Brunswick

Capital Equipment

SERVICE BULLETIN

Subject: New Nexgen Electronics Software, Version 4.08   Date: 12/9/02

Distribution: GS Nexgen Pinsetter Customers   Bulletin No. CEB02-14

We are pleased to officially announce the release of the latest version of Nexgen Electronics Software. The version number is 4.08.

To determine the software version currently installed in your Nexgen Electronics boxes, power off the lane pair by use of the main on/off switch. When the pinsetter powers back up, the software version in the Nexgen box will display in the LCD display on the top of the Nexgen box.

The new version has the following features added for GS-X pinsetters equipped with Nexgen boxes.

1.   Selectable display of the extended error codes or the current number codes. See the attached listing of these new codes.

2.   The ability to override the pin light and keep it on all the time.

3.   The ability for Nexgen Electronics to interface with an AS type automatic scorer.

4.   Distributor slow start function default setting is now set to no.

Refer to the attached pages for a full description of the Nexgen settings and Error Codes.

If you are currently running test version 4.08.03 software, this is the same as the released version 4.08 and you will not have to obtain the new software.

To obtain copies of the new 4.08 software, please contact your local Brunswick distributor or the Customer Response Center in the United States at 1-800-323-8141 or from international locations call 231-725-4966.

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Machine Setup

LCD Display/User Interface

Setup and diagnostics for the both pinsetters is performed using the Nexgen LCD Panel. Refer to *Figure 1*.
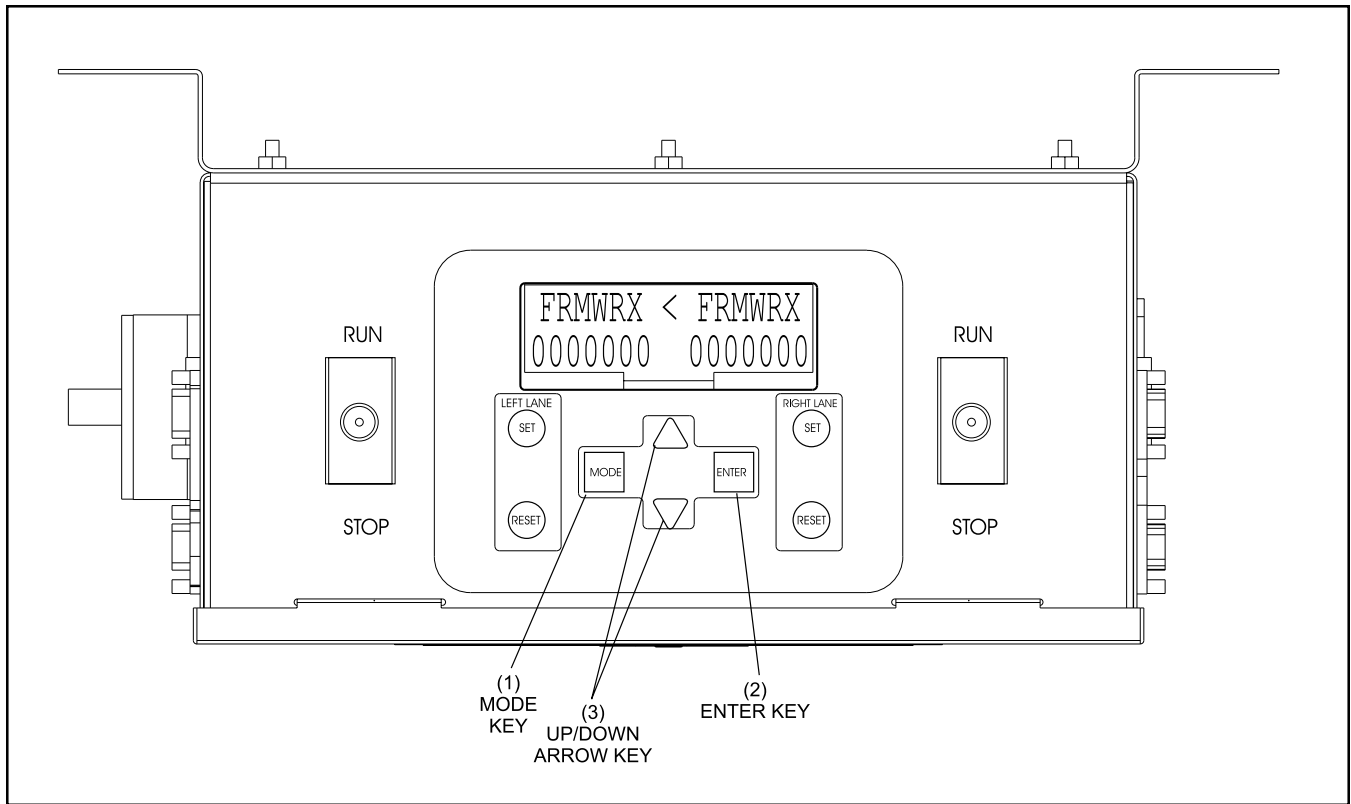

Figure 1. Nexgen Controller - LCD Panel

Four keys on the control panel are used to navigate the user menu.

(1)   Mode Key - Use this button to step through the pinsetter modes when the mode selection menu is being displayed or to return to the mode selection menu.

(2)   Enter Key - The function of this key is dependent on what is being displayed on the LCD. If the mode displayed on the LCD does not have a sub menu, this key allow the user to select the left or right lane. When the mode displayed on the LCD has a sub menu, the Enter key steps through the sub menu selections.

(3-4)Up/Down Arrows - The function of these keys is dependent on what is displayed on the LCD. When the mode selection menu is displayed, these keys allow the user to step through the pinsetter's modes (Like the Mode Key). When in a sub menu, the arrow keys allow the user to toggle the choices of the feature selected in the sub menu.

During power up of the Nexgen Controller, the unit goes through a boot up sequence. The Controller's LCD display will first display "Brunswick GS-X" and then display "Software V x.xx / EEPROM OK" (x.xx represents the version # of your software). Once the controller successfully boots up, the mode selection menu is displayed.

The Mode selection menu has the following choices:

Frmwrx - Use this setting when the GS-X is connected to Frameworx scoring systems. This selection does not have a sub menu.

Tenpin - Use this setting when the GS-X is NOT connected to a scoring system or is operating in a stand-alone mode. This selection does not have a sub menu.

AS-90 - This setting appears only if software version 4.08.03 or higher is installed in the Nexgen box. Use this setting when a GS-X is connected to an AS-80, or AS-90 scorer. This selection does not have a sub menu

Diag -This selection allows the mechanic to put the selected pinsetter into cycle diagnostics mode. This selection does not have a sub menu.

Motor - This selection allows the mechanic to manually run the pinsetter motors on the selected machine. A sub menu that appears when the stop/run switch is set to the run position has the following choices:

> **Table CW** - This selection turns the table motor of the selected lane in a clockwise rotation.

> **Table CCW** - This selection turns the table motor of the selected lane in a counterclockwise rotation.

> **Distrib** - This selection turns the distributor motor of the selected lane on.

> **Sweep** - This selection turns the sweep motor of the selected lane on.

Pinlight - This selection caused the pinlight of the selected pinsetter to turn on.

NOTE: The following selections are available only when the STOP/RUN switches for both pinsetters are in the STOP position.

Setup - This selection allows the user to configure the pinsetter's operating characteristic. A sub menu for this selection has the following choices:

NOTE: Use the enter button to select the desired choice and the arrow buttons to choose yes or no.

> **Left Lane # ##** - Sets the lane ID for the lane pair. Use the arrow keys to select the left (odd) lane number for the lane pair.

> **Double Detect: (Y or N)** - Gives the pinsetter the choice of detecting pin activity on second ball. If a scoring system is present that has the capability of interfacing with the CPU, it can use the pin holder switch information to determine the bowler's pin fall. If no scoring system is available, or the scoring system uses a scanner or camera for determining pinfall, turning this switch on disables the detection stroke of the setting table during the second ball.

>> Y - Double Detect - Set if a scanner or CCD Camera are not used. (Frameworx scoring system) (default)

>> N - Single Detect - Set if a scanner, CCD Camera or VPS are used or if no scoring system is used.

> **Enable OOR: (Y or N)** - Enable or disables the out-of-range cycle. ABC, the FIQ and many other bowling organizations require that the pinsetter stop and any deadwood (pins that have been knocked over but are still in the field of play) must be removed before the next ball can be rolled. In many countries, this is not a requirement and it interferes with the bowler's flow of bowling. If your center has sanctioned leagues that require deadwood be removed before a second ball is rolled, this switch should be in the left position.

>> Y - Pinsetter stops for an out-of-range pin. (default)

>> N - Ignores an out-of-range pin.

Table Delay: (Y or N) - This selection controls the delay of the setting table operation after the sweep drops to a guarded position.

        Y - Delayed setting table - ABC, FIQ..., compliant delay. (default)

        N - Quick setting table - No delay after sweep drop.

Distrib Stop: (Y or N) - This selection determines if the distributor will stop after all 10 pins have been delivered to the pin holders while waiting for a 2nd ball cycle. The suggested setting for this option is "Y".

        Y - Stop enable - Distributor stops after ten pins have loaded while waiting for a 2nd ball.

        N - Stop disabled - Continuous distributor operation while loading pin. (default)

Enable 50 ERR (Y or N) - This selection allows pinfall detection to be monitored or ignored during machine cycle diagnostics.

        Y - Enable Codes (default)

        N - Disable Codes

Enable Foul: (Y or N) - This selection allows you to accept or ignore the foul signal coming from the foul unit.

        Y - The pinsetter will accept the foul signal (default)

        N - Foul Signals are ignored.

SW Diag - This selection allows the user to check the switches on the pinsetters. The display will list the switches that are actuated (closed) are used during the time the check is being made. This mode can be used to verify that switches are working properly and the wiring A sub menu for this selection has the following choices:

    Pin SW (Left) - This selection checks the pinholder switches and displays the ones that are actuated on the left pinsetter.

    Table SW (Left) - This selection checks the Table switches A, B, C , D, TS1, and TS2 and displays the ones that are actuated on the left pinsetter.

    Mach SW (Left) - This selection checks the machine switches EC, G, SM, OOR, ST, and SS (Pincount Switch) and displays the ones that are actuated on the left pinsetter.

    EXT SW (Left) -This selection checks the external switches Ball Detect, Foul, Set And Reset and displays the ones that are actuated on the left pinsetter.

    Pin SW (Right) - This selection checks the pinholder switches and displays the ones that are actuated on the left pinsetter.

    Table SW (Right) - This selection checks the Table switches A, B, C , D, TS1, and TS2 and displays the ones that are actuated on the right pinsetter.

    Mach SW (Right) - This selection checks the machine switches EC, G, SM, OOR, ST, and SS (Pincount Switch) and displays the ones that are actuated on the right pinsetter.

EXT SW (Right) - This selection checks the external switches Ball Detect, Foul, Set And Reset and displays the ones that are actuated on the right pinsetter.

Dist Slow Start: (Y or N) - This selection is available on machines with software version 4.08 and higher. The selection determines whether the distributor will start slowly and gradually increase speed or start at full speed.

       Y - Slow start enabled

       N - Slow start is disabled

Long Err Codes: (Y or N) - This selection is available on machines with software version 4.08 and higher. The selection determines whether the display will show error code using the standard 2 digit code or extended code.

       Y - Display error codes using extended format

       N - Display error codes using 2 digit format

Pinlight: (Y or N) - This selection is available on machines with version 4.08 and higher. This selection turns on the pinlight so that the pins are illuminated even when the machine is unassigned.

       Y - Pinlight on

       N - Pinlight off

Error Codes - Nexgen Electronic

Std. Code	Extended Code	
P0	Pin OOR	Out-of-Range
01	Pin1 Ld	Pin Loading Time Out Pin 1
02	Pin2 Ld	Pin Loading Time Out Pin 2
03	Pin3 Ld	Pin Loading Time Out Pin 3
04	Pin4 Ld	Pin Loading Time Out Pin 4
05	Pin5 Ld	Pin Loading Time Out Pin 5
06	Pin6 Ld	Pin Loading Time Out Pin 6
07	Pin7 Ld	Pin Loading Time Out Pin 7
08	Pin8 Ld	Pin Loading Time Out Pin 8
09	Pin9 Ld	Pin Loading Time Out Pin 9
10	Pin10 Ld	Pin Loading Time Out Pin 10
50	Detect10	#10 Pin Not Detected in Diagnostics
51	Detect2	#1 Pin Not Detected in Diagnostics
52	Detect3	#2 Pin Not Detected in Diagnostics
53	Detect4	#3 Pin Not Detected in Diagnostics
54	Detect5	#4 Pin Not Detected in Diagnostics
55	Detect6	#5 Pin Not Detected in Diagnostics
56	Detect7	#6 Pin Not Detected In Diagnostics
57	Detect7	#7 Pin Not Detected in Diagnostics
58	Detect8	#8 Pin Not Detected in Diagnostics
59	Detect9	#9 Pin Not Detected in Diagnostics
60	A Found	Switch A is Not Expected But Found
61	B Found	Switch B is Not Expected But Found
62	C Found	Switch C is Not Expected But Found
63	D Found	Switch D is Not Expected But Found

Std. Code	Extended Code	
64	SMFound	Switch SM is Not Expected But Found
65	G Found	Switch G is Not Expected But Found
66	STFound	Switch ST Is Not Expected But Found
67	OORFound	SW. OOR is Not Expected But Found
70	A Ntfnd	Switch A Expected But Not Found
71	B Ntfnd	Switch B Expected But Not Found
72	C Ntfnd	Switch C Expected But Not Found
73	D Ntfnd	Switch D Expected But Not Found
74	SM Ntfnd	Switch SM Expected But Not Found
75	G Ntfnd	Switch G Expected But Not Found
76	STNtfnd	Switch ST Expected But Not Found
90	Invld 0	Invalid Machine State 0
91	Invld 1	Invalid Machine State 1
92	Invld 2	Invalid Machine State 2
93	Invld 3	Invalid Machine State 3
94	Invld 4	Invalid Machine State 4
95	Invld 5	Invalid Machine State 5
EJ	ElevJam	Elevator Jam
EL	Pin Cnt	Pin Count Switch Shorted for 5 Seconds
J1	TS1 Jam	Jam Switch TS1
J2	TS2 Jam	Jam Switch TS2 (Tower)
	BA	Accelerator Motor (overload)
	DM	Distributor Motor ON
	TM	Table Motor ON
	SM	Sweep Motor ON