2.5 I/O Tests (Option: [4])

The I/O Tests menu can be accessed from the Operator and Attendant menus. Refer to Table 2-29 for a description of the options available on the I/O Tests menu. Some of the following menus and options are not available from the Attendant menu.

Table 2-29. I/O Tests Menu Options	
Option	**Description**
[4.1] Input Tests	Test door, cabinet and processor inputs
[4.2] Output Tests	Test door and cabinet outputs and processor LEDs
[4.3] Auto-configure Netplex Devices	Perform an auto-configuration of NETPLEX devices such as the VFD or the bill acceptor
[4.4] Sound Test	Test the sounds programmed for the machine
[4.5] 7-Segment Display Test	Test the seven-segment displays
[4.6] Dot Matrix Display Test	Test the vacuum fluorescent display
[4.7] Hopper/Printer	Test the hopper to make sure it is functioning properly and reports hopper statistical information. Test the ticket printer to ensure it is functioning properly.
[4.8] Bill Acceptor	Test the bill acceptor
[4.9] Reel Lamps Test	Test reel lamp operation for back-lit reels

2.5.1   Input Tests (Option: [4.1])

The Input Tests menu provides access to the input diagnostic test pages. Each input circuit is listed by name and is followed by a 1 (active) or 0 (inactive). Some circuits use optics or nonmechanical switches and are normally followed by a 1 to indicate that they are active.

Door Input Tests (Option: 4.1.1])

Standard (Option: [4.1.1.1])

Test the standard, 5-, 6- or 7-button main door inputs as follows:

1. The screen displays the status of the door inputs. Refer to Table 2-30 for a list of inputs and their initial values.

2. Press the corresponding switch to verify its function, or insert a coin to test the coin-in signals.

Note: Pressing the BET MAX switch will cause the screen to exit if the switch is functioning properly.

Table 2-30. Standard Door Input Test Switches	
Input Name	**Initial Value**
Select Line Switch	0
Switch 2	0
See Pays Switch	0
Switch 4	0
Slant=0/Upright=1	0 or 1
Change Switch	0
Spin Switch	0
Cashout Switch	0
Bet Max Switch	0
Bet One Switch	0
Coin-in 1	1
Coin-in 2	1
Coin-in 3	1
Coin-in 4	0
Coin-in 5	0
Coin-in 6	0

10-Button (Option: 4.1.1.2])

Test the main door inputs on the 10-button player panel extension/ template as follows:

1. The screen displays the status of the door inputs. Refer to Table 2-30 for a list of inputs and their initial values.

2. Press the corresponding switch to verify its function, or insert a coin to test the coin-in signals.

Note: *Pressing the BET MAX switch will cause the screen to exit if the switch is functioning properly.*

Table 2-31. Door Input Test Switches (10-Button Player Panel)	
Input Name	**Initial Value**
Switch 1	0
Switch 2	0
Switch 3	0
Switch 4	0
Switch 5	0
Switch 6	0
Switch 7	0
Switch 8	0
Switch 9	0
Switch 10	0

Extension (Option: [4.1.1.3])

Note: *This option is available only on selected Vision Series games with player interface switches in the top box.*

Use the Extension option to test the top-box switches as follows:

1. Press the **CHANGE** or **CASH/CREDIT** switch to select a menu item that corresponds with one of the five buttons below the LCD/ M-Slave.

2. Press and hold the selected top-box button. Confirm that the state of the button changes from zero to one on the LCD/M-Slave screen.

3. Release the button. Confirm that the state of the button changes from one to zero on the LCD/M-Slave screen.

4. Press the **PLAY MAX CREDITS** button to exit the option.

Cabinet Input Test (Option: 4.1.2])

Test circuits located on or in the cabinet, such as the slot handle and the hopper, as follows:

1. The screen displays the status of the cabinet inputs. Refer to Table 2-32 for a list of inputs and their initial values.

2. Trigger the corresponding input to verify its function.

Table 2-32. Cabinet Input Test Switches	
Input Name	**Initial Value**
Slot Handle (optional)	0
Coin Out	1
Hopper Motion Detect	0
Hopper Full	0
Progressive Setup Switch	0
Meter Connect	1
Reversible Hopper	0
SEF Port 6	0
Aux Reel Connect	0
SEF Port 4	0
SEF Port 2	0
Aux Key	0
Hopper Level (0 - Low, 1 - 1/3 Full, 2 - 2/3 Full, 3 - Full)	Dependent on hopper level

Processor Input Tests (Option: [4.1.3])

Test circuits that provide input to the processor, such as machine door and reel optics, as follows:

1. The screen displays the status of the processor inputs. Refer to Table 2-33 for a list of inputs and their initial values.

2. Trigger the corresponding input to verify its function.

Table 2-33. Processor Input Tests	
Processor Input	**Initial Value**
Light Pen Switch	1
Main Door	Toggles between 0 and 1
Coin Drop Door	Toggles between 0 and 1
Attendant Key Switch	1
Operator Switch	1
Logic Board	1
Bill Validator Door	Toggles between 0 and 1
Low Battery 1	1
Low Battery 2	0
Reel 1 Optic	1*
Reel 2 Optic	1*
Reel 3 Optic	1*
Reel 4 Optic	1*
Reel 5 Optic	1*
Reel Mech Disconnect	0
*If reel optic is present and functioning properly, otherwise the value will be zero.	

2.5.2 Output Tests (Option: 4.2])

The Output Tests menu provides access to the output diagnostic test pages. The output circuit toggles between activated and deactivated when the **SPIN REELS** switch is pressed.

Note: *This menu is accessible only from the Operator menu.*

Door Output Test (Option: [4.2.1])

Standard Door Output Test (Option: [4.2.1.1])

Test the following 5-, 6-, or 7-button main door outputs on standard switch panels:

- Select Line Switch Lamp
- Switch 2 Lamp
- See Pays Switch Lamp
- Switch 4 Lamp
- Change Switch Lamp
- Spin Switch Lamp
- Cashout Switch Lamp
- Bet Max Switch Lamp
- Bet One Switch Lamp
- Coin Lockout
- Coin Diverter

Use the following steps to test door outputs:

1. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of outputs.

2. Press the **SPIN REELS** switch to run a test, or press the **PLAY MAX CREDITS** switch to exit the screen.

10-Button (Option: [4.2.1.2])

Test the switch lamps 1 through 10 on the 10-button switch panel extension/template as follows:

1. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of outputs.

2. Press the **SPIN REELS** switch to run a test, or press the **PLAY MAX CREDITS** switch to exit the screen.

Paylines Test (Option: [4.2.1.3])

Test payline 1 through 9 outputs on the main door as follows:

1. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of outputs.

2. Press the **SPIN REELS** switch to run a test, or press the **PLAY MAX CREDITS** switch to exit the screen.

Extension (Option: [4.2.1.4])]

Note: *This option is available only on selected Vision Series games with player interface switches in the top box.*

Use the Extension option to test the top-box switches as follows:

1. Press the **CHANGE** or **CASH/CREDIT** switch to select a menu item that corresponds with one of the five buttons below the LCD/ M-Slave.

2. Press the **SPIN REELS** switch to run a test. Confirm that the selected switch lights properly.

3. Press the **PLAY MAX CREDITS** button to exit the option.

Cabinet Outputs Test (Option: [4.2.2])

Test the following output circuits located on or in the cabinet:

- Hopper Brake
- Hopper Safety
- Hopper Direction
- Jackpot
- Candle 1 Lamp
- Candle 2 Lamp
- Candle 3 Lamp
- Candle 4 Lamp
- Mechanical Meter 1
- Mechanical Meter 2
- Mechanical Meter 3

- Mechanical Meter 4

- Mechanical Meter 5

- Mechanical Meter 6

- Bell

- Slot Handle Release

Use the following steps to test cabinet outputs:

1. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of outputs.

2. Press the **SPIN REELS** switch to run a test, or press the **PLAY MAX CREDITS** switch to exit the screen.

Processor Output Test (Option: [4.2.3])

Test the processor LEDs using the following procedure:

1. The screen displays the initial values of the LEDs. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list.

2. Press the **SPIN REELS** to run a test, or press the **PLAY MAX CREDITS** to exit the screen.

2.5.3   Auto-Configure NETPLEX™ Devices (Option: [4.3])

Note: *This screen is accessible only from the Operator menu.*

Use the Auto-configure Netplex Devices screen to automatically configure the NETPLEX devices installed in the machine, such as the bill validator, printer, VFD and spectrum display.

1. Use the **CHANGE** and **CASH/CREDIT** switches to navigate forward and backward through the list of installed devices.

2. Press the **SPIN REELS** switch to run the autoconfiguration for the selected device. The screen indicates that the autoconfiguration is in progress.

3. Press the **PLAY MAX CREDITS** switch to exit the screen.

2.5.4   Sound Test (Option: 4.4])

Sound Test (Option: [4.4.1])

Test the standard game sounds as follows:

1. The screen displays a list of sounds that can be tested. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of sounds.

2. Press the **SPIN REELS** switch to play the selected sound.

3. Press the **PLAY MAX CREDITS** switch to exit the screen.

MMLB Sound File Test (Option: [4.4.2])

Use the MMLB Sound File Test option to test the WAV file theme sound on the Multimedia Lite Board as follows:

1. The screen displays a list of sounds that can be tested. Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of sounds.

2. Press the **SPIN REELS** switch to play the selected sound.

3. Press the **PLAY MAX CREDITS** switch to exit the screen.

2.5.5   Display Test (Option: [4.5])

Test all segments of the seven-segment display that appear in the Winner Paid, Credits, and Coins Played windows.

Press the **SPIN REELS** switch to start and stop the test. During test execution, the segments of each display light up in sequence. Press the **BET MAX CREDITS** switch to exit the screen.

2.5.6   Dot Matrix (VFD) Display Test (Option: [4.6])

Test dot matrix function on the VFD. The VFD is tested as follows:

- All dots ON

- All dots OFF

- Horizontal sweep

- Vertical sweep

Press the **SPIN REELS** switch to start or pause the test. Press the **PLAY MAX CREDITS** switch to exit the screen.

2.5.7   Hopper/Printer (Option: [4.7])

The Hopper/Printer Test menu tests hopper payout and proper functioning of the ticket printer.

Note: This menu is accessible only from the Operator menu.

Hopper Test (Option: [4.7.1])

If the hopper is functioning properly, it will pay out ten coins.

Turn the attendant key when prompted, and press the **SPIN REELS** switch to test hopper operation.

Print Test (Option: [4.7.2])

Note: This option is not available if the ticket printer is disabled.

Use the Print Test screen to print a sample ticket, or to eject a blank ticket from the printer as follows:

1.   Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of tests.

2.   Press the **SPIN REELS** switch to run the selected printer test.

3.   Press the **PLAY MAX CREDITS** switch to exit the screen.

2.5.8   Bill Acceptor (Option: [4.8])

The following tests verify that the bill acceptor hardware and software are functioning properly.

Note: This menu is accessible only from the Operator menu.

Bill Test (Option: [4.8.1])

The bill validator can be set to accept and stack or scan and reject a test bill. Use the following steps to test the bill acceptor:

1.   Press the **CHANGE** and **CASH/CREDIT** switches to navigate through the list of tests. "Bill rejection" is the default test.

2. Press the **SPIN REELS** switch to run the selected test:

    • To test bill rejection, insert a bill into the acceptor. The acceptor scans and rejects the bill.

    • To test bill acceptance, insert a bill into the acceptor. The acceptor stacks the bill. The bill validator door must be open to run this test.

    The value of the test bill is displayed on the VFD and LCD, if possible.

3. Press the **PLAY MAX CREDITS** switch to exit the screen.

CRC Checks (Option: [4.8.2])

Use the Cyclic Redundancy Check menu to audit the bill validator firmware. The 4-digit and 8-digit CRC checks can be accessed from this menu.

4-Digit CRC (Option: 4.8.2.1]) and 8-Digit CRC (Option: [4.8.2.2])

1. The screen provides edit fields for the program address and seed. Press the **CHANGE** and **CASH/CREDIT** switches to navigate between the fields.

2. Press the **SPIN REELS** switch to enter a value into the selected field.

    a. Press the **CHANGE** and **CASH/CREDITS** switches to change a digit in the selected field.

    b. Press the **SPIN REELS** switch to reset the field to its original value.

    c. Press the **PLAY MAX CREDITS** switch to exit the field.

3. Navigate to the Calculate CRC field and press the **SPIN REELS** switch to run the test. The screen displays the result.

4. Press the **PLAY MAX CREDITS** switch to exit the screen.

2.5.9   Bonus Device Test (Option: [4.9])

Top Lamps Test (Option: [4.9.1])

The Top Lamps Test screen tests the top lamp operation on the light board. Press the **SPIN REELS** switch to start and stop the test. Press the **PLAY MAX CREDITS** switch to exit the test.

Note: *This option is available only on WAP machines.*

Regis Device Test (Option: [4.9.2])

The Regis Device Test option tests the top-box bonus device for the Regis' Cash Club™ game. The test launches automatically. Press the **SPIN REELS** button to suspend the test. Press the **PLAY MAX CREDITS** button to exit the test.

Aux. Bonus Device Test (Option: [4.9.3])

Note: *This menu item is available only if the machine is equipped with a NETPLEX bonus device in the top box, such as a ball dispenser.*

The Aux. Bonus Device Test option tests ball-dispensing bonus devices. Press the **SPIN REELS** button to cycle through all of the balls in the container.

Bonus Lamps Test (Option: [4.9.4])

The Bonus Lamps Test option tests top-box lamp operation. Press the SPIN REELS button to trigger illumination of the lamps in succession. When all of the lamps have been tested, all of the lamps are turned on for one second. The test ends when the lamps are turned off. The test sequence automatically repeats. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Top Box Device Tests (Option: [4.9.5])

Dice LED Device Test (Option: [4.9.4.1])

Use the Dice LED Device Test option to test the lights surrounding the top-box dice. Press the **SPIN REELS** button to to trigger illumination of the lights. The lights around each die illuminate in a clockwise sequence. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Seven Segment Test (Option: [4.9.4.2])

Use the Seven Segment Test to test the 7-segment displays in the top-box bonus device. The test executes a series of display patterns on the displays. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

LED Test (Option: [4.9.4.3])

Use the LED Test option to test the bonus level indicator LEDs in the top-box bonus device. Press the **SPIN REELS** button to trigger illumination of the LEDs from bottom to top. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Reel Backlights (Option: [4.9.4.4])

Use the Reel Backlights option to test the backlit reels in the top box. Press the **SPIN REELS** button to trigger simultaneous illumination of the lamps at four levels of intensity – off, low, medium and high. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Reel Tivolis (Option: [4.9.4.5])

Use the Reel Tivolis option to test the Tivoli light strands surrounding each reel in the top box. Press the **SPIN REELS** button trigger simultaneous flashing of the lights, followed by a bottom-to-top sequence. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Reel Payline Indicators (Option: [4.9.4.6])

Use the Reel Payline Indicator option to test the lamp operation on the payline indicator device, typically an arrow, for each reel in the top box. Pres the **SPIN REELS** button to trigger simultaneous flashing of the lights. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Bonus Reel Light Ring Test (Option: [4.9.5])

Note: *This option is available only on four-reel games.*

Use the Bonus Reel Light Ring Test option to test the operation of the LEDs surrounding the fourth reel on the Big Times Pay game. Press the **SPIN REELS** button to illuminate the LEDs in a clockwise sequence. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Barcrest Lamps Test (Option: [4.9.5])

Note: *This option is available only on machines with Barcrest top boxes.*

Use the Barcrest Lamps Test option to test the lamp operation in the top box. Press the SPIN REELS button to trigger illumination of the lamps in sequence, followed by a one-second illumination of all of the lamps at once. The lamps are then turned off. The test repeats automatically. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

Barcrest LEDs Test (Option:[4.9.6])

Note: *This option is available only on machines with Barcrest top boxes.*

Use the Barcrest LEDs Test option to test operation of the 7-segment displays in the top box. The test executes a series of display patterns on the displays. Press the **SPIN REELS** button to suspend the test, or press the **PLAY MAX CREDITS** button to end the test.

2.5.10 Reel Lamps Test (Option: [4.10])

The Reel Lamps Test screen tests the reel lamp operation for machines with backlit reels. Press the **SPIN REELS** switch to start and stop the test. Press the **PLAY MAX CREDITS** switch to exit the test.