

BERNINA Model	L 450	L 460	L 850	L 890
GENERAL MACHINE FEATURES				
Motor Drive	AC	DC	DC	DC
Maximum Sewing Speed (stitches per minute/SPM) Count on efficient, reliable performance with a sewing speed up to 1,500 stitches per minute (SPM).	1200 spm	1200 spm	1500 spm	1350 spm
Programmable Sewing Speed Via the Touch Screen, the maximum and minimum speed can be adjusted to suit any sewing skill or project need. Maximum speed range can be adjusted between 600 and 1,350 stitches/minute. Minimum speed range can be adjusted between 250 and 600 stitches per minute.				•
Speed Selection Switch (stitches per minute/SPM) Sewing top speed can be reduced via the Speed Selection Switch. The maximum sewing speed can be reduced from 1,500 to 650 stitches per minute.			•	
Stitch-by-Stitch Sewing The DC Motor with BERNINA Foot Control enables Stitch-by-Stitch sewing, as well as half stitches (needle up/down) with the BERNINA Foot Control Back-kick function.		•	•	•
BERNINA Free Hand System with Knee Lifter Use the knee-operated lever to raise & lower the presser foot allowing your hands to manage your project at all times.		•	•	•
BERNINA Foot Control Use the BERNINA Foot Control for accurate stitch-by-stitch precision and the benefit of needle up/down using the foot control with back-kick function.		•	•	•
Electronic Foot Control/Power Cord The electronic foot control provides consistent needle penetration at any speed from slow to full.	•			
Freearm Freearm for easy sewing of tubular projects such as cuffs, legs and necklines.			•	•
Grand Sewing Space More overlocking space to the right of the needles offers comfort and more flexibility when stitching large and small projects. Allows for easy access to presser foot lifter and needles with the right hand. Ideal for handling from the right when the left hand is holding fabric and notions in place over the Freearm. The space to the right of needle is 5 5/8" (143 mm) to the right and has a height of 3 3/8" (86 mm).			•	•

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LED Sewing Light LED lights illuminate the sewing and looper area making it easier to thread the needles and loopers as well as reducing eye strain while stitching projects in a brighter lit area.	•	•	•	•
LED Sewing Light Off/On The LED Sewing Light can be switched off/on via the Touch Screen in the Setup Menu.				•
Centrally Located Color Touch Screen The 4.3" 480 x 272 Pixel Resolution Screen with LED backlight is at eye level, making it easy to view selected stitches, view changes made to stitches and view the help animations. The soft keys below the color screen give access to frequently used functions anytime. The centrally located color touch screen is easy to use with fingertip or stylus and offers touch-scroll selection.				•
Carry Handle and Recessed Grip Fold-down Carry Handle on top to the left of the threading path with additional Recessed Grip at lower right for stable carrying of the machine, even while threaded.			•	•
Creative Consultant Provides on-screen information. Choose the fabric and technique to be sewn, and the Creative Consultant will give you stitch suggestion, thread, needle and presser foot recommendations.				•
Wizard Step-by-step instruction of how to set the manual settings. The Wizard with Animations guides the user step-by-step through the manual settings required for the stitch, starting with instructing which threads to remove, ending with how to thread. In the Guided Mode Wizard, there is only step forward or step backward or exit to stitch selection possible. In Guided Mode, the Wizard with Animations is the default. In Expert Mode, the Wizard can be selected from Manual Settings tab to retrieve step by step instructions.				•
Tutorials Access on-screen tutorials for information on overlocking techniques and machine operation. Find information about various aspects of sewing, such as stitch selection, threading, thread tension, sewing techniques, needles, presser feet, sewing settings, maintenance and more.				•
On-Screen Help Identify icons using the "?" Help icon.				•
User Modes Two user modes; Guided Mode and Expert Mode, for machine use preference. Guided Mode leads the user step-by-step through manual settings for the stitch settings. The Expert Mode is the simplified display for quick access to settings.				•

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Stitch Selection Tab The desired stitch can be selected by number, or select a Stitch Category and view the stitch choices within that category. Choose how the stitch information is displayed in multicolor or monochrome, by stitch names or stitch views. The Stitch Selection Screen in the Stitch Selection Tab shows in default view a folder with three Stitch Categories: Overlock, Cover-/Chainstitch and Combo Stitches.				•
Stitch Optimizer Find the visual of how your stitch currently looks, then follow the steps on how to optimize the stitch by adjusting the relevant thread tension, stitch length, differential feed, cutting width, mtc, rolled hem, etc.				•
Personal Memory Tab Save stitch settings for the fabric and/or thread combination or project for future use. Personal Memory can be used to save favorite or individually adjusted stitches permanently under a personalized name. Saved stitches can be selected to be sewn, edited or deleted. 100 stitches can be held in the Personal Memory.				•
Setup Program The Setup Program gives access to information about the machine and software version, allows you to personalize the screen colors of the Expert and Guided Mode, change the sounds or turn them off, turn the light off or on, and change maximum and minimum sewing speed.				•
Temporary Altered Stitch Memory With Temporary Altered Stitch Memory, individually adjusted thread tensions, stitch lengths and differential feed are remembered during the sewing session, until the machine is switched off or the settings are saved in the Personal Memory.				•
Manual Settings Tab In the Manual Settings Tab, the recommended default settings for the chosen stitch are clearly displayed for fast and simple setup. Animations are also available to show how to adjust the particular settings.				•
Sewing Screen Tab The Sewing Screen Tab shows the selected stitch and the programmed or amended settings. The Stitch View can be changed from multicolor to monochrome and special stitches such as the flatlock are also shown in flat view.				•
Thread Tension Infinitely variable and easily adjustable, the thread tension dials (range of 1 to 9) ensure quick and accurate set-up for all projects.	•	•	•	

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<p>Auto Default Thread Tension Setting Thread tension defaults are automatically set for the selected stitch. For each stitch the involved tensions are set at a default based on universal overlock thread, suitable for a wide variety of fabrics. Thread tension fine tuning is possible via the Touch Screen or buttons next to the threading path at front of the machine.</p>				•
<p>Stitch Length Dial With a variable, easily accessible, numbered dial on the exterior of the machine, stitch length can be adjusted while sewing.</p>	0.8 - 4 mm	0.8 - 4 mm	0.8 - 4.5 mm	
<p>Auto Default Stitch Length Setting Stitch Length Default is automatically set for each selected stitch and is set at a default based on universal overlock thread, suitable for a wide variety of fabrics. Stitch Length adjustment is possible via the Touch Screen and can be adjusted even while sewing. Set or adjust to accommodate all sewing projects. Personal settings can be saved with the stitch in the Personal Program and are easily retrievable.</p>				0.8 - 4.5 mm
<p>Differential Feed Dial Differential Feed ensures wave-free seams in knits and prevents puckering in fine fabrics, while allowing deliberate gathering as an option. With an easily accessible dial, adjustments to the fabric feed (from 0.7 to 2.0) can be made even while sewing.</p>	•	•	•	
<p>Auto Default Differential Feed Setting Differential Feed Default for each selected stitch is automatically set. Differential Feed Setting adjustments can be made from 0.7 to 2.0. Differential Feed ensures wave-free seams in knits and prevents puckering in fine fabrics, while allowing deliberate gathering as an option.</p>				0.7 - 2.0
<p>Presser Foot Indicator Indicator shows recommended presser foot for general use of stitch selected. In addition, optional feet useful for the selected stitch are listed.</p>				•
<p>Presser Foot Pressure Adjustment Presser foot pressure is adjustable to accommodate sheer to thick fabrics.</p>	• 5 step	• 5 step	• 6 step	• 6 step
<p>Total Stitch Control with Automatic Default Settings All machine setting are adjustable including tensions, stitch length, differential feed setting, cutting width, Micro Thread Control, presser foot pressure, rolled hem. Use any combination of fabric and thread and have the ability to perfect and personalize the stitch with the automatic default settings, or adjust any or all settings to your liking.</p>				•

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<p>Total Stitch Control Individually adjustable settings such as thread tension for each needle and looper, stitch length, differential feed, cutting width, Micro Thread Control, presser foot pressure, and rolled hem settings allow for perfecting stitches when using a variety of fabrics and threads.</p>	•	•	•	•
<p>Automatic Needle Stop Up The needle always stops in the highest position up at the end of each stitch.</p>		•	•	•
<p>Programmable Needle Stop Up Programmable needle stop up/down. The needle stop position can be programmed via Color Touch Screen.</p>				•
<p>Two-step Presser Foot Lifter with Front Foot Lift The Two-step Presser Foot Lifter provides additional clearance under the foot when overlocking multiple layers or bulky fabrics. The Front Foot Lift gives an additional lift to the front of the presser foot enabling accurate positioning of multiple layers of fabric and bulky projects underneath it.</p>	•	•	•	•
<p>Upper Knife Drive from Below Designed with the knife drive under the stitch plate, the sewing area around the needles and looper area is open for easier threading while providing accurately cut fabric edges.</p>	•	•	•	•
<p>Knife On/Off Lever Knife On/Off Lever is positioned on the outside left of the machine base. The upper knife is quickly disengaged with one finger when opting not to trim. It is also easily accessible while sewing.</p>			•	•
<p>Knife On/Off Knob The Upper Knife is quickly released with the turn of a knob inside the machine, lowering the knife when opting not to trim fabric.</p>	•	•		
<p>Stitch Length Fine Tune for Rolled Hem The preferred rolled hem range (between 0.8 and 1.5) is outlined on the Stitch Length knob.</p>	•	•	•	•
<p>Rolled Hem Selection Lever The Rolled Hem Selection Lever built into the stitch plate is easy to switch to a rolled hem stitch and back again by simply moving the rolled hem selection lever.</p>	•	•	•	•
<p>Micro Thread Control (mtc) With Micro Thread Control, the over-edge thread length can be set directly resulting in the perfect seam with one quick adjustment.</p>	•	•	•	•

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<p>Cutting Width The cutting width can be adjusted to accurately set up seam width, and is adjustable (between 3 mm and 9 mm) even while sewing.</p>	•	•	•	•
<p>Stitch Width Overlock stitch width range from 3-9 mm and stitch finger moves in conjunction with cutting width dial. Right needle range 3-7 mm. Left needle range 5-9 mm.</p>	•	•	•	•
<p>Coverstitch Wide coverstitch is suitable for hems in medium to heavy knitwear, for high stretch fabrics and for topstitching. Narrow coverstitch is ideal for topstitching fine knitwear and lighter fabrics.</p>				3.0 mm/ 6.0 mm
<p>Combo Stitches 4/5-thread overlock stitches range from 7 to 11 mm width. Set the stitch width by selecting the chainstitch with right coverstitch needle RC, and combine with a 3-thread overlock of up to 9 mm stitch width.</p>				7 mm to 11 mm
<p>Eco Mode Eco Mode puts the machine and the BERNINA Foot Control into energy-saving mode and offers child-proof lock.</p>				•
<p>Home Screen The home screen allows access to the User Modes, Setup Program, Tutorial, Sewing Consultant and Eco Mode.</p>				•

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THREADING FEATURES				
<p>One-step BERNINA Air Threader Automatically threads the loopers. The One-step BERNINA Air Threader is activated with the BERNINA Foot Control, so both hands remain free to hold the thread over the Air Threader Nozzles.</p>			•	•
<p>Circumvention Thread Guide Use the Circumvention Thread Guide when the thread tension can not be decreased enough and friction needs to be reduced</p>			•	•
<p>Pulse Drive (L 890) When stepping on the BERNINA Foot Control with the thread cover and/or looper cover open, the machine will sew slowly for a maximum of one stitch, until the needles are in the up position when the air threader is activated or the on/off of the upper looper when stitching the coverstitch or chain stitch.</p>				•
<p>Pulse Drive (L 850) When stepping on the BERNINA Foot Control with the thread cover and/or looper cover open, the machine will sew slowly for a maximum of one stitch, until the needles are in the up position when the air threader is activated, or to be in the correct position for the use of the built-in needle threader.</p>			•	
<p>Thread Fed Into Air Threader Nozzle With closed BERNINA Air Threader pipes, the thread is pulled into the air threader as soon as the foot control is pressed, The thread tail needs only to hover above the nozzle to be pulled into air threading system and into loopers. No need to place thread tail into nozzle for threading to occur properly.</p>			•	•
<p>Lower Looper Threader Lever The Automatic Lower Looper Threader aids in the quick threading of the lower looper.</p>	•	•		
<p>Built-in Upper Looper Converter Easily set up for applications without upper looper thread with the built-in Upper Looper Converter. To engage, flip to the left and insert into the looper eye. To disengage, push out of looper eye and flip to the right until it clicks into lowest position.</p>			•	•
<p>Included Upper Looper Converter Attach the included Upper Looper Converter, stored conveniently in the looper cover door, to convert to stitches without upper looper thread.</p>	•	•		

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One-path Threading Thread follows one defined path for each stitch.	•	•	•	•
Color-coded Threading Paths Color-coded Threading Paths, along with a threading diagram inside the looper cover, ensure accurate threading every time.	•	•	•	•
Threading in Any Sequence No proposed threading order for air threading machine because the closed looper threading path makes tangling of needle and looper threads impossible.			•	•
Automatic Thread Tension Release As soon as the presser foot is lifted, the thread tension discs release automatically and allow easy, tension-free threading.	•	•	•	•
Swing-out Presser Foot Presser Foot swings to the left, providing ample space for easy threading, hassle-free needle changing and to easily lay the threads under the presser foot.			•	•
Stitch View Stitch View graphics throughout the Touch Screen functions. The view of a stitch can be changed from multicolor to monochrome and special stitches such as the flatlock can be shown in flat view. This serves as reference for stitch identification, threading and tension fine tuning. Stitch View graphics are found in the tabs of the touch screen.				•
Threading Chart A color-coded theading chart is located inside the looper or threader cover. The threading path of each thread can be verified.	•	•	•	•
Handwheel Position Indicator The ideal threading position for the needles and the loopers are indicated with a marking located under the looper cover.	•	•		
Built-in Needle Threader Built-in Needle Threader located at the needle bar area easily switches to thread both the left and right needles.			•	
Needle Threader The Needle Threader/Inserter Tool is a companion accessory that is stored in the looper cover. It aids in successful needle threading and needle installation and removal.	•	•	•	•

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Needle Pad Located behind the looper or threading cover, the Needle Pad provides a place to safely store needles temporarily.	•	•	•	•
Needle Checking Window This window on the needle bar provides for clear viewing of proper installation of needles.	•	•	•	•
Safety Indicator (LED) An open looper cover, open sewing table or raised presser foot activates the Safety Indicator (LED), thus preventing the accidental operation of the overlocker during the threading process.		•		
Safety Switch for Covers Safety Switch to reduce sewing speed and activate Pulse Drive when threader or looper cover is open. The machine sews slowly until it reaches the correct position for threading.			•	•
Safety Switch for Presser Foot Safety Switch to cut electrical supply to motor when presser foot is lifted so the machine will not sew.		•	•	•
Safety Switch On/Off for Presser Foot By default, the machine will not sew with presser foot raised. Via the Touch Screen, in the Setup Menu, the Safety Switch for the raised presser foot can be deactivated.				•
Thread Cutter with Clamp Thread Cutter with Clamp conveniently positioned on outside of machine and holds the thread chain out of the way ready to start the next seam.	•	•	•	•
Upper Looper Release Upper Looper De-activation for coverstitch sewing. Simply turn the lever and press the foot control, the machine lowers or raises the upper looper fast and easy switch quickly between overlock and coverstitch.				•
Coverstitch Insert with Seam Markings Coverstitch Insert with seam markings for sewing cover-/chainstitch at a precise distance from the edge along a guide marking. The coverstitch insert attaches to the looper cover and replaces the knife cover when sewing cover-/chainstitch. It allows flat sewing of coverstitches on hems or within wider fabrics, no matter the width of the fabric to the right of the needles.				•
Knife Cover Insert The Knife Cover Insert is attached to the looper cover and is standard for overlock stitches and rolled hem. Whenever the knife is active or sewing is performed at the fabric edge with upper looper and lower looper, the knife cover insert is standard.				•

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STITCH FEATURES					
Total Stitch Variations		16	16	18	27
4-thread overlock stitch		#1	#1	#1	#1
3-thread super stretch stitch		#2	#2	#2	#2
3-thread overlock stitch	Left needle	#3	#3	#3	#3
	Right needle	#4	#4	#4	#4
3-thread flatlock (wide/narrow)	Left needle	#5	#5	#5	#5
	Right needle	#6	#6	#6	#6
3-thread narrow seam		#7	#7	#7	#7
3-thread rolled hem		#8	#8	#8	#8
2-thread wrapped overlock	Left needle	#9	#9	#9	#9
	Right needle	#10	#10	#10	#10
2-thread flatlock	Left needle	#11	#11	#11	#11
	Right needle	#12	#12	#12	#12
2-thread rolled hem		#13	#13	#13	#13
2-thread overlock stitch	Left needle	#14	#14	#14	#14
	Right needle	#15	#15	#15	#15
2-thread blanket stitch wide (LN)				#28	#28
2-thread blanket stitch narrow (RN)				#29	#29
3-thread picot stitch		#30	#30	#30	#30
4-thread coverstitch 6mm LC-CC-RC					#21
3-thread coverstitch 6 mm LC-RC					#22

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3-thread coverstitch 3mm LC-CC				#23
3-thread coverstitch 3mm CC-RC				#24
2-thread chainstitch RC				#16
3-thread overlock wide (LN) + chainstitch				#17
3-thread overlock narrow (RN) + chainstitch				#18
2-thread overlock wide (LN) + chainstitch				#19
2-thread overlock narrow (RN) + chainstitch				#20

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FEET AND BASIC ACCESSORIES				
Feet as Standard Standard Overlock Foot with needle position marks and cord/tape guide	•	•		
Feet as Standard Standard Overlock Foot #L10			•	
Feet as Standard Standard Combo Foot #C11 Chain-/Coverstitch Foot #C13				•
Seam Guide	•	•	•	•
Upper Looper Converter	•	•	Built-in	Built-in
Coverstitch Insert				•
Freearm Cover			Optional	•
Slide-on Table	Optional	•	•	•
Accessory Box Plus accessory storage in looper cover	•	•	•	•
Accessory Box Extension				•
Seam Guide	•	•	•	•
Cut-Offs Bin	•	•	•	•
Free Hand System Lever		•	•	•
WARRANTY	2 years Electrical; 2 years Printed Circuit Boards; 5 years Mechanical		2 years Electrical; 5 years Printed Circuit Boards; 20 years Mechanical	