

Australian Gaming Machines Player Information Booklet



Introduction

This Information Booklet has been produced by the Gaming Technologies Association (GTA) to assist gaming machine players increase their understanding of the machines.

The Booklet does not offer advice as to whether to, or how to, play the machines nor which machines are better than any other. Its aim is to inform players so that they can increase their understanding of the operation of gaming machines and their enjoyment in playing them.

A Short History

The gaming machine was invented by Charles Fey, a Californian mechanic, in 1895. This spinning reel machine was the forerunner of all modern gaming machines.

The first machine was a wholly mechanical device operated by means of levers and gears. Versions of this 'slot machine' began appearing in Australia in the early 1900s.

It was not until 1956 that the machines were recognised (and regulated) by the legislature for the first time (in NSW, for the exclusive use of the New South Wales clubs).

In 1978, the first spinning reel gaming machine to use microprocessor technology was produced in Australia giving rise to a significant export industry which was established alongside an already strong manufacturing base situated predominantly in Sydney.

In the following years, gaming machines were recognised (and regulated) in most States and Territories within Australia.

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Minors

It is illegal to play gaming machines unless you are at least 18 years old.

Winning & Losing

People who play gaming machines to increase their income are either misinformed about the nature of the machines or just plain foolish. Gaming machines are not designed to enable people to supplement their incomes.

Gaming machines are designed as recreational amusement devices on which people can spend money.

Players are not forced to play machines nor are machines designed to be addictive.

They are designed to be entertaining and attractive.

Use of gaming machines should accordingly be careful, moderate and within the limits of each individual's discretionary spending.

It is possible to win money on the machines. In fact, the machines are set to return to players a proportion of all moneys bet. This characteristic needs to be properly understood (see section on 'Player Return Percentage' - page 11).

In practical terms, however, players can only 'get ahead' of a machine on a short term basis at best. Many players will experience sessions of play when prizes won exceed the amount spent. In the long term, however, in all but the most unusual and extraordinary circumstances, this outcome is virtually impossible.

The following table gives an indication of how players will fare on a typical machine.

Win - Lose Table				
A	B	C	D	E
Total units (coins) staked in a single play session **	Proportion of Players who experience better than 100 per cent return of total amount staked	Proportion of Players who experience between 80 & 100 per cent return of total amount staked	Proportion of Players who experience between 60 & 80 per cent return of total amount staked	Proportion of Players who experience less than 60 per cent return of total amount staked
2,000	29%	46%	22%	3%
3,000	25%	54%	20%	1%
4,000	22%	61%	17%	0%
5,000	19%	66%	15%	0%
6,000	17%	71%	12%	0%
8,000	14%	77%	9%	0%
10,000	11%	82%	7%	0%

** Assumes all games played on a single line with one coin staked per game

[sd 74: mean.91]
[Bet :1 unit, one line]

The table should be read carefully, and the following points should be borne in mind:

- ◆ Players whose experience is described in columns C,D and E, are players who have LOST money
- ◆ Each gaming machine is as unique as a fingerprint in respect of the experiences it will generate for players. The above table is merely typical. It does not describe the characteristics of all games
- ◆ The table estimates SINGLE sessions of play only. The unalterable rule is that the more sessions a player engages in, the lower the chance becomes of winning more than is staked. In fact, it tends to become impossible to win more than is staked as play sessions increase.

The TIME Factor

Apart from the overriding CHANCE element, there are a number of other factors that will affect the amount of playing time a player has with a given amount of money.

The player has control over some of those elements. The speed with which games are played and the amount staked for each spin of the reels have a substantial impact on the TIME purchased.

The impact is illustrated in the four playing methods in which changes are made to the play speed and the amount bet per game.

	Playing Methods			
	Method 1	Method 2	Method 3	Method 4
		Reduce speed of play	Reduce bet per game	Reduce speed of play AND bet per game
Games Played per minute	12	8	12	8
Average amount bet per game \$	0.90	0.90	0.45	0.45
Player's Session Budget \$	20.00	20.00	20.00	20.00
Average TIME taken to lose total Budget (minutes)	19	28	37	58



Clearly, the more slowly games are played, and the less credits (coins) staked per game, the more TIME players will purchase with the same budget.

Myths, Superstitions and False Beliefs

1. Machines are programmed to produce losing games if there have been too many wins recorded in a period.

FALSE: it would be illegal in all Australian jurisdictions for machines to be programmed in this way.

Machines operate randomly AT ALL TIMES no matter what wins or losses have occurred in the past.

2. Machines are programmed to produce winning games if there have been too many losses recorded in a period.

FALSE: same reasons as above.

3. Special times of the day are best for playing machines because they payout more at such times.

FALSE: this is a superstitious nonsense. It makes no difference to a machine's operation if it is played at any particular time of the day or night.

4. A machine can be confused or tricked into producing winning combinations by:

- altering play patterns FALSE
- touching the machine in some way FALSE
- changing bet levels FALSE
- altering the number of lines played FALSE
- discovering the secret 'skill' factor FALSE , (there is no such factor.)
- changing the speed of play FALSE

5. After a run of losing games, a player should continue playing because the machine will 'compensate' by producing a run of wins.

FALSE: what has happened in previous games has no influence whatever over any game, or series of games, that might be played in the future.

How the machines work

Chance

To play a gaming machine is to play a game of chance.

Tossing a coin involves chance - there are two outcomes each with an equal chance of occurring (that is, 'Heads' or 'Tails'). In the language of chance, we say that the chance of 'Heads' is one in two (1:2), or 0.5, or 50% - they all mean the same thing.

Gaming Machines have far more than two possible outcomes. There are often many millions of different possible outcomes of a game. The chances of getting any particular prize outcome can vary markedly for each game. In addition, not all machines or games have the same number of possible outcomes.

One essential element that all machines (other than skill based games) share is that the outcome of any particular game is determined by CHANCE ONLY.

This CHANCE ONLY characteristic is extremely important to a proper understanding of how the machines work.

Because CHANCE ONLY determines the outcome of any game, the following statements are absolutely true:

1. There is no play method or play pattern that can have any effect on whether a game is a winning or losing one.
2. Machines do not 'adjust' to compensate for a string of losing games or for a string of winning games. In other words, machines do not become 'due' to 'loosen up' or 'dry up' because of past events.
3. It is not possible to predict the outcome of the next game.

Randomness

Modern gaming machines use computer technology to control and operate all functions from coin or note insertion, bets, button use by players, and so forth INCLUDING determining the outcome of each game.

Determining the outcome of each game involves what is called a Random

Number Generator (RNG - see separate section). This is a mathematically based program (i.e. a computer program) which selects a group of numbers that, in turn, determine the selection of the symbol that will stop on the line that shows the winning or losing combination. The important effect of this process is that:

1. Each symbol selected is chosen quite randomly; and
2. The selection process is not influenced by any outside factors such as:
 - A - previous selections
 - B - winning or losing history.

In short, the selection of all symbols that appear at the end of each spin of the reels is the result of chance and CHANCE ONLY.

As noted above, the outcome of each game, irrespective of any other factor, is UNPREDICTABLE and is ALWAYS UNPREDICTABLE.

This is a constant. It is always the case, no matter how many games have been played, no matter what previous wins or losses have happened, no matter how fast or slow the player chooses to play, no matter how many coins have been bet or how many lines are played. Nothing can influence the chance selection of symbols that appear when the reels stop spinning.

Government Regulation

Gaming Machines operated in any Casino, Club or Hotel within Australia are vetted by Government Regulatory Authorities before they can be offered for use by players.

Neither the hardware which houses games nor individual games themselves can be placed in licensed venues unless they have been approved by the Government's Control Authorities of each State or Territory in which the venue is located.

Before that approval is given, the games and the machines are subject to a strict regime of testing by licensed testing companies to ensure they comply with the relevant regulations.

It is illegal for any Casino, Club or Hotel to operate a machine/game that has not been approved.

Player Return Percentage

Standard gaming machines have an expected player return rate.

This means that, of the total value bet, a certain proportion is expected to be returned to players in winnings.

This expected proportion of wins to bets is known as the "Player Return Percentage". Note the use of the word 'expected' - it underlines a very important concept in understanding how machines work.

Government regulations in Australia set this expectation at a minimum of 85%.

Some jurisdictions set the figure at 87%. In practice, most venues operating the machines have them 'set' at a higher level than the regulated minimum.

This "setting" is not a rule or an outcome that will always be perfectly satisfied for play sessions.

Care should accordingly be taken in dealing with the figure and the concept.

Gaming machines function in this regard on the basis of PURE CHANCE. The Player Return 'setting' is an expectation that comes from the rules of CHANCE - it is not a guaranteed outcome.

To say that a machine is 'set' to return 90% to players simply means that the game mathematics are structured in a way that gives the EXPECTATION that over a long period of time the machine is likely to average a return to players of 90% of the total bets made on the machine.

For individual games, the figure is not very useful. This is so because of the enormous number of possible outcomes that can occur in any one game on a gaming machine.

If we look at a simple game of tossing a coin, there are only two possible outcomes.

It might be expected that after 100 'games', or tosses of the coin, "Heads" will tend to have occurred in half the outcomes.

Using the rules of chance, "Heads" can be expected to have occurred at a rate of 50% because there are two, equally likely, possible outcomes.

There is no guarantee that 50 “Heads” will occur. In fact, it is easily possible to get more than 50 or less than 50.

The CHANCE factor simply means that, if a sufficient number of trials of 100 games take place, “Heads”, as an average over all trials, will have tended to occur in 50% of the results.

For gaming machines, however, the total possible outcomes are almost astronomical by comparison.

For a game with, say, 144 million different possible outcomes, there can be no reasonable expectation that it will be tending to operate according to its averages in 100 games - or even 1,000 games; or even 10,000 games.

An individual player will almost certainly not play a sufficient number of games to have any reasonable expectation of experiencing the ‘set’ Player Return Percentage.

How does one objectively evaluate gaming machines against other forms of gambling?

One of the matters that players need to be aware of to make informed decisions when choosing to spend money on different forms of gaming are the relative player return percentages.

It must be stressed that these player return percentages are long term averages: individual players are accordingly unlikely to achieve these percentages.

However, the following table is considered a useful independent guide to the place that gaming machines occupy in the range of average player return percentages:

Product	Player Return Percentage	Product	Player Return Percentage
Pools	50.00%	TAB	84.00%
Lottery	60.00%	On-course Tote	84.00%
Tattslotto, Lotto	60.00%	Bingo/Minor gaming	90.00%
Instant	60.00%	Gaming Machines	90.84%
Keno	75.90%	Casino	91.14%

Victorian figures 1997
Source: Tasmanian Gaming Commission

The RNG

(or the Random Number Generator)

The CHANCE Engine of Gaming Machines

Modern gaming machines are electronic ‘chance’ machines. They are, in effect, small special-purpose computers programmed to enable a game to be played for money.

The computer program within the machine uses a sophisticated random process to determine the outcomes of each game. How it does this is important in understanding how CHANCE, and CHANCE alone, determines whether winning or losing combinations appear for each game played.

Suppose that a machine has five reels and there are 35 possible stopping positions on each reel.

The symbols assigned to each of these possible 35 stopping positions are programmed into the game.

That is, if there is a “King” symbol assigned to positions 1,4,13,18,22 and 31, that assignment is permanent - it does not change from game to game.

In this example, then, there are 6 “King” symbols placed on the first reel in the positions mentioned. Other symbols are assigned to other positions on the reel so that all 35 stopping positions have a symbol assigned.

It may be, and this is often the case, that the ‘Jackpot’ symbol is only assigned to one stopping position on the reel.

The important thing to remember is that once the symbols are programmed on to the stopping positions, they remain programmed to those stopping positions.

For each game played, one of those stopping positions is selected by the Random Number Generator to stop on the centre line at the end of the reel spin.

Each of the 35 stopping positions on the first reel, as in this example, has an EQUAL chance of being selected by the RNG as the chosen symbol to stop on the centre line of the display.

The second, third, fourth, and fifth reels may have the same number of stopping positions with symbols assigned.

In almost all instances, the symbols will be assigned differently to the first reel.

For example, there may be only two "Kings" on reel 2 on stopping positions 15 and 19.

The number of particular symbols placed on each reel, and the stopping position to which they are assigned is determined by the mathematical design requirements of the game.

AGAIN, the important point is that the symbol chosen for stopping on the centre line is randomly determined separately for each reel by the RNG.

This random choice of symbol is done separately, AND INDEPENDENTLY, for each reel.

If a machine has 5 reels and 35 possible stopping positions on each reel, there are 52,521,875 possible combinations of stopping positions.

Each possible stopping position therefore has one chance of occurring in 52.5 million games. If a symbol is assigned to only one position on each reel, the chances of getting 5 of those symbols on the centre line is one in 52.5 million (1:52.5m).

That chance always remains the same no matter how many times it may have appeared (or not appeared) in the past. The RNG, the CHANCE engine, is totally unaffected by what has happened in the past -

IN FACT, IT IS TOTALLY UNAFFECTED BY ANY EXTERNAL FACTOR.

The time of the day, the room temperature, the speed of play, the number of play lines chosen by a player, the power of positive thinking, star signs - none of these things have any relevance or influence over the way the chance engine works.

The Random Number Generator (RNG), this chance engine, begins its symbol selection work as soon as a player begins a game (i.e. pushes the play button).

As soon as the player pushes the button, the random number generator determines the stopping position of each of the five reels. This stopping position is determined entirely randomly - all possible stopping positions have exactly the same chance of being selected by the RNG and the stopping position selected for each reel is totally INDEPENDENT of selections made for the other reels.

Some Facts about Gaming Machines

1. Gaming machines are designed to make a profit for the venues licensed to operate them.
2. In 1998 there were close to 172,000 gaming machines operating in Clubs, Hotels and Casinos throughout Australia.
3. In that same year, those machines made a profit for the Hotels and Clubs of \$5.8 BILLION, i.e. \$5,800 million.
4. Almost one third of this total profit was paid to governments by way of taxes and duties.

Chances of Winning

The chance of winning prizes advertised on gaming machines in any one game range from extremely rare to relatively frequent. Generally, the higher the prize, the more unlikely it is to occur. The following table describes some of the chances of winning on a typical five reel poker machine. This information will be made available either in leaflet form or on screen for each machine in a NSW venue.

[Machine Designation]: CHANCES OF WINNING	
Prize Value	Chance of the Prize happening on a single play-line (including scatters) 1 chance in:
More than 500	10,198
200 to 499	2,669
100 to 199	1,458
50 to 99	450
20 to 49	246
10 to 19	106
5 to 9	53
1 to 4	10
Prize Type by Symbol Combination	Chance of the Combination happening on a single play line 1 chance in:
Highest Prize Combination	9,765,625
5 of a kind	4,784
4 of a kind	490
3 of a kind	45
2 of a kind	9
Overall Chances on a single play line	
Chance of ANY Prize	1 in 8
Chance of NO Prize	7 in 8
The Long-Term Average Player Return for this game, as approved by the Regulatory Authority is: 90.31%	
Caution • All the values shown are averages. It is likely that significant variations to these will happen during any session of play. • If the machine you are playing is a linked machine, the chances of a prize or combination occurring and the long term average return to player will be different to those above (but can only be better).	
If You Bet With Real Dollars, Use Real Sense	

Skill Based Games

Some games require player intervention during the game process.

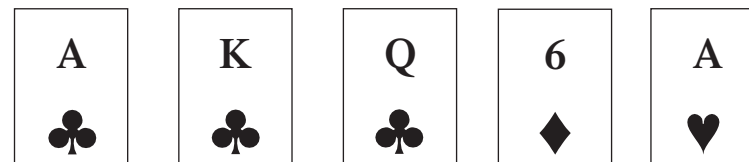
Good examples are Video Blackjack and Video Poker.

For either of these examples, the choice(s) made by players after the first deal of cards has a very important effect on the game outcome. Poor strategies followed by players in making these choice(s) will result in losses that might have been avoided if better strategies were used.

The first rule to be followed when playing "skill" games is to have a complete understanding of the rules of the game. A sensible, or 'optimal', strategy simply cannot be followed without knowing the details of all the rules of the game.

Using Video Poker as the example, there are two phases to the game: the DEAL and the DRAW.

The DEAL is automatic and requires no player choice. Five cards are randomly chosen from a standard 52 card deck and displayed - the following example illustrates



Having been dealt these five cards, the player now has to make a choice.

The choice is between which card or cards to 'hold' (if any), and which card or cards to remove or discard. This is the DRAW phase of the game and the player has complete discretion.

Before making the DRAW choice, the player would be aware that for this particular game there are nine prize-paying hands:

1. Royal Flush
2. Straight Flush
3. 4 of a kind
4. Full House
5. Flush
6. Straight
7. 3 of a kind
8. 2 pair
9. 1 pair of Jacks or better

Given the DEAL as illustrated, the player has two realistic choices:

Choice No. 1

HOLD the first three cards (Ace, King and Queen of Clubs), and discard the last two (6 diamonds and Ace of Hearts).

If this is done, the player has “thrown away” a prize winning pair of Aces for the chance of improving the three cards held to finish up with:

- ◆ Royal Flush
- ◆ Flush
- ◆ Straight
- ◆ 3 of a kind
- ◆ 2 pair
- ◆ 1 pair
- ◆ Nothing (i.e. five cards that do not make up a prize-winning combination)

Choice No. 2

HOLD the two Aces and discard the other three cards.

If this is done, the player must at least win the prize for 1 pair, but has the chance of improving the two cards held to finish up with:

- ◆ 4 of a kind
- ◆ Full House
- ◆ 3 of a kind
- ◆ 2 pair

There can be no perfect strategy to follow in making choices. The value of the prizes available to each winning combination of cards and the ‘risk’ preferences of individual players will influence the choices followed. What is important is that before playing ‘skill’ games players should be very familiar with the nature and rules of the game being played.

Players who familiarize themselves with the rules and who follow a prudent logic in making choices will enhance their enjoyment

As with spinning reel games, these games of ‘skill’ are driven by CHANCE in both the DEAL and the DRAW phases of the games.

Do I have a gambling problem?

If you answer "YES" to one or more of these questions, you may have problems with gambling

- ◆ Do you think a lot about your previous or next gambling venture?
- ◆ Do you get irritable if you cannot gamble?
- ◆ Do you find yourself increasing the amounts you gamble?
- ◆ Do you gamble to win back losses?
- ◆ Do you try to hide how much time and money you spend on gambling?
- ◆ Do you have problems in work or relationships as a result of gambling?
- ◆ Do you borrow money or sell goods to assist in paying your household bills?
- ◆ Do you commit unlawful acts to finance gambling?
- ◆ Do you have difficulty controlling your gambling?
- ◆ Do you gamble to avoid thinking about or dealing with difficult issues?



If Gambling is a problem for you or your family, help is available. Telephone G-line, the FREE crisis counselling and referral service for assistance and/or referral to your local Problem Gambling Counselling Service.

Italian Se il gioco d'azzardo è un problema per voi o per la vostra famiglia, è disponibile aiuto. Telefonate alla G-line, il servizio GRATUITO di crisi e di consulenza, per avere assistenza o un riferimento al servizio di consulenza locale per i problemi di gioco.

Spanish Si el juego de azar le representa a usted o su familia un problema, hay ayuda disponible. Llame por teléfono a G-line, el servicio GRATUITO de crisis y consulta, en donde podrá obtener ayuda y le podrán referir al Servicio de Asesoramiento para Problemas de Juegos de Azar de su zona.

Continued next page

Maltese Tista' ssib ghajnuna jekk il-loghob ta' l-azzard huwa problema ghalik jew ghall-familja tieghek. Cempel 'il G-Line, is-servizz BLA HLAS ghall-ikkunsiljar fi krizi u ta' riferiment ghall-assistenza u/jew riferiment ghand il-Problem Gambling Counselling Service lokali tieghek.

Croatian Ako je kockanje problem Vama ili Vašoj obitelji, pomoć je na raspolaganju. Nazovite G-line, BESPLATNU savjetodavnu službu za osobe u krizi koja upućuje na pomoć i/ili Vas upućuje Vašoj mjesnoj Savjetodavnoj službi za osobe s problemom kockanja.

Turkish Kumar alışkanlığı siz ya da aileniz için bir sorun yaratıyorsa, bu konuda yardım sağlanmaktadır. Yardım almak ve/ya da bölgenizdeki Kumar Sorunları Danışmanlık Servisi'ne (Problem Gambling Counselling Service) sevk için, ÜCRETSİZ kriz danışmanlık ve sevk servisi "G-Line" a telefon ediniz.

Vietnamese Nếu cờ bạc là một trở ngại cho quý vị hay gia đình của quý vị, hiện đang có sẵn các giúp đỡ. Xin gọi đường dây G-line, một dịch vụ cố vấn và giới thiệu MIỄN PHÍ cho tình trạng khủng hoảng, để được trợ giúp và/hay giới thiệu đến Dịch vụ Cố vấn về Trở ngại Cờ bạc tại địa phương của quý vị.

Greek Εάν τα τυχερά παιχνίδια είναι πρόβλημα για εσάς ή την οικογένειά σας, τότε υπάρχει βοήθεια. Τηλεφωνήστε στη γραμμή **G-line**, τη ΔΩΡΕΑΝ συμβουλευτική υπηρεσία κρίσιμων περιστατικών και υπηρεσία παραπομπών για βοήθεια και/ή παραπομπή στην τοπική σας Συμβουλευτική Υπηρεσία για Άτομα με Προβλήματα Τζόγου.

Macedonian Ако коцкањето е проблем за вас или вашата фамилија, помош има. Обратете се на телефонската линија G-line, БЕСПЛАТНА служба за советување и упатување на лица во криза поради коцкање, за помош и/или упатување во вашата локална советодавна служба.

Serbian Ако коцкање представља проблем вама или вашој породици, постоји помоћ. Телефонирајте G-линији, БЕСПЛАТНОЈ служби за саветовање и упуђивање у кризним ситуацијама да бисте добили помоћ и/или упут у вашу локалну Службу за саветовање о проблемима у вези са коцкањем.

Arabic ان المساعدة متوفرة إذا كان القمار يمثل مشكلة بالنسبة لك أو لعائلتك. إتصل بخط هاتف (G-line) المعني بتقديم خدمات النصائح والإرشاد المجانية أزاء الأزمات وذلك للحصول على الدعم أو الإحالة الى أقرب مركز من مراكز الخدمات التي تعالج مشاكل ومصاعب المقامرة.

Chinese 如果賭博給您和家庭造成了問題，那麼，我們為您提供幫助。請打電話給**G-熱線(G-line)**，您將得到免費的危機諮詢，援助推薦服務、和/或推薦您獲得當地的“賭博問題諮詢服務”。

Korean 도박이 귀하나 귀하의 가정에 문제가 되고 있다면 도움을 받을 수 있습니다. 전화 **G-line**은 여러분에게 도움을 주기 위해 귀하의 지역 상습 도박 상담 서비스로 안내해주거나 또는 무료 위기 상담 및 타 기관으로 안내해주는 서비스를 제공하고 있습니다.

Credit and Cash Advances

It is against the law to lend money to patrons.

Please do not ask.



National Gambling Helpline

1800 858 858

Confidential Gambling Help

Toll Free - and no account record