

**JUKI®**

**LK-1903A**

**LK-1903A/BR35** (with button feeder)

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



LK-1903A-SS-301 (Table stand is optionally available.)

# LK-1903A SERIES

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

# LK-1903A

## Higher productivity.

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

## 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-1903A is also able to sew buttons using the same data used for the LK-1903 (EP-ROM).

## Excellent seam quality.

- Newly developed 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.)

## Auto-lifter mechanism utilizing a new system.

- The machine is provided as standard with auto-lifter that uses a new stepping-motor system. This helps reduce operator fatigue.
- It is also possible to change over the stroke of the auto-lifter from a one-step 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.

- In cases where the needle entry point for button sewing is to be corrected, the sewing starting point can be corrected without the adjustment of the relevant mechanism.

## 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.

## OPERATION PANEL (You can choose operation panel.)

### STANDARD PANEL

- 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.
- 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.
- As many as 20 different cycle sewing patterns, each of which combines a maximum of 30 different sewing patterns, can be stored in the memory.
- The operation panel has been installed at an angle and can be placed at the top, bottom, right or left part of the table according to the operator's preference.



### IP-410B Operation panel provided with programmable functions

#### The IP-410B operation panel comes with a wider screen for improved operability and programming.

- The color LCD unit displays sewing data such as stitch shape, needle thread tension, enlargement/reduction ratio, maximum sewing speed and the number of stitches at a glance. For data edit operations, detailed data is shown on the screen simply by lightly pressing the display icon, thus contributing to dramatically enhanced efficiency.
- The data storing capacity of the main body of the sewing machine has been substantially enhanced.
- Sewing data created with the IP-410B can be stored in the memory of the main body of the sewing machine. The memory capacity is a maximum of 200 different patterns (max. 20,000 stitches).
- When external media (CompactFlash™) is used, as many as 999 different patterns (max. 20,000 stitches/pattern and the max. number of stitches that can be stored in the memory is 24,000,000) can be stored.



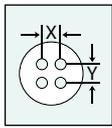
LK-1903A-SS-301

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

- Since the machine is provided with 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 set separately according to the portion of a seam, such as the beginning of a seam, during sewing and end of the seam (fastening stitch).
- When the operation panel IP-410B is used with the machine, the needle thread tension can be established on a stitch-by-stitch basis for upgraded seam quality.



## ■ 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	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 that the scale is 100.  
 (2) Use the patterns No. 34 ~ 50 with hole diameter 1.5mm or less.

## ■ MODELS CLASSIFIED BY BUTTON SIZES

Model name		LK-1903A-301				LK-1903A-302			Option			
Button size		For extra-small button			For small button (accessory)	For medium-size button			For large button			
Outside diameter that can be adjusted (mm)		ø8~ø9	ø9~ø10	ø10~ø15	ø10~ø20	ø10~ø20			ø15~ø32			
Sewing size (mm)	Length (Y)	0~2.5	0~3.0	0~3.5	0~3.5	0~4.5			0~6.5			
	Width (X)	0~2.5	0~3.0	0~3.5	0~3.5	0~4.5			0~6.5			
Button clamp jaw lever (combination)	Thickness (mm)	1.7 (2.2)			1.7 (2.2) (2.7) (0.9)	2.0 (2.2) (2.7)			2.7 (3.2)			
	Part No.				*	*				*		
Right	MAZ158070BB (MAZ158070BA)	G			14148852	K	14149058		L	MAZ157070BB (MAZ157070BA)	D E	
		F			(MAZ155070B0)	B	(MAZ155070B0)		B	—	—	
		—			(MAZ156070B0)	C	(MAZ156070B0)		C	—	—	
	Left	MAZ158080BB (MAZ158080BA)	G			14148951	K	14149157		L	MAZ157080BB (MAZ157080BA)	D E
			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			1.4			
	B	ø2.8			(ø3.5)	ø3.5			ø3.5			
	C	ø1.6			(ø1.6)	ø2.0			ø2.0			
Part No.	MAZ15801000 (14149900)			(MAZ15501000) (14149603)		MAZ15601000			MAZ15701000			
	—			(D2426284Y00)		—			—			
Feed plate		MAZ15502000(□8.5)			←	MAZ15602000(□10)			MAZ15702000(□12.5)			

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

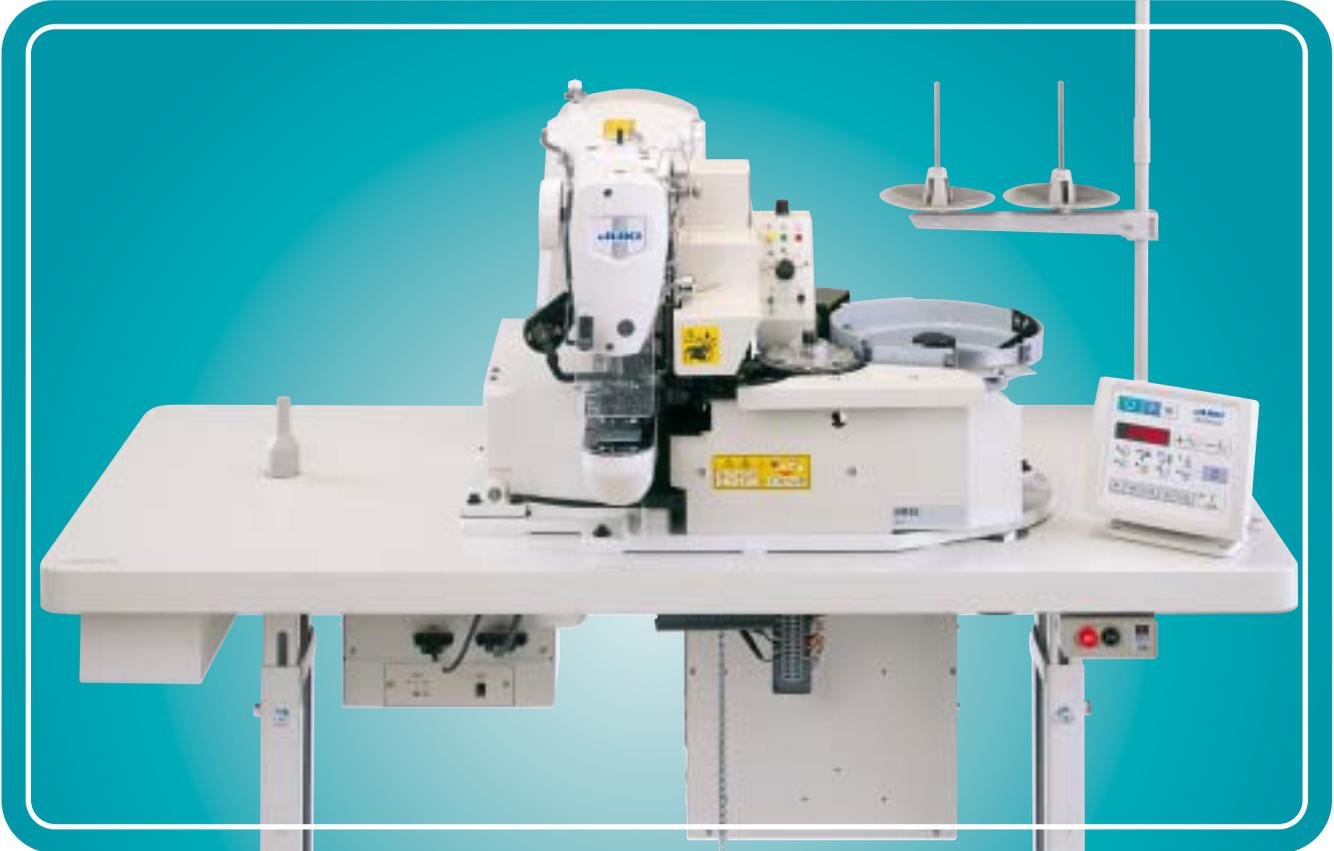
Model name	Option		
Button type	For shank button		
Max. sewing speed	1,500rpm		
Button configuration	Outside diameter	ø8~ø20	
	Diameter of hole in button	ø1.5 or more	
Position of hole in button			
Configuration of shank		B (mm)	
		A (mm)	
		Min	Max
	1	4	9
	3	3	8
	5	—	7
Pattern No.	18, 19, 20, 21, 22		

Optional part for shank button	
Part No.	Name of part
14146054	Pick-up device complete
D1401M1YC0A	Needle bar (for 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 TQX3 #14

# LK-1903A/BR35

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

- It provides better productivity as it achieves the maximum speed of 2,700rpm (2,500rpm in normal use) and is equipped with the high speed trimmer.
- 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-1903A-SS311/BR35

## 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

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-1903A-311/BR35	LK-1903A-312/BR35			
Button size		For small button		For medium-size button		
Outside diameter that can be adjusted (mm)		ø10~ø15		ø12~ø18		
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)		2.7		
			*		*	
	Part No.	Right	14190458	P	MAZ166070B0	J
			(MAZ165080B0)	H	—	—
		Left	14190557	P	MAZ166080B0	J
			(MAZ165080B0)	H	—	—
Needle hole guide (mm)	A	1.6 (1.8)		1.6		
	B	ø3.5		ø3.5		
	C	ø1.6		ø2.0		
	Part No.	MAZ15501000	(14149603)		MAZ15601000	
Feed plate		MAZ15502000(□8.5)		MAZ15602000(□10)		

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

## ■ OPTIONS

### ● Magnet wiper

Applicable model	Part No.	Description	Quantity
LK-1903A	40018334	Solenoid for wiper (asm.)	1
	SM6041150TP	Screw	2
	TA1250705RO	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-1903A	MAQ123000A0	Button spacer (commonly used for men's wear and ladies' wear)
Q124	LK-1903A/BR35	MAQ124000A0	
Z099	LK-1903A	14134050	Button rising bar (asm.) (Attachment and removal are possible.)
—	LK-1903A/BR35	—	For thick buttons (Thickness of button should be 2.5~5.0mm.)

## ■ BUTTON CARRIER

Configuration of button carrier							
For 4-holed button				For 2-holed button			
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
<b>Standard</b>							
2.6	1.0	165-57902	A	3.2	1.2	165-58009	B
<b>Optional</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
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				

## ■ SHAPE OF BUTTON

	Applicable button	Inapplicable carrier
Shape of button		
Remarks	Thickness of button should be 1.8~3.5mm.	Button with thin edge may not be fed by the button feeder.

## ■ SPECIFICATIONS

Model name	LK-1903A	LK-1903A/BR35
Max. sewing speed	2,700rpm (normal 2,500rpm)	
Button size	Type: Round-shaped, flat button Size: $\phi 8 \sim \phi 32\text{mm}$ (standard $\phi 8 \sim \phi 20\text{mm}$ )	Type: Round-shaped, flat button (2-holed, 4-holed) Size: $\phi 9 \sim 20\text{mm}$ For small button: $\phi 10 \sim \phi 15\text{mm}$ For medium-sized button: $\phi 12 \sim \phi 18\text{mm}$ (Those that are smaller than $\phi 10\text{mm}$ or larger than $\phi 18\text{mm}$ must be specially ordered.) Thickness: 1.8 ~ 3.5mm
Stitch length	0.1 ~ 10mm (0.1mm step)	
Needle bar stroke	45.7mm	
Lift of the work clamp foot	Max. 13mm	Max. 11mm
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)	
Hook	Standard shuttle hook	
Number of stitches that can be stored in memory	Max. 20,000 stitches	
Number of standard patterns	50 patterns	
Number of data that can be input	200 patterns (for up to 150 patterns, sewing data can be added.)	
Enlarging/Reducing facility	20 ~ 200%(1% step), Pattern enlargement/reduction can be done by increasing/decreasing the stitch length	
Memory medium	EEP-ROM/EP-ROM	
Bobbin thread counter	Provided as standard (up/down method)	
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	450W compact AC servomotor (direct-drive system)	
Power consumption	320W	350W
Weight	Machine head (include motor) 42kg, Control box 16.5kg	115kg (include machine head, table and BR35)

\* CompactFlash™ or CFA specification compatible media.

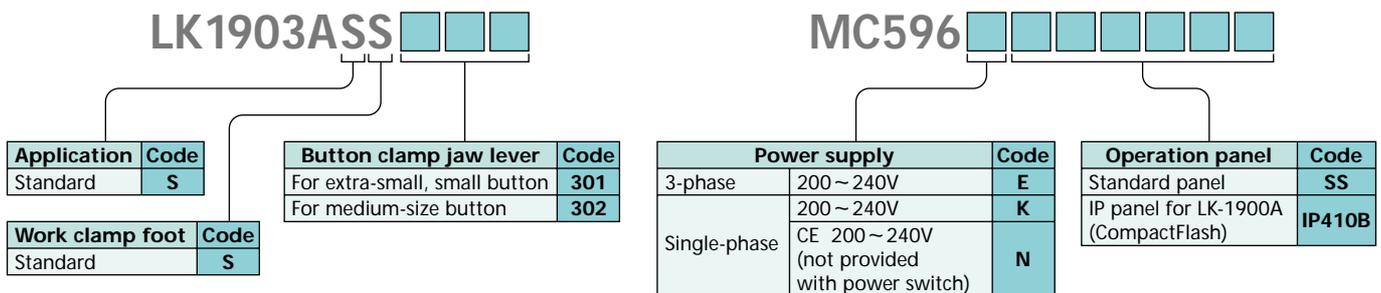
\* "CompactFlash™" is a registered trademark of SanDisk Corporation, U.S.A.

## ■ WHEN YOU PLACE ORDERS

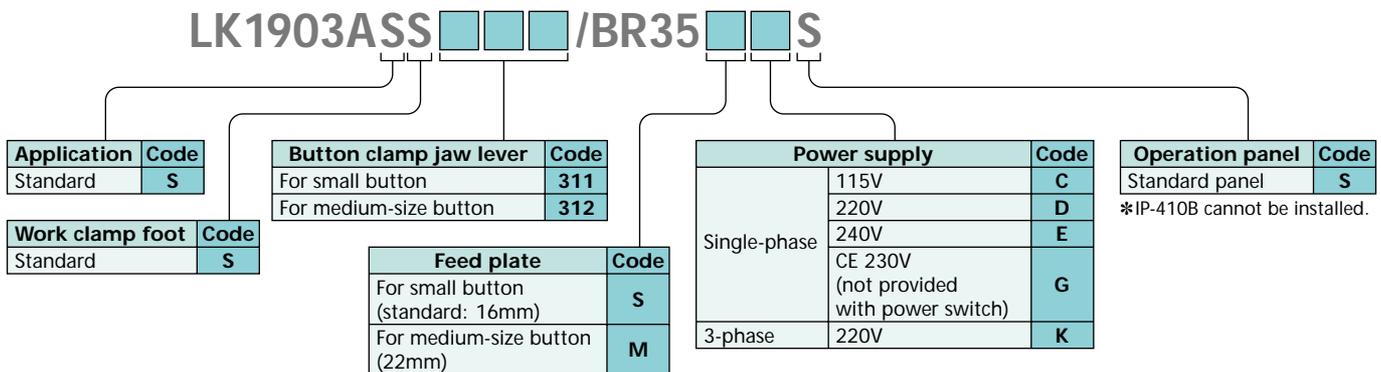
Please note when placing orders, that the model name should be written as follows:

[Machine head]

[Control box]



[Machine head]



● To order, please contact your nearest JUKI distributor.



### JUKI CORPORATION HEAD OFFICE

Juki Corporation operates an environmental management system to promote and conduct the following as the company engages in the research, development, design, sales, distribution, and maintenance of industrial sewing machines, household sewing machines, industrial robots, etc., and in the provision of sales and maintenance services for data entry systems:  
 ① The development of products and engineering processes that are safe to the environment  
 ② Green procurement and green purchasing  
 ③ Energy conservation (reduction in carbon-dioxide emissions)  
 ④ Resource saving (reduction of papers purchased, etc.)  
 ⑤ Reduction and recycling of waste  
 ⑥ Improvement of logistics efficiency (modal shift and improvement of packaging, packing, etc.)

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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.  
 \* This catalogue prints with environment-friendly soy ink on recycle paper.