

Program Summary Report: S+ Stepper Slot Version SP857 (Mini Bertha)

COMPLETE SET OF SLOT GAME CHIPS

- Game EPROM** Erasable Programmable Read-Only Memory. The game program is stored on this EPROM. The EPROM is a 27C512 device, and the label indicates S-PLUS GAME, the EPROM version (SP857), and the game type.
- Data EPROM** The companion data EPROM is a 27C64 device that identifies the reel strip symbols and determines the game type, the pay table values, the number of reels, the maximum bet, and whether the game is a multi-line game, multi-coin game, scattered pay, or buy-a-pay game. The label indicates S-PLUS REEL and the SS number that identifies the pay table.
- Set-chip** IGT utility program SET005, SET015, or a later version, is required to enable/disable the bill acceptor (option 9) and modify the denomination (option 6). If the bill acceptor is disabled, the denomination may also be set in the self test mode. After all changes are complete, exit self test to save the changes.

GAME TYPE

Type 0 (no special features), and Type 4 (Spin 'Til You Win).

FEATURES AND CAPABILITIES

- Bill Acceptor** Acceptor model is jurisdiction-dependent, and uses bill validator software protocol version 2.5. Acceptable bill denominations are \$1, \$2, \$5, \$10, \$20, \$50, and \$100. The following exceptions are reported to SAS and XMISER: stacker jammed, cashbox removed, bill rejected, cashbox full, and hardware error. A reverse bill detected message is reported to SAS only. If the credit only option for paying bill credits is selected, the bill is paid as credits regardless of the current player initiated credit/noncredit selection. Use the set-chip to enable or disable the bill acceptor.
- Bill Rejection Feature** Bills will be rejected if any of the following conditions occur: a \$5 bill is inserted and the game denomination is \$2; a \$50 bill is inserted and the game denomination is \$20; the game denomination is higher than the bill denomination; or the credit value of the accepted bill plus any credits on the game exceeds the bill limit that is set in the self test mode.

Credit Limit	Automatically matches the maximum hopper setting that can be set by DIP switch or in the self test mode.
Denomination Modifications	Requires the denomination set-chip, unless the bill acceptor is disabled, in which case the denomination may be set in the self test mode. When the denomination is set to zero (none), the bill acceptor is disabled (if present), the game will not display progressive amounts and all progressive wins cause the game to go to a hand-pay lockup condition. The denomination can be set at \$.05, \$.10, \$.25, \$.50, \$1, \$2, \$5, \$10, \$20, \$25, \$50, \$100 or zero (none).
Electronic Funds Transfer	Not supported by this version.
Hand-Pay Lockup Display	The hand-pay display option is designed for use during a jackpot lockup condition and can be enabled or disabled in the self test mode. The amount to be hand paid by an attendant is displayed in the Credits and Winner Paid windows while the Coins Played window is blank. This information alternates with the amounts normally displayed in these windows. The hand-pay amount contains leading zeros instead of blanks so that it can be easily identified. This information is also displayed in the last 5 games recall. The tilt error codes 3100 (for an extra coin out) and 3200 (for a coin out tilt) will also appear in the alternating display if these conditions occur while the machine is in the hand-pay lockup condition.
Information Systems Compatibility	SIS/SDS (SMART), Bally's serial SDS (XMISER), and IGT SAS.
Machine-Generated Attendant Request	A bill rejection limit can be set in the self test mode and is designed to notify an attendant when a player is having difficulty inserting a bill into the bill acceptor. When the limit is reached, the change lamp is automatically turned on. Pressing the Change switch or inserting an acceptable bill clears the machine-generated attendant request. The Change switch should be pressed twice if the change lamp was turned on by the player prior to the machine-generated attendant request.
Mechanical Meters	Counts coins in, coins out, drop, jackpots x 10, canceled credits and games played.
Mystery Jackpot Feature	If the game is set to communicate with the Mikohn Super Controller, DIP switch four must be on. A machine address must be

assigned in the PSP machine address selection page in self test. If a Mystery Jackpot is sent by the Mikohn Super Controller, the amount is paid from the hopper at the end of the regular game in progress, regardless of the game's credit type. Two cumulative meters in the statistical data mode contain the Mystery Jackpot amounts that have been hand paid and hopper paid.

Progressive

- Features/Displays** Link or standalone progressive, single level, single level alternating, or double level progressive, and 8 x 8 progressive display. If the game is correctly set to communicate with the Mikohn Super Controller and the game is set to link progressive, the conventional link progressive system is disabled. If the PSP link fails during a game and a progressive win occurs, a hand-pay lockup condition occurs. The correct award amount must be obtained from the Mikohn Super Controller; the award amount appearing on the progressive display may be incorrect during a link failure.
- Reel Reset** To indicate that the reels are not spinning and stopping for a new game, the reels stop in reverse order (5, 4, 3, 2, 1) when resetting. The reels also stop in reverse order when the last game recall function is entered.
- Reel Stops** Capable of handling 512 stops per reel.
- Reel Tilt** If a tilt occurs while the reels are spinning, the reels spin very slowly until the tilt is cleared. When a tilt occurs any time other than during the random spinning period, the game will soft tilt and automatically reset itself three times. The fourth tilt is considered a hard tilt and requires an attendant to reset the machine. The soft tilt counters are independent for each reel and are cleared after each game or door closure.
- Two Stage Candle** The top level signifies tilt/change conditions; the bottom level signifies jackpot/door open conditions. If the drop door is opened and the drop door option is enabled, the door open candle flashes at twice the normal door open rate. If the game is disabled, both levels are lit.

CLEARING CMOS TILTS

A "61" error code appearing in the Winner Paid window indicates a CMOS error was encountered during a cold power up. A "61_2" error code appearing in the Winner Paid window indicates a recoverable CMOS memory error occurred. Clear these tilts by opening the door and pressing the self test switch for 2 to 3 seconds. A "61_1" error code will appear in the Winner Paid window. To clear this condition, close the door and turn the Jackpot Reset key. Upon clearing this tilt condition, external CMOS memory is cleared by the game only if the "61" error code was originally displayed

in the Winner Paid window. CMOS memory is not cleared if the "61_2" error code was originally displayed in the Winner Paid window.

DIP SWITCH OPTIONS

The dual in-line package switch selection chart is located on the processor board tray. The options for this machine are: max hopper pay, reel spin sound, PSP communication enable/disable, progressive enable/disable, high/low or alternating progressive, double or single progressive, and link or standalone progressive. The DIP switch configuration is displayed in the self test mode.

SELF TEST MODE

Pressing the self test switch or the Bet One Credit player switch "pages" forward through the self test mode, and pressing the Play Max Credits player switch pages backward. Changes or selections in the options pages may be made by pressing the Change switch or turning the jackpot reset key. The numbers appearing below enclosed in < > represent the self test page number, [] represent the option number, and { } represent the setting. The self test pages appear in the following order:

Accounting System

Communication Type Determines the communication type on channel A. Options are none {0}, Bally's serial SDS (XMISER) {1}, or IGT SAS {2}.

SAS Communication

Address <0> This page is displayed only if the communication type is SAS. When using the SAS protocol, a machine address is required to distinguish one machine from another. The valid address range is {001} to {127}.

PSP Machine Address

Selection <0> The PSP communication is always installed on channel B (printer port). This page allows the setting of the PSP communication address, which distinguishes one machine from another. If the PSP system is selected, the valid address range is 1 to 32. Press the Change switch to save the new address. A bell will sound when the new address has been saved.

Player Selectable

Credit <0> [5] Options are standard credit or noncredit {0}, player initiated credit {1} and player initiated noncredit {2}. The player initiated credit option will default to the noncredit mode when the credit meter remains at zero for more than 30 seconds, or when any accumulated credits are cashed out. The player initiated noncredit option defaults to the

- credit mode if the game is idle for 30 seconds, and remains in the credit mode when credits are cashed out.
- Mechanical Bell <0> [6] Options are ring on hand-pays only {0} or ring on all pays {1}.
- Drop-Door Switch
Enable/Disable <0> [7] This page is always displayed, but can only be programmed under the following conditions: if there is no communication on channel A, if the communication type is XMISER, or if the communication type is SAS with a zero mini system address. (The drop door option is automatically enabled with a non-zero SAS mini system address). Options are enabled {1} or disabled {0}. If enabled, opening the drop (cash) door causes the door open candle to flash at twice the door open rate, and the number of times the drop door is opened will be displayed in the statistical data mode.
- Bill Acceptor
Pay Mode <0> [8] This option can be set so that bills are always converted to credits on the machine {1}, or to follow the player selected credit {0}. If set to follow the player selected credit, bills will be converted to credits if the player has selected the credit mode, or paid from the hopper if the player has selected the noncredit mode.
- Bill Acceptor Enabled/
Disabled Display <0> [9] Indicates whether the bill acceptor is enabled {1} or disabled {0}.
- Extra Coins In
Option <0> [10] This option is not available.
- Hand-Pay Lockup Display
Option <0> [13] Options are enabled {1} or disabled {0}. If enabled, the hand-pay amount is displayed when the game goes into a hand-pay (jackpot) lockup condition.
- Bill Acceptor Tilt
Mode Selection <0> [16] This option can be changed only if the bill acceptor is enabled. Determines how bill acceptor tilts are handled. If set to no tilt {0}, game play continues. If set to soft tilt {1}, game play continues and the tilt lamp flashes until the tilt is cleared. Soft tilts can be cleared by a valid bill transaction, by closing the door, by entering the self test mode, by entering the display meters function in the statistical data mode, or by playing door open games. If set to hard tilt {2}, the bill acceptor is disabled, game play halts, and the tilt lamp flashes until the tilt is

	cleared. Hard tilts are cleared by opening and closing the main door.
Country Code <0> [30]	Determines the country code associated with the bill acceptor. Options are United States {37} or Canada {7}.
DIP Switch Configuration	
Display <0>	Displays whether the processor board DIP switches are on {1} or off {0}. The status of DIP switches 1 through 4 appears in the Winner Paid window, and the status of DIP switches 5 through 8 appears in the Credits window.
Input Tests <1>	Tests whether inputs (coin in optics, Bet One Credit player switch, etc.) are active or inactive.
Output Tests <2>	Tests whether outputs (Insert Coin lamp, Coin Accepted lamp, etc.) are active or inactive.
Sound Test	Tests sounds (coin insertion, maximum coins in, etc.).
Song Test	This page is displayed only if the game is type 4. Activates songs and allows selection of a song.
Display Test <8>	Tests illumination on the player digital display and verifies that the digital display is receiving correct signals from the processor board.
Hopper Test <3>	Tests the hopper operation by paying out ten coins.
Pay Table Test <4>	The game type (0 or 4) and reel strip numbers are alternately displayed in the Winner Paid window. The EPROM version number is displayed in the Credits window. To test the pay table values, press the Spin Reels player switch. The award for a one coin bet alternates with the award for the max coin bet in the Credits and Winner Paid windows.
Reel Strip Test <5>	Verifies that the symbols appearing on the reels are correct and that the reels spin to the correct stops.
Denomination Selection/ Display <6>	Displays the current denomination. The denomination selection is available only if the bill acceptor is disabled; otherwise, the set-chip must be used.
Max Hopper Pay <7>	Programmable only if DIP switches 1 and 2 are set for self test selection (on position); otherwise, this page is for display purposes only. Determines the maximum number of coins that may be paid out of the hopper.
Bill Acceptor Credit Limit <7>	Determines the maximum amount of credits that can be accumulated before the bill acceptor is disabled. The

limit must be less than the max hopper size or \$2,500, whichever is less.

- Partial Pay Selection <8> Determines the amount of coins to be paid from the hopper when a jackpot is hit, before a hand-pay lockup condition occurs. Cannot be set for an amount that is greater than the maximum hopper pay setting.
- Progressive #1 Selection <9> This page is displayed only if DIP switch 5 is set for progressive (on position) and 8 is set for standalone progressive (off position). This page determines the progressive reset value [1], maximum progressive amount [2], progressive percentage [3], and current progressive amount [4] for the single-level progressive.
- Progressive #2 Selection <9> This page is displayed only if DIP switch 5 is set for progressive (on position), 7 is set for double level progressive (on position), and 8 is set for standalone progressive (off position). This page determines the progressive reset value [5], maximum progressive amount [6], progressive percentage [7], and current progressive amount [8] for the double-level progressive.
- Link Progressive Display <9> This page is displayed only if DIP switch 5 is set for progressive (on position) and DIP switch 8 is set for link progressive (on position). The Winner Paid window indicates which levels are enabled {1} or {2}, and the Coins Played window = 9. Press the Spin Reels player switch to display progressive information. The Winner Paid window = first 3 digits of the progressive dollar amount, and the Credits window = last 4 digits of the progressive dollar amount (does not include decimal amounts). Both external displays also show the progressive amount. The Coins Played window = progressive level 1 or 2.
- Bill Rejection Limit <11> This page is displayed only if the bill acceptor is enabled. Determines the number of times bills can be rejected before the change lamp is switched on. The range is 0 to 99. If set to 0, the change lamp is not affected by rejected bills.
- Out of Service Page <90> If enabled {1}, this function renders the machine inoperative without turning the power off. The progressive displays and lamps are turned off, the change candle is lit, the

door candle flashes at the door open rate, and the digits 1 through 9 scroll across in the Winner Paid, Credits and Coins Played windows.

STATISTICAL DATA MODE

Turn the jackpot reset key clockwise to enter the statistical data mode. Press the Bet One Credit player switch, the Change switch, or turn the jackpot reset key to move forward from one function to the next, and press the Play Max Credits player switch to move backward.

Display Meters Function <01>:

The Coins Played window shows the category numbers 01 through 60. The Credits window and the Winner Paid window show the category totals. Press the Spin Reels player switch or pull the handle to move forward through the categories. The categories appear in the following order:

- 01 Coins in (total wagers)
- 02 Coins out
- 03 Coins dropped
- 04 Canceled credits (hand-paid cash out amount in coins)
- 05 Games played
- 06 Amount of jackpots in coins
- 07 Door opens
- 08 Games won
- 09 Games lost
- 10 Coin-in tilts
- 11 Coin-out tilts
- 12 Power resets
- 13 Hopper empty tilts
- 14-15 (Reserved)
- 16 Games played since last door closed
- 17 Games played since last power up
- 18-27 Games played with from 1 to 10 coins in (number of coins in displayed depends on options)
- 28 \$1 bills accepted
- 29 \$5 bills accepted
- 30 \$10 bills accepted
- 31 \$20 bills accepted
- 32 Bills accepted
- 33 Coins or credits dispensed for bills

- 34 \$1 bills accepted since last meter reset
- 35 \$5 bills accepted since last meter reset
- 36 \$10 bills accepted since last meter reset
- 37 \$20 bills accepted since last meter reset
- 38 Bills accepted since last meter reset
- 39 Coins or credits dispensed for bills since last meter reset
- 40 Dollar value of all bills accepted since last meter reset
- 41 Dollar value of all bills accepted
- 42 Drop door opens
- 43 Credits played
- 44 Credits won
- 45 Credits paid
- 46 Physical coins inserted
- 47 Coins dispensed by the hopper
- 48 \$2 bills accepted
- 49 \$50 bills accepted
- 50 \$100 bills accepted
- 51 \$2 bills accepted since last meter reset
- 52 \$50 bills accepted since last meter reset
- 53 \$100 bills accepted since last meter reset
- 54 (Reserved)
- 55 Promotional credits downloaded (not supported by this version)
- 56 Non-cashable credits downloaded (not supported by this version)
- 57 Credits cashed out to the system (not supported by this version)
- 58 Cashable credits downloaded (not supported by this version)
- 59 Hand-paid Mystery Jackpots in coins
- 60 Hopper-paid Mystery Jackpots in coins

Last 5 Games Played Function <2>:

Winner Paid = the number and the virtual position of the reel, beginning with the most recently completed game. Credits = game being displayed. If the game is type 4, the Credits window also indicates either 0 (standard game) or 1 (free spin). After the last reel has been displayed, the Coins Played, Winner Paid and Credits windows contain their normal information for the last game. The hand-pay information is also displayed during the last games recall if the hand-pay display option is enabled and a hand pay occurred.

Bill Acceptor Transaction <9>:

All LED displays show 9 until the Spin Reels player switch is pressed. Coins Played = last bill transaction 1 (most recent) through 5 (oldest). Winner Paid = number of coins dispensed or credits given beginning with the most recent transaction. Credits = bill denomination.

IGT Service Utility Information <3>:

Coins Played = 3.

Progressive Jackpot Recall <4>:

Winner Paid = a number from 50 to 1. The progressive display shows the amount won, beginning with the most recent jackpot awarded.

Electronic Funds Transfer (EFT) Transaction <5> through <9>:

Not supported by this version

Clearing Resettable Bill Meters <10>:

The resettable bill meters keep a count of the bill acceptor transactions since the last time the meters were cleared. If any of the resettable bill meters are not equal to zero, {8888} is displayed in both the Credits and Winner Paid windows. Press the Spin Reels player switch to clear the resettable meters. {0000} is displayed in the Credits and Winner Paid windows when the meters are cleared.

SAS EFT Meters Breakdown <12>:

Not supported by this version.

REFERENCES

Refer to the appropriate IGT publication for detailed information about S-Plus software and error resolutions: S-PLUS GAME SOFTWARE p/n 821-206-01, S-PLUS TROUBLESHOOTING p/n 821-207-00, or S-PLUS DIAGNOSTICS CARD SET p/n 821-154-04. Refer to the Reel Strip Listing for exact pay table information and symbol alignment on each reel.

For additional information or to order manuals, contact IGT Customer Service, 9295 Prototype Drive, Reno, Nevada, (USA) 89511; telephone 702-448-0364, between 8 a.m. and 4 p.m. PST; FAX 702-448-0675.

For viewing and downloading technical information, call the 24-hour bulletin board: 1-800-448-1221.

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