LK-1903B Series

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

JUKI ECO PRODUCTS

Higher productivity.

Excellent seam quality.

LK-1903B-SS

LK-1903B Series

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

Higher productivity and Excellent seam quality.

LK-1903B

LK-1903B-SS-301

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. (This device has been factory-set to “invoking prohibited” status at the time of delivery.)

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 (EP-ROM).

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.

- 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.

Eco-friendly power saving

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

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 IP-420U 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.

STANDARD LIQUID CRYSTAL PANEL (NEW)

- 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 99 different cycle sewing patterns, each of which combines a maximum of 99 different sewing patterns, can be stored in the memory.

USB card reader

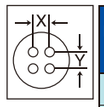
IP-420U Operation panel provided with programmable functions

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

- 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.
- 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.

※IP-420U should be ordered as a part.
[IP-420U : 40144886]

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		

Pattern No.	Stitch shape	Sewing thread (pcs.)	Standard length X (mm)	Standard length Y (mm)
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	3.4
27		10-10		
28·48		6-6		
29		10-10		
30·49		5-5-5	3.0	2.5
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.

MODELS CLASSIFIED BY BUTTON SIZES

Model name			LK-1903B-301				LK-1903B-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) ✻			1.7 (2.2) (2.7) (0.9) ✻	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)	—	—	—
		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				(MAZ15501000)		MAZ15601000	
			(14149900)				(14149603)			
			—				(D2426284Y00)			
Feed plate			MAZ15502000 (□8.5)						MAZ15602000 (□10)	

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

OPTION

Option	
For large button	
φ15~φ32	
0~6.5	
0~6.5	
2.7 (3.2) ✻	
MAZ157070BB	D
(MAZ157070BA)	E
—	—
—	—
MAZ157080BB	D
(MAZ157080BA)	E
—	—
—	—
1.4	
φ3.5	
φ2.0	
MAZ15701000	
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
	Position of hole in button	1.5mm or more
Configuration of shank	B (mm) / A (mm) Min / A (mm) 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 TQ×3 #14

SPECIFICATIONS

Model name	LK-1903B
Max. sewing speed	2,700sti/min*
Button size	Type : Round-shaped, flat button Size : ϕ8~ϕ32mm (standard ϕ8~ϕ20mm)
Stitch length	0.1~10mm (0.1mm step)
Needle bar stroke	45.7mm
Lift of the work clamp foot	Max. 13mm
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)
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 method	Internal-organs memory
Bobbin thread counter	Provided as standard (up/down method)
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	250VA
Weight	Machine head (include motor) 42kg, Control box 5.6kg

※ "sti/min" stands for "Stiches per Minute"
※ CompactFlash™ or CFA specification compatible media.
※ "CompactFlash™" is a registered trademark of SanDisk Corporation, U.S.A.
※ 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

LK1903BSS□□□

Application	Code
Standard	S

Work clamp foot	Code
Standard	S

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

Control box

MC670□□□□□□□

Power supply		Code
3-phase	200~240V	E
Single-phase	200~240V	K
	CE 200~240V (not provided with power switch)	N

Operation panel	Code
Standard panel	SS
Option panel	IP420U

● To order, please contact your nearest JUKI distributor.

JUKI ECO PRODUCTS

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

JUKI ECO PRODUCTS

- 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

*The 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.

JAB CM001 | ISO14001 JSAE389 | UKAS 089

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 soyink on recycle paper.

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