

LK-1903C Series

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

Inspire the Knowledge in Sewing Adjustment

Epoch-making Sewing Systems in history



LK-1903CSS301K



Products complied with JUKI SUSTAINABLE PRODUCTS Standard (JUKI own standard)

The products are paying attention to environmental impact reduction, better working environment and helping create smart factory. The power consumption is reduced by 25% or more compared to conventional products.



Registered Organization: JUKI CORPORATION Head Office
The Scope of the Registration: The activities of research, development, design, sales, distribution, and maintenance services of industrial sewing machines, household sewing machines and industrial robots, etc., including sales and maintenance services of data entry systems.

JUKI JUKI CORPORATION
SEWING MACHINERY & SYSTEMS BUSINESS UNIT

2-11-1, TSURUMAKI, TAMA-SHI, TOKYO 206-8551, JAPAN

PHONE: (81) 42-357-2370 FAX: (81) 42-357-2274

<https://www.juki.co.jp/en>

- 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.
- QR code is a registered trademark of DENSO WAVE INCORPORATED.

JULY, 2024 Printed in Japan(TN)

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

LK-1903C Series

Digital sewing system proposes the production process added with a computerized new value to all the people who engage in production.

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

LK-1903C Series



Stable productivity

Higher productivity

The LK-1903C 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. This is a lockstitch button sewing machine that supports a variety of sewing patterns and cycle sewing.

New Standard LCD panel / Control box integrated with the machine head

The control box integrated with the machine head, originally designed by JUKI, is adopted. The number of standard patterns is 50. As many as 999 patterns (500,000 stitches) can be stored in memory. The new upright type operation panel is installed on the side face of the machine head to allow the operator to operate the machine without averting his/her eyes, during sewing, from the bartack being sewn. In addition, the table surface can be used widely. The operation panel can also be installed on the table as before.

• If you want to install the operation panel on the table, an optional connecting cable (1.2 m) will be necessary. Part number: 40297363



Standard LCD panel: To be installed to the machine head

Control box integrated with the machine head

Two-way data communication function for sewing machine data using an NFC terminal optional

The standard LCD panel is provided as standard with a USB port to facilitate data management between sewing machines and update of software. If you additionally use the optional NFC terminal, bidirectional data communication is enabled with a commercially-available Android terminal in a non-contact manner. This enables quick sharing of pre-set sewing data with other sewing machines to reduce the time required for set-up changing.

• Optional NFC terminal: Part number 40289481



USB port



NFC terminal optional

The sewing machine can be paired with equipment which supports NFC (Near Field Communication) only by holding the equipment over the sewing machine.

Android OS Version 6.0 is recommended to use JUKI Smart APP. (Operation is confirmed with respect to Versions 5.0 and later.) Contact JUKI distributor in your area for how to use the application software.

Various functions

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, in the middle of sewing and end of the seam (fastening stitch).

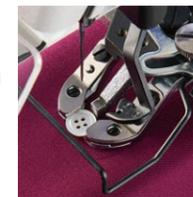


Excellent seam quality

- Needle thread grasping mechanism helps produce consistent knot tying at the beginning of sewing. (This device has been factory-set to "invoking prohibited" status at the time of delivery.)
- In the case "T" is selected for the work clamp foot/thread clamp

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.



LK-1903CS

Improved working environment

Operator's fatigue is reduced

The LED hand light is now provided with color matching function using two colors (white/light bulb color) in addition to the conventional dimming function. Illumination is adjustable in five levels and dimming is in 10 levels to help reduce the eye fatigue of the operator who is engaged in sewing operation for extended hours.



Mixed color

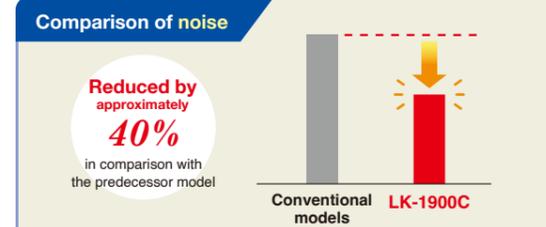
White

Light bulb color

Noise and vibration are reduced

This machine substantially reduces noise and vibration in comparison with the predecessor models to provide the work environment that takes reduction of the operator's fatigue into consideration.

- Reduction of noise of the sewing machine by approximately **40%** Stress on the ears is relieved
- Reduction of vibration of the sewing machine by approximately **7%** Working stability is improved



• Comparison at the sewing speed of 3,200sti/min (Data is based on bar tacking specifications.)

The sewing starting point can be corrected

- The sewing starting point can be moved in the X and/or Y directions. When sewing buttons, the needle drop position at the beginning of sewing can be corrected using the operation panel.

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.

Excellent workability and operability (Low-noise and low-vibration)

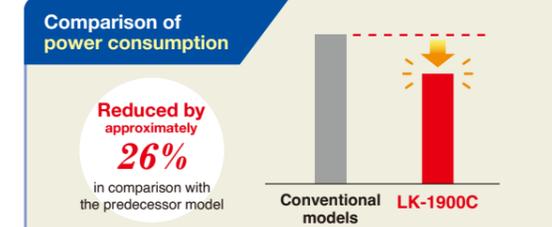
- The direct-drive head (with no belt), which is directly connected to a compact AC servomotor, achieves outstanding. This head helps create a comfortable working environment with reduced vibration and noise.
- The arm section of the machine head is fitted with a hand pulley. This allows the operator to visually check the needle entry points.

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.

Environmental-friendly power saving

Aiming at the creation of environment-conscious products, an encoder is mounted on the stepping motor. Thanks to the JUKI's unique control technology, power consumption of this machine is reduced by approximately **26%** in comparison with the predecessor model.



LK-1903C

Computer-controlled, High-speed, Lockstitch, Button Sewing System (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-1903C 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.



MODELS CLASSIFIED BY BUTTON SIZES

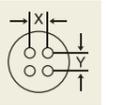
Model name		LK-1903C-301			LK-1903C-302		
Button size		For extra-small button		For small button (accessory)		For medium-size button	
Outside diameter that can be adjusted (mm)		φ8~φ9	φ9~φ10	φ10~φ15	φ10~φ20	φ10~φ20	
Sewing size (mm)	Length (Y)	0~2.5	0~3.0	0~3.5	0~3.5	0~4.5	
	Width (X)	0~2.5	0~3.0	0~3.5	0~3.5	0~4.5	
Thickness (mm)		1.7 (2.2)			1.7 (2.2) (2.7) (0.9)		2.0 (2.2) (2.7)
				*		*	*
Button clamp jaw lever (combination)	Right		MAZ158070BB	G	14148852	K	14149058
			(MAZ158070BA)	F	(MAZ155070B0)	B	(MAZ155070B0)
			—	—	(MAZ156070B0)	C	(MAZ156070B0)
	Left		MAZ158080BB	G	14148951	K	14149157
			(MAZ158080BA)	F	(MAZ155080B0)	B	(MAZ155080B0)
			—	—	(MAZ156080B0)	C	(MAZ156080B0)
	—	—	(B25573720A0)	—	—	—	
Needle hole guide (mm)	A	1.6 (1.8)			(1.6) (1.8) (1.1)		1.6
	B	φ2.8			(φ3.5)		φ3.5
	C	φ1.6			(φ1.6)		φ2.0
Part No.		MAZ15801000 (14149900)			(MAZ15501000) (14149603)		MAZ15601000
		—			(D2426284Y00)		—
Feed plate		MAZ15502000 (□8.5)			MAZ15502000 (□8.5)		MAZ15602000 (□10)

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

TABLE OF THE SEWING PATTERNS

Pattern No.	Stitch shape	Sewing thread (pcs.)	Standard length X (mm)	Standard length Y (mm)		
1-34		6-6	3.4	3.4		
2-35		8-8				
3		10-10				
4		12-12				
5-36		6-6				
6-37		8-8				
7		10-10				
8		12-12				
9-38		6-6				
10-39		8-8				
11		10-10				
12-40		6-6				
13-41		8-8				
14		10-10				
15-42		6-6				
16-43		8-8				
17		10-10				
18-44		6	3.4	0		
19-45		8				
20		10				
21		12				
22		16				
23-46		6			0	3.4
24		10				
25		12				
26-47		6-6	3.4			
27		10-10				
28-48		6-6				
29		10-10	3.0	2.5		
30-49		5-5-5				
31		8-8-8				
32-50		5-5-5				
33		8-8-8				

• (1) Standard sewing lengths X and Y given above are given assuming that the scale is 100.
• (2) Use the patterns No. 34~50 with hole diameter 1.5mm or less.



You can also view the "Table of the sewing patterns" via the QR code.



OPTION

Model name	Option		
Button size	For large button		
Outside diameter that can be adjusted (mm)	φ15~φ32		
Sewing size (mm)	Length (Y)	0~6.5	
	Width (X)	0~6.5	
Thickness (mm)		2.7 (3.2)	
		*	
Button clamp jaw lever (combination)	Right	MAZ157070BB	D
		(MAZ157070BA)	E
		—	—
	Left	MAZ157080BB	D
		(MAZ157080BA)	E
		—	—
Needle hole guide (mm)	A	1.4	
	B	φ3.5	
	C	φ2.0	
Part No.	MAZ15701000		
Feed plate	MAZ15702000 (□12.5)		

*: Engraved marker

Model name	Option																
Button type	For shank button																
Max. sewing speed	1,500sti/min																
Button configuration	Outside diameter	φ8~φ20															
	Diameter of hole in button	φ1.5 or more															
Position of hole in button		1.5mm or more															
Configuration of shank		<table border="1"> <thead> <tr> <th>B (mm)</th> <th colspan="2">A (mm)</th> </tr> <tr> <th></th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4</td> <td>9</td> </tr> <tr> <td>3</td> <td>3</td> <td>8</td> </tr> <tr> <td>5</td> <td>—</td> <td>7</td> </tr> </tbody> </table>	B (mm)	A (mm)			Min	Max	1	4	9	3	3	8	5	—	7
		B (mm)	A (mm)														
	Min	Max															
1	4	9															
3	3	8															
5	—	7															
Pattern No.	18, 19, 20, 21, 22																

Optional part for shank button

Part No.	Name of part
14146054	Pick-up device complete
D1401M1YC0A	Needle bar (for TQx1)
MAZ160170A0	Wiper (asm.)
40297201	Moving plate link A
14148209	Bushing
SL6040892TN (2 pcs.)	Screw
40293599	Button support link
SD0640321TP	Hinge screw
40293597	Connecting link
SL6040892TN (2 pcs.)	Screw
MAZ16021000	Needle hole guide
MTQ300B1400	Needle TQx3 #14

LK-1903CB

Computer-controlled, High-speed, Lockstitch, Button Sewing System
(Bird's nest preventing / Shorter-thread remaining specification)

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.

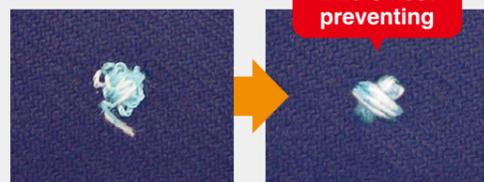


The sewing machine eliminates so-called "bird's nests" (thread tangling in on the wrong side of the material at the beginning of sewing).

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

Starting of sewing



Conventional lockstitch, button sewing machine

LK-1903CB

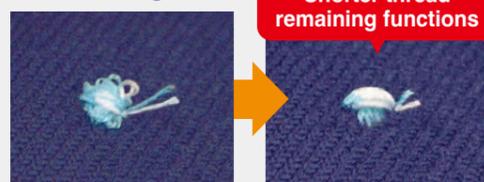
Bird's nest preventing

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.

End of sewing



Conventional lockstitch, button sewing machine

LK-1903CB

Shorter thread remaining functions

TABLE OF THE SEWING PATTERNS

You can also view the "Table of the sewing patterns" via the QR code.



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	3.4	3.4	12-40	⊗	6-6	3.4	3.4
2-35	⊕	8-8			13-41	⊗	8-8		
3	⊕	10-10			14	⊗	10-10		
4	⊕	12-12			15-42	⊗	6-6		
5-36	⊕	6-6			16-43	⊗	8-8		
6-37	⊕	8-8			17	⊗	10-10		
7	⊕	10-10			18-44	⊕	6		
8	⊕	12-12			19-45	⊕	8		
9-38	⊕	6-6			20	⊕	10		
10-39	⊕	8-8			21	⊕	12		
11	⊕	10-10			22	⊕	16		

(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-1903CB-301					
Button size	For extra-small button		For small button (accessory)			
Outside diameter that can be adjusted (mm)	φ8~φ9	φ9~φ10	φ10~φ15	φ10~φ20		
Sewing size (mm)	Length (Y)	0~2.5	0~3.0	0~3.5		
	Width (X)	0~2.5	0~3.0	0~3.5		
Thickness (mm)	1.7 (2.2)		1.7 (2.2)			
			* (2.7) (0.9) *			
Button clamp jaw lever (combination)	Part No.	Right	MAZ158070BB	G	14148852	K
			(MAZ158070BA)	F	(MAZ155070B0)	B
			—	—	(MAZ156070B0)	C
	Left	—	—	(B25553720A0)	—	
		MAZ158080BB	G	14148951	K	
		(MAZ158080BA)	F	(MAZ155080B0)	B	
Needle hole guide (mm)	A	0		0		
	B	—		—		
φB φC	C	φ2		φ2		
	Part No.	40146821		40146821		
Feed plate	40146828					

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

SPECIFICATIONS

Model name	LK-1903C	LK-1903CB
Max. sewing speed	2,700sti/min*	
Button size	Type: Round-shaped, flat button Size: φ8~φ32mm 301: φ8~φ20 302: φ10~φ20 OPTION: φ15~φ32	Type: Round-shaped, flat button Size: φ8~φ20mm 301: φ8~φ20
Stitch length	0.1~10mm (0.1mm step)	
Needle bar stroke	45.7mm	
Lift of the work clamp foot	Max. 13mm	Max. 10mm
Auto-lifter	Provided as standard (stepping motor type)	
Needle thread tension	Active tension (electronic thread tension control system)	
Needle (at the time of delivery)	DPx17 (#14)	DPx17 (#11, #14)
Hook	Standard hook	
Number of stitches that can be stored in memory	Max. 500,000 stitches	
Number of standard patterns	50 patterns	34 patterns
Number of data that can be input	999 patterns	
Enlarging / Reducing facility	20~200% (1% step), Pattern enlargement / reduction can be done by increasing / decreasing the stitch length	
Memory medium	Internal-organs memory	
Bobbin thread counter	Provided as standard (up/down method)	
Bird's nest preventing / Shorter-thread remaining functions	—	Provided
Lubrication	Hook: minute-quantity lubrication	
Lubricating oil	JUKI New Defrix Oil No.2 (equivalent to ISO VG32)	
Sewing machine motor	Compact AC servomotor (direct-drive system)	
Power consumption	3-phase 200-240V / 230VA	
Weight	Machine head (Control box, motor, panel) 56.9kg	
Air consumption	—	6 L/cycle

* "sti/min" stands for "Stitches per Minute"

* Other company names and product names/brand names are trademarks or registered trademarks of the respective companies.

WHEN YOU PLACE ORDERS

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

Machine head, control box, panel

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

LK1903C

Application	Code	Work clamp foot / thread clamp	Code	Button clamp jaw lever	Code	Power supply	Code
For medium-weight materials	S	Standard work clamp foot / without thread clamp	S	For extra-small, small button	301	3-phase 200-240V	D
Bird's nest preventing / Shorter-thread remaining functions	B	Standard work clamp foot / with thread clamp	T	For medium-size button	302	Single-phase 200-240V	K
						Single-phase 200-240V (for CE)	N

* Application code "B" can only be selected with Work clamp foot / thread clamp code "T" and Button clamp jaw lever code "301".