GAMES REGRESSION TESTING CHECKLIST – SOUTH AFRICAN CASINO MARKET

Project code:	Examiner:	Start date:

Product Details				
Item Under Test				
Base/OS ☐	Game ☐	Other (Specify):		☐
Base/OS version:		Game name:		
Jurisdiction software		Game version:		
Comms Software		Other:		
Hardware used to test				
Model:		ITS#		
Communication information				
Tool/ MCS used to test:		version:		
EGM protocol used:		version:		

Peripherals Details

Bill Acceptor Model:	
Printer Model:	
Coin Acceptor Model:	

Check Jurisdiction's Technical Requirements

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

SANS 1718-1: 2019	Gaming Equipment Part 1: Casino Equipment, Edition 3	☐
OTHER		☐

Notes:
- This checklist should be used in conjunction with EURAF-SAF-CH-09a or EURAF-SAF-CH-09b checklist.
- Verify the signatures of the software against the client submitted documents before starting with the actual testing.
- **Where the PLA determines that a Mystery or Random Award is a Jackpot, then all the applicable clauses relating to a jackpot shall apply SANS1718-1 – 9.16.7.2. To be verified and requested by the client during scoping of project.**
- Attach a copy of all events and meters from the simulator or MCS used for testing.
- 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.
- All highlighted text in red is amended or updated in the latest standard

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
CT	COMPLIANCE TESTING				
1	Access detection systems	SANS1718-1 – 4.5			
1.1	The door access detection system shall provide a signal to enable the monitoring and control system to interpret whether access to a logic area has occurred, regardless of whether mains power is switched on or off, or whether the GD is on-line or off-line. It shall remain able to detect this event with the mains power off for at least 24 h. This event shall be reported once the mains power is restored, or when the GD is connected back on line, whichever occurs first.	☐ SANS1718-1 – 4.5.2	☐	☐	
1.2	The GM shall deactivate game play upon the opening of a door but may immediately reactivate when the door is closed, unless it has noticed the changing of counters or insertion of coins while this door is open, which is deemed to be interference and precludes automatic reactivation unless the GM was placed in test mode. In such case a significant event message shall be sent and the monitoring and control system shall add the staff card number to the event message. If no card number is available, the message shall be tagged by the monitoring and control system as an unauthorized access.	☐ SANS1718-1 – 4.5.7	☐	☐	
1.3	If the logic door is opened more than once while the GD is off-line or powered off, the GD shall treat this as a single entry.	☐ SANS1718-1 – 4.6.3	☐	☐	
1.4	There shall be a facility for storing a logic door open event for at least 14 days.	☐ SANS1718-1 – 4.6.4	☐	☐	
2	Critical memory requirements	SANS1718-1 – 6.2			
2.1	Manufacturers shall ensure that critical data are recorded in at least two physically separate and distinct hardware devices (which may be of the same type), either within the GD or the local data logger (or both). This critical data record shall be retained on these devices until such time that at least the following data have been successfully transmitted to the monitoring and control system: a) all auditing meters;	☐ SANS1718-1 – 6.2.1A	☐	☐	
2.2	b) current credits;	☐	☐	☐	

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		SANS1718-1 – 6.2.1B			
2.3	c) GD or game configuration data (for example, GM address, denomination); and	☐	☐	☐	
		SANS1718-1 – 6.2.1C			
2.4	d) significant event information.	☐	☐	☐	
		SANS1718-1 – 6.2.1D			
2.5	These devices shall be capable of being reliably updated at every critical memory change.	☐	☐	☐	
		SANS1718-1 – 6.2.2			
3	**Switches and jumpers**	SANS1718-1 – 6.6			
3.1	If switches or jumpers that have the potential to cause the GD not to comply with this part of SANS 1718, or with legislation (see foreword), are present, then setting them in a manner that would result in non-compliance shall cause the GD to enter "Tilt" mode, which in turn shall be signalled to the monitoring and control system. As long as the switch or jumper is set in this manner, it shall not be possible to reset the GD.	☐	☐	☐	
		SANS1718-1 – 6.6.1			
4	**Communication**	SANS1718-1 – 6.7			
4.1	Where multiple GDs communicate over a single multidrop transmission medium, each GD shall operate at an accurate and consistent baud rate, which shall ensure consistently accurate and error-free communication (over and above the error checking and correction requirement).	☐	☐	☐	
		SANS1718-1 – 6.7.1			
4.2	The connection or interaction of a GD with a monitoring and control system shall not affect the function of the GD or affect the game in any way, other than to a) disable the GD or game under the appropriate, approved circumstances (for example, such as when off-line to the next point in the monitoring and control system)	☐	☐	☐	
		SANS1718-1 – 6.7.4A			
4.3	b) introduce small delays (unperceivable to the	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		span EXTERNAL REF #			
	player) in the duration of the game, so as to facilitate communication with the monitoring and control system. NOTE The general nature of the embedded processor usually found in GDs sometimes requires a momentarily "hold off" of the next round of communication from the GD to the monitoring and control system owing to the sequencing or timing of communications to the monitoring and control system by a multitude of connected GDs.	SANS1718-1 – 6.7.4B			
4.4	The means of communication shall be designed and implemented to automatically, continuously and timeously ensure that all data is accurate and reliable.	☐	☐	☐	
		SANS1718-1 – 6.7.6			
4.5	a) The measure of accuracy shall be an error rate of 0,1 % or less.	☐	☐	☐	
		SANS1718-1 – 6.7.6			
4.6	b) The measure of reliability shall be a data failure rate of 0,1 % or less.	☐	☐	☐	
		SANS1718-1 – 6.7.6			
5	**Printers**	SANS1718-1 – 6.9			
5.1	The software shall register and react to any printer fault conditions and shall allow the machine to complete the printing of the current ticket (if possible) and then pause printing and display appropriate on-screen messages.	☐	☐	☐	
		SANS1718-1 – 6.9.3			
6	**Transaction system requirements**	SANS1718-1 – 7			
6.1	**Coin acceptance systems**	SANS1718-1 – 7.1			
6.1.1	Each coin inserted shall register the actual rand and cents value or the number of credits on the player's credit meter or bet meter. If registered directly as credits, the conversion rate shall be clearly stated or be easily discernible from the GD.	☐	☐	☐	
		SANS1718-1 – 7.1.1			
6.1.2	During periods when the gaming equipment is	☐	☐	☐	

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		EXTERNAL REF #			
	inoperable for any reason, all coins shall either be prevented from being inserted, or be rejected.	SANS1718-1 – 7.1.2			
6.1.3	The coin input system shall have means by which it can detect or logically deduce (or both) when potential cheating is in progress.	☐ SANS1718-1 – 7.1.3	☐	☐	
6.1.4	In games where tokenization is used, each valid coin inserted shall register a number of credits that are clearly stated on the machine artwork, video or other form of information display.	☐ SANS1718-1 – 7.1.4	☐	☐	
6.1.5	The CAS shall be able to a) not have its coin path easily altered from the outside of the GD without leaving evidence of physical modification,	☐ SANS1718-1 – 7.1.5A	☐	☐	
6.1.6	b) deliver an accepted coin to the correct area of the gaming equipment,	☐ SANS1718-1 – 7.1.5B	☐	☐	
6.1.7	c) credit the customer's credit balance with the appropriate rand and cents value or number of credits for each accepted coin, and to return all other coins to the coin tray, and	☐ SANS1718-1 – 7.1.5C	☐	☐	
6.1.8	d) detect and prevent attempted fraud.	☐ SANS1718-1 – 7.1.5D	☐	☐	
6.1.9	The software shall direct coins to either the CDD or to the coin drop box. The "CDD full" detector shall be continually monitored to determine whether a change in diverter status is required. If the state of the detector changes, the diverter shall operate as soon as possible after the state change without causing a disruption of coin flow, or creating a coin jam.	☐ SANS1718-1 – 7.1.6	☐	☐	
6.1.10	Diverter operations shall be dependent only on CDD sensor status, not software counters. If a software counter is used, it shall be used in conjunction with a mechanical sensor, which shall override the software counter.	☐ SANS1718-1 – 7.1.7	☐	☐	
6.1.11	Coin validation shall be electronically based and be so designed as to ensure that each coin inserted and accepted as valid by the GD is added to the credit meter and that it updates all appropriate meters.	☐ SANS1718-1 – 7.1.8	☐	☐	
7	**Coin dispensing devices**	SANS1718-1 – 7.2			
7.1	The CDD shall have detection devices to enable the GD to interpret and act upon conditions when the CDD is empty or when the CDD malfunctions.	☐ SANS1718-1 – 7.2.1	☐	☐	

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7.2	If the GD does not issue clear instructions on the steps necessary either to perform a CDD refill or to reset the fault when a "CDD jam", "CDD empty" error message or equivalent wording is displayed, then these instructions shall be clearly set out in the operator manual.	☐ SANS1718-1 – 7.2.4	☐	☐	
7.3	If power to the CDD is removed, the CDD should not dispense extra coins. If additional coins are dispensed, this shall only be acceptable as long as this extra payout is not reflected on the GD's meters, and therefore does not affect the collection of taxes.	☐ SANS1718-1 – 7.2.5	☐	☐	
7.4	A GD shall not permit a cashout to be performed during any of the following conditions: a) during game play;	☐ SANS1718-1 – 7.2.6A	☐	☐	
7.5	b) while the GD is in demonstration, test or audit mode; and	☐ SANS1718-1 – 7.2.6B	☐	☐	
7.6	c) while the GD is in a fault condition that requires manual activation. NOTE Manual reactivation implies that the GD is reactivated for game play before the cashout is permitted.	☐ SANS1718-1 – 7.2.6C	☐	☐	
7.7	If the value of the prize, when added to the player's current credits, exceeds the "maximum credit" setting in the GD, the value of the prize shall be dispensed directly from the CDD or a hand pay shall be initiated.	☐ SANS1718-1 – 7.2.7	☐	☐	
7.8	The design and construction materials of a CDD shall be of an acceptable quality and the CDD shall require no adjustments for at least the manufacturer's recommended maintenance period.	☐ SANS1718-1 – 7.2.8	☐	☐	
8	**Bill acceptor system**	SANS1718-1 – 7.3			**N/A, REFER TO C9-114**
9	**Bill validator system**	SANS1718-1 – 7.4			**N/A, REFER TO C9-114**
10	**Electronic funds transfer**	SANS1718-1 – 7.5			
10.1	All EFT systems whereby credits are transferred electronically to or from a GM shall be approved by the PLA.	☐ SANS1718-1 – 7.5.1	☐	☐	
10.2	If cards or other devices that employ a form of electronic storage of data are to be used, the TL shall be satisfied with all aspects of security. Some of the major concerns are: a) prevention of illegal or accidental alteration of data;	☐ SANS1718-1 – 7.5.2A	☐	☐	

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		EXTERNAL REF #			
10.3	b) protection from loss of data;	☐	☐	☐	
		SANS1718-1 – 7.5.2B			
10.4	c) recovery of information relating to damaged or lost storage devices (for example cards);	☐	☐	☐	
		SANS1718-1 – 7.5.2C			
10.5	d) accuracy of read/write operations;	☐	☐	☐	
		SANS1718-1 – 7.5.2D			
10.6	e) protection from fraudulent duplication of card information or credit balances;	☐	☐	☐	
		SANS1718-1 – 7.5.2E			
10.7	f) maintenance of all EFT transactions in a system log;	☐	☐	☐	
		SANS1718-1 – 7.5.2F			
10.8	g) recovery of all EFT transactions after failure of the system; and	☐	☐	☐	
		SANS1718-1 – 7.5.2G			
10.9	h) correct updating to the storage media and to the system of all electronic funds transactions.	☐	☐	☐	
		SANS1718-1 – 7.5.2H			
10.10	The GM shall maintain a record of, as a minimum, the last 10 successful EFT transactions. Each transaction record shall, as a minimum, include the date and time of the transaction and the actual amount transferred. It is acceptable if the information is only available from the MCS in an EFT environment.	☐	☐	☐	
		SANS1718-1 – 7.5.3			
10.11	If EFT is used for gaming against a player account, no bet may exceed the available balance of an account.	☐	☐	☐	
		SANS1718-1 – 7.5.4			
10.12	The GD card reader shall not accept an illicit card or a card that is not authorized for use.	☐	☐	☐	
		SANS1718-1 – 7.5.5			
11	**Credit redemption**	SANS1718-1 – 7.6			
11.1	If a patron attempts to collect available credits, and the total coin value of those credits is less than the maximum CDD pay amount, the GD shall dispense the equivalent value in coins from the CDD.	☐	☐	☐	
		SANS1718-1 – 7.6.1			
11.2	If a player attempts to collect available credits,	☐	☐	☐	

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	and the total coin value of those credits exceeds the maximum CDD pay amount or, if after a CDD pay the patron attempts to collect any residual credits (for example, in a tokenized game), the GD shall either a) generate a validated ticket for cash redemption, or	SANS1718-1 – 7.6.2A			
11.3	b) initiate a funds transfer to an appropriate player account, or	☐	☐	☐	
		SANS1718-1 – 7.6.2B			
11.4	c) automatically lock-up and go into a handpay or cancel credit, whereby the player is given the option either to receive a cancelled credit or to cancel the cancel credit and play out the remaining credits.	☐	☐	☐	
		SANS1718-1 – 7.6.2C			
11.5	Whenever credits are redeemed by a player, the number of credits paid out shall be clearly displayed (collect display) and shall be correspondingly removed from the credit display. In addition the monetary value of the amount redeemed may be displayed.	☐	☐	☐	
		SANS1718-1 – 7.6.3			
11.6	When there are "odd credits", or residual credits (i.e. less than the CDD base coin) in the player balance and a collect is attempted on a GD with a CDD, the GD shall pay out the balance as if it were a "large credit balance" (for example, by cash ticket or cancelled credit) instead of from the CDD. Alternatively, if a GD does not have this function, or if this function is disabled, there shall be a clear message on the GD in a prominent position, and in a font large enough to be easily read at a distance of three meters, that states that "This gaming machine does not pay out any credit amount less than <value>" (insert appropriate value in the message), or equivalent wording.	☐	☐	☐	
		SANS1718-1 – 7.6.4			
12	**Cashout by printed ticket**	SANS1718-1 – 7.7			
12.1	A valid ticket shall contain the following information: a) the name of the licensed venue;	☐	☐	☐	
		SANS1718-1 – 7.7.1A			
12.2	b) the unique GD identification number;	☐	☐	☐	
		SANS1718-1 – 7.7.1B			
12.3	c) the current date;	☐	☐	☐	
		SANS1718-1 – 7.7.1C			
12.4	d) the time of day;	☐	☐	☐	

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		SANS1718-1 – 7.7.1D			
12.5	e) the value of the credit in numbers and words;	☐	☐	☐	
		SANS1718-1 – 7.7.1E			
12.6	f) the unique identifying number of the ticket voucher; and	☐	☐	☐	
		SANS1718-1 – 7.7.1F			
12.7	g) the validation (checksum) number or bar code; note that the validation number computation method shall be evaluated by the TL and certified by the CA.	☐	☐	☐	
		SANS1718-1 – 7.7.1G			
12.8	Barcodes or other form of machine readable markings on a voucher shall have enough redundancy and error checking to ensure that 99,9 % of all misreads are flagged as an error.	☐	☐	☐	
		SANS1718-1 – 7.7.2			
12.9	Ticket voucher printing, as a method of credit redemption, is only permissible where the GD is linked to a system or cash control system which allows validation of the printed ticket at a cashier station. Where a payout is by ticket voucher printed by the gaming equipment, the gaming equipment shall be capable of printing a ticket voucher for all credits owed to the player at the completion of each game.	☐	☐	☐	
		SANS1718-1 – 7.7.3			
12.10	A ticket request shall be rejected by the system if the device that generates the ticket security feature is not able to issue such a feature, and the system shall initiate the appropriate error handling procedure. NOTE A security feature includes any mark, attribute or element (for example, a ticket number) that is added or attached to the ticket in order to allow the ticket to be validated.	☐	☐	☐	
		SANS1718-1 – 7.7.4			
13	**Information display**	SANS1718-1 – 8.5			
13.1	**Display methodology**	SANS1718-1 – 8.5.1			
13.1.1	External displays employed in communicating the results of games shall be certified on a case-by-case basis by the CA.	☐	☐	☐	
		SANS1718-1 – 8.5.1.1			
13.1.2	The method of display of information, including game outcome, shall be certified by the CA.	☐	☐	☐	
		SANS1718-1 – 8.5.1.2			
13.1.3	Symbols of virtual reel games (video) shall appear	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
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	to the player in the same arrangement as per the reel strips. The order of the reel's symbols displayed to the player shall not be manipulated or rearranged.	SANS1718-1 – 8.5.1.3			
14	**Recovery**	SANS1718-1 – 8.5.2			
14.1	In the event of a non-destructive fault or failure, deactivation or interruption, the GD shall be able to recover with no loss to the player or of critical data to the monitoring and control system. An error catching routine shall exist that prevents the GM from displaying a win amount that exceeds the maximum payout displayed on the pay table, except when participating in a jackpot.	☐	☐	☐	
		SANS1718-1 – 8.5.2			
15	**Last game information**	SANS1718-1 – 8.5.3.1			
15.1	All GMs shall be capable of storing and displaying last game data for at least the five most recently played games.	☐	☐	☐	
		SANS1718-1 – 8.5.3.1			
15.2	The following information on the last game played (the game before the current game) shall be retrievable: a) the type of game played;	☐	☐	☐	
		SANS1718-1 – 8.5.3.2A			
15.3	b) the award table used;	☐	☐	☐	
		SANS1718-1 – 8.5.3.2B			
15.4	c) display card values, reels in position, or other game status information;	☐	☐	☐	
		SANS1718-1 – 8.5.3.2C			
15.5	d) the total number of credits or monetary value at the start of the game (less credits bet);	☐	☐	☐	
		SANS1718-1 – 8.5.3.2D			
15.6	e) the total number of credits or monetary value played;	☐	☐	☐	
		SANS1718-1 – 8.5.3.2E			
15.7	f) the player choices (if any) involved in the game outcome;	☐	☐	☐	
		SANS1718-1 – 8.5.3.2F			
15.8	g) the total number of credits or monetary value associated with the award resulting from the last play (win);	☐	☐	☐	
		SANS1718-1 – 8.5.3.2G			
15.9	h) the total number of credits or monetary value added after the last game;	☐	☐	☐	
		SANS1718-1 – 8.5.3.2H			
15.10	i) the total number of credits or monetary value	☐	☐	☐	

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	collected or cancelled after the last game;	SANS1718-1 – 8.5.3.2I			
15.11	j) a display of all feature games following the last game display (if possible). Otherwise at least the metering information shall be preserved; and	☐	☐	☐	
		SANS1718-1 – 8.5.3.2J			
15.12	k) the jackpot amount (if any) and an indication if won or not.	☐	☐	☐	
		SANS1718-1 – 8.5.3.2k			
15.13	In the case of a stepper motor GD, this means spinning the reels to the final resting point at the completion of the game and illuminating or flashing any lights or other indicators that were illuminated or flashing at the end of that game. The wheels, lights and display shall be returned to their original states when the viewing of the last game replay is completed.	☐	☐	☐	
		SANS1718-1 – 8.5.3.3			
15.14	In the case of spinning reel games, the GD shall display at least the final resting place of the reels, the options (play lines or number of coins selected (or both)) and an indication of winnings, in a way similar to that originally shown to the player.	☐	☐	☐	
		SANS1718-1 – 8.5.3.4			
15.15	In the case of keno and bingo games, all of the balls drawn, the selections made by the player and the final result shall be displayed in a way similar to that originally shown to the player.	☐	☐	☐	
		SANS1718-1 – 8.5.3.5			
15.16	In the case of card games, all cards dealt in a game shall be shown on the screen. In the case of poker or any other game with a hold/discard strategy it is necessary to show the symbols or cards held and those discarded.	☐	☐	☐	
		SANS1718-1 – 8.5.3.6			
15.17	The units in which each statistic is measured shall be certified by the CA.	☐	☐	☐	
		SANS1718-1 – 8.5.3.8			
16	**Prescribed display formats**	SANS1718-1 – 8.6.1			
16.1	If dates and times are displayed, they shall be displayed in a consistent format.	☐	☐	☐	
		SANS1718-1 – 8.6.1			
16.2	The only acceptable all-numeric date formats are yyyy-mm-dd and dd-mm-yyyy. NOTE 1 The preferred date format is yyyy-mm-dd. NOTE 2 This requirement does not apply to the date format on displays that are not accessible to the player, such as set-up screens.	☐	☐	☐	
		SANS1718-1 – 8.6.2			
16.3	Only 24-hour time formats are acceptable.	☐	☐	☐	

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		SANS1718-1 – 8.6.3			
16.4	Field separators within times shall be colons (:) or full stops (.). Time of day shall be given as South African standard time.	☐	☐	☐	
		SANS1718-1 – 8.6.4			
17	**Data communication**	SANS1718-1 – 8.7			
17.1	The means of communication shall be designed and implemented to automatically, continuously and timeously ensure that all data is accurate and reliable.	☐	☐	☐	
		SANS1718-1 – 8.7.7			
17.2	If the GD is unable to send messages to the monitoring and control system, then the GM may complete the current game and permit cashout but shall then disable further game play until able to forward these messages to the monitoring and control system.	☐	☐	☐	
		SANS1718-1 – 8.7.4			
17.3	All GDs shall be able to handle the following range of failures without loss of data: a) failure of the central computer LAN interfaces;	☐	☐	☐	
		SANS1718-1 – 8.7.5A			
17.4	b) failure of the central LAN;	☐	☐	☐	
		SANS1718-1 – 8.7.5B			
17.5	c) failure of central data communication interface devices;	☐	☐	☐	
		SANS1718-1 – 8.7.5C			
17.6	d) failure of single data communication interface;	☐	☐	☐	
		SANS1718-1 – 8.7.5D			
17.7	e) high data communication error rates on line;	☐	☐	☐	
		SANS1718-1 – 8.7.5E			
17.8	f) a foreign or additional device placed on a LAN;	☐	☐	☐	
		SANS1718-1 – 8.7.5F			
17.9	g) a foreign or additional device placed between LAN bridges, communication controllers, or on data communication lines between sites;	☐	☐	☐	
		SANS1718-1 – 8.7.5G			
17.10	h) single data communication port failure on remote controller (if any);	☐	☐	☐	
		SANS1718-1 – 8.7.5H			
17.11	i) LAN failure on regional or local controller (if any);	☐	☐	☐	
		SANS1718-1 – 8.7.5I			
17.12	j) LAN failure on cashier terminal (if any); and	☐	☐	☐	

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		SANS1718-1 – 8.7.5J			
17.13	k) data communication interface failure on a GD.	☐	☐	☐	
		SANS1718-1 – 8.7.5K			
17.14	Jackpot or progressive jackpot controlling devices shall communicate with the monitoring and control system by means of a protocol-based form of communication. This does not apply to standalone jackpot or progressive controllers.	☐	☐	☐	
		SANS1718-1 – 8.7.6			
17.15	The means of communication shall be designed and implemented to automatically and continuously ensure that all mandatory data a) metering and transactional data,	☐	☐	☐	
		SANS1718-1 – 8.7.2A			
17.16	b) significant events,	☐	☐	☐	
		SANS1718-1 – 8.7.2B			
17.17	c) critical data, and	☐	☐	☐	
		SANS1718-1 – 8.7.2C			
17.18	d) system security and management data, including time synchronisation data are communicated from the GD to the Host and is available for the specified accounting and reporting periods.	☐	☐	☐	
		SANS1718-1 – 8.7.2D			
17.19	The Host shall be able to detect and report that required data is missing in a specified accounting or reporting period, from which GD is the data missing and for which actual time. Likewise, the host shall be able to indicate when this data is eventually updated or restored and report on any variance as a result.	☐	☐	☐	
		SANS1718-1 – 8.7.3			
18	Metering – Reports and displays	SANS1718-1 – 8.8			
18.1	NOTE It is the intention of this sub-clause to have a common designation for the values on reports or shown on-screen. It is not intended to refer to designations used in any protocol or messaging system. Unless otherwise specified in legislation (see foreword), the value displayed by the meter may be in either credits or in monetary values (i.e. rands and cents) as long as the units used are clearly shown near to the meter or display.	☐	☐	☐	
		SANS1718-1 – 8.8.1			
18.2	The "total bet" meter is defined as the total value	☐	☐	☐	

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	of all credits bet. It shall be designated on all reports or displays as "Total Bet". **Amdt 2** In the case of multigame GMs this meter is also required and a separate value shall be maintained for each configured game on the GM.	SANS1718-1 – 8.8.2			
18.3	The "total win" meter is defined as the total value of all credits won. It shall be designated on all reports or displays as "Total Win". **Amdt 2** In the case of multigame GMs this meter is also required and shall be maintained for each configured game on the GM.	☐	☐	☐	
		SANS1718-1 – 8.8.3			
18.4	The "total coin box drop" meter is defined as the total value of coins or tokens to the coin box drop of the GD. It shall be designated on all reports or displays as "Total Coin Box Drop". An additional period meter is required in audit mode that can be reset following each clearance of the coin drop storage area.	☐	☐	☐	
		SANS1718-1 – 8.8.4			
18.5	The "total bill drop" meter is defined as the total value of all bills entered into the bill acceptor connected to the GD. It shall be designated on all reports or displays as "Total Bill Drop". An additional period meter is required in audit mode that can be reset after each clearance of the bill storage area.	☐	☐	☐	
		SANS1718-1 – 8.8.5			
18.6	The "total games played" meter is defined as the total number of games started and completed on the GD. The units shall be in games. It shall be designated on all reports or displays as "Total Games Played". In the case of multigame GDs this meter is also required and shall be maintained for each configured game on the GD.	☐	☐	☐	
		SANS1718-1 – 8.8.6			
18.7	The "total hand pay" meter is defined as the total value of all hand pays, including hand pays less than one coin or token, hand pays greater than the CDD limit, and any printed tickets and vouchers. It shall be designated on all reports or displays as "Total Hand Pays". If a GM keeps separate meters for "cancel credits", "voucher out" or "hand pay with jackpot" then the summation of these meters to derive a total amount for "Total hand pays" may be done by the MCS.	☐	☐	☐	
		SANS1718-1 – 8.8.7			

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18.8	The "total cash in" meter is defined as the total value of all cash entered into the GD (including amounts transferred from a card in an EFT environment). It and shall be designated on all reports or displays as "Total Cash In". Separate meters for "cash", "EFT transactions" and "tickets/vouchers" that must be added in order to derive the "total cash in" amount are acceptable.	☐	☐	☐	
		SANS1718-1 – 8.8.8			
18.9	The "total cash out" meter is defined as the total value of all cash paid out of the GD (including hand pays, printed tickets and vouchers and amounts transferred to a card in an EFT environment). It shall be designated on all reports or displays as "Total Cash Out". Separate meters for "cash" "EFT transactions" and "tickets/vouchers" that must be added in order to derive the "total cash out" amount are acceptable.	☐	☐	☐	
		SANS1718-1 – 8.8.9			
18.10	The "total EFT in" meter is defined as the total value of all credits transferred from a card to a GD in an EFT environment. If the GD has an EFT functionality, this shall be designated on all reports or displays as "Total EFT In". If the GD does not support EFT, this meter is not required.	☐	☐	☐	
		SANS1718-1 – 8.8.10			
18.11	The "total EFT out" meter is defined as the total value of all credits transferred to a card from a GD in an EFT environment. If the GD has an EFT functionality, this shall be designated on all reports or displays as "Total EFT Out". If the GD does not support EFT, this meter is not required.	☐	☐	☐	
		SANS1718-1 – 8.8.11			
18.12	The "last five bills in " display shall enable the GD to display, in audit mode, the rand value of each of the last five bills entered into the bill acceptor. The bills shall be listed in the order they were entered, with the most recently entered bill listed first.	☐	☐	☐	
		SANS1718-1 – 8.8.12			
18.13	A meter or display shall be updated and recorded by the monitoring and control system as the event or transaction occurs. All meters shall be added to, not incremented, with the exception of coin-handling meters (i.e. coin-in and coin-out meters) which may be either added to or incremented. The term "added to" indicates the fetching of the current value from memory, conducting an arithmetic-add operation and storage of the result in memory.	☐	☐	☐	
		SANS1718-1 – 8.8.13			
18.14	When a meter, of any type, reaches its maximum	☐	☐	☐	

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	value, it shall automatically revert (i.e. "wrap round") to zero and subsequently continue counting (from zero) in the normal way.	SANS1718-1 – 8.8.14			
18.15	Gaming equipment shall have access to a function that enables the display of all metered information retained by the gaming equipment. It is not mandatory that metering information be displayed on the device from which the information originates. The information may be displayed on an external device or on a computer (or on both) to which the GD has communicated such information.	☐ SANS1718-1 – 8.8.15	☐	☐	
19	Metering – Player displays	SANS1718-1 – 8.9			
19.1	A GD shall be able to display the information given in 8.9.2 to 8.9.20 to the player (as applicable to either "EFT" or "non-EFT" environments). Note that this does not prevent more than one piece of information being presented on the same display unit, provided that the associated artwork is not deemed to be misleading.	☐ SANS1718-1 – 8.9.1	☐	☐	
19.2	The "credit display" shall display the current number of credits available to the player under the heading "Credits". This display shall be updated immediately after each bet is made and at the end of the game when it shall be increased by the value displayed by the "Win" display. It is acceptable to additionally display the rand value if desired.	☐ SANS1718-1 – 8.9.2	☐	☐	
19.3	The "bet display" shall display the cumulative total number of credits bet by the player during the current game to the player under the heading "Bet". This display shall be updated at the start of each game. It is acceptable to additionally display the equivalent rand value if desired.	☐ SANS1718-1 – 8.9.3	☐	☐	
19.4	The "win display" shall display the (cumulative) number of credits won for each win won by the player during a single game (and therefore the prize that has been won at the completion of each game) to the player under the heading "Win". This display shall be updated at the occurrence of each new win, and at the start of each game. It is acceptable to additionally display the equivalent rand value if desired.	☐ SANS1718-1 – 8.9.4	☐	☐	
19.5	The "collect display" shall display the number of	☐	☐	☐	

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	credits collected from the GD by the player under the heading "Collect" or "Paid". This display shall be updated each time the player collects credits from the GD (whether by CDD, hand pay, printed ticket or voucher, or EFT card) and at the start of each game. It is permissible to display, in addition to the credit amount, the equivalent rand value, if desired.	SANS1718-1 – 8.9.5			
19.6	Player displays may be incremented or decremented (for example, stepped) to the value of the actual meter for visual effect. However, the value contained in the internal storage of these displays shall be immediately increased (not incremented or decremented over a period of time).	☐ SANS1718-1 – 8.9.6	☐	☐	
19.7	The number of credits collected shall be subtracted from the player's credit display.	☐ SANS1718-1 – 8.9.7	☐	☐	
19.8	The value of the win display shall only be added to the player's credit display.	☐ SANS1718-1 – 8.9.8	☐	☐	
19.9	The player's credit display shall always be prominently displayed in all modes except audit, configuration and test modes. During play in second screen bonus features, the player's credit amount does not need to be displayed, provided that the player is not required to bet additional credits during the feature.	☐ SANS1718-1 – 8.9.9	☐	☐	
19.10	The player's credit display shall have sufficient digits to allow the display of at least twice the credit value of the maximum prize. Tokenization and denomination configurable parameter options shall not permit credit values that are greater than the above to be displayed.	☐ SANS1718-1 – 8.9.10	☐	☐	
19.11	Whenever credits are bet (for example, at the commencement of the game or in the event of additional wagers during a game) the number of credits bet shall be immediately subtracted from the player's credit display and displayed on the bet display.	☐ SANS1718-1 – 8.9.11	☐	☐	
19.12	It is mandatory for a multigame GD to show the monetary value of the player's available credits on the game select screen. The monetary value of the player's available credits may also be shown on each game play screen in addition to the player's available credits for that game. This requirement is optional for a single game machine.	☐ SANS1718-1 – 8.9.12	☐	☐	
19.13	If the current rand amount is not an even	☐	☐	☐	

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	multiple of the tokenization factor for a game or if the credit amount has a fractional component, the credits displayed for that game may be displayed and played as a truncated amount (i.e. fractional part removed). However, the fractional credit information shall be made available to the player when the truncated credit balance is zero or on the game select screen.	SANS1718-1 – 8.9.13			
19.14	At least the following displays shall be able to be shown separately for each game offered on a multi-game GM: a) the total of all credits bet; and	☐ SANS1718-1 – 8.9.14A	☐	☐	
19.15	b) the total of all credits won.	☐ SANS1718-1 – 8.9.14B	☐	☐	
19.16	Prize determination shall a) be clearly specified on the display or on the exterior of the device, or be easily accessible to the player, and	☐ SANS1718-1 – 8.9.15A	☐	☐	
19.17	b) be exclusively a consequence of the outcome of a computer based RNG in conjunction with the prevailing payout table and rules of the game.	☐ SANS1718-1 – 8.9.15B	☐	☐	
19.18	There shall be a game selection screen where the full amount of the player's credit balance is displayed either in rand and cents or in credits.	☐ SANS1718-1 – 8.9.16	☐	☐	
19.19	Only credits taken as wins by the player or automatically credited by the GD shall be added to the "Win" meter.	☐ SANS1718-1 – 8.9.17	☐	☐	
19.20	When residual credits are played off, credits bet shall be added to the "Total bet" meter.	☐ SANS1718-1 – 8.9.18	☐	☐	
19.21	When residual credits are played off, and if any credits are won, the value of the win shall be added to the " Total win" meter and shall either a) increment the player's credit meter, or	☐ SANS1718-1 – 8.9.19A	☐	☐	
19.22	b) be automatically dispensed, and the value of the coin(s) added to the "Coins out" meter.	☐ SANS1718-1 – 8.9.19B	☐	☐	
19.23	The value of every prize (at end of game) shall be added to the credit display, except progressives. Progressives may be added to the credit display if either a) the credit display is maintained in rand and cents, or	☐ SANS1718-1 – 8.9.20A	☐	☐	
19.24	b) the progressive display is incremented to	☐	☐	☐	

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	whole credit amounts, or	SANS1718-1 – 8.9.20B			
19.25	c) the prize in rand and cents is converted to credits on transfer to the player's credit display in a manner that does not mislead the player (for example, make unqualified statement "wins display amount" and then round down on conversion) or cause accounting imbalances.	☐	☐	☐	
		SANS1718-1 – 8.9.20C			
20	**Labelling**	SANS1718-1 – 8.10			
20.1	All non-mandatory, retrievable electronic statistics or other information shall be suitably labeled.	☐	☐	☐	
		SANS1718-1 – 8.10			
21	Simulator	SANS1718-1 – 8.11			
21.1	If a simulator is provided to enable development of the protocol in GDs and other gaming equipment that interface with the protocol and assist in the testing of the GDs by other suppliers, the TL and the CA, then the simulator shall a) adequately support and execute all transactions and message types that are used by the protocol;	☐	☐	☐	
		SANS1718-1 – 8.11A			
21.2	b) have a function to thoroughly check every requirement, behaviour, function or feature the protocol dictates;	☐	☐	☐	
		SANS1718-1 – 8.11B			
21.3	c) run on standard, freely available equipment such as a personal computer or the equivalent; alternatively, the supplier of the protocol shall loan, on request, suitable hardware on which the simulator can operate, to suppliers of GDs; and	☐	☐	☐	
		SANS1718-1 – 8.11C			
21.4	d) be provided, together with all relevant documentation, on request to all users	☐	☐	☐	
		SANS1718-1 – 8.11D			
22	**Operational requirements**	SANS1718-1 – 9			
22.1	**Access to restricted features**	SANS1718-1 – 9.1			
22.1.1	Access to the following restricted features of gaming equipment shall be regulated by at least a key switch, or by key-based access to the inside of the machine cabinet: a) auditing information;	☐	☐	☐	
		SANS1718-1 – 9.1A			
22.1.2	b) statistical information;	☐	☐	☐	
		SANS1718-1 – 9.1B			

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22.1.3	c) test functions; and	☐	☐	☐	
		SANS1718-1 – 9.1C	
22.1.4	d) any other features deemed by the PLA to be restricted.	☐	☐	☐	
		SANS1718-1 – 9.1D	
22.2	**Set-up – Device configuration**	SANS1718-1 – 9.2	
22.2.1	**Configuration of variables**	SANS1718-1 – 9.2.1	
22.2.1.1	A variable required to be set during device configuration or set-up shall not be able to be changed except following a valid memory clearance, unless able to be changed by some other secure method certified by the CA. A GD shall not be able to be operated unless all configuration variables are set. A device may be configured remotely or by direct access by means of an approved mechanism. If memory becomes corrupted, a GD shall not assume default values and recommence gaming operation unless the assumed values have been configured by an approved mechanism.	☐	☐	☐	
		SANS1718-1 – 9.2.1.1	
22.2.1.2	A gamble feature bet option shall only be enabled or disabled in setup mode and the appropriate configuration change significant event shall be generated.	☐	☐	☐	
		SANS1718-1 – 9.2.1.2	
22.2.2	**Reconfiguration**	SANS1718-1 – 9.2.3	
22.2.2.1	The GD may be reconfigured to modify the following parameters, but only by a secure approved method: a) the mapping of random numbers to cards or symbols;	☐	☐	☐	
		SANS1718-1 – 9.2.2.1A	
22.2.2.2	b) the game or sets of games approved for play;	☐	☐	☐	
		SANS1718-1 – 9.2.2.1B	
22.2.2.3	c) denomination and tokenization; and	☐	☐	☐	
		SANS1718-1 – 9.2.2.1C	
22.2.2.4	d) the paytable.	☐	☐	☐	
		SANS1718-1 – 9.2.2.1D	
22.2.2.5	All configuration settings required for the proper operation of the GD shall be entered before the GD can enter "Play" mode. If all configuration settings required have not been entered, the GD shall detect this condition and remain disabled.	☐	☐	☐	
		SANS1718-1 – 9.2.2.2	

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22.2.3	**System security**	SANS1718-1 – 9.3			
22.2.3.1	The set of games offered to the player for selection, or their paytables, may be changed only by a secure approved method. No changes to the set of games offered to the player for selection (or to their paytables) are permitted while there are credits on the player's credit meter or while a game is in progress. NOTE The intention is to prevent any modification to the selection of games offered, or to their paytables, as the result of player history. The player may switch between any games offered without terminating the session.	☐ SANS1718-1 – 9.3.1	☐	☐	
22.2.3.2	Gaming equipment shall disable all player inputs and suspend all gaming functions while any of its secure area doors are opened or remain open.	☐ SANS1718-1 – 9.3.2	☐	☐	
22.2.3.3	Gaming equipment shall not have any functions or parameters adjustable by or through any separate computer, input device or input codes, except for the following: a) the adjustment of features that are wholly cosmetic (i.e. that do not affect functionality in any way);	☐ SANS1718-1 – 9.3.3A	☐	☐	
22.2.3.4	b) the downloading in an authorized manner of any software, data or operational parameter; and	☐ SANS1718-1 – 9.3.3B	☐	☐	
22.2.3.5	c) an approved configuration (set-up) mode.	☐ SANS1718-1 – 9.3.3C	☐	☐	
22.2.3.6	In general, the reactivation of a GM that has been deactivated shall require manual intervention by the gaming venue operator or the system operator. The following exceptions apply: a) if a door open event occurs other than a logic door open, the GM may reactivate automatically when the door is eventually closed;	☐ SANS1718-1 – 9.3.4A	☐	☐	
22.2.3.7	b) if the PIN retry limit is exceeded for a player's account card, the GM shall remain deactivated until the card is removed; and	☐ SANS1718-1 – 9.3.4B	☐	☐	
22.2.3.8	c) if the power supply to a GM fails, the GM is	☐	☐	☐	

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	deactivated as a matter of course. It is permitted for the GM to automatically reactivate itself unless it determines that there was a configuration or software change while the power was down, in which case the GM shall remain deactivated until manually reactivated. NOTE 2 The venue operator may choose to require manual reactivation in all cases.	SANS1718-1 – 9.3.4C			
22.2.3.9	Where a GD is unable to operate without the loss of any information (for example, metering, transactions or significant events), it shall immediately disable any further game play.	☐	☐	☐	
		SANS1718-1 – 9.3.5			
22.2.3.10	If a significant event has not already been logged (by the system or the GD) when deactivation occurs, the GD shall ensure that such an event is reported to the system as soon as possible.	☐	☐	☐	
		SANS1718-1 – 9.3.6			
22.2.4	**Master reset**	SANS1718-1 – 9.4			
22.2.4.1	Following the initiation of a master reset procedure (using an approved RAM clear method), the game program shall execute a routine which initializes each and every bit in RAM to the default state.	☐	☐	☐	
		SANS1718-1 – 9.4.1			
22.2.4.2	There shall be no provision for an easily accessible "master reset" button/switch to reset the meters or other areas of electronically stored data (or both). RAM clears shall only be undertaken by accessing the logic area of the device that contains the critical RAM.	☐	☐	☐	
		SANS1718-1 – 9.4.2			
22.2.4.3	The default reel position or game display after a master reset shall not be a winning combination on any selectable line. The default game display upon entering game play mode shall also be a non-winning game. NOTE The selection of a specific "default" combination that is displayed after every reset is acceptable, as long as it is a non-winning combination (i.e. it need not be selected at random).	☐	☐	☐	
		SANS1718-1 – 9.4.3			
22.2.4.4	A configuration setting that is required to be entered during set-up mode immediately following a master reset shall not be able to be changed after the machine leaves set-up mode.	☐	☐	☐	
		SANS1718-1 – 9.4.4			
22.2.5	**Door open procedures**	SANS1718-1 – 9.5			
22.2.5.1	The following procedures shall be performed on the occurrence of any door open: a) any software state prior to door opening shall be saved;	☐	☐	☐	
		SANS1718-1 – 9.5A			

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22.2.5.2	b) any game play shall be saved in its current incomplete condition;	☐	☐	☐	
		SANS1718-1 – 9.5B	
22.2.5.3	c) if mechanical reels are spinning prior to the door opening, the reels shall continue spinning after the door is closed; NOTE There should not be a false impression created that the game achieved a result while the door was open, or just prior to the door being opened.	☐	☐	☐	
		SANS1718-1 – 9.5C	
22.2.5.4	d) credit input shall be disabled (may be re-enabled for the duration of a credit input test or CDD test);	☐	☐	☐	
		SANS1718-1 – 9.5D	
22.2.5.5	e) the machine shall clearly indicate that the door has opened and game play is not possible;	☐	☐	☐	
		SANS1718-1 – 9.5E	
22.2.5.6	f) if in CDD payout, the CDD shall be turned off and the brake applied (may be re-enabled for the duration of a CDD test);	☐	☐	☐	
		SANS1718-1 – 9.5F	
22.2.5.7	g) all player inputs that can affect a play in progress shall be disabled (unless used in door open/test mode); and	☐	☐	☐	
		SANS1718-1 – 9.5G	
22.2.5.8	h) cashout of any kind to players shall be disabled.	☐	☐	☐	
		SANS1718-1 – 9.5H	
22.2.6	**Door close procedures**	SANS1718-1 – 9.6	
22.2.6.1	When any door is closed the software shall return to the condition prior to when the first door open state occurred, except when the GM detects that there has been a configuration or software change, in which case it shall send the appropriate message to the MCS. This means that a) a message or other indication stating that the door has closed, or other indication (i.e. such as the disappearance of a message or indication stating that the door was opened) shall be displayed; this may be for a preset period or until the next game play,	☐	☐	☐	
		SANS1718-1 – 9.6A	
22.2.6.2	b) any relevant player inputs shall be re-enabled,	☐	☐	☐	
		SANS1718-1 – 9.6B	
22.2.6.3	c) the alarm shall be turned off, and	☐	☐	☐	
		SANS1718-1 – 9.6C	
22.2.6.4	d) any incomplete game play when the event	☐	☐	☐	

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	occurred shall recommence from the beginning of the play or from the point at which interruption occurred and conclude normally, using the data that were saved previously.	SANS1718-1 – 9.6D			
22.2.7	**Audit mode**	SANS1718-1 – 9.7			
22.2.7.1	It shall always be possible to enter audit mode when the GD is in idle mode.	☐	☐	☐	
		SANS1718-1 – 9.7.1			
22.2.7.2	The device shall not be playable while auditing information is being displayed on the device.	☐	☐	☐	
		SANS1718-1 – 9.7.2			
22.2.7.3	It is not mandatory that auditing information be displayed on the device from which the information originates. The information may be displayed on an external device or on a computer (or on both) to which the GD has communicated such information.	☐	☐	☐	
		SANS1718-1 – 9.7.3			
22.2.7.4	It is preferred that all non-game specific player displays (for example, credit display, win display, bet display and collect display) are displayed in the same position for all games.	☐	☐	☐	
		SANS1718-1 – 9.7.4			
22.2.7.5	Audit mode shall include as a minimum, the following items: a) display of all electronic meter and display information;	☐	☐	☐	
		SANS1718-1 – 9.7.5A			
22.2.7.6	b) last game replay;	☐	☐	☐	
		SANS1718-1 – 9.7.5B			
22.2.7.7	c) display of GM identification (i.e. the identification number that uniquely identifies the GM to the monitoring and control system); and	☐	☐	☐	
		SANS1718-1 – 9.7.5C			
22.2.7.8	d) display of software or game identification, or both.	☐	☐	☐	
		SANS1718-1 – 9.7.5D			
22.2.8	**Demonstration mode**	SANS1718-1 – 9.8			
22.2.8.1	Demonstration mode (where implemented) may only be entered into by means of an approved secure method evaluated by the TL and certified by the CA, and only while a) the main door is open; and	☐	☐	☐	
		SANS1718-1 – 9.8.1A			
22.2.8.2	b) the GD is on-line to a data controller unit or bank controller.	☐	☐	☐	
		SANS1718-1 – 9.8.1B			

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22.2.8.3	While the GD is operating in the demonstration mode, there shall be clear notification that the GD is in that mode (for example, by tower light signal or on-screen message) and the main door of the GD shall be open at all times.	☐	☐	☐	
		SANS1718-1 – 9.8.2			
22.2.8.4	If soft meters are incremented in the demonstration mode, such credits shall be automatically cancelled upon the change of the GD from demonstration mode to game-play mode.	☐	☐	☐	
		SANS1718-1 – 9.8.3			
22.2.8.5	A GD in demonstration mode shall not be capable of being used as an off-line GD. Some suggested implementations which might help prevent such illegal activity, are: a) not to allow coins to be entered into the GD (i.e. lockout) except in accordance with approved coin test procedures;	☐	☐	☐	
		SANS1718-1 – 9.8.4A			
22.2.8.6	b) not to allow any coins out for credits in the GD except in accordance with approved CDD test procedures;	☐	☐	☐	
		SANS1718-1 – 9.8.4B			
22.2.8.7	c) to provide a spot on a touch screen or to interpret a button that shall credit the GM with a number of coins;	☐	☐	☐	
		SANS1718-1 – 9.8.4C			
22.2.8.8	d) if a "ticket" cashout is allowed, to clearly mark the ticket that is printed as a non-valid ticket, including a non-valid serial number (for example all zeroes or nines); and	☐	☐	☐	
		SANS1718-1 – 9.8.4D			
22.2.8.9	e) if the main door is closed, to let the GD immediately exit demonstration mode and return to game-play mode.	☐	☐	☐	
		SANS1718-1 – 9.8.4E			
22.2. 9	**Idle mode**	SANS1718-1 – 9.9			
22.2.9.1	While the GD is in idle mode, if there are credits showing on the credit display, the following shall remain on view until the next play: a) the bet display for the last play;	☐	☐	☐	
		SANS1718-1 – 9.9.1A			
22.2.9.2	b) the final reel stop positions, card values, etc. for the last game play; and	☐	☐	☐	
		SANS1718-1 – 9.9.1B			
22.2.9.3	c) the win display from the last play (unless a payout has occurred since completion of the last game play, and the "win" display has been used as a "collect" display).	☐	☐	☐	
		SANS1718-1 – 9.9.1C			
22.2.9.4	During idle mode, if a payout has occurred since	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
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	the completion of the last game play, the collect display that represents the payout shall be displayed. If multiple payouts have occurred since the last play, the collect display of the last payout only shall be displayed. Additionally, the cumulative payout amount may be displayed.	SANS1718-1 – 9.9.2			
22.2.9.5	Multigame GDs may have a "Game select" mode entered from "Idle" mode where the above information is not required to be displayed. If "Game select" mode is entered, it is necessary to display all of the information above when the same game is selected again (except as in 9.9.2 above).	☐	☐	☐	
		SANS1718-1 – 9.9.3			
22.2.10	**Test/service mode**	SANS1718-1 – 9.10			
22.2.10.1	While the GD is operating in the test mode, there shall be clear notification that the GD is in that mode (for example, by tower light signal or on-screen message).	☐	☐	☐	
		SANS1718-1 – 9.10.1			
22.2.10.2	Opening the main cabinet door of the GD may automatically place the GD in a service or test-mode. A test/diagnostics mode may also be entered by means of an appropriate instruction from an attendant during an "Audit" mode access.	☐	☐	☐	
		SANS1718-1 – 9.10.2			
22.2.10.3	If there are any test-mode states which cannot be automatically cancelled by closing the door (for example, if it is first necessary to manually set a switch) or exit from the "Audit" mode (if that was the method of entry to the "Test" mode), the action necessary shall be indicated on the machine and in the relevant manuals.	☐	☐	☐	
		SANS1718-1 – 9.10.3			
22.2.10.4	Test games, if implemented, shall a) not increment any meters, other than a temporary on-screen credit display;	☐	☐	☐	
		SANS1718-1 – 9.10.4A			
22.2.10.5	b) only be available after entering a specific test game mode within door open mode; and	☐	☐	☐	
		SANS1718-1 – 9.10.4B			
22.2.10.6	c) be clearly indicated as not in normal game play mode.	☐	☐	☐	
		SANS1718-1 – 9.10.4C			
22.2.10.7	The following information shall be accessible in test mode if not available in audit mode: a) the revision number for the game (and if applicable, base) software in the machine;	☐	☐	☐	
		SANS1718-1 – 9.10.5A			
22.2.10.8	b) set-up/configuration data; and	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
		SANS1718-1 – 9.10.5B			
22.2.10.9	c) the expected RTP.	☐	☐	☐	
		SANS1718-1 – 9.10.5C			
22.2.10.10	If a CDD test is implemented that does not require the door securing access to the CDD to be opened, no meters that are used to calculate revenue shall be affected.	☐	☐	☐	
		SANS1718-1 – 9.10.6			
22.2.10.11	If a "coin in" validation test is provided, the following conditions shall be met: a) the number of coins accepted as valid by the CAD shall be displayed;	☐	☐	☐	
		SANS1718-1 – 9.10.7A			
22.2.10.12	b) the number of coins that pass coin direction sensors shall be displayed; and	☐	☐	☐	
		SANS1718-1 – 9.10.7B			
22.2.10.13	c) no meters shall be affected. NOTE Alternative implementations such as providing indicators of the line status (jammed, activated, faulty, etc.) of the validator outputs and diverter outputs are acceptable if at least the same level of diagnostics is achieved.	☐	☐	☐	
		SANS1718-1 – 9.10.7C			
22.2.10.14	Coins shall not be capable of being paid out other than a) by normal play, unless in CDD test mode; or	☐	☐	☐	
		SANS1718-1 – 9.10.8A			
22.2.10.15	b) by a CDD dump function.	☐	☐	☐	
		SANS1718-1 – 9.10.8B			
22.2.10.16	If there is a possibility that credits can be obtained whilst the machine is in test mode, those credits shall be automatically cancelled when the door is closed and shall not be credited to the meters.	☐	☐	☐	
		SANS1718-1 – 9.10.9			
22.2.10.17	When the GD is in test, demo or service mode, the current play-mode status of the game, including player's credit, shall be preserved.	☐	☐	☐	
		SANS1718-1 – 9.10.10			
22.2.10.18	Where the possibility exists to obtain credits whilst the door is open for any purpose (for example, coin-in test) including the service mode, such credits shall be automatically cancelled when the door is closed and shall not be credited to any meters.	☐	☐	☐	
		SANS1718-1 – 9.10.11			
22.2.10.19	A message or code indicating that the machine is in test, demo or service mode shall be clearly displayed.	☐	☐	☐	
		SANS1718-1 – 9.10.12			
22.2.11	**Power save mode**	SANS1718-1 – 9.11			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #	
22.2.11.1	If a GD has a "Power save" mode it shall only be activated when the GD has been idle for a period of time not less than 5 min, or when the GD is in a disabled state. For the purposes of this subclause, a GD shall be defined as being "idle" if, for the nominated duration, it a) does not have any key switch activated (for example, accessing "Audit" mode);	☐	☐	☐	
		SANS1718-1 – 9.11.1A	
22.2.11.2	b) does not have any door open;	☐	☐	☐	
		SANS1718-1 – 9.11.1B	
22.2.11.3	c) has no credits on the player prize display yet to be transferred to the player's credit display;	☐	☐	☐	
		SANS1718-1 – 9.11.1C	
22.2.11.4	d) has not had any coins or banknotes input;	☐	☐	☐	
		SANS1718-1 – 9.11.1D	
22.2.11.5	e) has not had its touch screen touched;	☐	☐	☐	
		SANS1718-1 – 9.11.1E	
22.2.11.6	f) has not had any button pressed;	☐	☐	☐	
		SANS1718-1 – 9.11.1F	
22.2.11.7	g) does not have any fault condition; or	☐	☐	☐	
		SANS1718-1 – 9.11.1G	
22.2.11.8	h) does not have any electronic funds transfer or credit transfer to or from the GD pending. NOTE 1 Power save mode should be capable of being enabled or disabled by staff by means of set-up mode, or by means of the monitoring system (if applicable). NOTE 2 Power save mode may be activated manually (i.e. by means of an auxiliary power switch or key switch) and in this case the conditions listed above are void.	☐	☐	☐	
		SANS1718-1 – 9.11.1H	
22.2.11.9	While in "Power save" mode, power may be removed from the coin diverter, incandescent display, monitor and all fluorescent lights. Critical security functions of the GD shall still be performed.	☐	☐	☐	
		SANS1718-1 – 9.11.2	
22.2.11.10	The GD shall exit from "Power save" mode and return to the normal display mode immediately upon it ceasing to be "idle" (if not using a manual power save implementation).	☐	☐	☐	
		SANS1718-1 – 9.11.3	
22.2.12	**Mechanical reels and wheels**	SANS1718-1 – 9.12	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
22.2.12.1	Microprocessor-controlled reels (for example, stepper motor reels) shall automatically respin to the last legally obtained play-mode result when the play mode is re-entered (for example, when the main door is closed, power is restored, audit mode is exited, or when a fault condition is cleared).	☐ SANS1718-1 – 9.12.1	☐	☐	
22.2.12.2	Reel bounce and float shall be prevented when a spinning reel is being stopped.	☐ SANS1718-1 – 9.12.2	☐	☐	
22.2.12.3	Each microprocessor-controlled reel shall spin at least one revolution per play unless stopped by player intervention as provided for in the rules of the game.	☐ SANS1718-1 – 9.12.3	☐	☐	
22.2.12.4	A reel or a wheel assembly shall be so designed that the spin of each reel is not obstructed by any other component.	☐ SANS1718-1 – 9.12.4	☐	☐	
22.2.12.5	Microprocessor-controlled reels shall be monitored to detect malfunctions such as a reel that is jammed, or is not spinning freely, or has failed to stop, or any attempt to manipulate its final resting position.	☐ SANS1718-1 – 9.12.5	☐	☐	
22.2.12.6	The control of electromechanically controlled display devices, such as spinning wheels and roulette wheels, shall be sufficient to enable the system to detect a malfunction or an attempt to interfere with the correct operation of that device. This may also be achieved by a last game recall facility.	☐ SANS1718-1 – 9.12.6	☐	☐	
22.2.12.7	Reel assemblies shall have a clearly identifiable reference point at which the start of the strip symbol artwork is located.	☐ SANS1718-1 – 9.12.7	☐	☐	
22.2.12.8	Reel assemblies shall be so constructed that winning symbol combinations match up with the pay lines.	☐ SANS1718-1 – 9.12.8	☐	☐	
22.2.13	**Video displays**	SANS1718-1 – 9.13			
22.2.13.1	An attract mode may be used, as long as the information required while in idle mode is displayed after the attract mode has completed its cycle.	☐ SANS1718-1 – 9.13.1	☐	☐	
22.2.13.2	If the display is over-written by the paytable, on restoration of the game screen the same display, that shows the winning combination resulting from the last game played, shall be suitably highlighted.	☐ SANS1718-1 – 9.13.2	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
22.2.13.3	Screen save functions are subject to the following constraints: a) any screen save function shall only be activated when there are no credits on the machine;	☐	☐	☐	
		SANS1718-1 – 9.13.3A			
22.2.13.4	b) if a fault condition exists on the machine when the program enters the screen save function, the nature of the fault shall be displayed, otherwise the machine shall exit the screen save; and	☐	☐	☐	
		SANS1718-1 – 9.13.3B			
22.2.13.5	c) the screen save mode shall cease upon the occurrence of any of the following: 1) the activation of an input device; 2) any door opening; or 3) an error event condition.	☐	☐	☐	
		SANS1718-1 – 9.13.3C			
22.2.13.6	Touch screens, if used, shall comply with the following: a) touch screens, which are accessed by the general public, shall be resistant to scratching from conditions likely to occur during normal use;	☐	☐	☐	
		SANS1718-1 – 9.13.4A			
22.2.13.7	b) touch screens shall be accurate, and once calibrated, shall maintain that accuracy for at least the manufacturers recommended maintenance period;	☐	☐	☐	
		SANS1718-1 – 9.13.4B			
22.2.13.8	c) touch screens shall be designed and installed such that static build-up is minimized to a level that ensures no humanly perceptible static is discharged through a grounded patron that touches the screen;	☐	☐	☐	
		SANS1718-1 – 9.13.4C			
22.2.13.9	d) GDs that employ touch screens shall have a recalibrating facility that may be either manual or automatic, but in any case shall not require access to a logic area;	☐	☐	☐	
		SANS1718-1 – 9.13.4D			
22.2.13.10	e) touch screen selected input shall always be interpreted accurately and acted upon in accordance with the description of the choice (indicated on the screen) made by the player;	☐	☐	☐	
		SANS1718-1 – 9.13.4E			
22.2.13.11	f) if the opening of the GD door is found to affect touch screen calibration and recalibration is carried out with the door open, there shall be in place means to ensure that the recalibration is correct when the door is closed (for example, two sets of calibrations: one for door open and one for door closed);	☐	☐	☐	
		SANS1718-1 – 9.13.4F			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
22.2.13.12	g) touch screen button icons shall be sufficiently separated to reduce chances of the wrong icon being selected due to incorrect calibration or parallax errors; and	☐	☐	☐	
		SANS1718-1 – 9.13.4G			
22.2.13.13	h) all buttons and touch points shall be documented for evaluation by the TL and certification by the CA.	☐	☐	☐	
		SANS1718-1 – 9.13.4H			
22.2.14	Electronic funds transfer system	SANS1718-1 – 9.14			
22.2.14.1	A GM shall retain a card used for EFT gaming within the card reading device, once inserted, except if an amount debited from the card is placed directly on the credit meter and no further transactions are required from the card (for example, updating of account balance or credit out). The GM shall not release the card until one of the following conditions are met: a) a player has requested a collect of remaining credits and all updating of account records or information (or both) has been successfully completed;	☐	☐	☐	
		SANS1718-1 – 9.14A			
22.2.14.2	b) a player has a zero credit balance and all updating of account records or information (or both) has been successfully completed;	☐	☐	☐	
		SANS1718-1 – 9.14B			
22.2.14.3	c) an invalid card event condition has been cleared by an approved method; or	☐	☐	☐	
		SANS1718-1 – 9.14C			
22.2.14.4	d) power or communications failure (except that, if conditions (a) and (b) above are met, the GM may release the card after successfully completing the updating of account records or information, or both).	☐	☐	☐	
		SANS1718-1 – 9.14D			
22.2.15	Player input	SANS1718-1 – 9.15			
22.2.15.1	The player's selected input shall be interpreted correctly and acted upon in accordance with the description of the choice as indicated on the labelling artwork or display.	☐	☐	☐	
		SANS1718-1 – 9.15.1			
22.2.15.2	A GD shall not be affected by the simultaneous or sequential activation of the various inputs.	☐	☐	☐	
		SANS1718-1 – 9.15.2			
22.2.15.3	In regard to multiline games, each additional line that is brought into play by the wagering of a further credit or credits shall be clearly so indicated by the game that the player is in no doubt as to which lines are in play.	☐	☐	☐	
		SANS1718-1 – 9.15.3			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
22.2.15.4	In the case of multiline games, the winning play line(s) shall be clearly highlighted to the player. This may be accomplished by drawing a line over the symbols on the play line(s) or by flashing of winning symbols and line selection box (or both). Where there are wins on multiple lines, alternative indication (for example alternate flashing of winning patterns) may be given.	☐	☐	☐	
		SANS1718-1 – 9.15.4			
22.2.16	**Jackpot controllers and displays**	SANS1718-1 – 9.16			
22.2.16.1	**General requirements**	SANS1718-1– 9.16.1			
22.2.16.1.1	Jackpots or progressive jackpots shall comply with the following: a) the winning of the jackpot or progressive jackpot shall be determined by a GD that participates in the jackpot or progressive jackpot, and	☐	☐	☐	
		SANS1718-1 – 9.16.1A			
22.2.16.1.2	b) the winning of the jackpot or progressive jackpot shall be based upon a random event, and	☐	☐	☐	
		SANS1718-1 – 9.6.1B			
22.2.16.1.3	c) there shall be an equally likely chance that the winning of the jackpot or progressive jackpot may occur at all times for each play of a GD that contributes to the progressive prize, and	☐	☐	☐	
		SANS1718-1 – 9.16.1C			
22.2.16.1.4	d) there shall be clear indication of which device won the jackpot or progressive jackpot in a backto- back hit situation.	☐	☐	☐	
		SANS1718-1 – 9.16.1D			
22.2.16.1.5	e) if a minimum bet amount exists in order for a player to participate in a linked jackpot, then the player shall be notified accordingly. NOTE These requirements do not apply to mystery jackpots.	☐	☐	☐	
		SANS1718-1 – 9.16.1E			
22.2.16.2	**Handling of faults**	SANS1718-1– 9.16.2			
22.2.16.2.1	If a jackpot controller or a display device exhibits a fault or if communications are lost for any reason, the software shall, where possible, notify the system that monitors the jackpot controller about such interruption. This does not apply to stand-alone jackpot controllers. When a controller fault occurs, it is preferred that it alternates the displays between the current amount and an appropriate fault message (this may not be applicable for purely BCD driven displays). Provision shall be made for resolving the problem that occurs if the system determines that a jackpot has been won, but the link to the jackpot controller becomes inoperable (e.g. offline jackpot).	☐	☐	☐	
		SANS1718-1 – 9.16.2			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
22.2.16.3	**Display requirements**	SANS1718-1– 9.16.3			
22.2.16.3.1	The jackpot or progressive jackpot value shall be accurate to one (1) cent at the time of a win, utilizing the principle of rounding up values greater than or equal to 0,5 and rounding down values less that 0,5 to the closest cent in the calculation of the value.	☐ SANS1718-1 – 9.16.3.1	☐	☐	
22.2.16.3.2	The jackpot or progressive jackpot display shall never exceed the amount accrued.	☐ SANS1718-1 – 9.16.3.2	☐	☐	
22.2.16.4	**Jackpot awards**	SANS1718-1– 9.16.4			
22.2.16.4.1	There shall be a clear visual indication of the winning of a jackpot or progressive jackpot on the gaming floor.	☐ SANS1718-1 – 9.16.4.1	☐	☐	
22.2.16.4.2	The progressive controller shall accommodate the situation where two jackpots are awarded "back-to-back" (that is, are awarded before the controller has reset the progressive display).	☐ SANS1718-1 – 9.16.4.2	☐	☐	
22.2.16.4.3	The jackpot system shall provide the GD that triggered the jackpot or progressive jackpot with the amount of the jackpot or progressive jackpot won.	☐ SANS1718-1 – 9.16.4.3	☐	☐	
22.2.16.4.3	The jackpot system shall provide the GD that triggered the jackpot or progressive jackpot with the amount of the jackpot or progressive jackpot won. NOTE A jackpot may be a winning of a fixed amount or a variable amount that has been increased as a result of play on a GD or group or pool of GDs.	☐ SANS1718-1 – 9.16.4	☐	☐	
22.2.16.5	**Controller requirements**	SANS1718-1– 9.16.5			
22.2.16.5.1	Jackpot and progressive jackpots shall be monitored and controlled at all times. If the jackpot controller is a stand-alone unit, then there shall be a secure facility to access the jackpot meter information.	☐ SANS1718-1 – 9.16.5.1	☐	☐	
22.2.16.5.2	A progressive jackpot may be controlled by any of the following: a) the game (progressive);	☐ SANS1718-1 – 9.16.5.2A	☐	☐	
22.2.16.5.3	b) the progressive jackpot controller; and	☐ SANS1718-1 – 9.16.5.2B	☐	☐	
22.2.16.5.4	c) the jackpot server.	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
		SANS1718-1 – 9.16.5.2C			
22.2.16.5.5	When a progressive jackpot prize amount reaches a cap or ceiling value, all additional contributions shall be credited to a diversion pool that shall prevent such further contributions being absorbed into casino revenue.	☐	☐	☐	
		SANS1718-1 – 9.16.5.3			
22.2.16.5.6	Where a "master controller" employs "slave controllers" to control a linked progressive jackpot, jackpot hit events shall be time-stamped and the master controller shall ensure that a) all slave controllers are time-synchronized, and	☐	☐	☐	
		SANS1718-1 – 9.16.5.4A			
22.2.16.5.7	b) the minimum time increment is not less than the total time taken to 1) register that a jackpot has displayed, 2) lock up the winning device, and 3) reset the progressive meter.	☐	☐	☐	
		SANS1718-1 – 9.16.5.4B			
22.2.16.6	**Security of jackpot parameters**	SANS1718-1– 9.16.6			
22.2.16.6.1	The method by which system jackpot parameter values are modified or entered shall be secure. Parameters to be addressed are a) increment values,	☐	☐	☐	
		SANS1718-1 – 9.16.6A			
22.2.16.6.2	b) secondary pool increments,	☐	☐	☐	
		SANS1718-1 – 9.16.6B			
22.2.16.6.3	c) reset values,	☐	☐	☐	
		SANS1718-1 – 9.16.6C			
22.2.16.6.4	d) maximum values, and	☐	☐	☐	
		SANS1718-1 – 9.16.6D			
22.2.16.6.5	e) GDs that participate. If parameters are changed on a jackpot that is	☐	☐	☐	
		SANS1718-1 – 9.16.6E			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
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	active, the application of these changes shall not apply until the jackpot is won other than by a full RAM reset. The current jackpot amounts, including overflow meters, shall be able to be set once per RAM reset in configuration mode. The default values shall be the reset amounts and game play shall not be permitted until the current values are set to a value equal to or greater than the default value and accepted (or the default values have been accepted). A Mystery Jackpot that uses a hidden jackpot amount to determine the jackpot win shall not change the hidden jackpot amount when the parameters are changed if the jackpot is active (i.e. had any jackpot contributions added to it).				
22.2.16.7	**Mystery and random awards**	SANS1718-1– 9.16.7			
22.2.16.7.1	The TL shall verify that the existence or operation of a Mystery or Random award on a GD does not affect the complaint operation of that GD.	☐	☐	☐	
		SANS1718-1 – 9.16.7.1			
22.5	**Game play**	SANS1718-1– 10.10			
22.5.1	**Game initiation**	SANS1718-1– 10.10.1			
22.5.1.1	A GD shall only initiate game play a) after credits have been registered, and	☐	☐	☐	
		SANS1718-1 – 10.10.1.1A10.12.1.1A			
22.5.1.2	b) after the player has nominated the number of credits to bet on that game, and	☐	☐	☐	
		SANS1718-1 – 10.10.1.1B			
22.5.1.3	c) after the player has pressed a "play" button (or similar input, for example a touch screen), or	☐	☐	☐	
		SANS1718-1 – 10.10.1.1C			
22.5.1.4	d) after the player has inserted the maximum bet. NOTE Where the above are combined, such as with "auto-play" buttons, or where pressing the "play" button causes a default number of credits to be selected, such facilities should be acceptable, provided that these functions are clearly explained in game instructions (for example, on button artwork).	☐	☐	☐	
		SANS1718-1 – 10.10.1.1D			
22.5.1.5	If an autoplay mode is incorporated, it shall be possible to turn this mode on or off at any time during game play.	☐	☐	☐	
		SANS1718-1 – 10.10.1.2			
22.5.2	**Multigame machines**	SANS1718-1– 10.10.2			
22.5.2.1	The methodology employed by a patron to select	☐	☐	☐	

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	and discard a particular game for play on a multigame GD shall be clearly explained to the patron on the GD, and be easily followed. The GD shall clearly inform the patron of all games available at that time and offer them for selection.	SANS1718-1 – 10.10.2.1			
22.5.2.2	It shall not be possible to start a new game before the current play is completed and all relevant meters and displays have been updated (including features and other options of the game) unless the action to start a new game terminates the current play in an orderly manner.	☐	☐	☐	
		SANS1718-1 – 10.10.2.2			
22.5.2.3	Machines that offer multiple games shall at all times indicate to the player which game has been selected for play or is being played. The player shall not be forced to play a game just by selecting that game.	☐	☐	☐	
		SANS1718-1 – 10.10.2.3			
22.5.3	**Tokenization**	SANS1718-1– 10.10.3			
		SANS1718-1– 10.12.3			
22.5.3.1	Devices that implement tokenization shall ensure that if a sequence of higher value coins is entered, no credits shall be lost even if there is a power failure of the gaming equipment before all of the credits are incremented to the player's balance.	☐	☐	☐	
		SANS1718-1 – 10.10.3.1			
22.5.3.2	Tokenization parameters shall either be hard-coded, or be able to be configured during the configuration of the GD.	☐	☐	☐	
		SANS1718-1 – 10.10.3.2			
22.5.3.3	Tokenization and denomination configurable parameter options shall never allow the maximum stake or maximum prize values set by legislation (see foreword) to be exceeded.	☐	☐	☐	
		SANS1718-1 – 10.10.3.3			
22.6	**Feature games**	SANS1718-1– 10.11			
22.6.1	In all cases, except for gamble features, the number of credits bet on feature games shall be added to the total bet meter regardless of whether they are bet from the credits won in the base game or not, and shall be subtracted from the player's credit display.	☐	☐	☐	
		SANS1718-1 – 10.11.1			
22.6.2	If a base game can be followed by feature games, the credits won at the end of each feature shall be added to the player's win display and to the total win meter.	☐	☐	☐	
		SANS1718-1 – 10.11.2			
23	**Significant events requirements**	SANS1718-1 – 12			**INFORMATION ONLY**

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23.1	**General**	SANS1718-1- 12.1			

Where this part of SANS 1718 states that the system shall detect and record significant events, a particular implementation is not implied. As long as the CA can be assured that these events are detected and reported, the method that is used to do so is of little concern. However, if it is stated in this part of SANS 1718 that the GD shall detect and record an event, the GD shall be programmed to create the event response internally, pass it to the host of the system as soon as possible and, where required, deactivate game play. This clause provides a summary of the significant events. In the case of each significant event, the type of event (relative to requirements for deactivation and reactivation) is indicated. Each of the significant events shall be tested during the formal acceptance tests. In the following list, four types of significant event are defined:

a) type 1: information only (no deactivation);

b) type 2: events that lead to automatic deactivation but also allow for immediate automatic reactivation when the problem is solved (for example, authorized door open);

c) type 3: events that lead to automatic deactivation and require manual reactivation; and

d) type 4: events that lead to automatic deactivation and require manual reactivation, but only after the PLA audit procedures have been followed. These procedures might involve immediate approval for reactivation, or the approval could be withheld until physical inspection by an PLA inspector is completed. To some significant events a suffix "/R" is appended, which means that the event has to be reported by the system in the daily Type 4 Events Report. Note that not all events with this description are type 4 events. By definition, all type 4 events shall be reported.

NOTE The phrase "manual reactivation" is understood to include closing of the logic door (if necessary) or turning of a reset key.

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23.1.1	Significant events other than type 1 that occur on a GD shall cause a clearly displayed message that an event has occurred and, unless otherwise indicated, shall also result in the following: a) all player inputs shall be disabled, including coin and banknote input;	☐	☐	☐	
		SANS1718-1 – 12.1.3A			
23.1.2	b) an identifiable alarm shall be activated, which may be either a tower light or a sound of at least 1,5 s duration (or both);	☐	☐	☐	
		SANS1718-1 – 12.1.3B			
23.1.3	c) any game result shall be saved; the reels or video display shall not display a false game outcome; and	☐	☐	☐	
		SANS1718-1 – 12.1.3C			
23.1.4	d) if the GD was in CDD payout, the CDD shall be turned off and the brake applied.	☐	☐	☐	
		SANS1718-1 – 12.1.3D			
23.1.5	The following actions shall be performed, if possible, on clearing of the fault on a GD: a) any messages shall be removed;	☐	☐	☐	
		SANS1718-1 – 12.1.4A			
23.1.6	b) any relevant player inputs shall be re-enabled;	☐	☐	☐	
		SANS1718-1 – 12.1.4B			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
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23.1.7	c) the alarm shall be turned off; and	☐	☐	☐	
		SANS1718-1 – 12.1.4C			
23.1.8	d) any game play when the fault event occurred shall recommence from the beginning of the play	☐	☐	☐	
	or from the point at which the interruption occurred and conclude normally, using the data that were saved previously.	SANS1718-1 – 12.1.4D			
23.1.9	Generic significant events are applicable to all GDs controlled by the system. All generic significant events shall be detected and notified as soon as possible, but before any game can be played.	☐	☐	☐	
		SANS1718-1 – 12.1.5			
23.1.10	All GD fault conditions shall activate an alarm, which shall include either a tower light or sound (or both).	☐	☐	☐	
		SANS1718-1 – 12.1.6			
23.1.11	To assist with service and fault diagnosis, the nature of the event shall be displayed.	☐	☐	☐	
		SANS1718-1 – 12.1.7			
23.2	**GD/Terminal events**	SANS1718-1 – 12.2			
23.2.1	Configuration change (type 4)	☐	☐	☐	
	Change of denomination, switches or jumpers, etc.	SANS1718-1 – 12.2.1			
	The GD shall detect and report any configuration changes made to the device (even if the power is off when this occurs or the GD is not able to communicate with the system) and pass it to the system before game play is reactivated.				
	NOTE 1 It is acceptable if the GD only detects the changes when restarting.				
	NOTE 2 Reportable changes include any change to any configuration that alters the metering or the game outcome or the RTP of the game. Examples of non-reportable changes might include the volume, or a setting which may enable or disable a peripheral, or the visual aesthetics of the GM.				
23.2.2	Master reset (type 3 casino and type 4 LPM)	☐	☐	☐	
	Intentional memory clear of the RAM and other volatile memory of GD has occurred.	SANS1718-1 – 12.2.2			
23.2.3	Error detected in volatile memory ((type 3 casino and type 4 LPM)	☐	☐	☐	
	Failure of internal test. The failure of some test(s) means that the GD cannot function correctly, in which case it shall disable itself immediately after reporting the event to the monitoring and control system (if possible).	SANS1718-1 – 12.2.3			

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
23.2.4	Logic area access (type 4)	☐	☐	☐	
	Opening of the logic area door. The GD shall detect the opening of the logic area door (or access to the logic area).	SANS1718-1 – 12.2.4			
23.2.5	Logic area closed (type 1)	☐	☐	☐	
	A sensor registers that a logic door has been closed.	SANS1718-1 – 12.2.5			
23.2.6	Power on (type 1)	☐	☐	☐	
	AC power is applied to the device and power is successfully restored and the device can operate.	SANS1718-1 – 12.2.6			
23.2.7	Enter test/audit mode (type 2)	☐	☐	☐	
	If the GD has a test mode or special staff/audit mode, a significant event shall be signalled when such mode is entered.	SANS1718-1 – 12.2.8			
23.2.8	Exit test/audit mode (type 2)	☐	☐	☐	
	If the GD has a test mode or special staff/audit mode, a significant event shall be signalled when such mode is exited.	SANS1718-1 – 12.2.9			
23.2.9	"Coin in tilt" or "Coin out tilt" (type 2)	☐	☐	☐	
	Sensors in the coin path shall indicate when a coin is jamming the path.	SANS1718-1 – 12.2.10			
23.2.10	CDD empty/malfunction (type 2)	☐	☐	☐	
		SANS1718-1 – 12.2.11			
23.2.11	"CDD runaway", "coin out tilt" or "extra coin(s) paid" (type 2)	☐	☐	☐	
	One or more coins are improperly paid by the CDD.	SANS1718-1 – 12.2.12			
23.2.12	General enclosure access (type 2)	☐	☐	☐	
	Opening of outer enclosure door, excluding the drop box door. This message shall be sent by the GM if it has noticed any interference, such as the changing of counters or insertion of coins, while this door is open. When the message is sent, the monitoring and control system shall add the staff card number to the event message. If no card number is available, the message shall be tagged as an unauthorized access by the monitoring and control system.	SANS1718-1 – 12.2.13			
23.2.13	Drop box door open (type 1)	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
		EXTERNAL REF #			
	Opening of drop box door. When the message is sent, the monitoring and control system shall add the staff card number to the event message. If no card number is available, the message shall be tagged by the monitoring and control system as an unauthorized access.	SANS1718-1 – 12.2.14			
23.2.14	Enclosure door closed (type 2) A sensor registers that a door has been closed.	☐	☐	☐	
		SANS1718-1 – 12.2.15			
23.2.15	Cancel credit (type 2) Any incident of a manual cancel credit (for example, due to book/hand pay) shall indicate a significant event. The value of the credits shall be included in the significant event report.	☐	☐	☐	
		SANS1718-1 – 12.2.16			
23.2.16	Low memory back-up battery (type 4) The voltage that is produced by the battery or another device for maintaining the contents of RAM is approaching a level below which the memory cannot be maintained for a minimum of 72 h without mains power and data might be lost or corrupted.	☐	☐	☐	
		SANS1718-1 – 12.2.17			
23.2.17	Coin interference (type 2/R) External interference with a coin/token acceptor or validator. This refers to coin yo-yo, stringing, etc.	☐	☐	☐	
		SANS1718-1 – 12.2.18			
23.2.18	Reel error (type 2) A reel position does not agree with software control.	☐	☐	☐	
		SANS1718-1 – 12.2.19			
23.2.19	Banknote receptacle is removed (if the banknote storage area uses a receptacle) (type 2) The GD shall automatically disable itself, after reporting the event to the monitoring and control system.	☐	☐	☐	
		SANS1718-1 – 12.2.20			
23.2.20	Banknote storage area access (type 2)	☐	☐	☐	

BMM REF #	DESCRIPTION	PASS	FAIL	N/A	NOTES
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	This message is sent by the GM when the banknote storage area is accessed. When the message is sent, the monitoring and control system shall add the staff card number to the event message. If no card number is available, the message shall be tagged as an unauthorized access by the monitoring and control system. NOTE This message is intended for use only with GMs where the banknote storage area is external.	SANS1718-1 – 12.2.21			
23.2.21	Banknote acceptor mechanism is disconnected (type 1)	☐	☐	☐	
		SANS1718-1 – 12.2.21			
23.2.22	Enter Demonstration Mode (type 2/R) Where demonstration mode is permitted by legislation (see foreword), and the GD enters this mode, it shall create and transmit a type 2/R event.	☐	☐	☐	
		SANS1718-1 – 12.2.24			
23.2.23	Exit Demonstration Mode (type 2/R) Where demonstration mode is permitted by legislation (see foreword), and the GD exits this mode, it shall create and transmit a type 2/R event.	☐	☐	☐	
		SANS1718-1 – 12.2.25			
23.2.24	Printer failure (type 2) The software shall register and react to any printer fault conditions, and shall allow the machine to complete the printing of the current ticket, if possible, and then pause printing and display an appropriate on-screen message until the problem has been solved and rectified.	☐	☐	☐	
		SANS1718-1 – 12.2.26			
23.2.25	Communication failure (type 2/R) Failure of communication link between GD and the next point in the monitoring system. Failure is defined as the inability to send messages to or, where applicable, to receive messages from the monitoring and control system.	☐	☐	☐	
		SANS1718-1 – 12.2.27			
23.2.26	Software validation or signature failure (type 3)	☐	☐	☐	

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	It is assumed that modification or unauthorized reading (or both) of the contents of the restricted components of the GD or loading of unapproved software (or both) could have occurred. The GD shall be manually reactivated, after the PLA audit procedures (if any) are satisfied. NOTE Equipment in a casino environment does not need to be capable of doing signature checking in response to a request from the MCS.	SANS1718-1 – 12.2.23			
23.3	**Player/staff/MCS cards**	SANS1718-1 – 12.3			
23.3.1	Unauthorized card (type 1/R) Use of a stolen or unauthorized staff machine card or player card. The GD card reader shall not accept an illicit card or a card that is not authorized for use at that specific time.	☐ SANS1718-1 – 12.3.1	☐	☐	
23.3.2	Unauthorized staff PIN (type 1/R) Incorrect PIN entered three times consecutively with a staff machine card. The system shall ensure that the card is blocked from any further use. NOTE It is not necessary to disable the GD or the player interface.	☐ SANS1718-1 – 12.3.2	☐	☐	
23.3.3	Unauthorized player PIN (type 1) Incorrect PIN entered three times consecutively with a player card. The system shall ensure that the card is blocked from any further use. NOTE It is not necessary to disable the GD or the player interface.	☐ SANS1718-1 – 12.3.3	☐	☐	
23.4	**Banknote acceptance**				
23.4.1	Banknote reject state (type 1) The GD shall report banknote reject events to the monitoring and control system.	☐ SANS1718-1 – 12.4	☐	☐	

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:

Signature: _____ **Completion Date:** _____