



STATE OF WASHINGTON
GAMBLING COMMISSION

"Protect the Public by Ensuring that Gambling is Legal and Honest"

July 7, 2020

Bo Zarach
Scientific Games
6601 S. Bermuda Rd.
Las Vegas, NV 89119

Dear Ms. Zarach,

Due to COVID-19 and at the manufacturer's request, the following games can be dealt face-up until further notice:

DJ Wild Stud Poker
Fortune Pai Gow Poker
Fortune Pai Gow Poker Progressive
I Luv Suits Poker

No other modifications to the dealing procedures, game rules, or payouts are authorized.

Prior to implementing face-up dealing, licensees should

- Review *"Scientific Games – Table Game Operations Impact of Dealing Games Face Up"*, which is attached;
- Consider how play in this manner could affect the odds, play on the game, and be conducted in compliance with any state or county imposed COVID-19 public health requirements; and
- Submit their internal controls and receive approval from the Commission. If you have any questions on commercial implementation, please contact Brian Lane at (509) 387-7095. If you have any questions on Tribal implementation, please contact Kelly Main at (206) 423-4260.

Sincerely,

Tina Griffin
Assistant Director
Licensing, Regulation, and Enforcement Division

Attachment – *"Scientific Games – Table Game Operations Impact of Dealing Games Face Up"*

Scientific Games – Table Game Operations

Impact of Dealing Games Face Up

The purpose of this report is to analyze the approximate impact of dealing several Scientific Games proprietary table games ‘face up’. It is assumed that no more than THREE Players will be playing at the same time and that all cards normally dealt to the Player will be dealt face up.

Introduction:

It is a given that providing the Player with any additional information about the cards that have already been dealt can only allow the Player to enhance his strategy and reduce the house edge and potentially turn it into a Player edge. In this particular case, the additional information is knowledge about the other Players’ cards which would normally be kept hidden from the other Players. Knowledge about these cards can inform the Player both about his potential draws (if any exist) and about the Dealer’s potential hand.

This is a little like Blackjack card counting with one very important distinction. In Blackjack, knowledge about the cards remaining in the shoe can be used to determine how much the Player should wager on the next hand. This is what provides the biggest advantage to the Player. In Blackjack, the Player may get an advantage in only 10% of the hands and by just 0.25%. If a Player could not alter his wager size with this knowledge, the Player would not have an overall advantage. But, if he can increase his wager 50x on these hands, the overall payback over time would show a Player advantage.

In single deck games, this is not possible. The Player has no opportunity to change his initial wager size. Instead, he is only able to alter his strategy in-game and in some cases, his in-game wager size. This greatly reduces the Player’s ability to take advantage of ‘player advantage’ situations.

The goal of this analysis is to get a rough idea of the impact of the Player being able to see the hands of two additional Players. This is not intended as a comprehensive analysis as that would likely take weeks per game to do properly. Instead, the main purpose is to ascertain if playing the game face up poses a significant risk to the casino. Because of this, parts of the analysis relied on work done and published by another analyst – Stephen Howe. In each case where I leverage his work, I have included the URL of the column that I utilized.

Three Card Poker

Three Card Poker has a single strategy point – when to Play vs. Fold. Thus, knowing what the additional six cards are, can guide the Player by changing the distribution of potential Dealer hands. Mostly, it can tell the Player how often the Dealer will not qualify which can change the strategy for Jack or less hands. If 4 out of the 6 cards are Q/K/A, the hand becomes a marginal Play. With 5 or 6, much more strongly, but it is rather rare for 5 of the 6 to be Q/K/A. In similar fashion, if all 6 cards are low cards, there are some Q-6, Q-7 hands that should be Folded because there is a greater likelihood that the Dealer will qualify and doing so means he will likely beat the Player. While it is much more common for all 6 cards to be low, the impact is to a limited number of Player hands and the impact is not great as these hands are only marginal plays. If the Player has above a Q-8 or Q-9, the strategy is still to always Play.

Based on simulations using the strategy changes, the impact to payback would appear to be only about 0.1% – 0.2% at most with 6 additional cards displayed.

Let It Ride

As Let It Ride is a payable game, the impact is only on the Player's hand. The Player may see cards that he needs to complete his hand that have been burnt, which can reduce the potential value of his hand. Or, conversely, he may see that his needed cards are still available out of the remaining deck, with a slightly increased probability of being dealt to him.

That said, however, Let It Ride's relatively high house edge is unlikely to be able to be overcome as a result of seeing 6 additional face up cards. Given the mandatory '\$' wager with a payback of only 62.7%, the '1' and '2' wagers would need to get a significant advantage out of those 6 cards. But, the vast majority of hands wagered are guaranteed winners. That said, there are a few strategy changes that would occur as a result of seeing the extra 6 cards.

'1' Wager

- Do not wager any 3-Card SFL or Royal if any of the out cards for the SFL/Roy have been burned
- Wager all 3-Card Inside SFLs if none of the 6 other cards are of the same suit.
- Wager a Low Pair, IF none of the 6 cards are of the same rank as either of the Player's rank

'2' Wager

- If you have a 4-Card Flush and all 6 of the other cards are of same suit, don't make wager
- If you have a 4-Card Flush with 0 High Cards and 5 of the other cards are of same suit, don't make wager
- If you have a 4-Card Straight with 0 High Cards, and 2 of your (Straight) outs are burned, don't make the wager
- If you have a 4-Card Straight with 1 High Card and 3 of your (Straight) outs are burned, don't make the wager
- If you have a 4-Card Straight with 2 High Cards and 4 of your (Straight) outs are burned, don't make the wager
- If you have a 4-Card Straight with 3 High Cards and 5 of your (Straight) out are burned, don't make the Wager

The biggest strategy impact is the wagering of a Low Pair in the '1' wager. This increase the payback by roughly 0.2%. The other changes occur infrequently and likely do not add more than another 0.1%. The overall impact should be at most 0.3% to the house advantage.

Ultimate Texas Hold'em

UTH is one of the more likely games to be impacted by the Player's cards being dealt face up. With a small theoretical house advantage, it does not take much movement of the payback to potentially give the Player an advantage over the house.

That said, there are several features of UTH that work against this from happening. The first is that there are only TWO cards per Player dealt. So, the Player only gets to see four additional cards. For the Player to take advantage of the situation, the information must be actionable. If a Player has an AK and one of the 4 face up cards is also an Ace, this will reduce the Player's expected value of the hand, but not by enough to change how he should wager – he should still Wager 4x.

The impact of any strategy change to the overall payback is controlled by 2 factors. How often the situation occurs and how much it increases the expected value of that situation. From running a variety of scenarios, the number of situations in which the Player changes his strategy is rather small. Thus, the overall impact to the payback is also very small. The fact that the remaining cards are community cards shared between Player and Dealer also means that cards that are burnt that might hurt the Player can also likely hurt the Dealer as well.

Lastly, the strategy of UTH is already extremely complex. The theoretical payback can only be achieved by a tiny fraction of Players. The ability to go further and take into account the face up cards would reduce this population even further.

For my conclusion, regarding UTH, I am also relying on a more exhaustive analysis performed by Stephen Howe that can be found here: <https://discountgambling.net/2010/01/15/practical-collusion-for-ultimate-texas-holdem/>

In the end, I don't believe any human could possibly achieve a Player advantage with only two additional Player's cards turned Face up on a live game.

Caribbean Stud Poker

For Caribbean Stud Poker, I mostly relied on work already done by Stephen Howe. His column can be found here:

<https://discountgambling.net/category/caribbean-stud/>

There are actually 2 columns at the site. They both use a method that might be considered 'cheating' when the cards are dealt face down but would become unnecessary with cards dealt Face Up. The method mostly deals with counting cards that match the Dealer's Face up card and counting the number of Aces and Kings.

Per Mr. Howe's column the house edge of 5.32% (as a percent of the Ante) can be turned into a 1.1% Player advantage using his methods when there are 7 Players at the table. Per his second column, with only 6 Players, it can be turned into a 0.4% House edge using a computer and a more realistic 1.32% house edge using a simplified strategy.

Because Caribbean Stud has 5 cards per Player, dealing potentially 25-30 additional cards face up, can be very advantageous to the Player. With only an additional 10 cards being show on a 3 Player table, the number of times the Player will alter from basic strategy will be greatly reduced.

There is nothing in his column that talks about the impact of less Players at the table. However, if going from 7 Players to 6 Players reduced the impact by as much as 1.5% (of the Ante), I feel it is safe to assume that no Player will be able to come close to a Player advantage playing at a 3-Player table. Undoubtedly, a few Players will be able to shave a little off the house edge, but it is doubtful that it would be more than 0.25% of total wager.

Mississippi Stud Poker

For Mississippi Stud Poker, I again relied on work already done by Stephen Howe. His column can be found here:

<https://discountgambling.net/mississippi-stud-ev-barona/>

I don't know if Barona still does, but apparently it did offer MS Stud face up with up to 6 players. Per Mr. Howe's analysis, when the Player can see all 12 cards belonging to the Players, he can turn the 4.91% house edge into a roughly 1.5% Player edge. It should be noted that the numbers that he references are a % of the initial Ante and not total wager. When the average wager size is taken into account, this correlates to a house edge of 1.37% of the total wager. The 1.5% Player edge is really a Player edge of about 0.42% of total wager.

Thus, the total swing is about 1.8%. If the impact of seeing each additional Player's cards were linear, this would mean each Player's cards that could be seen would be worth about 0.36% of total wager. My experience in doing these analyses would indicate that the impact is not linear but more exponential. Thus seeing 2 Player's cards is worth far LESS than 40% of the total. The true impact is likely to be less than a payback of 99.4% and probably closer to about 99%.

It should also be noted that the strategy for Mississippi Stud is moderately complex and utilizing the face up cards to modify the strategy will require a Player to calculate outs on the fly. There will not be many Players who will be able to do this. Some very skilled Players might be able to lower the house edge, but it is unlikely that any will be able to gain a Player advantage.

Four Card Poker

Four Card Poker follows a structure similar to Three Card Poker with a couple of key differences. The majority of the impact of face up cards in Three Card Poker is the impact they have on the Dealer qualifying. There is no Dealer qualifying in Four Card Poker, so this is no longer an impact. In Four Card Poker, the Dealer has one card turned face up. Thus, the Player can look for at the other face up cards for rank matches to the Dealer's upcard. This will impact the Dealer's ability to draw Pairs+. The Player may also be able to take into account cards of higher rank than his own Pair and/or Aces when he is playing a non-Pair hand.

Like Three Card Poker, there will be a handful of changes, but they will not add up to much. In Stephen Howe's column on collusion for Four Card Poker, found here: (<https://discountgambling.net/category/four-card-poker/>), he states that with 6 Players at the table the house edge can be cut in half. As we are talking about a situation of only 3 Players, the impact will be far less and again is likely to be no more than 0.25% of total wager.

Crazy 4 Poker

Crazy 4 Poker is more similar to Three Card Poker than is Four Card Poker. There is no Dealer card dealt Face up, but there is qualifying. So, like Three Card Poker, most of the impact surrounds the frequency that the Dealer qualifies. While the ability to wager 3x might be a factor as well, it can only be done with a Pair of Aces or better, mostly removing it from the equation. Like Three Card Poker, the impact to being able to see additional cards will be minimal and most Players will not be able to take advantage.

Conclusion

None of my own research nor anything I could find elsewhere would indicate that any of the games mentioned in this report can be 'beaten' by dealing a total of 3 hands face up. The extent by which a Player can reduce the house edge will depend on the specifics of each game. In all cases, it would take a very well-trained Player to do so.

Some likely indications that a Player might be attempting to fully use the information available would be one that is playing relatively slowly. As many of the strategy changes require counting 'outs', a Player utilizing these strategies will have to study far more cards than normal.

Generally speaking, any Player who considers himself to be an 'Advantage' Player, believing himself to have an advantage over the house will unlikely play any of the side-bets, which generally have lower paybacks and do not have any opportunities to reduce the house edge as a result of the additional information.

Game	Maximum Spots Recommended
Caribbean Stud Poker	5
DJ Wild Stud Poker	4
I Luv Suits	5
Mississippi Stud	4
Crazy 4 Poker	Not Beatable
Face Up Pai Gow Poker	Not Beatable
Fortune Pai Gow Poker	Not Beatable
Four Card Poker	Not Beatable
Let it Ride	Not Beatable
Three Card Poker	Not Beatable
Ultimat Texas Hold'em	Not Beatable



STATE OF WASHINGTON
GAMBLING COMMISSION

"Protect the Public by Ensuring that Gambling is Legal and Honest"

October 28, 2014

Kerrie Kimball
Bally Technologies
6650 El Camino Road
Las Vegas, NV 89118

RE: Progressive Games

Dear Ms. Kimball,

We have reviewed the changes made to the progressive games noted below:

- 6 Card Fortune Pai Gow Poker
- Big Raise Stud Poker
- Caribbean Stud Poker (includes Caribbean Stud Bonus Poker)
- Crazy 4 Poker
- Dragon Bonus
- Fortune Asia Poker
- Fortune Pai Gow
- King's Bounty Progressive
- Let it Ride
- Mississippi Stud
- Straight Edge Poker
- Texas Hold'em Bonus
- Three Card Poker

Based on our review of the documentation we received from Bally Technologies, the Washington State Gambling Commission will approve the progressive games noted above under the conditions listed below:

- The games shall be played and operated under the terms and conditions set forth under the rules of play you provided on September 9, 2014, September 24, 2014 and October 14, 2014, and which are enclosed.



Commercial Card Rooms

- Commercial card room operators seeking to operate this game must first submit their internal controls and receive approval from the Commission prior to implementing.
- Manufacturers and distributors of graphic layouts and/or any other equipment associated with the game must be licensed by the state prior to the sale of the equipment.

Tribal Casinos

- Each Tribal Gaming Operation must request and obtain approval from their respective Tribal Gaming Agencies (TGA).

Before TGA allows your game to operate, they will seek concurrence from our agency as well.

- In addition to your approved rules, the Tribal submission to us must include all supplemental information required by Tribal-State Compact Appendix A, Section 18.
- Manufacturers and distributors of graphic layouts and/or any other equipment associated with the game must be certified by the state and licensed by the Tribe prior to the sale of the equipment.

Any modifications to this game may affect this approval. If you have any questions on commercial implementation, please contact Jess Lohse at (425) 277-7017. If you have any questions on Tribal implementation, please contact Kelly Main at (206) 423-4260.

Thank you for your cooperation and willingness to comply with the gambling laws of Washington State.

Sincerely,



Tina Griffin
Assistant Director
Licensing Operations Division

Enclosure

cc: Mark Harris, Assistant Director Field Operations
Julie Lies, Assistant Director Tribal Gaming Division
Jess Lohse, Special Agent Field Operations
Kelly Main, Special Agent Supervisor Tribal Gaming
File

Fortune Pai Gow Poker is a standard Pai Gow Poker game but with an optional Fortune bonus wager. All rules pertaining to Pai Gow Poker as posted on the WSGC's website will remain the same and not altered in this game.



RULES OF PLAY

1. *Fortune Pai Gow Poker* is an optional bonus bet on the casino game Pai Gow poker.
2. The *Fortune* bet considers the best hand possible among the player's seven cards and is reconciled against an approved¹ posted payable.
3. Players may bet any amount within table limits; however, a *Fortune* bet of at least \$5 qualifies them for **Envy Bonus** payouts. Players win the **Envy Bonus** when a player at the table receives a four of a kind or higher, excluding the dealer and his/her own hand.
4. To begin each round, players must make their standard Pai Gow wagers and, the optional, *Fortune* bonus wager. If a player wagers at least \$5 on the *Fortune* bonus, the dealer must place an "Envy" lammer next to it.
5. The dealer then follows house procedures for Pai Gow poker.
6. While reconciling the standard Pai Gow poker wagers, the dealer also reconciles *Fortune* bonus bets.
 - a. If the player's hand qualifies for payouts, the dealer pays the player according to the posted payable.
 - i. Notwithstanding to the payout odds on the approved payable options and subject to gaming regulations, a casino licensee may establish a maximum aggregate amount that is payable per round or per hand. It remains the casino licensee's sole responsibility to post a sign at the table explaining the details and the ramifications of the aggregate win limit. The **Envy Bonus** payout is not an odds based payout and therefore it is not subject to an aggregate limit.
 - ii. The dealer leaves the "Envy" lammer, if applicable, next to the player's original wager and payouts. The dealer will not pick up the envy lammer(s) until all wagers have been reconciled.

¹ Approved, by a Regulatory body or Agency.

- b. If the player's hand does not qualify for payouts, the dealer takes the players *Fortune* wager.
 - i. The dealer leaves the "Envy" lammer, if applicable, next to the player's original wager and payouts. The dealer will not pick up the envy lammer(s) until all wagers have been reconciled.
 - c. If the licensee utilizes the optional i-Verify equipment for this game they will need to follow the Washington State requirements listed below:
 - i. Licensee must ensure all other players at the table have set their hands before using the i-Verify Display to set a player's hand to the Casinos "house way".
 - ii. Dealers must not access the i-Verify Display to reveal the dealer "house way" until all players at the table have set their hands or had their hand set according to the Casinos "house way".
 - iii. Licenses and Tribal Casinos must ensure the i-Verify Display can be viewed by surveillance as required in WAC 230-15-280 and Tribal-State Compacts.
7. The dealer pays all **Envy Bonuses** at the end of the round. If at least one player has a four of a kind or higher, all players with envy lammers win—see payable**. In the event more than one player has at least four of a kind, then all players with envy lammers win multiple payouts.
- a. A player cannot win the **Envy Bonus** for his/her own—or the dealer's—hand.

***Casino to select from attached Paytable Options**

****An optional shuffle Master LCD Display that can be used on this game utilizes i-Verify v1.0.017 (or higher) and i-Deal v3.8.024 (or higher).**

Operator cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC-230-15-140.



Paytables

Paytable 1	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 1,000
Royal Flush + Royal Match*	1,000 to 1	\$ 250
7 Card Straight Flush with Joker	750 to 1	\$ 100
5 Aces	250 to 1	\$ 50
Royal Flush	100 to 1	\$ 25
Straight Flush	50 to 1	\$ 10
4 of a Kind	20 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
Three Pair	Push	
House Edge (max Envy Bonus)	5.30%	
House Edge (no Envy Bonus)	8.00%	

Paytable 2	Pays	Envy
7 Card Straight Flush	8,000 to 1	\$ 5,000
Royal Flush + Royal Match*	2,000 to 1	\$ 1,000
7 Card Straight Flush with Joker	1,000 to 1	\$ 500
5 Aces	400 to 1	\$ 250
Royal Flush	150 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	3.13%	
House Edge (no Envy Bonus)	7.76%	

Paytable 3	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 3,000
Royal Flush + Royal Match	2,000 to 1	\$ 1,000
7 Card Straight Flush with Joker	1,000 to 1	\$ 500
5 Aces	400 to 1	\$ 250
Royal Flush	150 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	3.23%	
House Edge (no Envy Bonus)	7.82%	

Paytable 4	Pays	Envy
7 Card Straight Flush	2,500 to 1	\$ 1,000
Royal Flush + Royal Match	1,000 to 1	\$ 750
7 Card Straight Flush with Joker	750 to 1	\$ 250
5 Aces	250 to 1	\$ 100
Royal Flush	125 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	4.09%	
House Edge (no Envy Bonus)	8.49%	

Paytable 6	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 2,500
Royal Flush + Royal Match	1,000 to 1	\$ 500
7 Card Straight Flush with Joker	500 to 1	\$ 250
5 Aces	300 to 1	\$ 150
Royal Flush	110 to 1	\$ 55
Straight Flush	45 to 1	\$ 25
4 of a Kind	25 to 1	\$ 6
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	3.94%	
House Edge (no Envy Bonus)	9.28%	

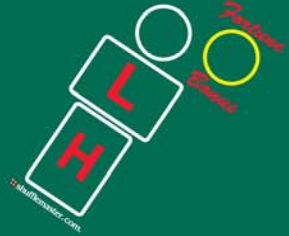
Paytable 7	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 2,500
Royal Flush + Royal Match	2,000 to 1	\$ 500
7 Card Straight Flush with Joker	1,000 to 1	\$ 250
5 Aces	400 to 1	\$ 150
Royal Flush	150 to 1	\$ 55
Straight Flush	50 to 1	\$ 25
4 of a Kind	25 to 1	\$ 6
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	2.49%	
House Edge (no Envy Bonus)	7.82%	



ShuffleMaster

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Pai Gow'd is a standard Pai Gow Poker game but with an optional Pai Gow'd wager. All rules pertaining to Pai Gow Poker as posted on the WSGC's website will remain the same and not altered in this game.



Rules of Play

Overview:

Pai Gow'd is an optional bonus bet for Pai Gow Poker. Players win the bet if the dealer's five-card hand is less than a pair, and the player's five card hand beats the dealer's five card hand. The worse this hand is, the more the bet pays.

Dealing Procedures:

1. Players make the optional Pai Gow'd wager before the start of a hand. Players may bet within the posted minimums and maximums for this wager.
2. The dealer reconciles the Pai Gow'd wager as he settles each player's Pai Gow and Fortune wagers.
3. If the dealer's five-card hand is less than a pair, the Pai Gow'd wager wins. If the dealer's five-card hand is a pair or better, the Pai Gow'd bet loses.

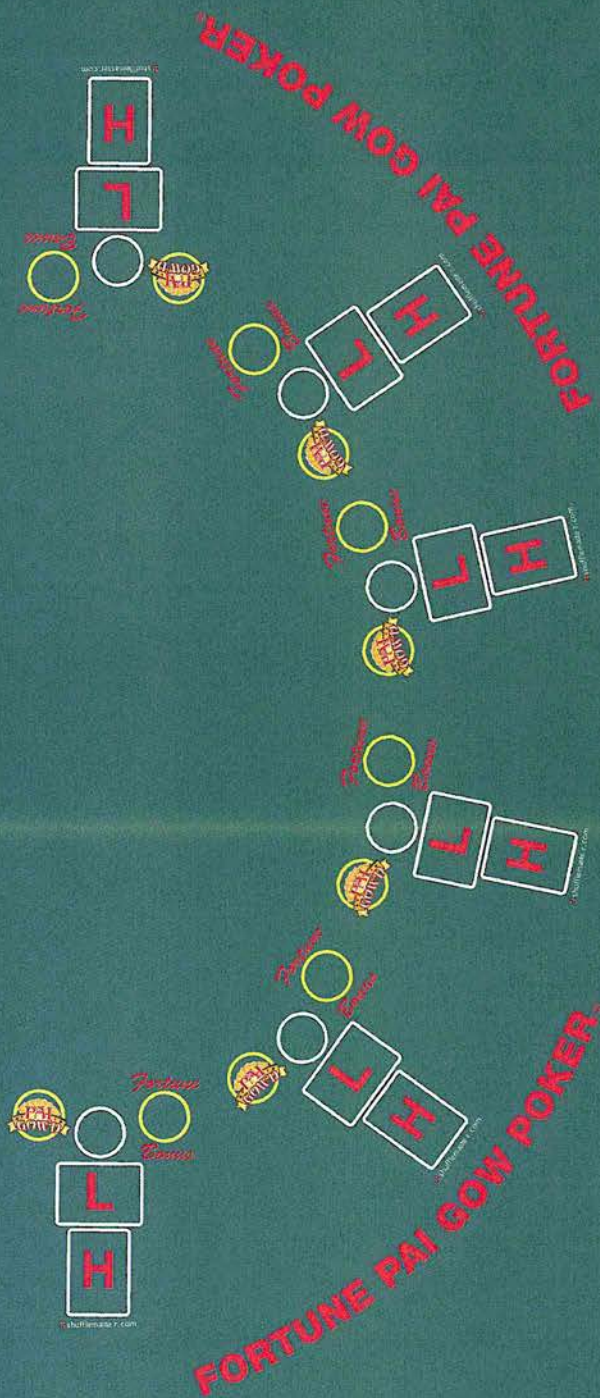
Dealer's 5-card hand	Pays
9-high	100 to 1
10-high	50 to 1
Jack-high	10 to 1
Queen-high	7 to 1
King-high	5 to 1
Ace-high	3 to 1

Operator cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC-230-15-140.

Pai Gow'd Paytables

Dealer Hand	01 Pays	02 Pays	03 Pays
Nine-high	100 to 1	100 to 1	100 to 1
Ten-high	40 to 1	50 to 1	40 to 1
Jack-high	10 to 1	10 to 1	10 to 1
Queen-high	7 to 1	7 to 1	7 to 1
King-high	6 to 1	5 to 1	5 to 1
Ace-high	3 to 1	3 to 1	3 to 1
House edge:	9.80%	12.14%	13.75%
Hit frequency:	14.78%	14.78%	14.78%

*Player's 5 card hand must beat the dealer's 5 card hand.





Commission Free Fortune Pai Gow Poker is a standard Pai Gow Poker game but does not charge commission on winning hands and includes optional Fortune and Tiger 9 bonus wagers. All rules pertaining to Pai Gow Poker as posted on the WSGC's website will remain the same except as noted below.

INTRODUCTION

Commission Free Fortune Pai Gow Poker features head-to-head play against the dealer with two optional bonus bets. The game uses a total of 53 cards, the standard 52 cards plus 1 Joker. The Joker can be used as an Ace or to complete a straight, a flush, or straight flush.

Winning bets do not pay 5% commission.

Note: In the event the casino offers the player/banker option, the same Rules of Play apply according to approved internal controls, including the player/banker 9-high (Low Hand) push hand. The player/banker must set hand according to house way. All bonus wagers and Envy payouts remain the responsibility of the house.

All players push when the dealer plays 9-high in his two-card hand (Low).

The game features two optional bonus bets:

Fortune Bonus Wager: Wins if the player's best possible five-card hand is three of a kind or higher. Players may bet any amount within table limits; however, a *Fortune* bet of at least \$5 qualifies them for **Envy Bonus** payouts. Players win the **Envy Bonus** when a player at the table receives a four of a kind or higher, excluding the dealer and his/her own hand.

Sample Paytable Below:

Hand	Pays	Envy
7 Card Straight Flush	8,000 to 1	\$ 5,000
Royal Flush + Royal Match*	2,000 to 1	\$ 1,000
7 Card Straight Flush with Joker	1,000 to 1	\$ 500
5 Aces	400 to 1	\$ 250
Royal Flush	150 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	

Tiger 9 Wager: Wins if the dealer plays 9-high in his two-card hand and the player's two-card hand beat's the dealer's two-card hand.

Paytable:

Tiger 9	30 to 1
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RULES OF PLAY

- 1) To begin each round, players must make their standard Pai Gow wager and, the optional *Fortune* bonus wager and Tiger 9 wager. If a player wagers at least \$5 on the *Fortune* bonus, the dealer must place an “Envy” lammer next to it.
- 2) The dealer then follows house procedures for dealing Pai Gow Poker. While reconciling the standard Pai Gow Poker wagers, the dealer also reconciles *Fortune and Tiger 9* bonus bets.
- 3) If the player's hand qualifies for payouts, the dealer pays the player according to the posted paytables.
 - a. If a casino implements aggregate limits, it remains the casino's sole responsibility to post a sign at the table explaining the details and the ramifications of the aggregate win limit. The **Envy Bonus** payout is not an odds based payout and therefore it is not subject to an aggregate limit.
- 4) If the player's hand does not qualify for payouts, the dealer takes the players *Fortune* wager.
- 5) The dealer leaves the “Envy” lammer, if applicable, next to the player's original wager and payouts. The dealer will not pick up the envy lammer(s) until all wagers have been reconciled.
- 6) The dealer then pays all **Envy Bonuses** at the end of the round. If at least one player has a four of a kind or higher, all players with envy lammers win—see payable. In the event more than one player has at least four of a kind, then all players with envy lammers win multiple payouts.

Note: A player cannot win the **Envy Bonus** for his/her own—or the dealer's—hand.

If the licensee utilizes the optional i-Verify equipment for this game they will need to follow the Washington State requirements listed below:

- i. Licensee must ensure all other players at the table have set their hands before using the i-Verify Display to set a player's hand to the Casinos “house way”.
- ii. Dealers must not access the i-Verify Display to reveal the dealer “house way” until all players at the table have set their hands or had their hand set according to the Casinos “house way”.
- iii. Licenses and Tribal Casinos must ensure the i-Verify Display can be viewed by surveillance as required in WAC 230-15-280 and Tribal-State Compacts.

Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.

An optional SHFL entertainment LCD Display that can be used on this game utilizes i-Verify v1.0.017 (or higher) and i-Deal v3.8.024 (or higher).



Paytables

Paytable 1	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 1,000
Royal Flush + Royal Match*	1,000 to 1	\$ 250
7 Card Straight Flush with Joker	750 to 1	\$ 100
5 Aces	250 to 1	\$ 50
Royal Flush	100 to 1	\$ 25
Straight Flush	50 to 1	\$ 10
4 of a Kind	20 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
Three Pair	Push	
House Edge (max Envy Bonus)	5.30%	
House Edge (no Envy Bonus)	8.00%	

Paytable 2	Pays	Envy
7 Card Straight Flush	8,000 to 1	\$ 5,000
Royal Flush + Royal Match*	2,000 to 1	\$ 1,000
7 Card Straight Flush with Joker	1,000 to 1	\$ 500
5 Aces	400 to 1	\$ 250
Royal Flush	150 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	3.13%	
House Edge (no Envy Bonus)	7.76%	

Paytable 3	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 3,000
Royal Flush + Royal Match	2,000 to 1	\$ 1,000
7 Card Straight Flush with Joker	1,000 to 1	\$ 500
5 Aces	400 to 1	\$ 250
Royal Flush	150 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	3.23%	
House Edge (no Envy Bonus)	7.82%	

Paytable 4	Pays	Envy
7 Card Straight Flush	2,500 to 1	\$ 1,000
Royal Flush + Royal Match	1,000 to 1	\$ 750
7 Card Straight Flush with Joker	750 to 1	\$ 250
5 Aces	250 to 1	\$ 100
Royal Flush	125 to 1	\$ 50
Straight Flush	50 to 1	\$ 20
4 of a Kind	25 to 1	\$ 5
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	4.09%	
House Edge (no Envy Bonus)	8.49%	

Paytable 6	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 2,500
Royal Flush + Royal Match	1,000 to 1	\$ 500
7 Card Straight Flush with Joker	500 to 1	\$ 250
5 Aces	300 to 1	\$ 150
Royal Flush	110 to 1	\$ 55
Straight Flush	45 to 1	\$ 25
4 of a Kind	25 to 1	\$ 6
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	3.94%	
House Edge (no Envy Bonus)	9.28%	

Paytable 7	Pays	Envy
7 Card Straight Flush	5,000 to 1	\$ 2,500
Royal Flush + Royal Match	2,000 to 1	\$ 500
7 Card Straight Flush with Joker	1,000 to 1	\$ 250
5 Aces	400 to 1	\$ 150
Royal Flush	150 to 1	\$ 55
Straight Flush	50 to 1	\$ 25
4 of a Kind	25 to 1	\$ 6
Full House	5 to 1	
Flush	4 to 1	
3 of a Kind	3 to 1	
Straight	2 to 1	
House Edge (max Envy Bonus)	2.49%	
House Edge (no Envy Bonus)	7.82%	

Tiger 9

Hand	Pays
	semi wild
Tiger 9	30 to 1
House Edge	21.1%



Fortune Pai Gow Poker is a standard Pai Gow Poker game but with an optional Fortune bonus wager. All rules pertaining to Pai Gow Poker as posted on the WSGC's website will remain the same and not altered in this game.



RULES OF PLAY:

1. Fortune Pai Gow Poker Progressive is an optional bonus bet.
2. The bet considers the best hand possible among the player's seven cards.

Note: The joker is used as an Ace in the 5 Aces hand, or as any card to complete a straight flush, straight or flush.

3. The meter will be reseeded when the 100% award hits. The cost of the reseed has been factored in to the casino's mathematical advantage.
4. To begin each round, players must make their standard pai gow wagers, their optional Fortune pai gow wager and their optional progressive wager. Players must place the progressive wagers on the sensor in front of their betting position. The sensor will light up.
5. Once all players place their bets, the dealer will press "LOCK OUT" on the keypad. The sensors will then light up, indicating a progressive wager. The dealer will then remove all progressive bets from the table.
6. The dealer then follows house procedures for dealing pai gow poker.

7. If the licensee utilizes the optional i-Verify equipment for this game they will need to follow the Washington State requirements listed below:
 - a. Licensee must ensure all other players at the table have set their hands before using the i-Verify Display to set a player's hand to the Casinos "house way".
 - b. Dealers must not access the i-Verify Display to reveal the dealer "house way" until all players at the table have set their hands or had their hand set according to the Casinos "house way".
 - c. Licenses and Tribal Casinos must ensure the i-Verify Display can be viewed by surveillance as required in WAC 230-15-280 and Tribal-State Compacts.
8. The dealer reconciles the standard wager, bonus wagers, and progressive wagers at the same time. Follow the procedure in the next section for reconciling percentage pays from the progressive meter.
9. Progressive winners:
 - a. The top three hands pay a percentage of the progressive jackpot.
 - b. All hands are paid from the progressive meter if you are utilizing the Universal Progressive system. If you are utilizing the Game Manager Progressive system, only the percentage payouts are paid from the meter and all other hand wins are paid from the tray.
 - c. In the event more than one progressive hand hits during the same round, the dealer will first pay the player farthest on his right and then move counter-clockwise to pay other players.
 - d. When a player has a progressive winner, the dealer should immediately call for a floor supervisor for all pays requiring secondary verification before payout. (Full Houses at \$6 do not usually require this additional verification.)
 - e. Once the proper verification is complete, the dealer shall press the appropriate hand button on the keypad, the position that won, and then press "Enter." This will deduct the appropriate amount from the meter.
 - f. When the dealer reconciles all action, he presses "Game Over." This resets the system to begin the next hand.
 - g. If the dealer enters the wrong information, he can press, "Undo." This will cancel the previous function.
 - h. If the dealer makes a mistake during the round that kills the hand, he presses, "Misdeal."

**An optional Shuffle Master LCD Display that can be used on this game utilizes i- Verify v1.0.017 (or higher) and i-Deal v3.8.024 (or higher).*

**This game will use one of the approved Shuffle Master owned progressive systems containing the following components and their compatible software versions:*

**Universal Progressive Poker Software v1.03.015 (or higher), Universal Progressive Keypad v1.06.002 (or higher) and Progressive Automated Display v1.03.11 (or higher) or Universal Progressive ViPS v1.0.1 (or higher).*

**Game Manager v6.6 Build 520 (or higher), Aquarius Controller v6.5.6SP, Coin Spot v6.0 and the progressive displays can be either CHAM2+ v1.66P\$ or ViPS v1.2.0 (or higher).*

Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.

Fortune Pai Gow Poker is a standard Pai Gow Poker game but with an optional Fortune bonus wager. All rules pertaining to Pai Gow Poker as posted on the WSGC's website will remain the same and not altered in this game.



RULES OF PLAY:

1. Fortune Pai Gow Poker Progressive is an optional bonus bet.
2. The bet considers the best hand possible among the player's seven cards.

Note: The joker is used as an Ace in the 5 Aces hand, or as any card to complete a straight flush, straight or flush.

3. The meter will be reseeded when the 100% award hits. The cost of the reseed has been factored in to the casino's mathematical advantage.
4. To begin each round, players must make their standard pai gow wagers. They may optionally place any bonus wagers and the progressive wager. Players must place the progressive wagers on the sensor in front of their betting position. The sensor will light up.
5. Once all players place their bets, the dealer will press "START GAME" on the keypad. The sensors will then light up, indicating a progressive wager. The dealer will then remove all progressive bets from the table.
6. The dealer then follows house procedures for dealing pai gow poker.

7. If the licensee utilizes the optional i-Verify equipment for this game they will need to follow the Washington State requirements listed below:
 - a. Licensee must ensure all other players at the table have set their hands before using the i-Verify Display to set a player's hand to the Casinos "house way".
 - b. Dealers must not access the i-Verify Display to reveal the dealer "house way" until all players at the table have set their hands or had their hand set according to the Casinos "house way".
 - c. Licenses and Tribal Casinos must ensure the i-Verify Display can be viewed by surveillance as required in WAC 230-15-280 and Tribal-State Compacts.
8. The dealer reconciles the standard wager, bonus wagers, and progressive wagers at the same time. Follow the procedure in the next section for reconciling percentage pays from the progressive meter.
9. Progressive winners:
 - a. The percentage pays are paid from the progressive jackpot shown on the progressive meter.
 - b. Other hands are paid from the tray or from the meter, at the casino's requirements.
 - c. In the event more than one progressive meter pay hits during the same round, the dealer will first pay the player farthest on this right and then move counter-clockwise to pay other players. As Regulatory procedures permit, this policy can be replaced by casino internal controls.
 - d. When a player has a progressive winner, the dealer will select the player spot corresponding to the player with the winning progressive hand. The dealer will then press the appropriate hand button on the display. (If the hand button is pressed by accident, pressing it again will turn it off.)
 - e. The dealer shall then contact a supervisor.
 - f. Once the casino verifies the progressive win, the supervisor will press the confirm button. To complete the action, a Supervisor or Executive card (depending on jackpot level) swipe is required. This records the win onto the Game Manager computer and adjusts the meter appropriately for the prize won. House procedures are then followed for paying the prize. (Reviewing the monitor connected to the Game Manager will show the prize amount to be paid, and pressing the "money bag" icon will print a win page, which can be used to help record the payout for accounting.)
 - g. When the dealer reconciles all action, he presses "END GAME." This resets the system to begin the next hand.
 - h. Once the Supervisor or Executive card (depending on jackpot level) is swiped the prize is logged into Game Manager. If the progressive pay needs to be backed out at this point, the award will need to be manually backed out using the Game Manager manual adjustment feature.

This game will use the approved SHFL entertainment owned progressive system containing the following components and their compatible software versions: Nexus Command Game Manager v1.3.0 or higher, Nexus Command Table Controller Software v2.0.0 and ViPS display.

An optional SHFL entertainment LCD Display that can be used on this game utilizes i-Verify v1.0.017 (or higher) and i-Deal v3.8.024 (or higher).

Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.



PROGRESSIVE SYSTEMS FLEXIBILITY and RECOMMENDATIONS:

- Progressive meter contribution
 - When using a pay table in which all payouts are deducted from the meter, we recommend utilizing the system to configure meter contribution rates anywhere between 0-100%.
 - Most pay tables with this style of math are designed to grow over time when a contribution rate of 70% or more is used. If less is contributed, the risk of the meter “running dry” increases.
 - When using a pay table in which only the progressive (percentage) pays are deducted from the meter, we recommend only reducing the pre-configured meter contribution rate if any changes are made. Adjusting the contribution rate above the pre-configured value would reduce the mathematical house advantage of the wager.
- Reserve contribution
 - We recommend contributing a small portion of each progressive wager to the reserve. This amount will be added on to any configured seed amount after a 100% award is given, and will help reduce the drop in play expected after a jackpot hits.
 - We do not recommend eliminating a seed amount entirely and using the reserve as the only seed mechanism. All games present a certain likelihood of back-to-back awards, and this method runs the risk of restarting the meter at a very low amount in that case.
- Seed amount
 - We recommend using the pre-configured seed amount in the system. This amount is specific to the pay table selected for use, and is designed to offer a reasonable starting point that works with the pay table’s math.
 - If any changes are made, we recommend the seed amount to be at least as large as the largest “fixed” award on the pay table.
 - We do not recommend configuring a \$0 seed amount.



Hand	FPGPP-WA01 \$1 Wager**	FPGPP-WA02 \$5 Wager**
7 Card Natural Straight Flush	100%	100%
Royal Flush + Royal Match*	50%	50%
7 Card Wild Straight Flush	25%	25%
5 Aces	\$2,500	\$12,500
Royal Flush	\$200	\$1,000
Straight Flush	\$100	\$500
4 of a Kind	\$75	\$375
Full House	\$6	\$30
*Royal Match is a Suited King and Queen		
**Original Wager is NOT Returned		

Hand	FPGPP-WA03 \$1 Wager**	FPGPP-WA04 \$5 Wager**
7 Card Straight Flush	100%	100%
5 Aces	10%	10%
Royal Flush	\$500	\$2,500
Straight Flush	\$100	\$500
Four of a Kind	\$75	\$375
Full House	\$4	\$20
**Original Wager is NOT Returned		

Hand	FPGPP-WA07 \$1 Wager**	FPGPP-WA08 \$5 Wager**
5 Aces	100%	100%
Royal Flush	\$500	\$2,500
Straight Flush	\$100	\$500
Four of a Kind	\$75	\$375
Full House	\$5	\$25
**Original Wager is NOT Returned		



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