

**EGM COMBINATIONS CHECKLIST FOR SOUTH AFRICA**

Project code:		Examiner:		Start date:	
Product Name:				Product Version:	
Items used for testing					
Jurisdiction software:					
Emulator Software version:					
Emulation device name:				Emulation device version:	

**Check Jurisdiction's Technical Requirements**

*All Specifications can be found on Q:\Specs. Tick the System Technical Specifications used:*

<b>SANS 1718-1: 2019</b>	Gaming Equipment Part 1: Casino Equipment, Edition 3	<input type="checkbox"/>
<b>SANS 1718-2: 2016</b>	Limited Payout Gaming Equipment, Edition 4	<input type="checkbox"/>
<b>OTHER</b>		<input type="checkbox"/>

**Note(s):**

- Use the combinations test procedure under Public:\BMM\BMM General PSD Information\Test Procedures\Combinations Test or math department generated checklist.
- Change spreadsheet accordingly to suit the game under test and all its available features.
- For LPM's only SANS 1718-2 requirements apply. All LPM's specific requirements are marked in grey.
- For Casino's only SANS 1718-1 requirements apply.
- a PASS indicates that the test has been successfully performed;
- a FAILURE indicates that the test has been performed but was unsuccessful; a DIRT number and/or an explanation is to be noted beside this
- a N/A indicates that the test is not applicable – **a reason MUST** be included;
- a N/D means the test was not performed – **a reason as to why MUST** be included.
- When mistakes occur in checklists or other technical documents, each mistake shall be crossed out once, corrected illegible, and the correct value entered alongside. All such alterations shall be signed or initialled by the person making the correction.
- All checklists are to be completed in pen or electronically (last page should be signed physically unless using an advanced digital signature). Pencils are not to be used. Tipex are not to be used.
- "BMM Test" in the External Reference column indicates a test developed to accommodate the BMM testing requirements which are not covered by the National Standards and/or relevant appendices.
- In the case of multi-games, all games must be enabled for evaluation. Relevant requirements must be checked for each game.
- Take pictures of the EGM displayed software ID together and the signatures, possible maximum bets and the displayed RTP's.
- **All highlighted text in red is amended or updated in the latest standard**

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES																			
		EXTERNAL REF #																						
1.	COMPLIANCE TESTING																							
1.1	The base game pays as advertised on the artwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				
		BMM Test																						
1.2	The free games reelstrips, if different from the base reels, match the par sheets reelstrips (all variations).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				
		BMM Test																						
1.3	The free game feature pays as advertised on the artwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				
		BMM Test																						
1.4	All bonuses/features rules and pays have been evaluated:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				
	Feature 1:	BMM Test																						
	Feature 2																							
	Feature 3:																							
1.5	Does the displayed RTP matches the client calculated RTP listed on the par sheets?	BMM Test																						
	Displayed RTP:																							
	<table border="1"> <thead> <tr> <th>Variation</th><th>Displayed RTP</th><th>Result</th></tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>				Variation	Displayed RTP	Result																	
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BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES								
		EXTERNAL REF #											
1.6	List all possible maximum bet configurations. Ensure that all possible maximum bet configurations can be configured and that they match the manufacturer’s documentation.												
	<table><tr><th>Max Bets</th></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr></table>					Max Bets							
	Max Bets												
1.7	Each GD shall have a function or program that displays the current software version(s) installed on the device.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
		SANS1718-1 – 8.1.1.3 SANS1718-2 – 8.1.1.3											
2.0	Game design requirements	SANS1718-1 – 10.1 SANS1718-2 – 10.1											
2.1	General	SANS1718-1 –10.1.1 SANS1718-2 –10.1.1											
2.1.1	Games that have a component of strategic skill (for example, draw poker and blackjack) shall comply with the following requirements:  b) any strategy advice or automatic holds shall be fair and not misleading to the player and shall not represent a poor choice;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
		SANS1718-1 – 10.1.1A SANS1718-2 – 10.1.1A											
2.1.2	c) the player shall be able to override the automatic hold; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
		SANS1718-1 – 10.1.1C SANS1718-2 – 10.1.1C											
2.1.3	The presentation of mapped symbols or artwork shall not alter or be modified during play, except in cases of animation during a play or as a part of the game rules, which shall be clearly described on the artwork, otherwise this constitutes a different game.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
		SANS1718-1 – 10.1.2 SANS1718-2 – 10.1.2											
2.1.4	A machine shall not have any faults present,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
	or be in any test, metering, door open or lockup mode, etc., for a game to begin.	SANS1718-1 – 10.1.3 SANS1718-2 – 10.1.3			
2.1.5	Gamble features that place an amount won by the player at risk (for example, double-up) are not permitted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-2 – 10.1.5			
2.1.6	Credits bet may come from the credits that the player has available to bet or from the number of coins inserted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.1.5 SANS1718-2 – 10.1.6			
2.1.7	The game may not be considered to be completed until all the appropriate meters for the game have been updated. It is permissible to update the credit meter before the completion of play provided that critical memory is updated when the credit meter is updated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.1.6 SANS1718-2 – 10.1.7			
2.1.8	If multigames are implemented, there shall be a method available so that it is possible to disable and enable individual games on multigame GMs. If it is not possible to enable and disable an individual game, the entire machine shall be capable of being enabled or disabled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.1.7 SANS1718-2 – 10.1.8			
3.0	Rules	SANS1718-1 – 10.2 SANS1718-2 – 10.2			
3.1	A game shall follow a constant set of rules and shall at no time deviate from those rules. A rule change constitutes a different game, although variations to the maximum number of credits bet per game or lines per game (or both) are permitted. This requirement does not preclude implementations of games with multiple parts or features provided that the rules are clear to the player.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.2 SANS1718-2 – 10.2			
4.0	Game fairness objectives	SANS1718-1 – 10.3 SANS1718-2 – 10.3			
4.1	Each time a game element (base, primary, feature, bonus or free) is played, there shall be a chance of obtaining any of the results displayed on the appropriate payable of that game.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.3.1 SANS1718-2 – 10.3.1			
4.2	Events of chance within the games shall be independent of (i.e. not correlated with) any other events within the game or any other events within previous games, except as provided by the rules of the game (for example, for metamorphic games).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.3.2 SANS1718-2 – 10.3.2			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
4.3	All games shall not cheat the player or be designed to give the player a false expectation of better odds by falsely representing any occurrence or event. NOTE Virtual reels are acceptable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.3.3 SANS1718-1 – 10.3.4			
4.4	The intent of the objectives is to ensure that, where applicable, the probability distribution of each event within a game is as it a) appears to the player,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-2 – 10.3.3A			
4.5	b) is represented to the player, and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-2 – 10.3.3B			
4.6	c) could reasonably be inferred by the player. NOTE This requirement does not prohibit the use of virtual reels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-2 – 10.3.3C			
4.7	The player shall be advised as to the frequency of the shuffling of cards (for example, by wording in the artwork or on the display screen).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.3.4 SANS1718-2 – 10.3.5			
4.8	Game fairness objectives for games such as horse, car or animal racing, golf or football and virtual reality games shall be assessed on a case-by-case basis applying the general game fairness objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.3.5 SANS1718-1 – 10.3.6			
4.9	Capping of awards shall not be permitted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.3.6 SANS1718-1 – 10.3.7			
5.	Result-determination methodologies	SANS1718-1 – 10.3 SANS1718-2 – 10.4			
5.1	In the case of any GD, result determination for each individual play within a game shall a) be for all attainable combinations of the mapped symbol set (except for random awards),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.1A SANS1718-2 – 10.4.1A			
5.2	b) be clearly specified on the exterior of the gaming equipment (or in a way readily available to the player and clearly apparent),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.1B SANS1718-2 – 10.4.1B			
5.3	c) be a consequence of one of the result determination methodologies described in this clause and approved by the PLA,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.1C SANS1718-2 – 10.4.1C			
5.4	e) ensure that the maximum prize is not	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
	greater than that specified in legislation	SANS1718-1 – 10.4.1E SANS1718-2 – 10.4.1E  SANS1718-1 – 10.4.3 SANS1718-2 – 10.4.3			
5.5	The result in game play can be determined in the following ways: a) pure chance;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.5A SANS1718-2 – 10.4.4A			
5.6	b) pure chance plus skill where the skill element is supported by hold and selection strategies; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.5B SANS1718-2 – 10.4.4B			
5.7	c) pure chance plus skill where the skill element involves eye and hand coordination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.5C SANS1718-2 – 10.4.4C			
5.8	The GD shall not have any means of manipulation that can affect the probabilities of random event outcomes during game play.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.6 SANS1718-2 – 10.4.5			
5.9	Events of chance within games shall not be influenced, affected, controlled or determined by anything other than (in conjunction with the prevailing payout table) numerical values obtained in an approved way from the certified RNG.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.7 SANS1718-2 – 10.4.6			
5.10	If a minimum jackpot base is required to achieve the minimum RTP, as specified by the PLA, then the minimum value of the jackpot base must be recorded  a) on the test report for the GD to be certified by the CA, and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.4A			
5.11	b) in the documentation /manuals required in part 1 clause 4.1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.4.4B			
6.0	Game features	SANS1718-1 – 10.5 SANS1718-2 – 10.5			
6.1	If a feature activity is provided in which the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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		EXTERNAL REF #			
	player has to wager credits, the player shall be given a choice whether to enter the feature activity or not. A player who elects not to enter the feature activity shall be positioned at the beginning of the primary game.	SANS1718-1 – 10.5.1 SANS1718-2 – 10.5.1			
6.2	A game may offer random awards, provided that the award value complies with that specified by legislation (see foreword).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.5.2 SANS1718-2 – 10.5.2			
6.3	Initial entry to a feature activity shall be conditional upon an immediately preceding occurrence of a winning event in the primary game.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.5.3 SANS1718-2 – 10.5.3			
7.	Metamorphic features	SANS1718-1– 10.6 SANS1718-2– 10.6			
7.1	Where allowed by the PLA, features that are not completely independent of play history (i.e. that are metamorphic) shall a) display clearly to the player which game rules apply to the current game state,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.6.1A SANS1718-2 – 10.6.1A			
7.2	b) display to the player sufficient information to indicate the current status towards the triggering of the next metamorphosis of the game (for example, if the game collects tokens towards a feature, the number of tokens missing or the total number required to trigger the metamorphosis shall be indicated along with the number of tokens collected at that point),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.6.1B SANS1718-2 – 10.6.1B			
7.3	d) not be misleading. If a game's metamorphosis is triggered after accruing a certain number of tokens or combination of tokens of different kinds, the probability of obtaining such tokens shall not deteriorate as the game progresses (for example for identical tokens the last few tokens needed shall not be more difficult to obtain than the previous tokens of that kind).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.6.1D SANS1718-2 – 10.6.1D			
7.4	Any accumulated metamorphic game tokens shall not be lost during a full reconfiguration if the game that includes the tokens is still available after the full reconfiguration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.6.3 SANS1718-2 – 10.6.3			
7.5	The maximum stake wagered, and prize	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
	paid out by the game over the cycle of both the metamorphic and non-metamorphic parts of the game shall not exceed that specified in legislation (see foreword).	SANS1718-1 – 10.6.4 SANS1718-2 – 10.6.4			
7.6	If a metamorphic feature game requires extra credits to be wagered and the game accumulates all winnings (from the trigger and the feature) to a player win display (rather than directly to the player's credit display), the game shall a) provide a means where winnings on the player win display can be bet (by means of the credit display) to allow for instances where the player has an insufficient credit balance to complete the feature, and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.6.5A SANS1718-2 – 10.6.5A
7.7	b) transfer all credits on the player win display to the player credit display upon completion of the feature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.6.5B SANS1718-2 – 10.6.5B
8.	Card games	SANS1718-1 – 10.7 SANS1718-2 – 10.7			
8.1	The consequences for games that depict cards being drawn from a pack are the following: a) at the start of each game/hand, cards shall be drawn fairly from a randomly shuffled pack that consists of the full set of cards applicable to the game depicted;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.7A SANS1718-2 – 10.7A
8.2	b) once removed from the pack, cards shall not be returned to the pack except as provided by the rules of the game depicted;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.7B SANS1718-2 – 10.7B
8.3	c) the pack shall not be reshuffled except as provided by the rules of the game depicted;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.7C SANS1718-2 – 10.7C
8.4	d) as cards are removed from the pack they shall be immediately used as directed by the rules of the game (i.e. they shall not be discarded owing to adaptive behaviour by the GD); and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.7D SANS1718-2 – 10.7D
8.5	e) it is permitted to reshuffle the remainder of the deck between draws during a single game.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SANS1718-1 – 10.7E SANS1718-2 – 10.7E
9	Ball-drawing games	SANS1718-1 – 10.8 SANS1718-2 – 10.8			
9.1	The consequences for games that depict	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
	balls being drawn from a barrel (for example, bingo) are as follows: a) at the start of each game, only balls applicable to the game shall be depicted;	SANS1718-1 – 10.8A SANS1718-2 – 10.8A			
9.2	b) once removed from the barrel, balls shall not be returned to the barrel except as provided by the rules of the game depicted;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.8B SANS1718-2 – 10.8B			
9.3	c) the barrel shall not be remixed except as provided by the rules of the game depicted; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.8C SANS1718-2 – 10.8C			
9.4	d) as balls are drawn from the barrel, they shall be immediately used as directed by the rules of the game (i.e. they shall not be discarded owing to adaptive behaviour by the GD).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.8D SANS1718-2 – 10.8D			
10	Roulette wheel, spinning reels, dice rolling, coin tossing games	SANS1718-1 – 10.9 SANS1718-2 – 10.9			
10.1	In the case of games that depict or involve either  a) the spinning of reels (such as slot machines or poker machines), b) the spinning of wheels (such as roulette), c) the rolling of dice, d) the tossing of coins, or e) other similar depictions, The requirements in 10.9.2 and 10.9.5 shall apply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.9A SANS1718-2 – 10.9.1			
10.2	if virtual reels that map to physical reels are used, each of the reel stops of the virtual reel strip shall have the same probability of occurring (i.e. if the virtual reel consists of n positions, the probability of occurrence of each position shall be 1 or n). Symbols of the virtual reel shall appear to the player in the same arrangement as the corresponding symbols of the physical reel would (i.e. it shall not be possible to determine by observing the symbols displayed on the machine that the virtual reels are used instead of physical reels). This observation extends to all symbols visible to the player. Accordingly, mapped symbols shall have identical sequences of preceding and following symbols (if these symbols are visible to the player) on both the physical and virtual reel strip;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.9A SANS1718-2 – 110.9.2			

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10.3	The behaviour of each reel, wheel, die or coin etc., shall be independent of (i.e. uncorrelated with) all other reels, wheels, dice or coins etc.;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.9B SANS1718-2 – 10.9.3			
10.4	The behaviour of each reel, wheel, die or coin etc., shall be independent of (i.e. uncorrelated with) its previous behaviour; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.9C SANS1718-2 – 10.9.4			
10.5	for each wheel, die or coin, etc. depicted, the probability of any one face appearing shall be as for the actual physical device (for example, 1/20 for a 20 wheel; 1 /6 for a six-faced die; and ½ for a coin).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		SANS1718-1 – 10.9D SANS1718-2 – 10.9.5			

PASS ☐FAIL ☐

Please tick one of the above to indicate if this checklist has been successfully completed or not. If FAIL is ticked, please list the DIRT number and/or issues, below.

Comments:

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Signature:

Completion Date:

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