

LK-1903B Series

Computer-controlled, High-speed, Lockstitch, Button Sewing Machine



LK-1903BB (Bird's nest preventing / Shorter-thread remaining functions)



LK-1903B (Standard Type)

LK-1903B/BR35 (with button feeder)

Higher productivity. **Excellent seam quality.**



The active tension mechanism is provided with the machine as standard.

Higher productivity and Excellent seam quality.

Higher productivity.

• The machine achieves sewing speed of 2,700sti/min. The machine's starting, stopping, thread-trimming and automatic presser lifting speeds have been increased to significantly shorten total cycle time.

Excellent seam quality.

• Needle thread grasping mechanism helps produce consistent knot tying at the beginning of sewing.

Many different sewing patterns.

- The machine is provided as standard with 50 different sewing patterns. The machine permits easy changeover of sewing patterns for effortless execution of an inexhaustible range of sewing specifications.
- The LK-1903B is also able to sew buttons using the same data used for the LK-1903 (Data in EP-ROM are enabled by conversion).

The machine is provided as standard with the active tension (electronic thread tension control mechanism).

- Since the machine is provided with an active tension mechanism, it is able to set a needle thread tension that matches various sewing conditions (such as thread, material and sewing speed) on the operation panel, store the data in memory and reproduce it.
- The needle thread tension can be separated according to stitching type or portion of a seam, such as the beginning part of the seam, base stitched part, zigzag stitched part and end of the seam (fastening stitch).
- When the operation panel is used in combination with the active tension, the needle thread tension can be set on a stitch-by-stitch basis. This helps eliminate undesired thread tension variations at a multi-layered part of a material or with sewing direction, thereby contributing to upgraded seam quality.





Auto-lifter mechanism utilizing a system.

- The machine is provided as standard with auto-lifter that uses a stepping-motor system. This helps reduce operator fatigue.
- It is also possible to change over the stroke of the auto-lifter from a onestep stroke to a double-step stroke, which offers easier positioning of a material on the machine. For the double-step stroke, an intermediate stopping height can be established on the operation panel.
- The work clamp foot lift can be set to a maximum of 13mm.

The sewing starting point can be corrected.

• The sewing starting point can be shifted in the X/Y direction. This enables the correction of a sewing pattern in accordance with the presser foot configuration.

Oil stains are eliminated.

- Thanks to our advanced dry-head technology, the frame (needle bar and thread take-up) no longer requires lubrication. This prevents the material from being stained with lubricating oil.
- Just a small quantity of clean oil is supplied from the oil tank to the hook.

Eco-friendly power saving

• An encoder is installed in the pulse motor, thereby achieving substantially improved power-consumption saving.

TABLE OF THE SEWING PATTERNS



Pattern No.	Stitch shape	throad	Standard length X (mm)	Standard length Y (mm)	Pattern No.	Stitch shape	Sewing thread (pcs.)	Standard length X (mm)	Standard length Y (mm)
1.34	E	6-6			18-44		6		
2.35	(E)	8-8			19-45		8		
3	E	10-10			20	(30)	10	3.4	0
4	E	12-12			21		12		
5.36	•	6-6			22		16		
6.37	1	8-8			23.46		6		
7	(13)	10-10			24		10	0	3.4
8	3.3	12-12			25	1	12		
9.38	(2)	6-6	3.4	3.4	26-47	(II)	6-6		
10.39	(2)	8-8			27	(II)	10-10	3.4	3.4
11	(2)	10-10			28-48	(11)	6-6	3.4	3.4
12.40	×	6-6			29	11	10-10		
13-41	×	8-8			30-49	(5-5-5		
14	×	10-10			31	8	8-8-8	3.0	2.5
15.42	*	6-6			32.50		5-5-5	3.0	2.5
16.43	*	8-8			33	(2)	8-8-8		
17	(x)	10-10							

※(1) Standard sewing lengths X and Y given above are given assuming that the scale is 100.

MODELS CLASSIFIED BY BUTTON SIZES

Model n	ame		LK-1903B-301				LK-1903B-301		LK-1903B-302														
Button size			For extra-small button			For small button (accessory)		For medium-size buttor	า														
Outside diameter that can be adjusted (mm)		nm)	φ8~φ9	φ8~φ9 φ9~φ10 φ10~φ15		5	φ10~φ20		φ10~φ20														
Sewing size	Length	ı (Y)	0~2.5	0~3.0	0~3.5		0~3.5		0~4.5														
(mm)	Width (X)		0~2.5	0~3.0	0~3.5		0~3.5		0~4.5														
Thickness (mm)		ness		1.7 (2.2)			1.7 (2.2) (2.7)		2.0 (2.2) (2.7)														
					>	:	(0.9)	*		*													
Button clamp			M	AZ158070E	3B G	i	14148852	K	14149058	L													
jaw lever		Right	(M	AZ158070E	BA) F		(MAZ155070B0)	В	(MAZ155070B0)	В													
(combination)		nigiit		_		-	(MAZ156070B0)	С	(MAZ156070B0)	С													
	Part			_	-	-	(B25553720A0)	-	_	-													
	No.		M	AZ158080E	BB G	i	14148951	K	14149157	L													
															Left	(M)	AZ158080E	3A) F		(MAZ155080B0)	В	(MAZ155080B0)	В
																Leit		_	-	-	(MAZ156080B0)	С	(MAZ156080B0)
				_		-	(B25573720A0)	-	_	_													
Needle hole guide (mm)	Α			1.6 (1.8)			(1.6) (1.8) (1.1)		1.6														
$\phi_{B} \phi_{C}$	В			φ2.8			(φ3.5)		φ3.5														
() 	С			φ1.6		7 ()	(φ1.6)		φ2.0														
₩			M	AZ1580100	00		(MAZ15501000)																
A	Part N	lo.		(14149900))		(14149603)		MAZ15601000														
				_			(D2426284Y00)																
Feed plate			MAZ1	5502000 (□8.5)		MAZ15502000 (\subseteq 8.5))	MAZ15602000 (□10)														
			*Parts shown in	n parentheses () are optiona	ıl.	★: Engraved marker																

OPTION

Option		
For large button		
φ15~φ32		
0~6.5		
0~6.5		
2.7 (3.2)		
	*	
MAZ157070BB	D	
(MAZ157070BA)	Е	
_		
_		
MAZ157080BB	D	ì
(MAZ157080BA)	E	
_	-	
_		
1.4		
φ3.5		
φ2.0		
MAZ15701000		
MAZ15702000 (□12.5)		

Model name	Option						
Button type	For shank button						
Max. sewing speed	1,500	Osti/min					
	Outside diamete	er	φ8	~φ20			
Button	Diameter of hole i	n button	φ1.5	or more			
configuration	Position of hole in button		1.5mm or more				
		_	A (mm)				
Configuration of	B (CII)	B (mm)	Min	Max			
Configuration of shank		1	4	9			
orial IIX		3	3	8			
	A	5	_	7			
Pattern No.	18, 19,	20, 21,	22				

Optional part for shank button

puonai part for onan	K DULLOII		
Part No.	Name of part		
14146054	Pick-up device complete		
D1401M1YC0A	Needle bar (for TQ×1)		
MAZ160170A0	Wiper (asm.)		
40015434	Moving plate link A		
14148209	Bushing		
SL6030892TN (2 pcs.)	Screw		
MAZ16015000	Button support link		
SD0640321TP	Hinge screw		
40010103	Connecting link		
SL6040892TN (2 pcs.)	Screw		
MAZ16021000	Needle hole guide		
MTQ300B1400	Needle TQ×3 #14		

STANDARD LIQUID CRYSTAL PANEL

- O Functional settings, such as pattern numbers and needle thread tensions can be established through the operation panel with ease. Distance between holes in a button can be easily changed by means of pattern enlargement/reduction feature.
- O Standard sewing patterns can be assigned to pattern keys P1 to P50. Any of the sewing patterns assigned to the P1 to P25 pattern keys can be activated with a touch of the corresponding key. This means that workability is improved by assigning 25 sewing patterns that are most frequently used to those pattern keys.
- O As many as 99 different cycle sewing patterns, each of which combines a maximum of 99 different sewing patterns, can be stored in the memory.



IP-420U Operation panel provided with programmable functions

The IP-420U is a new operation panel configured with a "input function" not available in standard panel.

- O Input and edit data while observing the needle-entry points visually.
- The operator can easily check the shape of the pattern displayed on the wide liquid crystal panel.
- Make minor adjustments to data quickly and efficiently. Overall use is easier than ever before.
- O The memory storage capability of the main body of the sewing machine has been dramatically enhanced. Now the USB-ready main body of the sewing machine uses many different kinds of media. In addition to the Compact Flash card, the main body of the sewing machine is provided as standard with a USB connector. Now, data can be input/output to/from various kinds of media (SD (Secure Digital Card), CF (Compact Flash), SM (Smart Media), FD (floppy disks) etc.) by means of a USB thumb device and a card reader.



LK-1903B

Lockstitch, Botton Sewing Machine of standard type

The machine achieves sewing speed of 2,700sti/min
The machine's thread-trimming etc. have been increased to significantly shorten total cycle time.
The machine is provided as standard with 50 different sewing patterns at higher productivity. The LK-1903B is a lockstitch button sewing machine which is not only applicable to many different sewing specifications but also able to carry out cycle sewing and produces high-quality seams.

LK-1903BS

LK-1903BB The world's first

Button sewing machine with the bird's nest preventing / shorter thread remaining functions which eliminates thread nipping work

Users who are conscious about the finished quality of products manually nip, with scissors, the thread remaining on the material after thread trimming at the end of sewing. Now, the button sewing machine with the bird's nest preventing/shorter thread remaining functions saves such users the trouble of nipping the thread, thereby preventing the sewing product from being damaged by manual thread-nipping with scissors.



The sewing machine eliminates so-called "bird's nests" (thread tangling in on the wrong side of the material at the beginning of sewing).

The thread is retained at the beginning of sewing and any excess thread is trimmed during sewing. As a result, the length of thread sewn in the seam is shortened, thereby achieving high-quality sewing performance while preventing thread from tangling in on the wrong side "of the material."



*Use #60-80 (TEX22-30) polyester spun thread

Length of thread remaining on the material at the end of sewing has been reduced to 2 mm or less*.

The newly-developed shorter-thread remaining mechanism trims the thread shorter after the regular thread trimming operation. Additionally, thread waste produced by thread trimming is withdrawn by suction. Thanks to this mechanism, the trouble of manual thread nipping is avoided.

*Remaining length of thread varies with sewing conditions.

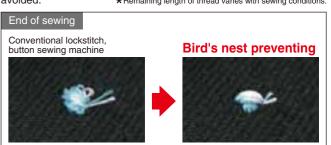


TABLE OF THE SEWING PATTERNS



13.41 (*) 8-8

	ı								
Pattern No.	Stitch shape	Sewing thread (pcs.)	Standard length X (mm)	Standard length Y (mm)	Pattern No.	Stitch shape	Sewing thread (pcs.)	Standard length X (mm)	Standard length Y (mm)
1.34	=	6-6			14	X	10-10		
2.35		8-8			15.42	x	6-6	3.4	3.4
3		10-10			16-43	*	8-8	3.4	3.4
4	E	12-12			17	*	10-10		
5.36	3	6-6			18-44		6		
6.37	3	8-8			19.45		8		
7	(E)	10-10	3.4	3.4	20		10	3.4	0
8	(E)	12-12			21		12		
9.38	(2)	6-6			22		16		
10.39	(2)	8-8							
11	(2)	10-10							
12.40	*	6-6							

^{**(1)} Standard sewing lengths X and Y given above are given assuming that the scale is 100
(2) Use the patterns No. 34-45 with hole diameter 1.5mm or less.

MODELS CLASSIFIED BY BUTTON SIZES

Model name			LK-1903BB-301						
Button size			For extra-small button			For small button (accessory)			
Outside diameter that can be adjusted (mm)		(mm)	φ8~φ9 φ9~φ10 φ10~φ15			φ10~φ20			
Sewing size	Length (Y)		0~2.5	0~3.0	0~3	.5	0~3.5		
(mm)	Width	1 (X)	0~2.5	0~3.0	0~3	.5	0~3.5		
	Thickness (mm)			1.7 (2.2)		•	1.7 (2.2) (2.7)		
						*	(0.9)	*	
Button clamp	Part No.		MAZ	Z158070E	BB	G	14148852	K	
		Right	(MAZ158070BA)			F	(MAZ155070B0)	В	
(combination)							(MAZ156070B0)	С	
						_	(B25553720A0)	_	
			MAZ158080BB			G	14148951	K	
		Left	(MAZ	(MAZ158080BA)			(MAZ155080B0)	В	
		Left		_			(MAZ156080B0)	С	
						_	(B25573720A0)	—	
Needle hole guide (mm) A			0				0		
(-)	В			_			_		
1	С			φ2			φ2		
Ä	Part	No.		4014682	1		40146821		
Feed plate			40146828						
*Parts shown in parentheses () are optional * Engraved market									

 $\ensuremath{\mbox{\$Parts}}$ shown in parentheses () are optional. $\ensuremath{\mbox{\$}}$: Engraved marker

LK-1903B/BR35

Newly developed machine head, LK-1903B is adopted. LK-1903B/BR35 is now available.

- The machine achieves sewing speed of 2,700sti/min. The machine's starting, stopping, thread-trimming and automatic presser lifting speeds have been increased to significantly shorten total cycle time.
- With our original horizontal forced feed mechanism, the button carrier sets a button in position so that the
 operation is simplified. Furthermore, operator fatigue is reduced since what operator needs to do is only setting
 material and pressing a pedal.



LK-1903BS-311/BR35

MODELS CLASSIFIED BY BUTTON SIZES

Model name			LK-1903B-311/BR35		LK-1903B-312/BR35		
Button size			For small button	,	For medium-size butto	_	
			1 Or Small Duttoll		For medium-size button		
Outside diameter that can be adjusted (mm)			φ10~φ15		φ12~φ18		
Sewing size	Length	(Y)	0~3.5	0~4.5			
(mm)	Width	(X)	0~3.5		0~4.5		
	Thickr	ness	1.7 (2.2)		2.7		
				*		*	
Button clamp jaw lever (combination)			14190458	Р	MAZ166070B0	J	
	Part No.		(MAZ165080B0)	Н	_	_	
			I	_	_	_	
			1	_	_	_	
			14190557	Р	MAZ166080B0	J	
			(MAZ165080B0)	Н	_	_	
				_	_	_	
				_		-	
			1.6		1.6		
Needle hole guide (mm)	Α		(1.8)				
ϕB ϕC	В		φ3.5		φ3.5		
	С		φ1.6		φ2.0		
			MAZ15501000				
→H A	Part N	lo.	(14149603)		MAZ15601000		
			_				
Feed plate		MAZ15502000 (□8.5)		MAZ15602000 (□10)			

※Parts shown in parentheses () are optional. ★: Engraved marker

BUTTON CARRIER

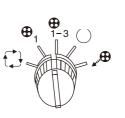
E	BUTTON CARRIER									
	F	or 4-hol	ed button	F	or 2-hol	ed button				
Configuration of button carrier						A B				
	Distance A(mm): Distance between holes in button	Distance B(mm): Diameter of set pin	Part No.	Code	Distance A(mm): Distance between holes in button	Distance B(mm): Diameter of set pin	Part No.	Code		
				Stan	dard					
	2.6	1.0	165-57902	Α	3.2	1.2	165-58009	В		
				Opti	onal					
	2.0	1.0	165-90507	Q	2.0	1.0	165-87305	Е		
	2.2	1.0	165-90606	R	2.2	1.0	165-87404	F		
	2.4	1.0	165-88501	S	2.4	1.0	165-87503	G		
	2.4	1.2	165-88600	T	2.4	1.2	165-87909	L		
	2.6	1.2	165-88709	U	2.6	1.0	165-87602	Н		
	2.8	1.2	165-88808	V	2.6	1.2	165-88006	M		
	3.0	1.2	165-88907	W	2.8	1.0	165-87701	J		
	3.0	1.5	165-89806	F1	2.8	1.2	165-88105	N		
	3.1	1.0	165-87206	D	3.0	1.0	165-87800	K		
	3.1	1.2	165-89004	X	3.0	1.2	165-88204	P		
	3.1	1.4	165-89202	Z	3.8	1.2	165-87107	С		
	3.2	Tapered	165-89905	G1						
	3.6	1.2	165-90705	H1						
	4.0	1.2	165-89707	E1						

OPERATION PANEL

The variety of functions can be easily adjusted by the simplified operation panel.

Alarm lamp will be activated when problem is detected so that proper measures can be taken quickly.







Automatic supply mode

The machine and button feeder are connected and run together. It starts sewing a button by pressing a pedal, thread trimmer is activated after sewing a button, and button feeder sets the next button in position automatically. The machine repeats these operations with this mode.

Mode for individual

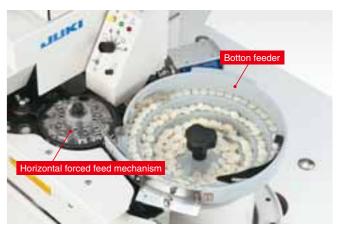
This mode is for the machine only. As button feeder will not be activated, this can be used as a standard button sewing machine.



Mode for small lots

1-3 Same as the automatic mode, but parts feeder will not be activated. It discharges the required amount of buttons in the index and sews buttons automatically. This is suitable for smaller lots.





SHAPE OF BUTTON (LK-1903B/BR35)

	Applicable button	Inapplicable carrier
Shape of button	1.2mm or more	1.2mm or less Button without indented part (concavoconvex shape button)
Remarks	Thickness of button should be 1.8~3.5mm.	Button with thin edge may not be fed by the button feeder.

OPTIONS

● Magnet wiper						
Applicable model	Part No. Description		Quantity			
	40018334	Solenoid for wiper (asm.)	1			
	SM6041150TP	Screw	2			
LK-1903B	TA1250705R0	Rubber plug	1			
	HX00123000C	Cable clip	4			
	SL4041091SC	Screw	4			

When you install magnet wiper on the machine head after factory shipment, a part of belt cover should be modified.

 Model
 Applicable model
 Part No.
 Description

 Q123
 LK-1903B
 MAQ123000A0
 Button spacer (commonly used for men's wear and ladies' wear)

 Q124
 LK-1903B/BR35
 MAQ124000A0
 Button rising bar (asm.) (Attachment and removal are possible.)

 —
 LK-1903B/BR35
 —
 For thick buttons (Thickness of button should be 2.5~5.0mm.)

SPECIFICATIONS

Model name	LK-1903BB	LK-1903B	LK-1903B/BR35		
Max. sewing speed		2,700sti/min※			
Button size	Type: Round-shaped, flat button Size: φ8~φ20mm 301: φ8~φ20	Type: Round-shaped, flat button Size: $\phi 8 \sim \phi 32 \text{mm}$ 301: $\phi 8 \sim \phi 20$ 302: $\phi 10 \sim \phi 20$ OPTION: $\phi 15 \sim \phi 32$	Type: Round-shaped, flat button (2-holed, 4-holed) Size: ϕ 9~20mm For small button: ϕ 10~ ϕ 15mm For medium-sized button: ϕ 12~ ϕ 18mm (Those that are smaller than ϕ 10mm or larger than ϕ 18mm must be specially ordered.) Thickness: 1.8~3.5mm		
Stitch length		0.1~10mm (0.1mm st	ep)		
Needle bar stroke		45.7mm			
Lift of the work clamp foot	Max. 10mm	Max. 13mm	Max. 11mm		
Auto-lifter		Provided as standard (stepping	motor type)		
Needle thread tension		Active tension (electronic thread tensi	on control system)		
Needle (at the time of delivery)	DP×17 (#11) DP×17 (#14)				
Hook		Standard shuttle hoo	ok		
Number of stitches that can be stored in memory		Max. 20,000 stitche	s		
Number of standard patterns	34 patterns	50 pa	itterns		
Number of data that can be input		200 patterns			
Enlarging/Reducing facility	20~200%(1% step), Patte	ern enlargement /reduction can be don	e by increasing /decreasing the stitch length		
Memory medium		Internal-organs memo			
Bobbin thread counter		Provided as standard (up/dow	vn method)		
Bird's nest preventing / Shorter-thread remaining functions	Provided	_	_		
Supplying and sorting of button	_	_	Vibration system		
Button feed	_	_	Horizontal forced button-feed mechanism		
Button feed mode	_	_	Automatic feed mode, non-feed mode, and small-lot sewing mode		
Lubrication		Hook: minute-quantity lub	rication		
Lubricating oil		JUKI New Defrix Oil No.2 (equivale	nt to ISO VG32)		
Sewing machine motor		Compact AC servomotor (direct-	drive system)		
Power consumption	250VA	250VA	320VA		
Weight	Machine head (include motor) 42kg, Control box 5.1kg	Machine head (include motor) 42kg, Control box 5.1kg	131kg (include machine head, table and BR35)		

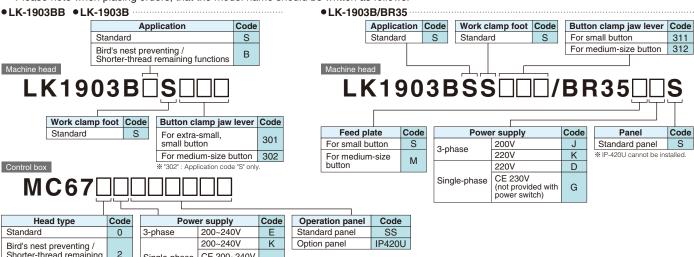
IWHEN YOU PLACE ORDERS

Please note when placing orders, that the model name should be written as follows:

CE 200~240V

Ν

Single-phase



JUKI ECO PRODUCTS

Shorter-thread remaining

The LK-1903B Series is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment



- ●The sewing machine complies with the "Juki Group Green Procurement Guidelines" on the use of hazardous substances, which is stricter than other restrictions, such as those of the RoHS Directive.
- This sewing machine reduces power consumption by 15% as compared with the conventional models. For details of JUKI ECO PRODUCTS, refer to: http://www.juki.co.jp/eco_e/index.html

KThe RoHS Directive is an EU Directive limiting the use of 6 hazardous substances (lead, hexavalent chromium, mercury, cadmium, PBB and PBDE) in electrical and electronic equipment.

The Juki Green Procurement Guideline is the voluntarily established criteria to eliminate not only the aforementioned six substances, but also other ones which also adversely affect the environment



● To order, please contact your nearest JUKI distributor.

zation : JUKI CORPORATION Head Off Registration : The activities of res Registered Organiz The Scope of the nent, design, sales, of industrial sewing



SEWING MACHINERY BUSINESS UNIT

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http://www.juki.com * Specifications and appearance are subject to change without prior notice for improvement.

* Read the instruction manual before putting the machine into service to ensure safety.

* This catalogue prints with environment-friendly soyink on recycle paper.

^{※ &}quot;sti/min" stands for "Stiches per Minute"
※ CompactFlash™ or CFA specification compatible media

Compactriash™ of CFA specification Compatible fields.

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