubrication added to the game will void the game’s warranty.

#### g) **Leaf Switch Adjustment:**

There are 7 targets on the playfield, 3 round and 4 rectangular. These targets utilize mechanical leaf switches. There are also 2 slingshots with similar switches. With constant use these switches tend to lose their adjustments. It is necessary readjust them. This will become evident when a target does not score properly. See the discussion below on

adjusting leaf switches. Note: to gain access to the slingshot switches you will need to remove the plastic artwork covering this assembly.

### Switch adjustment of targets and sling shots



When a readjustment is necessary, keep the distance of 1/16" between the contacts.

## 9) FUSES:

The main A/C fuse is located on the top of the metal plate that the on/off switch is mounted to (Inside the Cabinet). Be sure to replace it only with 3AG Slo Blo 3 Amp fuse.

There are four unregulated DC fuses located on the green PCB on the power supply chassis:

- 8 amp, 3AG fuse – On 45VDC
- 5 amp, 3AG fuse – On 24VDC
- 5 amp, 3AG fuse – ON 35VDC
- 3 amp, 3AG fuse – ON 12VDC (lights)

### **ONLY REPLACE FUSES WITH THE PROPERLY RATED FUSE.**

The power supply chassis supplies seven different voltage sources to the game electronics. A green LED indicates the presence of each separate voltage.

**10) GAME COMPONENTS:**

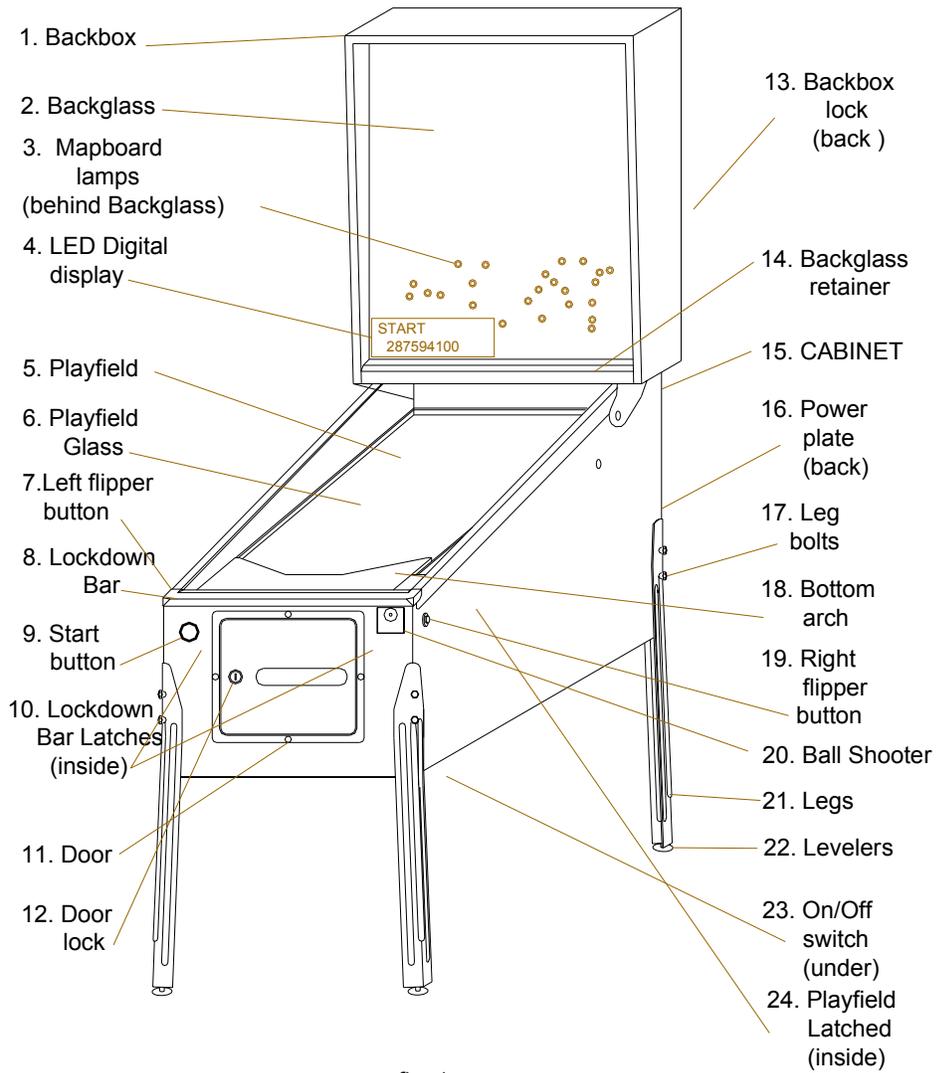


fig. 1

VACATION PINBALL COMPONENTS



Top kicker

Jet bumper, 3x

Spinner

Right kicker

Round target, 3x

Rec. target, 4x



Sling shot, 2x

Flipper, 2x

Bottom arch



Flipper, Right

Flipper, Left

Sling Shot, Right

Sling Shot, Left

PCB 1

Target

Kicker, Right

PCB 2

Jet Bumper, Bottom

Jet Bumper, Left

Jet Bumper, Top

PCB 3

Kicker, Top

## **11) WARRANTY:**

Vacation America Pinball is warranted against manufacturing defects for 90 days. We will provide free telephone support after the 90-day warranty has expired.

If at some point you require warrantee service, contact Chicago Gaming Company at (708)780-0070 and ask for pinball technical support.

## **12) Diagnostics:**

Diagnostics are available for troubleshooting.

To enter Diagnostics press the right flipper button during power-up when the display reads:

**“L FLIPPER FOR VOLUME”**

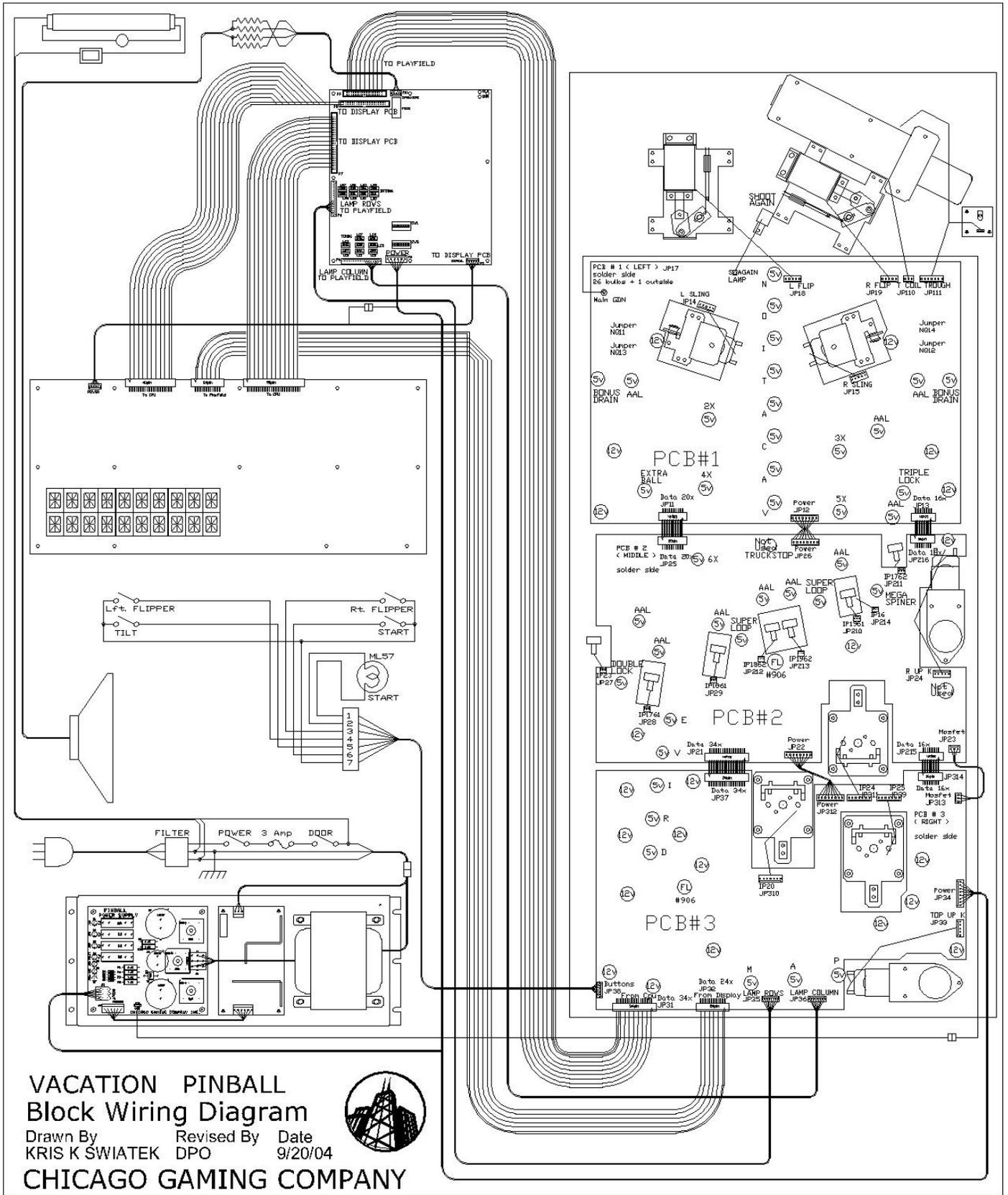
There are six modes in the diagnostics:

- I. PF LAMPS (Playfield Lamps)
- II. MAP LAMPS
- III. Flashers (Flasher Lamps)
- IV. PF Switches (Playfield Switches)
- V. Ball SW (Ball Trough sensors)
- VI. Solenoids

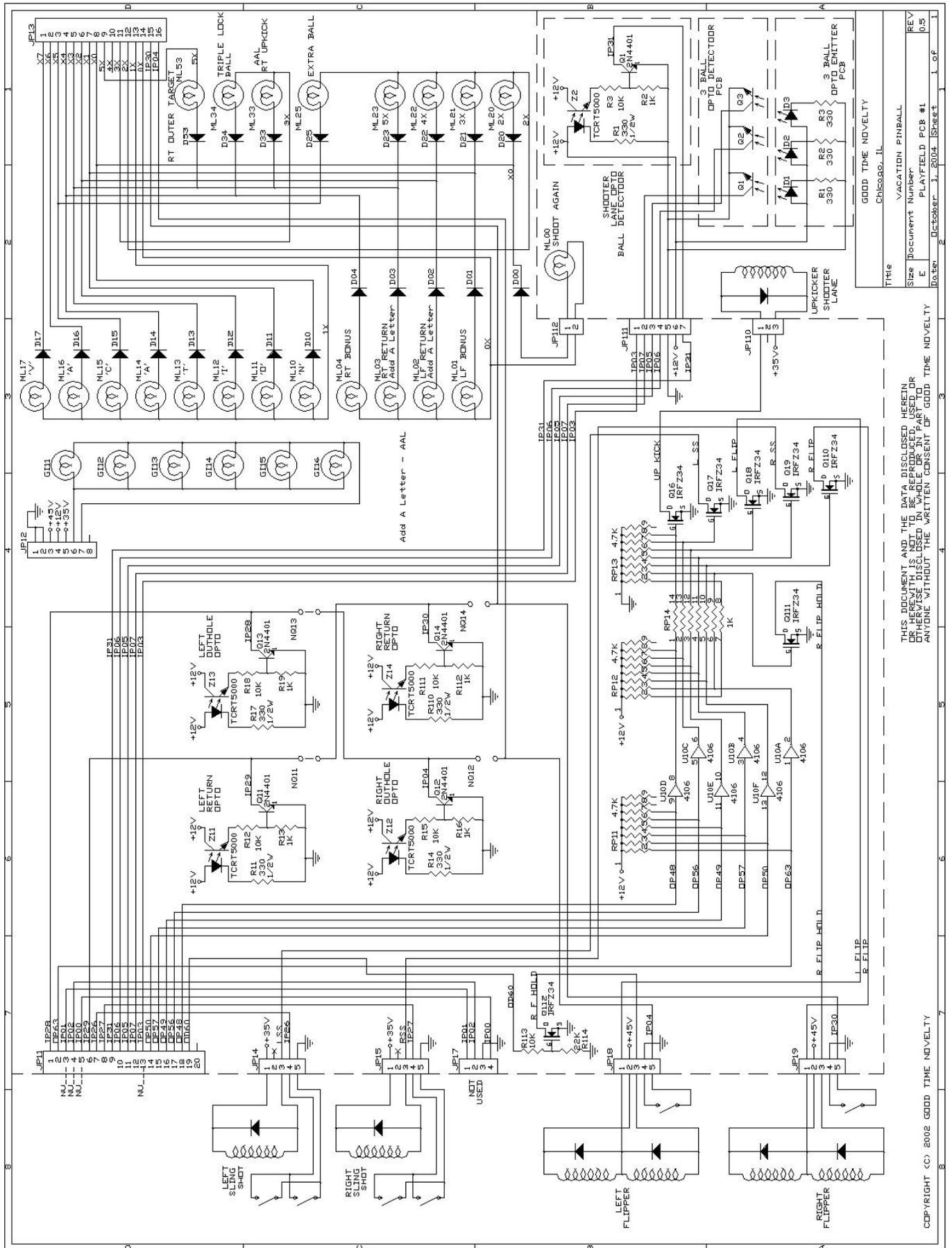
Use the right flipper button to advance to the next mode.

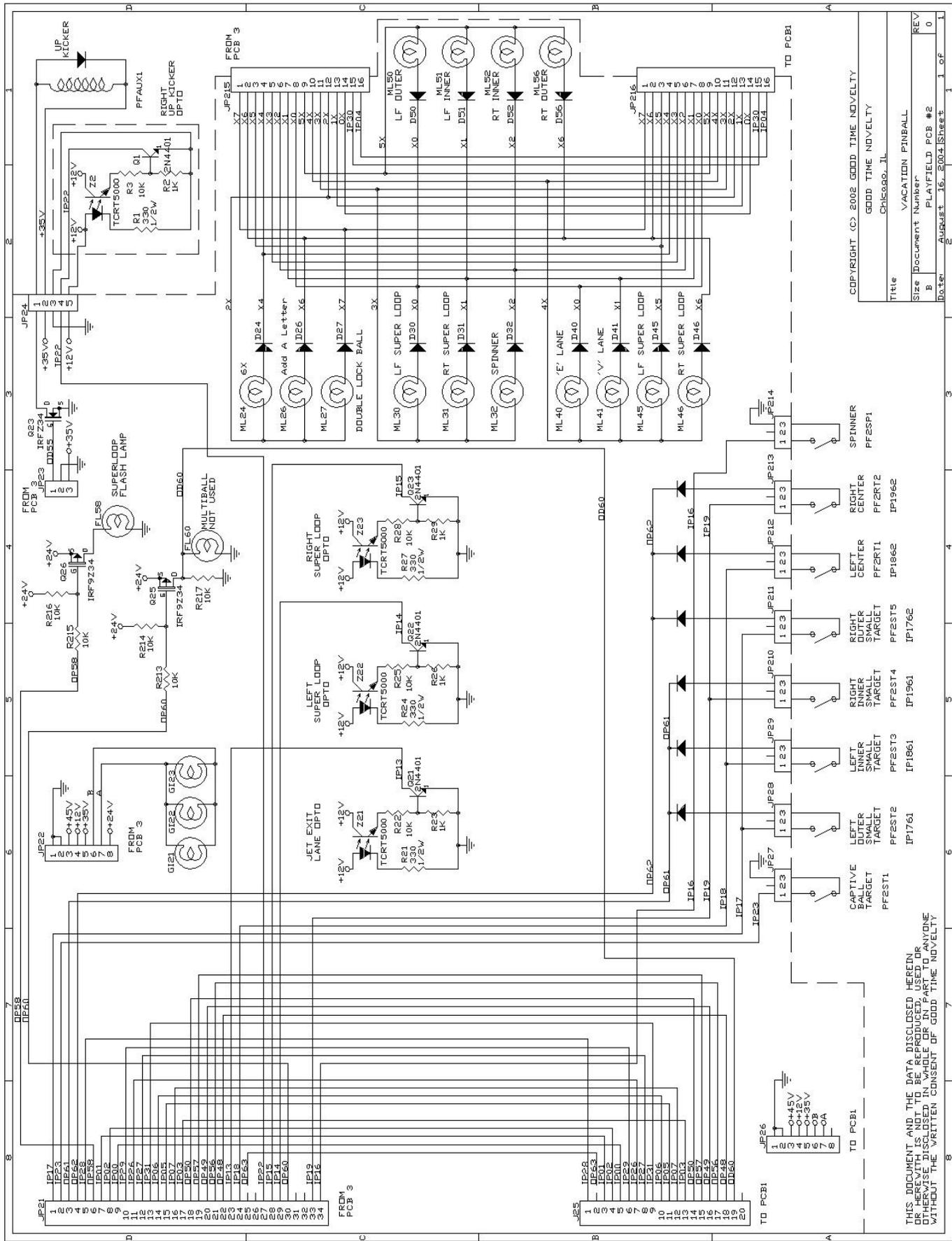
Use the left flipper button to cycle through the selections in each mode. Note: there are no selections available in ‘PF Switches’ mode. In this mode the display will indicate any closed switches.

Press the start button to exit Diagnostic Mode.



**VACATION PINBALL**  
**Block Wiring Diagram**  
 Drawn By KRIS K ŚWIATEK Revised By DPO Date 9/20/04  
**CHICAGO GAMING COMPANY**





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Title	GOOD TIME NOVELTY
Size	VACATION PINBALL
Document Number	PLAYFIELD PCB #2
REV	0
Date	AUGUST 16, 2004 Sheet 1 of 1

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