



Gato Superguides

PAPA 20 - A Division

Based on Tentative Game List; Subject to changes

Welcome to the PAPA 20 World Championship!

A Division Notes

Williams Barracora



This is one of the fishiest games, B-A-RR none.

<http://www.ipdb.org/machine.cgi?id=177>

<http://tiltforums.com/t/barracora-williams-1981/485>

Main Features

- Drop Targets
 - Must be completed in sequence to count; drop targets out of sequence will bounce back up and credit you with nothing!
 - Drop targets score multiple features
 - Completing a bank lights its respective lock and advances the Bonus X
 - Also lights the spinner in the BARRACORA lane (left loop) for 1k/spin (timed)
 - Locks for a single eject hole cannot be “stacked” or “banked.” If a bank is completed when the respective lock is already lit, you only get the Bonus/Super X
 - Completing both banks advances the Super X
 - Green lights next to B-A-RR and A-C-O-R-A light when completed
 - Light both green lights to advance Super X
 - Lights carry over between balls
 - Carries between balls AND stacks multiplicatively with Bonus X!
 - Dropping targets lights the respective letter on the BARRACORA lane (left loop)
 - When loop switch is hit (at top), adds 1k bonus per letter lit
 - If at max bonus, scores 1k points per letter lit

- B-A-RR on left side
 - Lights the 2-Ball (lower) eject hole
 - Complete from bottom to top
- A-C-O-R-A on right side
 - Lights the 3-Ball (upper) eject hole
 - Will release ball upon draining; counts as a ball save!
 - Complete from top to bottom
- Drop target progress is remembered between balls!
- Multiball
 - Started when ball locked in lower eject
 - Kicks ***all*** balls out of eject holes
 - **Cannot light locks by completing B-A-RR or A-C-O-R-A**
- Bonus and Collect Bonus
 - Max Bonus – 29k points, 25x multiplier
 - Points advanced by playfield switches and primarily the BARRACORA lane
 - Multipliers advanced by drop targets (see above)
 - Max bonus countdown – 725k
 - Collect Bonus
 - Lit by completing 1-2-3-4-5-6 lanes
 - 1-2-3 completed by rolling over top lanes not lit for 1-2-3 already
 - Advances lower eject hole to a one-time collect of 30k/60k/90k
 - 4-5-6 completed by rolling over top lanes lit for 1-2-3 already
 - Advances target in front of right horseshoe lane to 20k/40k/EB
 - **Does not go down in value after 1 collect**
 - Collected at the upper eject hole
 - Counts Bonus X and Super X as well!

Other Scoring

- Target Bonus
 - Not a direct objective (dangerous), but random hits can build value quickly
 - Advanced 5k/10k/15k/20k/25k by shooting the left target in center of playfield
 - Advanced 2x/3x/4x/5x/10x by shooting the right target in center of playfield
 - Collect current value by shooting (or more likely having a pop bumper send the ball through) the “Scores Target Bonus” horseshoe in the upper right part of the playfield
 - Max collect – 250k
 - One time collect except in one case; if score and multiplier lights are on the same level, Target Bonus stays lit for another collect

Strategy Corner

Barracora is firmly in the realm of a “setup” game; there is one major scoring strategy in the game, and both qualifying and match play comes down to who can execute their setups the best and earliest. The name of the game is completing the drop target banks. Completing individual target banks will give a small boost to the Bonus at the end or middle of a ball through Bonus X, while alternating between both target banks provides both Bonus X and Super Bonus X that multiply with each other and make future setups easier to perform. The nature of Super Bonus X means that Barracora is also a game where Ball 1 is very important; the work you do on Ball 1 directly impacts the work you will do on later balls.

While picking off target banks, there are 5 things to pay attention to. First, as you spell Barracora you will be lighting the letters at the top of the spinner shot. This is pretty much the only way to build up the actual bonus value without going for risky shots or grinding strategies. In a game with 29k total bonus, 8k bonus from one shot is no joke and means that bonus can be completed in essentially 3 shots to the spinner (with some coming from various other playfield activities). Second, once you feed the spinner shot you will be faced with the toplanes. Working towards completing 1-2-3 and 4-5-6 lights the Collect Bonus scoop, which resets the bonus back down to be worked on again. More importantly this shot is multiplied by your Bonus X, so you can take an advance on your 725k end of ball paycheck and go back to work on it again through the spinner! If this shot is lit and you have max bonus and/or piles of Bonus X, you should be looking to Collect Bonus ASAP!

Next, try to lock a ball in the upper ball lock when you finish the right target bank in single-ball play. This is essentially a ball saver, and keeps the normal Bonus X rolling! Finally, look to the lower ball lock via skillful nudging from the pop bumpers or a direct shot from the right flipper. This is only a shot that you want to hit in 2 situations: You don't have an upper ball lock and want to safely hit dangerous targets to set up for single-ball play, or you have an upper ball lock and want to cash in your Collect Bonus (since it ever so inconveniently hides in the hole).

Now, lets say you hit the lower lock you have multiball ready to go. Your ball is in the plunger lane, and the game is shaking with “2”s or “3”s in a frenetic fashion. What do you do? Well, the first thing to do is go through the top of the laundry list: prepare target banks to be completed in single-ball play (to get more locks and more multiballs!), build bonus via the Spinner, complete 1-2-3/4-5-6, and cash in via Collect Bonus, and in the short game work on building the Target Bonus and collecting two 250k cash-ins on the upper-right horseshoe shot. By safely staggering your target bank completions so that they occur in single-ball play, you rarely have to be at a risk of draining while building up the Bonus X.

So good luck, build up some huge bonuses, and when you're done I hope you can explain to me what exactly a Barracora is. I get the first part; the “-cora” part is what gets me.

SEGA Starship Troopers



Every day, pinball scientists are looking for new ways to score points.

<http://www.ipdb.org/machine.cgi?id=4341>

<http://pinball.org/rules/starshiptroopers.html>

Main Features

- Planet Progression
 - Shoot lit standups to kill bugs and decrease the respective bug's counter in the lower-center of the playfield
 - Yellow – Warriors (100k base, +50k for each planet after Antilles)
 - Green – Hoppers (200k base, +50k for each planet after Antilles)
 - Blue – Plasma Bugs (300k base, +50k for each planet after Antilles)
 - Red – Tankers (350k base, +50k for each planet after Antilles)
 - As # of bugs left decreases, number of targets lit also decreases
 - Shooting bugs with the mini-flipper counts as a double hit!
 - Can trick the machine by flipping the mini-flipper after shooting (like Demolition Man trigger combos), although extremely hard to do so
 - Each planet has a set # of bugs to defeat (given in order of progression)
 - Antilles - 5 Warriors, 3 Hoppers
 - Zegema Beach – 4 Warriors, 7 Hoppers
 - Dantana – 6 Warriors, 5 Hoppers, 3 Plasma Bugs
 - Tango Urilla – 8 Warriors, 6 Hoppers, 5 Tankers
 - Planet P – 9 Warriors, 5 Plasma Bugs, 7 Tankers
 - Completing all of the normal bugs pops up the Brain Bug in the lower right playfield
 - 1M/hit, must be hit 1/2/3/4/5 times to drop
 - Can be timed out (generally done because Brain Bug is a danger shot)

- Once Brain Bug is captured or timed out, player must make a choice:
 - 5M hurry-up collected by either decision, counting down to 1M
 - Advance Planet: Shoot Recon (right-center) scoop
 - Next planet starts, previous planet stays flashing
 - Unavailable when completing Planet P
 - Nuke Planet(s): Shoot Arm Nukes (lower left) hole
 - Starts Planet Multiball (see below)
- Planet Multiball (if chosen)
 - Number of balls and jackpots are determined by number of flashing planets:
 - 1 – 1M jackpots, 10M Super Nuke Jackpots, 2 balls
 - 2 – 2.5M jackpots, 25M Super Nuke Jackpots, 2 balls
 - 3 – 4M jackpots, 40M Super Nuke Jackpots, 3 balls
 - 4 – 7M jackpots, 70M Super Nuke Jackpots, 4 balls
 - 5 – 12M jackpots, 120M Super Nuke Jackpots, 4 balls
 - Loops, Ramps, Arm Nuke hole all lit for jackpots
 - Recon hole awards a Double Nuke jackpot
 - Arm Nukes hole, if already collected, spots a Nuke shot (and its jackpot)
 - After collecting all 5 Nuke jackpots, Warrior (center-left toy) awards Super Nuke Jackpot
 - After Super Nuke is collected, Nuke jackpots re-light again and multiball cycles
 - When Planet Multiball ends, all flashing planets are lit solid
- Live Fire Assault Range Multiball (main Multiball)
 - Shoot the Warrior (center-left toy) 4/6/8/etc times to light the Multiball start on the Warrior
 - Ramps are lit for 3M-4M (advanced by bug shots)
 - After shooting 5 ramps, Warrior is lit for Super Jackpot (15M)
 - Timed shot – 16 seconds to collect
 - When Super Jackpot is timed out/collected, ramps are lit for 5 more Jackpots (cycle)
 - Multiball restart on no Jackpots – Warrior restarts
- Orbit Multiball
 - Inlanes light opposite-side orbits
 - Can also be lit from a super skill shot (hold left flipper on plunge) to Orbit lock
 - **Lighting via this method lights orbits for rest of ball (or once permanently)!**
 - Shooting a lit orbit spots a letter for Orbit Multiball
 - Completing ONE gives Lock one, and TWO starts Orbit Multiball
 - Two-Ball multiball
 - First two orbit jackpots add a ball
 - Shoot orbits for unlimited 5M

- Recon Awards
 - Multi-level random award collected at Recon scoop (right-center)
 - Can be awarded at levels 1-6
 - Level 1 is lit at start of ball if not lit
 - Shoot left ramp to spot STARSHIP and right ramp to spot TROOPERS
 - Completing STARSHIP TROOPERS advances Recon 1 level
 - If both ramps are shot in combo followed by the Recon scoop, up to 3 Recon levels are added to the award
 - **Will not award Recon 6 this way!**
 - **Recon Bounties are highly favored, if not forced, on tournament settings**
 - Other settings are here in case they show up or for the fun of knowledge!
 - Award Levels (Levels)
 - Level 1
 - Ground Attack
 - 2-ball multiball
 - Hitting any Bug standup awards cycling value on DMD (100k/200k/300k/400k)
 - Psychic Test
 - Video Mode
 - Choose a card from a deck and see if you match the card, color, suit, or value
 - Spot Species
 - Instantly kills the species with the highest # of bugs left
 - Bonus Hold
 - **Recon Bounty – 1M**
 - Level 2
 - Ground Attack (above)
 - Orbits Lit
 - Lights both orbits for Orbit MB letters (lit until collected or for entire ball?)
 - Super Pops
 - 50k/pop bumper
 - **Recon Bounty – 2M**
 - Level 3
 - Double Scoring (20 seconds)
 - Spot Planet
 - Collects all species left on the current planet. Starts Brain Bug.
 - Multiball Ready
 - Qualifies Live Fire Assault Range Multiball
 - **Recon Bounty – 5M**

- Level 4
 - Ramp Hurry-Up
 - Hurry up starts at 3M and times down to 1M on either ramp
 - Once collected, both ramps are worth the hurry-up collect for 20 seconds
 - Air Attack
 - See Ground Attack, but value range is now 100k to 900k (instead of 100k-400k)
 - Nuke Chase
 - Shoot lit Nuke shots for 3M + 250k/nuke
 - Shot strobes around the playfield
 - 25 seconds
 - **Recon Bounty – 8M**
 - Level 5 (***Defaults to Level 4 in Tournament Settings***)
 - Multiball (Generally awarded if one has not been played yet)
 - Starts Live Fire Assault Range Multiball
 - Multiball Ready
 - Orbit Multiball (Generally awarded if LFAR Multiball has been played)
 - Extra Ball
 - Level 6
 - Special
 - Extra Ball
 - **Recon Bounty – 25M**
 - Start Klendathu
- Klendathu (Wizard Mode)
 - Qualified by nuking all 5 planets; shoot the Recon scoop to start
 - 30 second unlimited ball saver
 - Shoot 9 of each bug (value unknown) and all 5 Nuke shots (5M/nuke, see Planet Multiball) to earn a 50M jackpot for completing every shot
 - Double Nuke is also lit for 10M at Recon Scoop
- Mini-Flipper Things
 - **CAN SCISSOR**
 - Shooting bugs with the mini-flipper (or fooling the game) awards 2x bug kills
 - Can be used in multiple flipper tricks (slowing balls from inlane, cradling, etc)
 - Arm Nukes may (not guaranteed) be shot from a lower flipper trap by the upper flipper

Strategy Corner

This game NEVER shows up in tournaments, so we're in for a treat. Also as such we're in for a lot of uncertainty with how tournament software is going to handle the game, so I'll explain what we do know so far. Thanks to everyone who's been working with me on this one!

In qualifying, this game has a few ways to really blow up (heh) the scoring and put down some crazy scores. Players who are comfortable with the Planets can look towards sending out a volley of nukes to 4 or even 5 planets for a HUGE Planet Multiball with 70M or 120M Super Jackpots! Not only do you get the big payout, but you get even closer towards Klendathu for essentially another 3-planet nuke-fest! One word of advice, though: if you're on Ball 3 and you haven't made enough progression to work this strategy, it may be time to gear shift towards the other strategy in this game: taking the grindier path and working the Orbit and Live Fire Multiballs.

The Live Fire/Orbit Multiball strategy is both useful as a main strategy in match play and as a way to build an explosive qualifying score; I believe the best qualifying scores on this game will have solid multiballs (Orbit, Planet, LFAR) all around. While the Live Fire Assault Range Multiball is mostly a one-off due to the risky target that must be hit to qualify it, you are always at most 6 lit loop shots away from another Orbit Multiball, and if you use the super skill shot to plunge the Orbit lock the setup is much easier when the Orbit lock lights are permanently on. With easily repeatable 5M jackpots on a game with heavy amounts of control (even the Little Pink Tool of Death), you can grind out upwards of 200M on one well-played Orbit Multiball, which is enough to put the clamps on other players in a Matchplay setting or put yourself well on the way to a beautiful qualifying score. In the PAPA footage of this game the mystery player put up 165M in one multiball; can you best that score?

One major talking point that I have promised to address is the Recon Awards. Unfortunately (fortunately?), due to tournament settings the Recon awards are limited to the Recon Bounties, which is probably for the best to prevent ramp to multiball grinder strategies. If you do use the ramps, be sure to manually work your way to Recon 6 before collecting to pick up the sweet 25M reward (unless you know you need a few more million to reach a player/qualifying target – then collect immediately). Also you get to hear the ever-exuberant “STARSHIP TROOPERS!” callout, which is probably some poor schmuck's last words before being gutted cartoonishly by an alien.

Starship Troopers is definitely one of the more intriguing games in this list, and I hope it doesn't end up like many of the soldiers in the movie. As I delve further with your help, we may be able to solve this puzzle and save mankind. Oh, also never, ever, ever hit the Brain Bug unless you want to win by style points.

Bally Fathom



Hey look, a game about traditional murder-happy mermaids!

<http://www.ipdb.org/machine.cgi?id=829>

https://www.youtube.com/watch?v=CfdWm7pGAXM&ab_channel=PAPApinball

Main Features

- Bonus and Multiball
 - Blue and Green Bonuses
 - Left-side lanes and blue targets advance Blue Bonus
 - Right-side lanes and green targets advance Green Bonus
 - B toplane advances both bonuses
 - If either bonus is advanced to 55k, bonus is carried over to next ball as a Super Bonus
 - Another 55k can be then collected on the next ball!
 - Blue and Green Multipliers - Cave (green, right lane) and Lagoon (blue, upper playfield, left loop) eject holes
 - If hole is not occupied the ball locks in eject hole, 50k is awarded, and in-line multiplier drops raise
 - In-line drops advance bonus and Bonus X (3X/4X/5X)
 - Most likely will reset at the beginning of each ball
 - Completing a color of drop targets on the left side spots an in-line drop of the respective color and advances the Bonus X
 - Shooting the 5X Bonus drop target (or spotting it via left drop targets) releases the locked ball for multiball play
 - Multiball Play
 - Releasing locked balls (see above) starts multiball play and a playfield multiplier
 - Scores are multiplied by the # of balls in play
 - Can re-lock a ball during multiball, lowering the Playfield X
 - If in-line drop targets raise, only the 5X target will raise
 - If in-line drop targets don't raise, ball can be released with the proper color's 3 drop targets on the left

Other Scoring

- Spinner
 - Shooting the Extra Ball target (right, next to Cave lane) lights Spinner next to Lagoon loop
 - Spinner is 1k/spin when unlit, **5k/spin when lit**
- Inlanes/Toplanes
 - Completing A-B-C for the first two times lights one of the two inlanes for 50k
 - When one inlane is lit, 10-point switches alternate the lit inlane
 - Further A-B-C completions light and award specials, which may be awarding 50k

Strategy Corner

Oh boy, Fathom. A PPL crowd favorite and mainstay. The game itself is pretty simple, and plays mostly the same way in both match play and qualifying with one or two small exceptions to look out for.

To put fathoms between your opponents and your score in either format, there are a few things to look out for. First of all, bonus on this game is somewhat important. Bonus X drives your multiballs and is a solid method to build the bonus score as well. Attaining the rarely-found Super Bonus helps this even more, as even a house ball or poorly-played follow up ball can score nicely. To build this Bonus X and bonus, the game revolves around the two ball locks on the game. The lower (green) lock is generally easier to deal with, since the feed is easily controllable and the shot is relatively easy to hit. A no-flip from the upper flipper tends to send a ball towards a flipper, which leads to a bounce/trap. If the ball is on the right, a quick tap or post pass (your A bank Fathom may vary) will set the ball on the left flipper for another shot towards Multiball City. If the feed is wonky or you don't feel confident, you can always flip away and pick off the upper lock for additional multiball fun! In addition, the right flipper has a somewhat tight angle at which it can directly hit the upper lock, so learning that shot will be key to maximizing your Bonus and Multiball features.

Once you're in multiball, there's two main shots to go for and two main shots to avoid. First, hit the Extra Ball target to light the spinner if you haven't yet and start ripping the spinner for 5k * the number of balls in play! This is PAPA, home of the legendary Salas Juice. The spinner is going to be extra smooth (unless its Jhonny Mnemonic, then the spinner is a relic from the flood and extra rusty) and award more spins than usually seen. This also feeds the ABC lanes, which start lighting the second target: inlanes. You never want to feed the inlanes directly or even deal with them if you can, but at 50k a lit inlane (plus multipliers), its a shot that sweetens the pot a bit. Finally, avoid debris locks at all cost. You may get some sweet points for doing it, but the locks tend to revert to a an unusual setting if locked during multiball, immediately removes/reduces your playfield multipliers, and puts your current ball's life in more danger than before.

If you're close to Super Bonus, remember the rule with this game: left shots and blue shots award Blue Bonus (its the left bonus display). Right shots and green shots award Green Bonus (its the right bonus display). The B lane, being directly in the middle of things, awards both because it thinks one color is for squares or something.

Good luck, have fun, and try not to put yourself in a death dive! MUHAHAHAHA!

Williams Little Chief



“...balanced top to the bottom of the playfield appear.” - Official Flyer
<http://www.ipdb.org/machine.cgi?id=1458>

Main Strategies

- Bonus Building
 - Max 10k points with the potential to double bonus
 - Points advanced by marked or lit “Advance Bonus” switches
 - Conservative settings (probably set this way) – lower left target lights when A is collected, and upper right target lights when B is collected
 - Double awarded when ball goes into center scoop or down the center toplane when lit
 - **Center toplane lit for Double Bonus when both A and B are collected**
 - Gate and Collect Bonus
 - **Gate opens when A and B are collected**
 - Can be collected at the toplanes or inlanes (risky Shatz?)
 - Collects full bonus (and double bonus, if lit) and resets bonus to 1k/single bonus
- Other Points and Eject Hole
 - Left Loop
 - Always advances bonus
 - Top button scores 1k when A is collected
 - Bottom button scores 1k when B is collected
 - Eject Hole
 - Scores 100 points and lights Double Bonus if not lit yet
 - Spots one of the 1-6 numbers
 - Light 3, 4, or 5 (settings dependent) – lights outlane for Special (Extra Ball)
 - Light 4, 5, or 6 (settings dependent) – lights top right lane for Extra Special (Special)
 - Extra Balls may be on!

Strategy Corner

The other “build 'em up, knock 'em down” bonus game in the A bank this year, Little Chief comes from a long pinball trope known as the “American West” on IPDB (or better known as “Cowboys and Indians”).

To set up the proverbial block tower of Bonus that you can knock down, the first thing to look towards is the A and B lights in the upper playfield. Not only do they award you points and bonus up front, but collecting either A or B lights neat stuff on the playfield and lighting both puts you towards the fast track to a PAPA championship! To be precise, plunges on the game should be directed at the B lane unless the Double Bonus is lit for some odd reason. B is the target that lights the upper-right Advance Bonus target, which is usually glanced into a few times from pop bumper action. A is also useful since the pop bumper is closer to the lane for the potential to score up-down lane action, but the target it lights is the lower left target which is for those who live dangerously (and don't like keeping the ball in play).

The center scoop is a nifty feature; not only can it be hit from the flippers from the bottom, but the ball has the chance to creep in from the upper sides since the plastic is only held up by 3 small posts. For the most part this happens by chance, but a ball dribbling off of the left sling can be skillfully nudged into the center scoop to light Double Bonus! In addition, if the shot is consistently sticking from a direct flipper shot, learning how to hit it can be useful to start Double Bonus on command. Unfortunately this scoop has a tendency to lip out, so watch for errant balls that may need some work to control or save.

Once both A and B are collected, a major decision opens up on the game. If Double Bonus isn't lit, do you opt to collect the Double Bonus (at the scoop or the newly-lit center top lane) and then shoot the gate for a big payout or do you cash out now and continue on with your ball? This situation is highly dependent on your current scoring situation. Do you need to go above and beyond in match play or is the qualifying score far away for your current game status? Lighting Double Bonus will be the key to closing the gap. Are you trying to catch up to a lesser extent/drive away in match play or are you close to hitting the magic qualifying score, or are you at a 10k max bonus? Then you may consider cashing out now and going back to work on bonus building.

Three other things to note on the game: the upper-left buttons cover a very small surface area of the left loop, so they are more often hit on a ball returning down the upper loop than upward shots. Also, balls coming down off the left loop tend to feed the left flipper. The scoop will most likely be set up to feed the right flipper directly or on the wire guide slightly above it, so learn the feed and apply the proper control techniques to prepare for your next shot. Finally, the upper-right mini-loop/lane (“Extra Special”) tends to feed towards the tip of the left flipper, so be prepared to play defensive if a ball falls into that path.

Stern Iron Man



I am Iron Man, get to Do or Die MB if you can! (You probably won't)

<http://www.ipdb.org/machine.cgi?id=5550>

Main Features

- Character Modes
 - Iron Monger
 - Shoot spinner shots (loops, center shot) to spot letters in IRON MONGER
 - Depending on settings, generally can be 6-10 spinner shots
 - When IRON MONGER is spelled, shooting another spinner shot raises the Iron Monger toy in the center of the playfield
 - When Monger is raised, spinners score 7.5k/spin and build next letter value by the same amount
 - Spinner build-up does not carry over between balls
 - When Iron Monger is raised, shoot the toy 6 times to spell MONGER and start Iron Monger Multiball
 - With each hit, magnet in front of Monger pulses; **shoot to the side!**
 - Each letter is worth 150k + all the points from spinner shots since the last letter was collected or the Monger was raised
 - Example: If 20 spins have occurred since the last Monger hit
 - 150k base + (7.5*20 = 150k) for spinner = 300k letter collect

- Iron Monger Multiball
 - 3-ball multiball
 - Shoot a spinner shot to raise the Monger
 - If loop post removed, may be raised when the first ball plunges around the loop
 - 250k when Monger raised
 - Shoot the Monger toy 6 times to spell MONGER and qualify the Super Jackpot
 - 250k per MONGER letter
 - After MONGER spelled, Monger toy drops and Super Jackpot is lit at center shot
 - 3M points when collected
 - Hit another spinner shot to raise the Monger again (no scoring advances)
 - Iron Monger lit solidly when Iron Monger Multiball is started
 - Iron Monger lit blinking when Iron Monger Super Jackpot is collected
 - Whiplash
 - Shoot the Whiplash targets (left of right ramp) to progress to Whiplash Multiball
 - 5/9/13 hits (?) for first/second/third+ multiball
 - Whiplash will blink on the last shot
 - May hold the ball on the magnet for the first hit; pulses magnet on other hits
 - Whiplash Multiball
 - Started when a set number of Whiplash hits are completed
 - Phase 1 - Shoot 5 lit shots (Loops, Ramps, Center)
 - 250k/shot
 - Phase 2 - Shoot Whiplash 2 times
 - First time – 500k, Second time – 1M
 - Phase 3 – Shoot 10 lit shots (Loop, Ramps, Center)
 - 500k/shot
 - Super Jackpot – Shoot Whiplash for 3M, go back to Phase 1
 - Whiplash lit solidly when Whiplash Multiball is started
 - Whiplash lit blinking when Whiplash Super Jackpot is collected
- Drones
 - Hit 8 lit Drones targets (2 near center, 1 near left loop, 1 near right ramp) to light War Machine Multiball
 - 4 targets lit to start, last target hit remains un-lit
 - Second War Machine: 3 to start, 2 always lit
 - Third War Machine: 2 to start, 1 always lit
 - Fourth (and beyond) War Machine: 1 to start, 1 always lit
 - War Machine lights an un-lit Drone shot when hit
 - Drones lit solidly when War Machine Multiball is lit
 - Drones lit blinking when 4 War Machine Multiballs are lit

- War Machine Multiball
 - Started at the War Machine Kicker when lit
 - 2-ball Multiball
 - Add-A-Balls available when the War Machine kicker is flashing
 - Lit randomly and via Drone targets (see below)
 - **Can progress towards Whiplash and Iron Monger Multiballs**
 - Phase 1 – Drones
 - Hit all 4 Drone targets once to score a Drone Jackpot
 - Worth 150k
 - +100k for each War Machine Super Jackpot
 - **If all 4 Drone targets are hit in the time limit, an Add-A-Ball is lit at the War Machine kicker**
 - Phase 2 – Lit Shots
 - Both loops, both ramps, Center shots lit for Double Jackpots
 - Worth 300k
 - + 200k for each War Machine Super Jackpot
 - Phase 3 – Super Jackpot
 - Hit the War Machine kicker to collect Super Jackpot
 - Worth 2.1M
 - + 1.4M for each War Machine Super Jackpot
 - When collected, return to Phase 1
 - War Machine lit solidly when War Machine Multiball is started
 - War Machine lit blinking when War Machine Super Jackpot is collected
- Iron Man
 - Complete the IRON (left)/MAN (right) targets to qualify Iron Man Scoring Modes
 - **Progress cannot be made during multiballs!**
 - Hit IRON/MAN targets one more time (when flashing) to start Iron Man Scoring Modes
 - **Cannot be started during multiball, but can be stacked if started beforehand**
 - Switch Frenzy – 1st Iron Man Scoring
 - 45 seconds, all switches give 10k
 - Switch value advanced 1k per time the Iron Man targets are hit
 - Double Scoring - 2nd Iron Man Scoring
 - 25 seconds, all scores doubled
 - Works in multiballs/Jericho (if started first) or Do or Die (at any time)!
 - Target Scoring - 3rd Iron Man Scoring
 - 750k hurry-up, counts down to 400k over 10-15 seconds
 - IRON/MAN targets light in a wave-like pattern going up and down
 - Shooting a lit target awards the current value, continues until hurry-up times out
 - Iron Man light lit solidly when Iron Man Scoring Mode is qualified
 - Iron Man light lit blinking when all 3 Iron Man Scoring Modes are qualified

- Non-Character Features
 - Bogey Scoring
 - Shoot the ramps 4 times to qualify Bogey Scoring
 - After first Bogey, must shoot each ramp 4 times
 - Ramp worth flashing value on ramp or 500k if fully lit
 - Ramp combos double the value of the Bogey advance
 - Shoot either ramp again to start Bogey Scoring after qualifying
 - 30 second mode; all 5 main shots (loops, ramps, center) lit
 - 500k per shot, plus advance the value 100k for the next shot (max 1M)
 - SHIELD Lanes
 - 2 top lanes + 4 bottom lanes
 - All lanes cycle with each other, so top/bottom lights can be moved to bottom/top
 - Completing all 6 lanes awards +1 Bonus X and lights Mystery at War Machine
 - Mystery Rewards (In order of game's priority)
 - Add Time – **If Bogey/Iron Man Scoring are lit**
 - **Add-A-Ball – Once per multiball or multiball stack**
 - Other Rewards
 - 3rd – Extra Ball (2.5M on left ramp)
 - 4th – Special (5M on right ramp)
- Jericho Missile Mayhem
 - Single-Ball mini-wizard mode for reaching Mark 6 by performing the following tasks:
 - Start War Machine, Iron Monger, and Whiplash Multiballs
 - Start Iron Man and Bogey Scoring
 - Complete a set of SHIELD lanes
 - **Mark progress carries over from ball to ball**
 - Started on the center spinner shot
 - 6 shot groups lit for Million Plus:
 - 7 Iron Man targets
 - 6 lanes (can cycle lanes with flipper)
 - 2 Ramps (4 shots each to advance Bogey lights)
 - Iron Monger (6 shots to drop Iron Monger toy)
 - Whiplash (5 shots to collect)
 - 4 Drone targets and War Machine kicker
 - Each shot worth 250k
 - Pop Bumpers and Spinners advance jackpot by 1k per bump/spin
 - Completing a set awards Million Plus
 - 1st set – 1M, 2nd set – 2M, etc.
 - Completing everything awards a completion bonus (unknown)
 - Ends when completed or at end of ball

- **Do or Die**
 - Single-Ball moderate-wizard mode for lighting all 5 center lights solidly or blinking
 - Iron Man, War Machine, Iron Monger, Whiplash, Drones
 - Remember:
 - **Solid lights are cleared at start of ball**
 - **Flashing lights are carried between balls**
 - Shoot center shot to start 35M hurry-up that slowly counts to 10M
 - Shoot center shot again to collect hurry-up value
 - **Can be doubled with Iron Man Double Scoring, even while counting down!**
 - **If Mark 6 is also lit when collected, Jericho immediately starts with 2x scoring!**
 - Once Do or Die is collected or expired, all non-blinking lights are turned off

- Do or Die Multiball
 - Multiball super-wizard mode for having all 5 center lights blinking
 - Light 3 Iron Man Scorings
 - Collect War Machine / Iron Monger / Whiplash Multiball supers
 - Light 4 War Machine Multiballs
 - 90 second infinite ball save
 - 5 main shots (loops, ramps, center) lit for Million Plus
 - Value = 1M + 1M for each tier of ramp awards completed
 - “Tiers” are 100k/200k/300k/400k lights from Bogey
 - After time ends, all balls drain and single ball play resumes with no lights turned on

Other Scoring

- Super Pops
 - Pop bumpers build Super Pops Jackpot value
 - Flat value + all the points scored from the Pop Bumpers
 - Shooting both Loops + the Center Spinner starts Super Pops
 - Flashing shots have not been collected yet
 - Solid shots have been collected
 - Hit 25 Pop Bumpers to collect the Super Pops Jackpot
 - Each shot worth 4% of the Super Pops Jackpot total

Strategy Corner

Iron Man is a game that can be played as two different monsters over the course of a tournament. In qualifying, the best scores will be given to those who can execute on a few major set pieces that require the proper care and skill to set up and collect upon. In match play, a safer strategy that centers on multiballs can be used to build up a decent score, although any player who can execute the previous setup will flip the script on the match and force other players to follow along or grind their way up.

So first, let's delve into the fireworks and intrigue of the qualifying strategy of Single/Double Do or Die and Double Jericho. In order to set this up, a player must qualify all of their character lights in one ball or have some fortuitous carry-overs from a previous ball, usually Iron Monger and maybe War Machine. This is due to the relative difficulty of qualifying the flashing lights on the five characters; Iron Monger Super Jackpots are relatively easy, War Machine Super Jackpots are not extremely hard, Whiplash Super Jackpots are quite hard, lighting Iron Man Scoring 3 times means you overshoot your doubler setup, and lighting 4 War Machine Multiballs (for Drones) means I should read you the definition of insanity. To set this up properly, use your ball save (if it exists)/earlier balls to pick off Drone targets, Whiplash hits, and Iron Man targets (either to have Iron Man ready to go or to complete one Iron Man scoring to set up for Iron Man Double Scoring), but DON'T light War Machine/Iron Man or start Whiplash until you're ready to rock it out! If Iron Monger happens to pop up during this process, feel free to play an Iron Monger Multiball to pick off a Super Jackpot and have that character permanently checked off. Once the modes have aligned and you're ready to unleash scoring havoc on the game, go ahead and start lighting up the characters. Iron Man and then Drones should be the first two to light up, since they require you to be out of multiball to light. Once those two are ready (or any time Drones is lit – draining with War Machine lit leads to a frustrating climb back!), start War Machine Multiball and then stack in Whiplash as a ball saver extension to potentially work towards a War Machine Super Jackpot. Finally, if Iron Monger has not been played (somehow), play a round of Iron Monger. If Iron Monger was completed earlier in the ball (usually, since Monger freezes Whiplash progress and acts as a big blockade to everything else) or the Iron Monger Super Jackpot was collected, you can skip this step and go right for Do or Die!

So, you've got Do or Die lit. Everything is ready to go. Before you shoot the fateful shot, if you have your second Iron Man Scoring qualified and ready to go, be sure to start Iron Man Double Scoring to pay double on the game's most lucrative single shot. Once you're set up and mentally prepared, shoot the center shot to start the 35M hurry-up. Get back to a trap, plug the center, and you've most likely collected 30M to 35M (60-70M with doubler running)! Boom!

Once you see the massive payout on the screen, if you did the last bit of setting up you will start the other wizard mode, Jericho, with double scoring since you started it by completing Do or Die. To light Jericho along with Do or Die, a few small but important steps need to be performed. On top of what needs to be done to light the characters, an Iron Man Scoring mode must be started (remember that the character light is given for qualifying the mode!), Bogey Scoring must be started, and a set of 6 lanes must be completed. The lanes generally come with extensive multiball play and/or on the way to collecting Bogey, and Bogey is something that should set up early and added in with the War Machine/Whiplash multiballs to sweeten the shot pot even more. 500K-1M per shot is no joke, especially since you need to shoot them anyways for both of those multiballs! Once you're in Jericho, be sure to take the safest shots you possibly can and don't be afraid to leave the ball out of control for a bit – you're going to be scoring 250/500k shots all over the place.

In match play or in the short game, players that are confident on their loop shots and catches will generally just play for Iron Monger all day due to the general control that the shots provide.

Where Drones require you to hit risky targets and Iron Man encourages the ever-stressful side-to-side motion, the Iron Monger (and to some extents Whiplash, although the magnet can be a wild card in all of this) allows for controllable play. Shoot a loop, trap, and repeat until the Iron Monger is standing in front of your flippers. Then, graze the sides of the Monger so that the ball avoids the violent magnet and instead slowly and peacefully falls towards the bottom of the playfield. Once in multiball, be sure to continue using the graze rule or your balls may easily find their way towards the drain. Finally, figure out which flipper (or both) is best to shoot the Super Jackpot at the center shot with and set yourself up to make a clean shot with all of the balls trapped.

Stern High Roller Casino



A modern gambling device based on gambling!

<http://www.ipdb.org/machine.cgi?id=4502>

Main Features

- Casino Games
 - Slots (and Slot Machine Multiball)
 - Slot Machine is located on left side of playfield, blocking left entrance to the ramp
 - “Bash” the slot machine bar to raise the ramp for Slots
 - Ramp most likely will be automatically raised for first multiball, may be for 2nd
 - Each subsequent multiball requires more bashes to raise ramp
 - When slot machine ramp raised, shoot ball up ramp to play Slots
 - Ball is stuck in slot while this is going on
 - Slots gives a pre-determined award
 - Each win moves up 1 level on the pay table, and cycles back when S-S-S is collected (Special)
 - First 10 pulls - Every 2nd award will win
 - Next 10 pulls – the 13th, 16th, and 20th award will win
 - A win lights the Slots light in the center of the playfield
 - After playing Slots, Slots ramp will completely drop, revealing a main ramp entrance
 - Shooting a ball up this ramp will lock a ball for Slot Machine Multiball
 - Lock 2 balls and then shoot through the Slots again to start Slot Machine Multiball

- Craps
 - Shooting the left Craps target performs a Craps roll
 - Win on every other Craps game (generally 2-3 rolls per game, 1 for Craps/"7 Win")
 - 1st 4 games – Alternates between 7-Out (Lose) and making point (win)
 - Next 10 games – Alternates between Craps (Lose) followed by 7 Win and 7-Out and making point
 - Craps, 7 Win, 7-Out, Make Point, Craps, etc.
 - Repeats after the 14th overall game
 - Winning awards the Craps light in the center of the playfield

- Hi-Lo
 - Completing the HI-LO lane rollovers spots Play Hi-Lo on the right loop
 - Can be switched by the flippers
 - When Play Hi-Lo is shot, choose the obvious choice
 - If you guess correctly, you can choose to go on or quit and win
 - Choose Hi if the card is low (2, 3, 4, etc.) and Lo if card is high (Ace, King, etc.)
 - **Have a chance to win every 2nd and 3rd game**, pattern repeats every 6
 - 2nd – 2 Correct Guesses
 - 3rd – 3 Correct Guesses
 - 5th – 1 Correct Guess
 - 6th – 4 Correct Guesses
 - Hi-Lo is lit in the center of the playfield when you win

- Blackjack
 - Shoot the HIT/ME targets flanking the slot machine to be dealt cards
 - Try to get as close to 21 as possible without going over (see actual rules of Blackjack)
 - Going over 21 counts as a Bust, empties your hand, **and counts as a loss**
 - Collecting 2+ cards lights Play 21 on the left loop (or Double Down if total is 10/11)
 - When Play 21 is shot, compare your hand to the dealer
 - If you have the better hand, you win and the Blackjack center playfield light is lit
 - **For the first 6 games, you will win every 2nd hand**
 - After the first 6 games, order changes
 - 7th – MUST win with 21
 - 8th – lose, can double down for more losing!
 - 9th – MUST win with 5 cards drawn
 - 10th – MUST win with 21
 - 11th – Lose
 - 12th – Guaranteed Win, don't Bust! (repeat from beginning after this)
 - If the dealer has the better hand, you lose
 - When Double Down is lit, draw 1 more card and then Play 21 for double the values

- Casino Frenzy
 - Awarded when all 6 casino game lights are lit
 - Lighting a Casino Game light awards 15M + 1M for each subsequent game
 - 4-Ball Wizard Mode Multiball
 - Shoot each of the 6 casino games for Jackpots
 - Awards a Jackpot, lights the respective game in the center of the playfield
 - Jackpots are worth 100k * (# of chips), max 10M (at 100)
 - Right Loop spots both Hi-Lo and Poker on first round
 - Shoot the main (center) ramp to collect the Casino Jackpot when all 6 games are lit
 - 100M + 25M for each subsequent completion
 - Collecting a Casino Jackpot restarts the normal Jackpots, but they must be lit!
 - Slots requires a slot bash
 - Poker requires a completed hand
 - Hi-Lo requires the HI-LO lights to be qualified
 - Roulette requires pop bumper hits
 - Blackjack requires a Blackjack hand
 - Craps requires multiple hits
- Break the Bank and Chips
 - Chips are awarded through the following means:
 - Starting the game – given 10 Chips to start
 - Skill Shot – 5-10 Chips
 - Winning Casino Games (varies)
 - Lit “Win Chips” targets (lower sides of playfield)
 - Awards 1 when lit
 - Chip Combo – Shoot the lit Win Chips target and then the other Win Chips target (while flashing) to award 3 Chips + points
 - Roll-N-Win – 10 Chips award
 - **Lose 1 Chip any time a Casino Game is played**
 - Break the Bank
 - Spotted on both loops and ramp entrances when 100 Chips are collected
 - 4-Ball Wizard Mode Multiball
 - Shoot the loops, main ramp, or Slot Machine (bash) to build the Break the Bank Jackpot
 - Cash in the Break the Bank Jackpot by shooting the ball through the Slot Machine
 - Ramp is lowered for a brief period of time; cycles between up and down
 - Base 25M + shot bonuses
 - Once Break the Bank has been collected, shoot the Main Ramp, Slot, and both Loops again to collect Break the Bank Jackpots
 - Once all Jackpots have been collected, Slot ramp raises and the Jackpot can be built/cashed in again

- Ramp Features – Cheat Game and Roll-N-Win
 - Cheat Game
 - Awards 1 Cheat Game at 5 ramp shots to either entrance and every subsequent 10 ramp shots after the first award
 - 2 Cheat Games can be awarded from the “?” award from Roll-N-Win
 - When Cheat Game is lit, your ***next*** Casino Game is automatically won (***if you lose!***)!
 - Slots – Changes the outcome to a winning combination
 - Roulette – Changes the outcome to a color you bet on
 - Hi-Lo – Changes the outcome to a winning choice and ends game
 - Blackjack – Changes your hand to be 21
 - Poker – Changes your hand to beat the dealer
 - **Craps – If you “7-out” or get Craps instead you win**
 - Roll-N-Win
 - Lit at beginning of game and re-lit by the upper right “Roll-N-Win/Extra Ball” target
 - Across from Craps target
 - Collected at main (center) ramp when lit and Roulette is not lit
 - Rolls 2 dice; choose a die and move that many spaces on the backglass wheel-board
 - **ALWAYS offers a 3 and a 4; plan ahead!**
 - Awards (in order)
 1. Start
 - Starting Location and Super Mode Bonus
 2. 3 Slot Spins
 3. ?
 - 500k Extra Bonus, 2 Cheat Games, or 20x ATM Value (generally 10-30M)
 4. 10 Chips
 5. Roll Again
 - Choose Collect Bonus or **Light a Casino Game**
 - **LOSE out on opportunity for instant Slot Machine Multiball**
 6. Light Extra Ball (20M in Tournament Settings)
 7. **Slot Machine Multiball**
 8. Collect Bonus
 9. **Casino Game**
 - Immediately awards an unlit casino game
 10. 25 Million
 11. Bonus X (10X ?)
 12. Light Special (40M on Tournament Settings (?))
 - Completing a “lap” of Roll-N-Win awards a timed Super Mode
 - First lap – Super Pops
 - Second lap – Super Loops
 - Third lap – Super Spinner
 - Fourth lap – Super Surprise Wizard Mode
 - **Landing on Start increases the Super Mode time by 50%**

Other Scoring

- Pop Bumpers/ATM
 - Pop Bumpers score 10k + 2.5k per loop shot
 - Multiplied by $(1 + 1 \text{ for each Roulette bet placed})x$, up to 4x
 - Pop bumpers also advance ATM by the pop bumper value
 - ATM
 - Lit on a loop by crossing over an inlane
 - Left inlane – Right Loop
 - Right inlane – Left Loop
 - Shooting a lit ATM shot awards the current ATM value (750k + pop bumpers, up to 2.5M, multiplied by the current ATM multiplier) and adds 1x to the ATM multiplier
 - ATM multiplier goes up to a max of 10x
 - Roll-N-Win “?” award may give a 20x ATM collect
 - Resets at end-of-ball
- Ramp Scoring
 - 500k + 50k per subsequent ramp on the current ball
 - Also awards Extra Ball at 10 Ramps and Cheats every 5 Ramps
- Bonus
 - Scoring Total
 - Unknown base bonus (generally 100-350k)
 - 10k/Chip collected
 - 25k/Ramp collected
 - Bonus X
 - Awarded from 3 main locations:
 - Spinner (Every 5 (+1 per spinner X collected) spinner hits = 1 Bonus X)
 - Skill Shot (5-10 Bonus X)
 - Roll-N-Win (10 Bonus X (?))
 - **Can be lucrative on a long ball!**

Strategy Corner

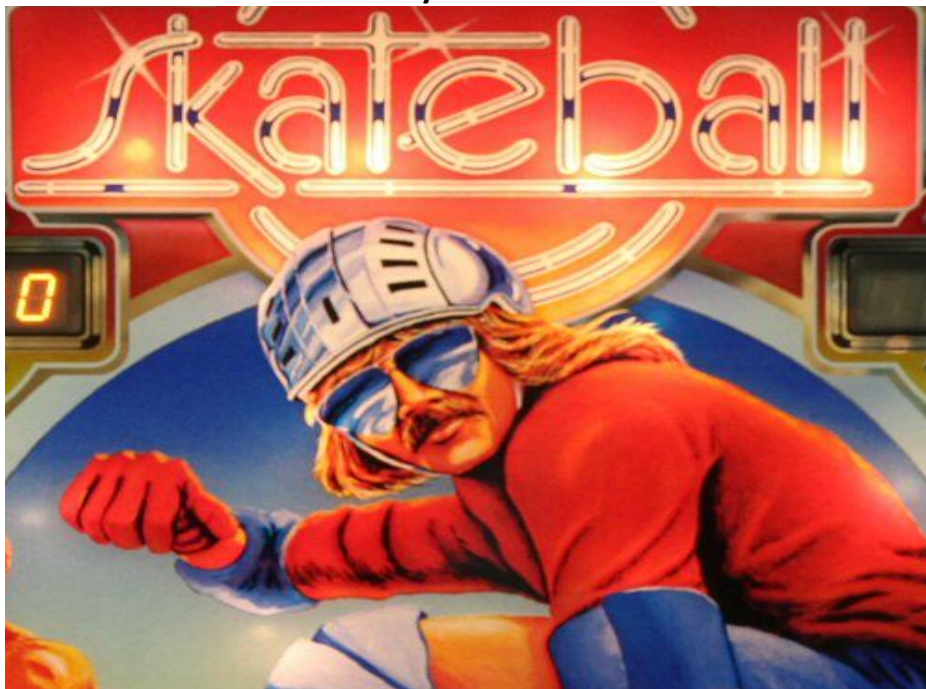
High Roller Casino is one of my favorite early Sterns due to the fact that the game has many ways to tackle it, and can be set up in a variety of ways. Lets just go ahead and get started, since there's a lot to talk about here!

First, the simplest strategy involves repeating the Slot Machine Multiball and trying to collect the highest levels of Super Jackpots from it. In order to do this, you have to lock 2 balls by bashing the slot machine bar until the ramp raises and you get to play some slots. Afterwards, shooting the ramp will give a ball lock. Locking 2 balls lights multiball on the slot machine; shooting through the slot once again with the ramp down will start Slot Machine Multiball. From here, you can either use the 4 balls as a flip-away frenzy to pick off key targets, or you can use the ball save to let a few balls drain and play under more control for a while. Since the balls must autoplunge into the roulette wheel and the autoplunge on this game is notoriously slow, the balls are delayed by about 10 seconds until they show up in the main playfield again. As a caveat, be sure that the autoplunger is doing its job; I don't want to see anyone get screwed by a ball trap ruling! Once out of multiball, either pick off some casino games that you have lit, or work the Roll-N-Win or Slot Machine for another multiball.

For a more involved strategy that uses the whole guide, you can work towards Casino Frenzy and Break the Bank, which requires much more investment but pays off much more than the Slot Machine Multiball strategy when it is executed properly. By using a combination of directly playing Casino Games, cheating Casino Games that are hard to win (like Craps and...Craps), or collecting them outright with the Roll-N-Win award (can be the first award you collect if you forego multiball, otherwise you need to complete a lap and collect it as your 3rd/5th/7th award). By working towards Casino Frenzy you'll also win a boatload of chips that augment your Casino Frenzy jackpots and gives you solid progress towards Break the Bank. Casino Frenzy is worth a decent amount (especially with a few Super Jackpots), and after collecting the rest of the 100 chips Break the Bank can literally break the game's scoring if collected a few times over!

One thing I have to mention before heading out is how the Roll-N-Win works. By hitting the Roll-N-Win target, you get to move 3 or 4 spaces ahead and can work towards one of two major rotations. For the Multiball strategy, the first multiball started this way is 2 Roll-N-Wins away (by choosing 3 both times, collecting 10 Chips along the way) and subsequent Roll-N-Win multiball starts are 3 away (by choosing 4 all 3 times, collecting Bonus X and ?). In the Casino Frenzy strategy, you can collect a Casino Game off the first roll (by choosing 4, and then 4 on the Roll Again). Afterwards, subsequent Casino Game awards are 2 Roll-N-Wins away (by choosing 4 both times and on the Roll Again roll, collecting the Super Mode augment on the way at Start). In addition to the rewards, the Super Modes at the end of each lap crank the values of their respective targets up to ludicrous values and should not be ignored! In qualifying, knowing where on the flipper and how safe the return from the Light Roll-N-Win target is may lead to some insane roll-based strategic augments!

Bally Skateball



Aww cool! Hot couple, dude on skateboard,...and a van?

<http://www.ipdb.org/machine.cgi?id=2170>

https://www.youtube.com/watch?v=PZCo9rcyg4w&ab_channel=PAPApinball

Main Features

- S-K-A-T-E/B-A-L-L (Right Eject Hole)
 - S-K-A-T-E Targets (Left 5-bank)
 - Score 10,000 + Advance Bonus by 1,000 each
 - Completion of bank advances the Right Eject Hole value one step and lights one of the rollovers in the Upper left loop (for Advance Bonus)
 - Arrow targets (Upper Left 3-bank)
 - Score 5,000 when not flashing, 10,000 when flashing
 - Bank scores 10,000 upon completion (no matter the arrow status)
 - Flashing arrows will be lit solidly when their corresponding drop target is hit
 - Solidly lighting all 3 flashing arrows lights Collect Bonus on the Right Eject Hole
 - Right Eject Hole (B-A-L-L Hole)
 - At start of game, bottom L is lit (20k hole value)
 - By completing S-K-A-T-E targets, the next letter up will be lit
 - Carries over from ball to ball!
 - **1st completion – top L is lit (+30k hole value, 50k shot)**
 - **2nd completion – A is lit (+50k hole value, 100k shot)**
 - 3rd completion – B is lit (Extra Ball, awards the base 100k + nothing!)
 - **After Extra Ball is collected, right eject hole resets to 20k (bottom L)**
 - **May be lit upon 2nd completion instead of 3rd (setting)!**

- If the Arrow 3-bank is lit solidly, hole will also be lit for Collect Bonus
 - Full bonus collect
 - Arrow targets un-light and right eject hole un-lights for Collect Bonus
- Bonus Value
 - Max Bonus of 70k
 - Single bonus advances awarded for:
 - S-K-A-T-E targets
 - Maybe Arrow and Center 3-banks? (feature setting)
 - Upper left loop rollovers (when lit by S-K-A-T-E)
 - Toplanes when not lit
 - Double bonus advances awarded for:
 - Lit inlanes (A-B) lanes
 - Light A and B by rolling through the lane once
 - Lit toplanes
 - Outlanes
 - Super Bonus features
 - Bonus will carry over from ball to ball at 20k, 40k, and 60k
 - Max multiplier of 5x
 - Bonus X can be advanced through completion of the toplanes (1-2-3)
 - 1-2-3 also lights a pop bumper for 1k when completed
 - Bonus X can also be advanced by completing the Arrow target bank 3 times
 - Multipliers may carry over, although this seems unlikely in PAPA A

Other Scoring

- Spinner
 - 100/spin when unlit, 1k/spin when lit
 - Lit by lighting both A and B on the inlanes
- Center Target Bank (3-bank, between Spinner and Arrow 3-bank)
 - Cycles between the outer 5 lights (10k/20k) until 3-bank is completed
 - Once the 3-bank is completed, the lit value is awarded and the light is lit
 - Lights turn off at end of ball
 - Collecting both 20k arrow lights will light the 3-bank for 100k for the rest of the ball

Strategy Corner

Skateball is a bonus-building one-trick-pony kind of game. The scoring in the game is so highly dominated by the right eject hole and the bonus collects (either drain or from the eject hole) that the rest of the game tends to wash out in comparison.

At the beginning of a ball of Skateball, the main priority is to work on completing the SKATE target bank and advancing the hole towards its eventual max value of 100k. Skateball is a great example of a “left flipper-right flipper” game – both flippers have something useful that they can be doing, so transfers are not necessary until later into the game where the eject hole is maxed out. From the left flipper, shots can be made to the eject hole (to collect your tubular score) or to the spinner (to work on your gnarly Bonus X). From the right flipper, shots can be made to the SKATE targets and to the Arrow targets to progress towards various eject hole-related features.

A few interesting and trouble-causing spots do exist on the game as well. First, the feed from the eject hole can be treated in a few different ways (as Bowen nicely showed in his PAPA tutorial), notably via no action from the upper flipper (which is generally nice but can lead to right outlane drains), flipping away at the upper left loop or the SKATE targets (dangerous), drop-catching from the upper right flipper (can be dangerous), and holding up the upper right flipper to bounce the ball across the playfield (can be dangerous, can lead to inlanes or safe traps). Test the various methods and any others you come up with to see what works best on the version in the A bank. Speaking of inlanes, both inlanes are in a non-traditional setup. The left inlane is actually the outside lane on the machine with a 1-way gate above the left sling that serves as a “second chance” to whisk the ball to safety. Always remember that with these reverse lane games (like Fathom), there is a chance to save balls with side-to-side motion down the outlane by nudging the game towards the center. On the right is a traditional setup with funky angles that tend to lead the ball to the outlane. If you can, try to avoid the right lanes in general with proactive nudging (and as the game says on the playfield, “Watch that turn!”) Next, once the eject hole is lit for 100k another completion of SKATE will allow for one more collect followed by a hard reset to 20k. Once the 100k is lit, avoid SKATE targets at all costs. If you have to flip towards something on the right flipper, shoot for the top-left arrow 3-bank so you can work on getting Collect Bonus ready to go. Finally, remember that there is a 20k, 40k, and 60k Super Bonus and all of these bonus values can be used to turn the right eject hole into a ludicrous 450k one-shot payout. Therefore, dedicating some time to work on Bonus X and advancing your Bonus, especially at the Super Bonus breakpoints, can be useful. If Bonus X also carries from ball to ball, working on Bonus X early can lead to some great opportunities.

On this machine, it's a hard decision to know exactly when lighting Collect Bonus constantly is worth the effort. This is where score knowledge comes into play: if you're close to your target and want to either accelerate the process or want to make it such that only one hit to the eject hole puts you over the top (due to poor returns, a hard to hit shot, etc), working on lighting Collect Bonus may be a smart idea. If you're still a long way away from your target, working the right eject hole can start to bring you closer to your goal while giving a generally-consistent feed from the same shot over and over again.

Good luck, hopefully you've worked on your ways to pass a ball from right to left, and roll on into the 100k Dream Land!

Stern Kiss



Undeniable proof that Gene Simmons is a jerk.

<http://www.ipdb.org/machine.cgi?id=6265> (Pro version)

<http://papa.org/wp-content/uploads/KISS-Rulesheet-Version-1-03.pdf>

<http://tiltforums.com/t/kiss-wiki-rulesheet/732>

Main Features

- Mode Progression
 - General notes
 - Shots from left to right, positions used in certain modes:
 - Left Loop, STAR targets, Center Ramp, Demon, Right Ramp, Right Loop
 - “left/right” and shifting refer to this order
 - **Mode scoring may reset the “# of shots made in the mode” portion at end-of-ball on some modes; number of shots made is still retained for mode completion**
 - When song is completed **and multiplier is collected (potential setting)**, shoot the left scoop to start the next mode
 - **Modes can be stacked with non-wizard multiballs!**
 - Deuce (Dark Blue)
 - Mode starts with Left Loop and STAR targets lit
 - For first 5 shots, shooting either lit shot moves shots one to the right
 - **Can also shoot the adjacent unlit shot to the left for credit**
 - For final 3 shots, two adjacent shots will strobe back and forth across the playfield; each successful shot speeds up the strobe rate
 - Hit 8 shots to complete mode
 - Each shot is worth (300k * # of shots made in the mode), up to 2.4M

- Lick It Up (Pink)
 - Mode starts with 2 adjacent shots lit
 - Shooting the left lit shot moves shots one to the left
 - Shooting the right shot moves shots one to the right
 - Hit 8 shots to complete mode
 - Each shot is worth (250k * # of shots made in the mode), up to 2M

- Hotter Than Hell (Orange)
 - Mode starts (and new balls start) with KISS target bank lit
 - Shooting the KISS bank lights a random shot on the playfield
 - Shooting the random shot lights the KISS targets once again; repeat until end of mode
 - Awards double the base score!
 - Hit 8 shots to complete mode
 - Each shot is worth a base of (250k * # of shots made in the mode), up to 2M/4M

- Love it Loud (Reddish Orange?)
 - Mode starts with loops lit (phase 1)
 - Shooting both lit loops lights the 4 other shots on the playfield (phase 2)
 - STAR Targets, Center Ramp, Demon, Right Ramp
 - In phase 2, shooting a lit shot un-lights the shot until another shot is hit
 - Hit 10 shots to complete mode
 - Each shot is worth (100k + (200k * # of shots made in the mode)), up to 2.1M

- Detroit Rock City (Yellow)
 - Mode starts (and new balls may start) with all 6 shots light on the playfield, with the left-most shot flashing
 - Shooting any shot un-lights the shot and awards points
 - Shooting the left-most lit (flashing) shot awards double points
 - Completing all 6 shots re-lights the 6 shots on the playfield
 - Hit 9 shots to complete mode
 - Each shot is worth (200k * # of shots made in the mode), up to 1.8M/3.6M

- Shout It Out Loud (Teal)
 - Mode starts (and new balls may start) with Center Ramp lit
 - Shooting the Center ramp lights the Loops
 - Shooting both Loops lights the other 3 shots not included yet
 - STAR Targets, Demon, Right Ramp
 - Shooting the 3 shots lights all shots on the playfield
 - Un-light once shot
 - Hit 9 shots to complete mode
 - Each shot is worth (300k + (200k * # of shots made in the mode), up to 2.1M

- Rock and Roll All Nite (Lighter Blue)
 - Mode starts (and new balls start) with Center Ramp lit
 - Shooting the Center Ramp lights the Right Loop
 - Shooting the Right Loop lights the left 2 shots
 - Left Loop, STAR Targets
 - Shooting any of the 2 left shots lights the right 2 shots
 - Right Ramp/Loop
 - Shooting any of the 2 right shots lights the left half shots
 - Left Loop, STAR Targets, Center Ramp
 - Shooting any of the left half shots lights the right half shots
 - Right Ramp/Loop, Demon
 - Rest of mode alternates between left/right halves
 - Hit 8 shots to complete mode
 - Each shot is worth (500k * # of shots made in the mode), up to 4M

- Black Diamond (Green)
 - Mode starts (and new balls may start) with Right Loop lit
 - Shooting the Right Loop lights another shot on the playfield
 - Pop bumper hits will cycle shot one to the right for each pop bumper hit
 - Shooting the lit “random” shot lights the Right Loop; repeat until end of mode
 - Hit 8 shots to complete mode
 - Each shot is worth (300k * # of shots made in the mode), up to 2.4M

- Mode Progression Perks
 - Shot Multipliers
 - When completing a mode, non-multiplied shots will pulse white
 - The next shot to one of these pulsing shots will make the shot award double for the rest of the ball, indicated by a rapidly blinking shot
 - If not claimed, multiplier opportunity will expire at the end of ball
 - Mode Playfield Multipliers (Playfield X)
 - Awarded when completing modes until end of ball; **behavior is PAPA adjustment-dependent; two common options are below**
 - (Most likely) For each 2 (maybe 3) modes completed, Playfield X will be lit for the next highest non-collected value; values do not reset between balls
 - For each mode completed, Playfield X will be advanced; values reset between balls
 - Perhaps other permutations? When PAPA starts, guide will be updated with confirmed setting
 - Playfield multiplier values can be 2X, 3X, 5X and 10X
 - When a playfield multiplier is lit, all scoring is multiplied by the indicated value until the end of the ball

- Multiballs
 - Add-A-Ball is lit at the scoop when Backstage Pass is lit (see proper section)
 - Love Gun Multiball
 - Switch hits on the STAR targets and the STAR scoop advance progress towards lighting Love Gun Multiball (each subsequent Love Gun is harder to light)
 - When Love Gun Multiball is lit on right ramp, shooting right ramp will start Multiball
 - 4 ball Multiball
 - At the beginning of the multiball, all of the non-STAR target shots are lit purple for Jackpots
 - Objective is to shoot 5 shots twice for Jackpot and Double Jackpot
 - Shots lit are the 5 non-STAR Target shots (Loops, Ramps, Demon)
 - When shooting the Demon, ball will spit out of Gene Simmons's mouth onto the playfield; **if ball saver is already off, no ball saver is given (although it is flashing)!**
 - Once a Jackpot on a shot is collected, all other shots un-light
 - Once a Double Jackpot is collected, shot permanently un-lights and the remaining shots without a Double Jackpot collected light
 - Jackpots are a base 500k
 - +250k per STAR target completion in single-ball play
 - Once all 5 Double Jackpots are collected, Super Jackpot lights at STAR eject
 - Super Jackpot awards 10M base (perhaps 20x Jackpot value?)
 - Resets all shots when completed
 - Demon Multiball
 - Completing the 2 Lock targets straddling the Demon shot or spelling DEMON lights a lock at the Demon shot
 - Collect DEMON letters by shooting the Demon shot in single ball play
 - If virtual locks are on (probably), ball will spit out of Gene Simmons's mouth onto the playfield; a small ball saver will be provided (**does not work in multiball**)
 - Lock Behaviors with each multiball:
 - 1st multiball – Locks can be stacked; can light multiple without claiming
 - 2nd multiball – Locks must be lit and claimed separately
 - **Setting - may be 1st multiball behavior**
 - 3rd multiball – 2 sets of lock targets/DEMON completions (or mix)
 - Subsequent multiballs – Might be more sets or just 2 sets
 - Locking 3 balls starts Demon Multiball
 - 3 ball Multiball
 - Objective is to shoot 5 shots twice for Jackpots and Double Jackpots
 - Shots lit are the 5 non-Demon shots (Loops, Ramps, STAR targets)
 - Shooting a shot the first time awards a Jackpot
 - Shooting a shot the second time awards a Jackpot and un-lights the shot
 - Jackpots are a base 450k
 - +250k per DEMON completion in single ball play
 - +50k for each jackpot collected in the current multiball (1st Jackpot – base 500k)

- 5th and 10th overall Jackpots are instead Super Jackpots
 - Base 2.25M (5x base Jackpot)
 - + 1.25M per DEMON completion in single ball play (5x as well!)
 - Once 10th shot is lit, a light moves between all 6 shots for Double Jackpot
 - Once Double Jackpot is collected, Demon is lit for Double Super Jackpot
 - Resets all shots when completed
 - Balls can be re-locked for 20 seconds in the Demon shot for 2x and 3x Playfield
 - Completing the Lock targets during multiball lights the Lock
 - Shooting a ball in the Demon locks the ball, starting the timer and multiplier
 - Locking a 2nd ball resets the timer
 - Starting Demon Multiball flashes the Demon insert on the playfield
 - Collecting the Double Super Jackpot solidly lights the Demon insert on the playfield
- Multipliers
 - Shot Multipliers
 - Mode Completion 2x – see above
 - Combo 2x
 - Shooting certain shots will blink the shots that are a natural combo for the return
 - Cannot combo a shot into itself
 - Shooting the Demon or STAR Targets will not create combo opportunities
 - Indicated by a rapidly blinking shot
 - Shooting a shot in combo awards a 2x multiplier on the shot
 - **Shot multipliers stack multiplicatively with themselves AND Playfield X**
 - Playfield Multipliers
 - Mode Playfield Multiplier – see above
 - Demon Playfield Multiplier – see above
 - Double Scoring – Backstage Pass award (see below)
 - **Playfield multipliers stack additively with each other, max 15x**
 - Multipliers are added together to get the stacked Playfield multiplier
 - Example – Double Scoring + 5x Song Playfield = (2+5)x = 7x
 - ***Stacking 2 playfield multipliers essentially gives an extra 1x!***
 - **Max overall multiplier - 60x**

- Wizard Modes
 - Heaven's on Fire (Grid)
 - Bonus Grid
 - **Grid may reset between balls (setting), and does not un-light after 1st completion**
 - 4 tasks must be completed to light all 16 upper lights on the grid in the center of the playfield
 - KISS
 - Complete the KISS target bank
 - ARMY
 - Complete the ARMY target bank
 - Band Members
 - Shooting the outer left inlane lights the Right Loop to advance a band member's pop bumper
 - When a band member's pop bumper is advanced, that band member lights on the grid
 - Instruments
 - Shooting the right ramp when lit for "Instrument Power On" lights one of the following shots (ordered from left to right on the grid):
 - STAR Targets (Paul's Guitar)
 - Center Ramp (Ace's Guitar)
 - Demon (Bass)
 - Left Loop (Drums)
 - Instruments will not re-light once collected until a set is completed
 - If no instruments left to light, the right ramp will not be lit
 - Ramp may not re-light until the current instrument is collected (setting)
 - Shooting the respective shot collects the instrument and lights the respective light on the grid
 - Completing the grid the 1st time awards 5M, twice lights Heaven's on Fire
 - Grid completions will carry over between balls
 - Heaven's on Fire
 - Started on the scoop when lit
 - 4 ball Multiball
 - Objective is to re-light the entire grid
 - See Grid section for general notes
 - All 4 instruments already lit; right ramp spots 1
 - Each piece of the grid awards a Jackpot; each completion a Row Jackpot
 - Scoring unknown
 - Completing the STAR targets awards an Add-a-Ball once per Super Jackpot
 - Completing the grid lights the scoop for Super Jackpot
 - Collecting the Super Jackpot resets the Add-a-Ball and Grid

- Character-Based Wizard Modes
 - Awarded for either qualifying all 4 band members as flashing or solidly lit
 - Starchild
 - Starting Love Gun Multiball flashes the Starchild insert on the playfield
 - Collecting the Super Jackpot solidly lights the Starchild insert
 - Spaceman
 - Collecting 6 Instruments flashes the Spaceman insert on the playfield
 - Collecting 12 Instruments solidly lights the Spaceman insert
 - Demon
 - Starting Demon Multiball flashes the Demon insert on the playfield
 - Collecting the Double Super Jackpot solidly lights the Demon insert
 - Catman
 - Lighting all 4 bumpers in one ball flashes the Catman insert on the playfield
 - Lighting all 4 bumpers purple (3 times over) solidly lights the Catman insert
 - Kiss Army Multiball – Lit when all 4 characters are flashing
 - Started on the scoop when lit
 - 4 ball Multiball
 - Objective is to collect 10 Jackpots/Double Jackpots
 - Shots lit are the 5 non-Demon shots (Loops, Ramps, STAR targets)
 - Once a non-Demon shot is lit (Jackpot), the Demon lights
 - Shooting the Demon (Double Jackpot) lights the other shots not collected yet
 - Jackpots are a base 1.4M
 - +100k per Jackpot/Double Jackpot collected (1st jackpot – 1.5M)
 - Collecting all 10 Jackpots lights the Super Jackpot at the Demon
 - ***Super Jackpot is worth the collected value of all Kiss Army Jackpots***
 - Does not count Super Jackpots
 - Resets all shots when completed
 - Rock City Multiball – Lit when all 4 characters are solid
 - Started on the scoop when lit
 - 5 ball Multiball
 - Objective is to collect 24 Jackpots
 - All 6 shots are lit for Jackpots
 - Shooting a shot 4 times un-lights the shot
 - Jackpots are a base 1.5M
 - +500k per subsequent Jackpot collected (1st jackpot – 2M)
 - When all 24 Jackpots are completed, Super Jackpot is lit at the Demon
 - ***Super Jackpot is worth the collected value of all Rock City Jackpots***
 - Does not count Super Jackpots
 - Resets all shots when completed

Other Scoring

- Hurry-ups
 - Started when completing the KISS or ARMY targets
 - KISS Hurry-up – started on the Left Loop when KISS is completed
 - 2M, counts down over time and is indicated by flashing “KISS Hurry-up” light on loop
 - ARMY Hurry-up – started on the Center Ramp when ARMY is completed
 - 1M, counts down over time and is indicated by flashing “ARMY Hurry-up” near ramp
 - Collecting a KISS or ARMY Hurry-up awards the current value
 - Plus, adds the **base** value of the hurry-up collect to the next hurry-up of that type
 - Value shown includes playfield multipliers but not shot multipliers

- Backstage Pass/Super Modes
 - Completing KISS and ARMY lights the Backstage Pass on the scoop
 - Shooting the scoop when lit awards one of the following
 - Add-a-Ball (first time collected in any multiball)
 - Super Ramps
 - Next 10 ramp shots are worth 750k each
 - Super Spinner
 - Next 100 spinner spins are worth 75k each
 - Super Pops
 - Next 100 pop bumper hits are worth 75k each
 - Super Targets
 - Next 100 target hits are worth 75k each
 - Modes carry between balls
 - Deuce Scoring
 - Similar to Deuce mode; overtakes current mode when started
 - Fast Scoring
 - 10k per switch for a certain amount of time; overtakes current mode when started
 - Bonus X
 - Doubles bonus at end of ball
 - Double Scoring
 - Timed mode, in which playfield scores 2x
 - Big Points - 2M
 - Hold Bonus

- Front Row
 - Lit on the left outlane when KISS is completed 1 (+1 for each time used) times
 - Acts as a virtual ball saver when rolled over

- Bonus
 - Value based on number of KISS/ARMY targets, times pops are lit, instruments collected, and characters lit
 - Multiplier based on if Double Bonus was collected from the Backstage Pass

- KISS and ARMY Combos
 - Rolling over the right inlane lights the KISS Combo
 - Rolling over the inner left inlane lights the ARMY combo
 - When a combo is lit, a target in the respective bank will flash
 - Shooting the flashing target awards an immediate completion of the bank

- Pop Bumpers
 - Award 10k/pop when unlit, 13k when lit red, 16k when lit green, 20k when lit purple

Strategy Corner

Ever since software version 1.28 dropped a year ago, Kiss has become a burst-scoring game based around the ebbs and flows of multipliers and multiballs. When shots and the entire playfield is doing extra work, the scores on the game can start to become as colossal as the rarely-seen 10x "Colossal Bonus" playfield multiplier.

In both qualifying and match play, the game plays relatively the same; complete modes to collect shot and playfield multipliers, and then cash them in using a multiball or wizard mode multiball. Qualifying is more reliant on having the stars align properly (more risk may be taken to work for a 5x Playfield instead of a 3x Playfield before starting a certain multiball, for example), while match play is more lax due to the one-game nature of the format. Be sure to shoot as many shots in combo as possible, using the ramps (especially center ramp, easily reached from both flippers) to set yourself up for a quick doubler. With regards to the mode playfield multipliers, until I can get an idea of how the multipliers are awarded be observant on when they are being doled out and how they behave between balls; I have given the two most common options in the notes.

Modes that are generally seen early on the game are Deuce and Lick It Up due to their somewhat relevant scoring and more importantly their ease of completion. Both modes also have the potential to rely upon the STAR targets, which leads towards lighting and starting your first Love Gun Multiball. Detroit Rock City is another common mode, which is generally started when a multiball is about to be underway due to the amount of shots lit on the playfield. Rock And Roll All Night and Hotter Than Hell are some good modes once the above modes are depleted, as they are higher-scoring modes that can leverage the use of multipliers. Shout it Out Loud, Love it Loud and Black Diamond are usually endgame filler that work towards lighting the next playfield multiplier due to requiring more/riskier effort for less pay.

To augment progression and to start paying off the multipliers that you worked hard for, both of the main multiballs (Love Gun and Demon) are great options when they show up. Be sure to have a fresh song ready for these, since they do carry into multiball play and can also lead to a full completion (and even more multpliers) during the multiball! Out of the two, Love Gun is usually given a preference over Demon due to the relative safety of the returns; Love Gun returns in a semi-predictable manner from the STAR targets, while the Lock targets for Demon (or the shot itself) can have squirrely feeds that can lead to a lack of control or end your ball. These feeds may vary based on the Kiss in A Division, so with multiball preferences your mileage may vary. Overall, Demon is a more lucrative multiball than Love Gun due to the much more fan-friendly setup, the potential to add playfield multipliers via the Demon locks, and a much more lucrative Super Jackpot for technically less effort than Love Gun Multiball. Anyone who's played Stern Indiana Jones knows the feeling of never hitting a scoop in a sling-happy area, although the scoop is more common on Kiss.

If you're looking to drive a qualifying score home or make your opponents fear for their lives in match play, a wizard mode with the proper set-ups is a great way to make a statement. The only issue with this is that all of the wizard modes require extra effort to be put into the right ramp to collect instruments (6 for Kiss Army, minimum 8 for Heaven's on Fire, and 12 for Rock City). During the game, if you intend to be working on an eventual progression to wizard modes be sure to start collecting instruments early so that when your multipliers are prepared you are ready to rock hard.

Before I go, I have a few small things to note. On a plunge, if you can get the ball to slowly roll around the loop you can either credit a left or right loop shot depending on which side the ball falls into. This is especially useful for the left loop, since the traditional shot can be difficult from the flipper. As a tradeback to a left loop, any ball in the pop bumpers can be considered as a risky situation due to the unpredictable nature of the pop bumpers. They can be nice, or they can be complete jerks and fling a ball straight down the middle or to either outlane! Finally, I can't emphasize how much Gene Simmons is a jerk on this machine. The return from the Demon kicker generally leads to a tip of the flipper feed or straight down the middle, which compensates during single ball play but sends the ball to the void in multiball if the normal ball saver is not lit. Be careful and ready to save whenever this occurs, or try yelling "come on Chaim Witz" at the machine; perhaps using his real name might siphon his ball-draining power?

To summarize this game: use your mode progression to light multipliers, and use multiballs and wizard modes to clamp down massive scores with your multipliers. You can rock and roll all night and party every day once you win the Martian trophy from this strategy!

Williams Funhouse



Putting the RUDE in Rudy.

<http://www.ipdb.org/machine.cgi?id=966>

<http://pinball.org/rules/funhouse.html>

Main Features

- Multiball (and Clock)
 - Clock
 - At start of game, clock will be set between 3:00-7:00 (setting; probably 6 or 7?)
 - After each multiball, clock will generally be reset to 3 hours earlier than start of game clock setting (setting once again; maximum 3:00)
 - Shooting various shots advances the clock a certain amount of minutes towards 11:30
 - Full plunge at start of ball – 30 minutes
 - Hidden Hallway (lock shot) – 10 minutes
 - Wind Tunnel (mode scoop) – 15 minutes
 - Left Ramp – 15 minutes + 5 minutes per additional ramp completed during the current ball in single-ball play, up to 30 minutes maximum
 - Jet Bumpers – 2.5 minutes when off, 5 when lit, **10 when flashing**
 - When jets off, every other hit advances 5 minutes
 - S-T-E-P targets (scattered on playfield) – 5 minutes
 - Superdog targets (center, facing towards left) – 5 minutes
 - Manhole behind right scoop – 30 minutes
 - Trap Door Loop – 10 minutes
 - Trap Door Hole (when raised) – 15 minutes
 - When clock is advanced to 11:30, Lock lights at the Hidden Hallway
 - Shooting the Hidden Hallway as the last advance automatically credits 1st lock
 - **Can only advance to 11:25 during Quick Multiball and Frenzy**
 - When 2 locks are collected, Rudy (dummy face) will fall asleep and open his mouth
 - **Locks reset at end of ball!**
 - Shoot the ball into Rudy's mouth to start a 3-ball Multiball and earn 1M

- Multiball
 - Objective is to collect Jackpots at the trap door
 - Collecting a Jackpot lights the left ramp to re-light Jackpot (open trapdoor)
 - Trap door is an upper flipper shot; feed Hidden Hallway to attempt Jackpots
 - Jackpots are worth 2M + 1M for each subsequent Jackpot (max 10M)
 - **If no Jackpots are collected, multiball restart lit at Hidden Hallway for 12 seconds**
 - Restarts as a 2-ball multiball with a fresh plunged ball

- Wind Tunnel/Mystery Mirror
 - Wind Tunnel (left scoop) awards a feature when lit
 - Lit at start of ball and when Rudy is hit; temporarily lit by right inner inlane
 - ***Wind Tunnel will always have Quick Multiball lit at start of game***
 - Pop bumpers will cycle between unlit rewards:
 - Extra Ball
 - Already lit; you don't get to collect this!
 - Million is Lit
 - Lights the Million arrow in front of Rudy; shoot Rudy to score 1M
 - ***Jet Bumpers at Maximum***
 - Flashes all 3 pop bumpers
 - Superdog
 - 20 second mode; can be extended 20 seconds each time with more Superdogs
 - Superdog targets in center of playfield (facing left) are lit
 - Hitting the Superdog targets awards 200k + 25k per subsequent hit
 - Steps Gate Open
 - Opens the Steps Gate (see below)
 - ***Quick Multiball***
 - Immediately starts a 2-ball multiball
 - While 2 balls are in play, shoot Rudy for unlimited 1M Jackpots
 - Rudy is an upper flipper shot; feed Hidden Hallway to attempt Jackpots
 - Lighting all rewards lights the Wind Tunnel for Super Frenzy (and 1M points)
 - 20 seconds, 100k/switch hit
 - If normal Frenzy was in progress when Super Frenzy is collected, Super Frenzy replaces Frenzy and adds 20 seconds to current Frenzy timer
 - **Points are added in bonus; do not tilt**
 - **Mystery Mirror will not reset progress until start of next ball after Super Frenzy**

- Crazy Steps
 - Lit by either a visit to the manhole or the Mystery Mirror award “Steps Gate Open”
 - Skillfully plunge the the ball from the left side plunger to collect 4 awards:
 - Awards only awarded when lit; listed in order of lighting priority
 - Complete a set of STEP targets to light one of the Crazy Steps awards
 - Awards un-lit when collected (other than Superdog)
 - Superdog (full plunge, always lit) – see “Superdog” Mystery Mirror award
 - **Light Frenzy (front step)**
 - Opens Trap Door when collected; lights Trap Door for Frenzy
 - 20 seconds, 50k/switch hit
 - If Super Frenzy was in progress when collected, Frenzy adds 20 seconds to the Super Frenzy timer
 - **Points are added in bonus; do not tilt**
 - 500,000 points (back step)
 - Awards immediate 500,000 points
 - Extra Ball (middle step)
 - In tournament settings, you get nothing!

Other Scoring

- Rudy's Hideout
 - Kicker located at top of loop on game behind Rudy's head
 - Skill Shot - from the plunge, 250k (+ 250k per subsequent skill shot) if plunged into Hideout
 - During normal play – 75k
- Ramp Scoring
 - 75k (+25k per subsequent ramp shot), up to 150k
 - During multiball, ramp shots score 250k
- Trapdoor
 - Completing a Trapdoor Loop opens the Trapdoor for a Trapdoor Bonus
 - Trapdoor Bonus is worth 500k (+ 250k per subsequent Trapdoor Bonus), up to 1M
 - Each subsequent Trapdoor Bonus requires 1 more loop in combo to open (up to 3)
- Rudy
 - Hitting Rudy in the mouth lights Mystery Mirror and adds 50k to end-of-ball bonus
 - 1 Rudy Hit is awarded at start of game
 - Shooting the ball into Rudy's mouth (when he's wise-talking) awards a Rudy Gulp (250k)

- Gangway
 - Rolling through a “Light Gangway” inlane lights the loop on the opposite side of the field
 - Shooting an unlit Gangway loop lights the loop for Gangway
 - A successful Gangway awards the following scores:
 - 50k
 - 100k
 - 150k (start of game)
 - 200k
 - 250k
 - Light Extra Ball (nothing; reset to 50k)
 - Once Extra Ball is lit, resets to 50k at end of ball

Strategy Corner

Funhouse is a simple but highly thematic game with a very charismatic dummy running the show. There are three things to focus on in a game of Funhouse: Multiball (and the clock), the Mystery Mirror (for certain modes and Super Frenzy), and the Crazy Steps (for Frenzy).

First, the most monumental drive in scoring on Funhouse in any setting is progressing and starting the multiball. The multiball is relatively easy to control, and as long as you continue to keep a multiball going, the Jackpots will get higher and higher as you sink Trapdoor shots. To access the multiball, one of the best ways to safely spin the clock around is to play Quick Multiball. Not only can you score multiple Millions as you bash Rudy, but the game will continue to give you time towards 11:30 (up to 11:25) while you do so! Generally, it is ideal to come out of a Quick Multiball with a few million in the bank and the clock at 11:25. If Quick Multiball is not lit and the pop bumpers are flashing (usually via the “Maximize Jet Bumpers” award from the Mystery Mirror), shooting the ball around the left loop into the pop bumpers is a way to rock right around the clock; each flashing pop bumper is worth a whopping 10 minutes! The only caveat to this strategy is that the pop bumpers can give dangerous feeds out the left side; be ready to make a save if the time comes. Finally, you can use a ramp-Hallway-Rudy grinder strategy to build time the hard way. When mixed in with Mystery Mirror collections, this can be a way to advance two objectives at the same time, and the ramp will continue to build up to a respectable 150k and 30 minutes per shot.

Other than the multiball, two other objectives are available: Mystery Mirror and Frenzy. The Mystery Mirror is lit at the start of a ball and whenever Rudy is hit and temporarily lit when the outer right inlane is rolled over. Every 6 lit shots to the scoop starts a Super Frenzy along with a few other notable modes. First, Quick Multiball, as mentioned before, is a great way to progress the clock and score (via unlimited millions). Next, lighting the Steps from the Mystery Mirror leads to an easy plunge into lighting Frenzy (when lit), which can be soft-plunged until the ball rolls over the first step. Maximizing the jet bumpers leads to the quickest way to get back to multiball through use of the flashing pops. Lighting the Million is a quick burst of points to a single Rudy shot, and Superdogs is super lame. Once you're close to the end of the progression, be sure to finish out the Super Frenzy on the current ball so you can start back up with all of the modes lit on the following ball!

Stern Batman (The Dark Knight)



Fight the Joker, Scarecrow,...Batmobile? A signal? Ooooh nooo...

<http://www.ipdb.org/machine.cgi?id=5307>

<http://papa.org/wp-content/uploads/Batman-The-Dark-Knight-Rulesheet-English.pdf>

<https://youtu.be/HOxy2xpY25o>

Main Features

- Bat Signal Multiball
 - Light all 3 main modes to light Bat Signal Mini-Wizard Mode
 - The Joker
 - Hit the Joker drop target (1 or **2**) times (left of Ramp) to light a Joker lock
 - Each subsequent multiball requires 1 more drop target hit to light lock
 - Shoot the Joker shot (behind drop target) to lock ball
 - Locking 3 balls starts Joker Multiball and lights “The Joker” light
 - Joker Multiball
 - 3-ball multiball
 - Objective is to shoot any of the 5 major shots for Jackpots
 - Left Loop, Right Loop, Joker shot, Scarecrow scoop, Ramp all lit for Jackpots
 - Collect 5 Jackpots to light Super Jackpot on Joker shot
 - Collect Super Jackpot to begin
 - Jackpots are worth 200k + 25k for each subsequent Joker Multiball
 - **Super Jackpots are worth the collected value of the 5 preceding Jackpots**
 - Collecting 2 Super Jackpots (or starting 3 Joker MBs) lights The Joker Bat-Signal light
 - The Batmobile
 - Shoot the Ramp to advance Batmobile from “Batmobile 1” to “Batmobile 3”
 - When “Batmobile 3” is flashing, the ball will be diverted left and the Batmobile Hurryup will start (after a small animation)

- Batmobile Hurryup
 - Hurryup lit on center ramp to be collected
 - Initial value is 500k; counts down to 250k
 - Shooting the right loop resets the value to max and adds extra value to the hurry-up
 - Adds 500k (+250k for each subsequent loop shot) + 1 second to total timer
 - Alfred's "Reset Batmobile Hurryup" award also spots a right loop
 - Shooting the left loop turns off both loops, doubles the hurry-up
 - "The Batmobile" Bat-Signal light awarded when Batmobile Hurryup is collected
 - ***Can be progressed, started, and collected during multiball***

- The Scarecrow
 - Shoot the scoop 2 times to start Scarecrow Attack
 - Shoot the scoop 2 additional times per multiball to start Scarecrow Attack again
 - When Scarecrow Attack is started, shoot the crane over the 5 targets in front of each main shot to start Scarecrow Multiball
 - **Scarecrow Attack must be started before any other Multiball starts to stack in!**
 - 1st – Crane moves around to each target and stops on only unlit targets
 - 2nd – Crane constantly moves back and forth; shoot crane over an unlit target to light target
 - 3rd – Crane and lights constantly move back and forth; line both up over an unlit target to solidly light target
 - 4th – Same as 1st
 - Shooting the 5th target starts Scarecrow Multiball and lights "The Scarecrow" Bat-Signal light

- Scarecrow Multiball
 - 2-ball Multiball
 - Objective is to light all 5 Targets via the Crane for Jackpots
 - Ball will stop over each unlit point for a certain amount of time, like 1st Attack
 - Hitting the Crane ball over an unlit target will light the target and award Jackpot
 - Collecting all 5 Jackpots lights Super Jackpot at Scarecrow scoop (right side)
 - Jackpots are worth 200k + 25k for each Super Jackpot collected in this multiball
 - **Super Jackpots are worth the collected value of the 5 preceding Jackpots**
 - Collecting a Super Jackpot (or starting 3 Scarecrow MBs) lights Scarecrow character light in the center of the playfield

- Bat-Signal Challenge
 - Lit on the upper scoop (from the left loop) when all three Bat-Signal lights are lit
 - Single-ball play
 - Shoot the Joker, Scarecrow scoop, and Center Ramp to light and advance the Bat-Signal Jackpot
 - Shooting one of the shots un-lights it until all 3 are hit
 - Shooting all 3 lights the upper scoop (from the left loop)
 - Shooting the upper scoop (from the left loop) cashes in the Bat-Signal Jackpot and starts Bat-Signal Multiball
 - Each shot is worth 250k (+25k per subsequent shot)
 - After the first 3, each shot advances Bat-Signal Jackpot by 50k (x2 if multiplied)
 - All switches increase Bat-Signal Jackpot by 1.5k
 - Max Bat-Signal Jackpot is 1M
 - **If you drain, challenge ends!**

- Bat-Signal Multiball
 - Started when the Bat-Signal Jackpot is cashed in from Bat-Signal Challenge
 - 4-ball Multiball
 - Joker, Ramp, and Scarecrow scoop are lit for the Bat-Signal Jackpot value
 - When all 3 are collected, left loop is lit for Super Jackpot and 3 shots re-light
 - **Super Jackpots are worth the collected value of the Bat-Signal Jackpots**
 - Collecting the Super Jackpot resets the Super Jackpot value

- Skill Shot
 - Standard Skill Shot
 - In the shooter lane, lights will alternate between Scarecrow, Batmobile, and Joker
 - Plunging when the flashing lit is over an un-lit light causes that mode to score double during the current ball
 - Completing a set of all 3 (on ball 3) also provides Double Bonus
 - A topline will also be lit for 250k (+25k for each subsequent skill shot) and +5 Bonus X
 - Super Skill Shot
 - Holding down the left flipper when plunging lights the Scarecrow, Joker, and Batmobile for a few seconds
 - **Shooting one of the three shots triples the respective mode for the rest of the ball, and if it completes a set awards Triple Bonus!**

- Shot Multipliers
 - Shoot 6 Gordon targets (left of Joker and left of Scarecrow) when lit for “Light Mini-Mine Mutliplier” or a Mystery award will flash all mini-mines on the playfield
 - Next successful shot to one of the flashing shots makes the shot score 2x for rest of ball
 - If all 5 2x multipliers are lit, a final advance adds a roving 3x shot (flashing)

- Batpod Multiball
 - Used as an augment to multiball scoring (via add-a-balls and more scoring opportunities)
 - ***Stacks into both Joker and Scarecrow Multiballs!***
 - Started by collecting all of the parts to the Batpod
 - Shooting the Right Loop once (+1 more time per Batpod Multiball) collects a part
 - Cannot be shot during Batmobile Hurry-Up round
 - Collecting all parts lights Batpod Multiball on the Ramp
 - 2-ball Multiball
 - Objective is to shoot the right loop for Jackpots and advance value via mini-playfield
 - Rolling over mini-playfield rollovers adds 50k (+7.5k for each subsequent advance) per rollover and un-lights the rollover
 - Shooting the right loop re-lights the rollovers and awards a Jackpot
 - Shooting the right loop for Jackpot 4 times lights Super Jackpot on Ramp
 - Jackpot is worth a base 250k + mini-playfield values
 - Super Jackpot is worth 2x the Jackpot

- Bat-Missions
 - Lit on the Upper Scoop (via left loop) when the BATMAN targets on left are completed
 - Shoot the lit main 5 shots to collect mode points; modes are almost identical
 - Scoring is 1M (+250k per unlit BATMAN target, +100k per BATMAN target when all 6 are lit) per shot, up to 5M
 - Cannot start a new mission in multiball, but can work to have it lit when exiting multiball

- Mystery
 - Lit on the Upper Scoop (via left loop) when bottom lanes are completed
 - Awards a random award from the following:
 - ***Light Alfred***
 - ***Light Multipliers***
 - ***Light/Award Lock (context-sensitive)***
 - 500k
 - +2 Bonus X
 - Hold Bonus X ***(and double/triple)***

- Gotham City Wizard Mode
 - Lit by collecting all 8 character lights:
 - Bruce Wayne – Start all 4 Bat-Missions
 - Commissioner Gordon – Collect a Commissioner Gordon Jackpot
 - Shoot 9 lit Gordon targets to start Commissioner Gordon
 - Targets normally work towards Shot X and advance nearby spinner by 250
 - During Commissioner Gordon, shooting the right loop awards Commissioner Gordon Jackpot and ends mode
 - Jackpot is worth 1M (+ 500k per other shot hit, + 50k per Gordon target)
 - Rachel Dawes – hit the Rachel target 10 times (located in the pop bumpers)

- The Scarecrow – Collect one Scarecrow Super Jackpot or start 3 Scarecrow Multiballs
- The Joker – Collect two Joker Super Jackpots or start 3 Joker Multiballs
- Harvey Dent – Complete a cycle of Harvey Dent
 - Hit 25 (+5 per cycle) pops to start Phase 2
 - Collect 20 right spinner switch hits to end Harvey Dent and go back to Phase 1
 - Spinner lit for extra points; not too useful
- Lucius Fox – Collect all 8 Bat-Gadgets
 - Shots on the ramp not diverted for Batmobile are sent to the Mini-Playfield
 - Shooting Gordon targets lights and flashes the 4 lights on top of the Mini-Playfield
 - Each light correlates to a Mini-Playfield rollover
 - Rolling over a rollover awards progress to a bat-gadget based on the respective light
 - Not lit < Solidly lit < Flashing
- Alfred Pennyworth – Collect one Alfred mystery
 - Target located on right side of game; lit through Mystery awards
 - Awards Add-a-Ball (in multiball), Reset Batmobile Timer (during Batmobile Hurry-up), More (30s) Time (during Bat-Missions), 100k
- Started at the upper scoop (via left loop); awards 25M up front
- 4-ball Multiball
- Complete a modified version of each task again to light Gotham City Super Jackpot is lit on the top saucer (via left loop)
 - Each task completed adds a ball on the first Super Jackpot
 - Bruce Wayne – complete BATMAN targets
 - Commissioner Gordon – hit 8 Gordon targets
 - Rachel Dawes – hit 3 Rachel targets
 - The Scarecrow – hit the Crane ball over all 5 targets
 - The Joker – lock 3 balls (drop target pops up between each lock)
 - Harvey Dent – 20 pop bumpers, 20 right spinner spins
 - Lucius Fox – roll over all 4 mini-playfield switches
 - Alfred Pennyworth – hit once

Strategy Corner

Batman TDK is a repeatable game that comes in cycles: play each of the 3 main modes, play a Bat-Signal Challenge, hopefully play a Bat-Signal Multiball, repeat, repeat, repeat. The only major variation between match play and qualifying play is how many risks you take to make each shot precious.

Before setting off into a multiball foray, be sure to pack everything you need to fight your way to the top. Scarecrow Attack should always be lit if Scarecrow isn't the multiball you're planning to start with. Batpod should be close to ready as well, to provide additional scoring opportunities and lengthen any large multiball stack. A Bat-Mission should be ready to go or underway, as Bat-Mission scoring can be quite lucrative. Shot multipliers should be lit on a minimum the Joker and Scarecrow (double supers!), with the Left Loop being a highly lucrative multiplier to have as well (due to the ease of shooting from both flippers for Joker Multiball). Finally, the skillshot or super skillshot multipliers should be on Joker or Scarecrow, and that multiball should be one of your priority scoring targets. Due to the nature of how the shot doublers work, Joker is generally a better focus than Scarecrow if both are on equal footing due to the fact that the Joker shots are easily repeatable (ramp all day, left loop all day) and safer than the Scarecrow crane targets (fun times with unpredictable feeds). Once your strategy is set, execute on it and blow up your first set of multiballs!

Remember that each Super Jackpot is the TOTAL of the 5 Jackpots leading up to it, so a doubled shot contributes 2x to the Super Jackpot, while a doubled shot contributes 4x to a doubled Super Jackpot! This also applies for the skill shot multipliers; having 2x Joker as your skill shot will make your Joker Super Jackpots worth 4x the standard value since the multiplier contributes once for each Jackpot and again on the Super Jackpot collect. These multipliers stack multiplicatively, which means that a single Jackpot with the respective Super Skill Shot, a 3x shot multiplier on the shot, and a 3x shot multiplier on the Super Jackpot can contribute a whopping 81x of its value to the Super Jackpot! This is where the game splits from match play and qualifying; the risk of missing a Super Skill shot in a match play situation or deliberately shooting risky multiplier targets can be detrimental, especially in the case of the skill shot where you lose out on a guaranteed mode doubler for that ball and Double Bonus on your last ball. Be mindful of the Batmobile as well; hurry-ups can be started and collected in multiball, which with a proper stack means that the Bat-Signal Challenge will be ready as soon as the game returns to single-ball play.

During Bat-Signal Challenge, there is a small split between qualifying and match play scoring. During match play, having a mediocre Bat-Signal can still be worth a great amount of points while not requiring as many shots to claim the full-pull 1M per jackpot. In particular, the Joker shot can be a dangerous return (as well as at any time, especially with the drop target up); check to see if the forehand or the backhand is giving a nicer return/not rejecting shots when the target is down and stick to it as much as possible. In qualifying play where huge scores matter, press on to maximize the value via lit shots (multipliers help here; having the Joker and Scarecrow shot multipliers carry over from the previous multiball helps a ton!). Switch hits are generally less important, but can provide that last bit of chip from the left spinner as the ball sails towards the scoop to start Bat Signal Multiball. Bat-Signal Multiball is really where you want to find your left loop multiplier if you don't have one; the Super Jackpot is on the left loop, and just like in the previous multiballs you can have the shots contribute up to 9M towards the Super Jackpot via a tripled shot and a tripled Super Jackpot shot (although 4M from doublers is much more realistic)!

As a general piece of advice, backhands are generally preferred on this game for the left loop, Joker, and Scarecrow. The ramp is universally hit from both flippers (you may get a preference towards one), and the Batpod loop (right loop) can only be hit from the left flipper.

So in general set up your multiballs, set up your multipliers, hang on to your multiballs for dear life, and blow up the game. Ignore any TDK advice below this point...

Ah, fine. There is one final special strategy that inevitably someone will pull off (who should be referred to as “that guy/gal” for the rest of the tournament – I dunno who it will be) involving the infinite nature of the Batmobile Hurry-Up. Given enough patience and effort, scores in the billions can be put up by infinitely repeating the right loop to slowly build up the hurry-up value. Once comfortable with your score, shoot the left loop to double the hurry-up. With a Super Skill Shot Batmobile tripler and a shot doubler, this can easily break the game in qualifying. Thankfully, the 40+ shots required in one ball means that this strategy is not as viable in match play, since this is the ultimate all-or-nothing strategy for a ball!

Bally Future Spa



Cheesy theme or not, this game was probably one of the biggest innovators around.

<http://www.ipdb.org/machine.cgi?id=974>

Main Features

- Bonus
 - Max 54k
 - Each letter in F-U-T-U-R-E (6 top lanes) and S-P-A (center target) award 2k Bonus
 - Completing all 9 letters allows the letters to be collected again
 - 18k bonus light lit; letters in Bonus turn off
 - Second completion lights the 36k bonus light
 - Two other ways to spot letters
 - **SPA letters will be spotted in order before FUTURE letters (in order)!**
 - Right rollover (in the mini-loop)
 - Scores 2k (+2k for each subsequent shot during ball, up to 10k) and spots a FUTURE SPA letter
 - Drop Targets/Exercise Lane (far left bottom lane)
 - Spots FUTURE SPA letter on top of usual bonuses when lit
 - 10-point switches cycle the Spot Letter shot between the Drops, Exercise Lane, and neither (both off) OR both will always be lit (probably not this)
 - **Letters and completions will carry over between balls!**
 - Max 6x
 - Progressed by the in-line drop targets
 - **1st target – light spinners (both loops, 1k/spin)**
 - 2nd target – 2x Bonus
 - 3rd target – 4x Bonus
 - 4th target – 6x Bonus, light EB
 - 1st hit to target behind drops – Extra Ball (25k)
 - 2nd hit to target behind drops – Special (50k)
 - 3rd + hit to target behind drops – 20k
 - **Max Bonus – 324k**

Other Scoring/Features

- Top Lanes
 - If otherwise unlit, scores 500 and spots the lit letter when rolled over
 - If all 6 top rollovers are made in one ball, 1st U and R lanes alternate lighting for 5k
 - If gate is not open, T and 2nd U lanes are both lit to open bottom left gate
 - Gate protects the 2nd closest lane from the left

- Bottom Lanes
 - Left, from inside to outside:
 - Normal inlane, 500 points
 - Gate-savable outlane, 500 points if no gate lit, 3k if gate lit
 - Outlane, 500 points
 - Exercise Lane
 - Awards 3k (+2k per subsequent Exercise Lane during ball, up to 9k) and spots a FUTURE SPA letter if lit
 - Right pop bumper “lane”
 - Pop bumper scores 1k when lit; if not already lit, complete SPA to light for 1k
 - Hole near bottom of sling serves as the outlane (similar to Paragon)

- Spinner
 - Awards 100 points per spin when not lit, ***1k per spin when lit***
 - Knock down the 1st drop target to light both spinners

- Upper Right Scoop
 - Awards 3k (+3k per subsequent scoop during ball, up to 9k)

Strategy Corner

Ah, Future Spa. A game with a completely ridiculous theme (because futuristic things sold well), but the first full-production game to have constant sounds during play and in-line drop targets, both of which still continue to this day. The game is relatively simple, so I hope I can keep this short so I can get to some last-minute PAPA cleaning around the house (don't worry, Ghostbusters may not make it to the final cut before PAPA, but when I get time at home I will be penning that one up).

In the primary strategy, Future Spa is a game where you want to have a great early ball in order to steamroll the rest of the balls in bonus. With up to 54k in bonus that can bank between each ball and multipliers that are not difficult to light (especially if the return feed from the drops are good; right flipper only shot unless there's some super generous backhand), great qualifying scores and intimidating match play situations both stem from having an excellent bonus build on ball 1. To help build bonus quicker, use the drops when lit and the horseshoe rollover at any time to add letters in FUTURE SPA. The loops can also be a viable way to work on FUTURE, especially if they consistently feed the top and the spinners are lit. Never work for SPA directly, especially since the shot is extremely dangerous!

For scoring outside of bonus, the various non-drop target progressive shots and spinner can be useful for that purpose. If letters are still necessary, shooting the horseshoe rollover can be worth up to 22k, counting a 6x bonus you get from the letter collected. The spinners, especially if they've been given PAPA juice, can be worth a ton of points at any time and can be used to spot FUTURE letters and/or open the return gate. Once the drop targets are completed, shooting the back target awards a flat 25k, 50k, and then repeatable 20k values on top of spotting letters when lit.

The two trouble areas on the game are the outlane areas. On the right, the best move is to avoid the area altogether by using predictive nudging to force the ball to go somewhere else. If the ball is wild in the area, be ready to react to a wild feed in any direction. If the ball has settled at the bottom, be ready to attempt to "pop" the ball over the outlane with a quick forward-left nudge (if the machine allows). On the left, the best option is always to bail the ball to the nearest point of safety or in its direction of momentum, whether that is the inlane or the Exercise lane. The Exercise lane is notorious for shepherding balls into its safe kicker due to the curved metallic piece on its left; this is also seen for a sinister purpose on other games such as Firepower. In the most likely situation, none of the lanes will have rubbers, which means that hard nudging will be required to make any major progress towards safety.

55 pages, and I still have a game to go and tentative changes to fix. Holy crap. Thanks to everyone on the Tiltforums crew for helping me write this thing. Special shout outs to Bowen for being Pinball's best teacher and inspiring me to start writing info, which is what I'm good at. Maybe some day I'll be able to talk the talk and walk the walk at the same time.

PAPA starts tomorrow with the celebration of 2016: the Circuit Finals. Have a great time and I'll see you on the floor, probably in a cat shirt because HOLY F*%\$ PAPA!