Glossary

10 Pin	Game of bowling in which bowler has two chances to knock down ten pins.
"A" Switch	Switch used by pinsetter to identify when the setting table is up in the home position.
Accelerator	Assembly positioned between the two pinsetters to return the ball to the bowler.
AS-80	Type of Brunswick Automatic Scorer installed from 1979 to 1990; keeps bowlers' scores automatically.
AS-90	Type of Brunswick Automatic Scorer installed from 1990 to 1997; keeps bowlers' scores automatically.
AS-K	Brunswick Automatic Scorer for bowling centers with 16 lanes and under.
Attenuator	Slows the lowering action of the sweep wagon.
"B" Switch	One of four switches used by the Pinsetter CPU to determine the setting table position.
Ball Accelerator	Assembly positioned between the two pinsetters to return the ball to the bowler.
Ball Lift	Ball return assembly located in the bowlers' area. Used to raise the ball from the track below the lane to the ball rack.
Ball Cushion	Device in the pit area of the pinsetter that is used to stop and direct the ball.
Ball Detect	Detects balls entering the pinsetter area.
Ball Door	Part of the ball accelerator that allows the entry of balls but not pins into the ball accelerator.
Ball Door Button	Part of the ball door; used by the ball to open the ball door for entry into the ball accelerator.
Ball Door Locking Solenoid	Locks the ball door for three seconds after ball detect to keep pins out of the ball accelerator.
Clevis	Device used to connect a lift chain to a crank arm.
Clockwise	Direction of rotation used for description of moving parts. Corresponds to the direction the hands move on a clock or watch.

Closed	Switch position in which two contacts are touching to create a path.
Comline	Communication path between two electronic devices.
Counterclockwise	Direction of rotation used for description of moving parts. Corresponds to the direction opposite the hand movement on a clock or watch.
CPU	(Central Processing Unit) - circuit board in the Universal Nexgen Box that performs as the brain for the pinsetter.
Cycle	A series of events that recur regularly and ends back at the starting point.
"D" Switch	One of four switches used by the Pinsetter CPU to determine the setting table position.
Detection Stroke	Initial lowering of the setting table after ball detect. Used to determine what the bowler did and what the pinsetter must do to get ready for the next ball.
Diagnostics	A self test mode used by pinsetter to locate problems and to check performance.
Distributor	Assembly that moves and positions pins over the setting table for eventual loading.
Distributor Rails	Guide rails for keeping the green belts in place as they move pins throughout the distributor.
Double Detect	Method of pinsetter operation when the pinsetter detects for pins on first ball and second ball. This is used when the pin holders' switches are used for providing pin count to the automatic scorer.
Driving Drum	Large pulleys which support the ball accelerator's flat belt.
Dust Pan	Sheet metal "pan" located under the front of the distributor to collect dust and dirt that falls off the green belts and bowling pins as they transfer from one set of belts to another.
EC Switch	Elevator control switch that monitors movement of the pin shovels.
Elevator	Assembly used to lift pins up from the transport band to the distributor.
Error Codes	Codes provided by the Pinsetter CPU to direct you to specific problem it has detected in the pinsetter.
Foul Line	Black line on the lane dividing the bowlers approach area from the playing area in which the ball rolls down the lane.

Foul	Condition in which a bowler crosses the foul line. Results in loss of pincount on that ball.
Frameworx	Type of Brunswick Automatic Scorer installed from 1994 to present; keeps bowlers' scores automatically.
Function Switch	A switch which monitors a specific operation or function of the pinsetter's movements.
Function Solenoid	A solenoid that controls a specific operation for the pinsetter.
"G" Switch	A function switch that monitors the sweep wagon's up and down positioning.
Gripper	Part of the pin holder used to trip the pin release lever and keep the pin in the pin holder.
Ground	(Earth) -A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth. Generally used as a reference point for measuring voltages in a circuit.
Gutter Adapter	Plastic appendages protruding down from the sweep wagon that clear any pins left in the flat gutters on either side of the pin deck.
Gutter	Channel on each side of the lane which guides the ball back to the pinsetter after it has left the lane surface.
Hertz	Cycles per second. The unit of measure for frequency.
High Voltage	Voltage typically used to power motors and transformers.
Hydraulic Shock Absorber	Shock absorber that uses hydraulic fluid to dampen the impact of the ball, the lowering of the setting table and the lowering of the sweep wagon.
I/O	(Input/Output) - An electronic circuit board that directs signals into and out of the CPU.
Invalid Machine State	A condition in which the Pinsetter CPU is not able to determine the position of the sweep wagon, setting table and spotting tongs.
Locking Bolt	Part of the ball door locking mechanism. Prevents the ball door from opening. For 3 seconds after a ball detect.
Machine Cycle Diagnostics	A self test mode used by the mechanic to locate problems by continuously cycling to check for proper operation.
Masking Unit	Device that is mounted in front of the pinsetter to hide it from the bowlers' view.

Mode	Type of operation the pinsetter will be operated under.
New Pin Setting Stroke	The second table operation during a cycle in which the table will lower to the 15 mm level to provide a smooth transfer of the pins from the table to the lane surface.
Frameworx	Pinsetter operating mode used to operate with Frameworx automatic scoring systems.
Normally Closed	A switch connection in which a path only exists between the "Common" and the "NC" when the switch is in an at-rest condition.
Normally Open	A switch connection in which a path only exists between the "Common" and the "NO" when the switch is actuated.
Open	Contacts which are not connected or touching.
Out-Of-Range	Bowling condition in which a bowling pin is moved off its spot but is still left standing on the pin deck. Pinsetter cannot handle this pin automatically.
PCB	Printed Circuit Board.
Pin Count Switch	Switch mounted to the top of the elevator to monitor pins leaving the pin shovels.
Pin Detector Plate	Plate on the bottom of the pin holder that is pushed up by the top of a bowling pin when the table lowers to detect for pins left standing.
Pin Holder	One of 10 assemblies on the setting table used to hold pins while setting them on the lane surface.
Pin Light	Light mounted on the front of the pinsetter. Provides light to the bowling pins when they are standing on the pin deck.
Pin Release Lever	Part of the pin station contacted by the pin holder's gripper to drop the pin into the pin holder.
Pin Shovel	One of 14 assemblies in the elevator used to lift pins from the pit to the distributor.
Pin Station	One of 10 temporary storage devices the distributor uses for holding pins until the table is ready for them.
Polycord	Type of material used in the pinsetter's pin handling belts.
Preventive Maintenance	Scheduled activity; cleaning, lubrication and adjusting required on any machinery to keep it working reliably.

Rear Control Box	A switch box mounted on the side of the elevator.
Reset	A switch signal that cycles the pinsetter to the next ball.
Retroreflector	A reflector that sends a transmitted beam back to the original source.
Set	Switch that provides the pinsetter the capability of setting the last known combination of pins.
Setting Table	Assembly used to detect standing pins on the pin deck and also to transfer pins from the distributor to the pin deck.
Shark Solenoid	The red solenoid has been added to GS-96 and later pinsetters to control the direction of the pin guide while feeding pins to the distributor's pin stations.
Shark Switch	A switching assembly that alternates pins to the left and right side of the distributor.
Short Cycle	An abbreviated pinsetter cycle in which the sweep operation is not performed.
Single Detect	Method of pinsetter operation when it detects for pins on first ball only. This is used when no automatic scoring is available or when an external pin counting device (Scanner or CCD camera) is used.
Single Phase Power	An alternating current circuit in which only phase of current and voltage is available in a two conductor or three conductor system.
SM Switch	Sweep Motor switch - informs the Pinsetter CPU that the sweep is forward when its contacts are closed.
Spotting Tongs	Set of ten pairs of plastic devices mounted on the setting table. They are gear driven closed and open to pick up pins during respotting for a second ball.
Solenoid - Continuous Duty	A solenoid designed to be energized for extended periods of time. (Red - Pin Holder Solenoids).
Solenoid - Intermittent Duty	A solenoid designed to be energized only long enough to perform one brief function. (Black - Function Solenoids)
Square Shafts	Two shafts used to remotely drive or control operations on the setting table. Left - swing shafts; Right - spotting tongs.
ST Switch	Spotting Tong switch - monitors the position of the spotting tongs.
Standalone	Used to describe GS-Series Pinsetters operations in which a scoring system does not control pinsetter movement or decision making.

Strike	A condition in which all ten pins were knocked down by the bowler's first ball of the frame.
Stroke Limiter Plate	Used to allow the setting table to lower only part of the way for pin detection and respotting pins.
Stroke Limiter Solenoid	Energizes to allow the table to lower to the new pin setting height and allows the pin holders to go vertical.
Sweep Release Lever	Part of the sweep release mechanism that is pulled rearward to allow the sweep release to collapse and lower the sweep.
Sweep Release Arm	Main frame of the sweep release mechanism.
Sweep Wagon	Assembly used to clear deadwood and unwanted pins off of the pin deck and out of the flat gutters.
Swing Shafts	Setting table shafts on which the pin holders are mounted. These shafts are swung to the vertical position to set pins and returned to the horizontal position to detect and load pins.
Switch	A device used for making, breaking or changing connections in an electrical circuit.
Switch Cluster	Group of four switches ("A," "B," "C" and "D") located on the right-hand drive frame and used by the pinsetter to monitor the setting table's position.
T Stop	Device mounted on the top of the left-hand tower rack. Stops the lowering of the setting table when it contacts the stroke limiter plate.
Table	(Setting Table)- Assembly used to detect for pins standing on the pin deck and also to set pins on the pin deck.
Tel-E-Foul	Brunswick electrical assembly mounted at the foul line of the lane. Detects when a bowler has crossed the foul line.
Three Phase Power	Three separate outputs from a single source. There is a phase difference of 120 degrees between any two of the three voltages and currents.
Tipper	Part of the sweep release mechanism that rotates to allow the sweep to drop into the guarding, ready to sweep position.
Tongs	See Spotting Tongs.
Transformer	An electrical device that converts voltage from one level to another level.

Transport Band	Band in the GS-Series Pinsetter pit area that carries the ball and bowling pins rearward to the accelerator and elevator.
TS-1 Switch	A jam switch provided to protect the pinsetter when the pin holders are unable to return to the horizontal position after setting new pins.
TS-2 Switch	A jam switch mounted on the tower to protect the pinsetter if a pin jam or broken part prevents the setting table from raising to its highest position.
VAC	Voltage - Alternating Current
VDC	Voltage - Direct Current
Work Platform	Wooden stand mounted onto the front of the pinsetter. Used by the mechanic to stand on while viewing or working on the front of the pinsetter.