

SPECIFICATIONS

Model name	LK-1903C		LK-1903C/BR35	LK-1903CB
Max. sewing speed	2,700sti/min*			
Button size	Type: Round-shaped, flat button (2-holed, 4-holed)  Size: φ8~φ32mm 301: φ8~φ20 302: φ10~φ20 OPTION: φ15~φ32	Type: Round-shaped, flat button (2-holed, 4-holed) Size: φ9~20mm For small button: φ10~φ15mm For medium-sized button: φ12~φ18mm (Those that are smaller than φ10mm or larger than φ18mm must be specially ordered.) Thickness: 1.8~3.5mm	Type: Round-shaped, flat button (2-holed, 4-holed)  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. 11mm	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)	DP×17 (#14)		DP×17 (#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
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 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	3-phase 200V / 320VA	3-phase 200-240V / 230VA	
Weight	Machine head (Control box, motor, panel) 56.9kg	Machine head (Control box, motor, panel) and BR35 146kg	Machine head (Control box, motor, panel) 56.9kg	
Air consumption	—		6L/cycle	

\*sti/min is the abbreviation for "stitches per minute"

WHEN YOU PLACE ORDERS

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

● LK-1903C, LK-1903CB

Machine head, control box, panel

LK1903C□□□□D

Application	Code
For medium-weight materials	S
Bird's nest preventing / Shorter-thread remaining functions	B

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

Work clamp foot / thread clamp	Code
Standard work clamp foot / without thread clamp	S
Standard work clamp foot / with thread clamp	T

Button clamp jaw lever	Code
For extra-small, small button	301
For medium-size button	302

Power supply	Code
3-phase 200-240V	D
Single-phase 200-240V	K
Single-phase 200-240V (for CE)	N

● LK-1903C/BR35

Machine head, control box, panel

LK1903CST□□□/BR35□□□

Button clamp jaw lever	Code
For small button	311
For medium-size button	312

Feed plate	Code
For small button (16mm)	S
For medium-size button (22mm)	M

Power supply for BR35	Code
Single-phase 220V	D
Single-phase 230V (for CE)	G
3-phase 200V	J
3-phase 220V	K

Power supply for machine head	Code
3-phase 200-240V	D
Single-phase 200-240V	K
Single-phase 200-240V (for CE)	N



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 CORPORATION SEWING MACHINERY & SYSTEMS BUSINESS UNIT

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● 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.

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DIGITALLY  
Smart Solution



LK-1903C Series

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

LK-1903C (Standard type)

LK-1903C/BR35 (with button feeder)

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



LK-1903CSS301D

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



**DIGITALLY**  
Smart Solution

## 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).

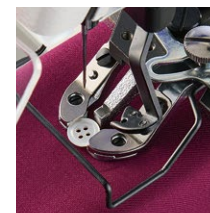


### Excellent seam quality

- 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

### 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.

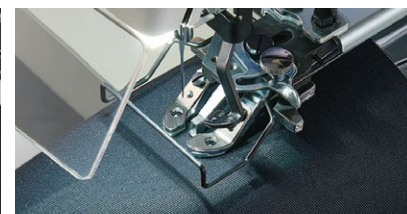
## Improved working environment

### Operator's fatigue is reduced

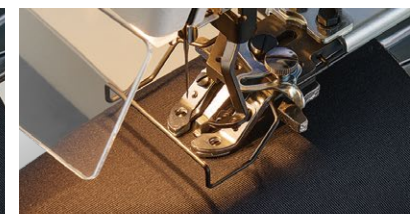
The LED hand light is now provided with color matching function using two colors (white/light bulb color) in addition to the conventional dimming function. Illumination is adjustable in five levels and dimming is in 10 levels to help reduce the eye fatigue of the operator who is engaged in sewing operation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



Mixed color



White



Light bulb color

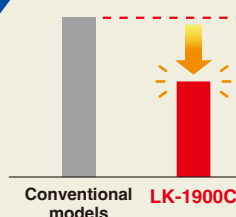
### Noise are reduced

This machine substantially reduces noise 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

#### Comparison of noise

Reduced by approximately **40%** in comparison with the predecessor model

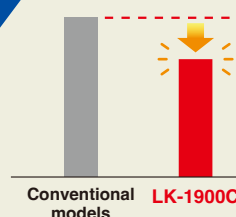


### Environmental-friendly power saving

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.

#### Comparison of power consumption

Reduced by approximately **26%** in comparison with the predecessor model



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




































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.



TABLE OF THE SEWING PATTERNS

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	18・44		6	3.4	0		
2・35		8-8			19・45		8				
3		10-10			20		10				
4		12-12			21		12				
5・36		6-6			22		16				
6・37		8-8			23・46		6	0	3.4		
7		10-10			24		10				
8		12-12			25		12				
9・38		6-6			26・47		6-6	3.4			
10・39		8-8			27		10-10				
11		10-10			28・48		6-6				
12・40		6-6			29		10-10				
13・41		8-8			30・49		5-5-5	3.0		2.5	
14		10-10			31		8-8-8				
15・42		6-6			32・50		5-5-5				
16・43		8-8			33		8-8-8				
17		10-10									

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

• (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.

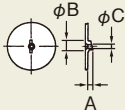
You can also view the “Table of the sewing patterns” via the QR code.

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				
Button clamp jaw lever (combination)	Thickness (mm)	1.7 (2.2)			Engraved marker	1.7 (2.2) (2.7) (0.9)			Engraved marker	2.0 (2.2) (2.7)		
	Part No.	Right	MAZ158070BB		G	14148852	K	14149058	L			
			(MAZ158070BA)		F	(MAZ155070B0)	B	(MAZ155070B0)	B			
			—		—	(MAZ156070B0)	C	(MAZ156070B0)	C			
			—		—	(B25553720A0)	—	—	—			
	Part No.	Left	MAZ158080BB		G	14148951	K	14149157	L			
			(MAZ158080BA)		F	(MAZ155080B0)	B	(MAZ155080B0)	B			
			—		—	(MAZ156080B0)	C	(MAZ156080B0)	C			
			—		—	(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.

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	
Button clamp jaw lever (combination)	Thickness (mm)		2.7 (3.2)	Engraved marker
	Part No.	Right	MAZ157070BB	
			(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)	

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	
Configuration of shank	Position of hole in button		
Pattern No.		18, 19, 20, 21, 22	



LK-1903C/BR35

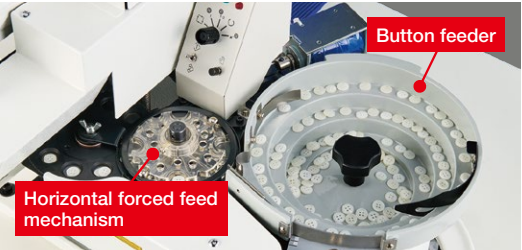
This machine is equipped with an automatic feeder that eliminates the need for button setting.

- 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. Even first-time operators can achieve stable sewing quality by simply setting the fabric and pressing the pedal.



OPERATION PANEL (Button feeder)

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

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.

MODELS CLASSIFIED BY BUTTON SIZES

Model name			LK-1903C-311/BR35			LK-1903C-312/BR35		
Button size			For small button			For medium-size button		
Outside diameter that can be adjusted (mm)			φ10~φ15			φ12~φ18		
Sewing size (mm)	Length (Y)		0~3.5			0~4.5		
	Width (X)		0~3.5			0~4.5		
Button clamp jaw lever (combination)	Thickness (mm)		1.7 (2.2)		Engraved marker	2.7		Engraved marker
	Part No.	Right	14190458		P	MAZ166070B0		J
			(MAZ165070B0)		H	—		—
			—		—	—		—
			—		—	—		—
	Left	Part No.	14190557		P	MAZ166080B0		J
			(MAZ165080B0)		H	—		—
			—		—	—		—
			—		—	—		—
	Needle hole guide (mm)		A		1.6 (1.8)		1.6	
B		φ3.5		φ3.5				
C		φ1.6		φ2.0				
Part No.		MAZ15501000		MAZ15601000				
		(14149603)						
		—						
Feed plate			MAZ15502000 (□8.5)			MAZ15602000 (□10)		

•Parts shown in parentheses ( ) are optional.

SHAPE OF BUTTON (LK-1903C/BR35)

	Applicable button	Inapplicable carrier
Shape of button		
Remarks	Thickness of button should be 1.8~3.5mm.	Button without indented part (concavoconvex shape button)

BUTTON CARRIER

		For 4-holed button				For 2-holed button			
Configuration of button carrier	Standard								
		A: Distance between holes in button B: Diameter of set pin				A: Distance between holes in button B: Diameter of set pin			
Optional	Standard	Distance A (mm)	Distance B (mm)	Part No.	Code	Distance A (mm)	Distance B (mm)	Part No.	Code
		2.6	1.0	165-57902	A	3.2	1.2	165-58009	B
		2.0	1.0	165-90507	Q	2.0	1.0	165-87305	E
		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	H
		2.8	1.2	165-88808	V	2.6	1.2	165-88006	M
	Optional	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	C
		3.2	Tapered	165-89905	G1				
		3.6	1.2	165-90705	H1				
		4.0	1.2	165-89707	E1				

OPTION

• Magnet wiper

Applicable model	Part No.	Description	Quantity
LK-1903C	40018334	Solenoid for wiper (asm.)	1
	SM6041150TP	Screw	2
	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-1903C	MAQ123000A0	Button spacer (commonly used for men's wear and ladies' wear)
Q124	LK-1903C/BR35	MAQ124000A0	
Z099	LK-1903C	14134050	Button rising bar (asm.) (Attachment and removal are possible.)
—	LK-1903C/BR35	—	For thick buttons (Thickness of button should be 2.5~5.0mm.)

LK-1903CB

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

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.

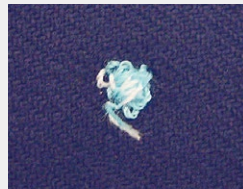


The sewing machine eliminates so-called "bird's nests" (thread tangling in on the wrong side of the material at the beginning of sewing).

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



Bird's nest preventing



Conventional lockstitch, button sewing machine

LK-1903CB

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

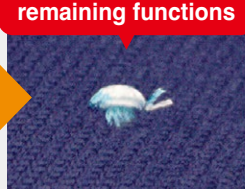
The newly-developed shorter-thread remaining mechanism trims the thread shorter after the regular thread trimming operation. Additionally, thread waste produced by thread trimming is withdrawn by suction. Thanks to this mechanism, the trouble of manual thread nipping is avoided.

\* Remaining length of thread varies with sewing conditions.

End of sewing



Shorter thread remaining functions



Conventional lockstitch, button sewing machine

LK-1903CB

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	0
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	0~3.5
	Width (X)		0~2.5	0~3.0	0~3.5	0~3.5
Button clamp jaw lever (combination)	Thickness (mm)	Part No.	1.7 (2.2)		1.7 (2.2) (2.7) (0.9)	
			Engraved marker		Engraved marker	
	Right		MAZ158070BB	G	14148852	K
			(MAZ158070BA)	F	(MAZ155070B0)	B
			—	—	(MAZ156070B0)	C
			—	—	(B25553720A0)	—
	Left		MAZ158080BB	G	14148951	K
			(MAZ158080BA)	F	(MAZ155080B0)	B
			—	—	(MAZ156080B0)	C
—		—	(B25573720A0)	—		
Needle hole guide (mm)	A	0		0		
	B	—		—		
	C	φ2		φ2		
	Part No.	40146821		40146821		
		Feed plate				
		40146828				

•Parts shown in parentheses ( ) are optional.