JUKI®

LBH-1790 Series

Computer-controlled, High-speed, Lockstitch Buttonholing Machine

LBH-1790S (Table stand is optionally available.)

LBH-1790 Series

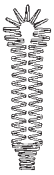
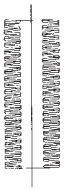
The thread tension and main drive mechanisms are electronically controlled.

LBH-1790

The machine offers increased flexibility. It achieves the highest productivity and seam quality.

The machine is provided as standard with as many as 30 stitch patterns for buttonholing.

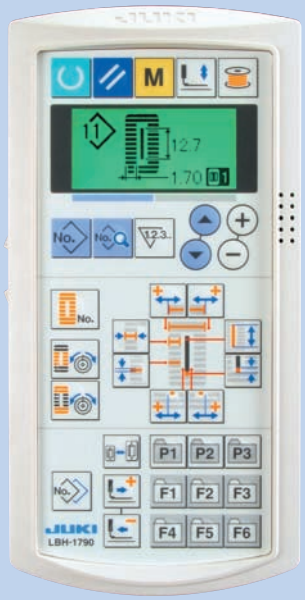
- It is able to store 99 different patterns in its memory, which can be selected as desired from the operation panel.

 ①Square	 ②Round	 ③Radial square	 ④Radial	 ⑤Radial straight bartacking	 ⑥Radial taper bartacking	 ⑦Eyelet square	 ⑧Eyelet radial	 ⑨Eyelet straight bartacking	 ⑩Eyelet taper bartacking
 ⑪Semilunar	 ⑫Round square	 ⑬Semilunar square	 ⑭Semilunar straight bartacking	 ⑮Semilunar taper bartacking	 ⑯Eyelet semilunar	 ⑰Eyelet round	 ⑱Square radial	 ⑲Square semilunar	 ⑳Square round
 ㉑Square straight bartacking	 ㉒Square taper bartacking	 ㉓Radial semilunar	 ㉔Radial round	 ㉕Semilunar radial	 ㉖Semilunar round	 ㉗Bartacking	 ㉘Bartacking, right cut	 ㉙Bartacking, left cut	 ㉚Bartacking, center cut

OPERATION PANEL (You can choose operation panel.)

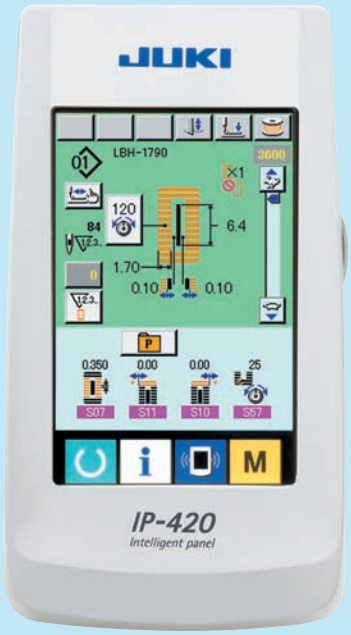
STANDARD PANEL

- All kinds of data can be entered on or selected from the operation panel.
- Various data, such as pattern numbers and stitch shapes are indicated on the LCD section with easy-to-understand pictographs.



IP-420A

- The IP-420 touch panel offers market-proven ease of operation. It is provided with a wide screen and programmable functions.
- Data can be input/edited while visually checking the needle movement.
- The color LCD unit displays sewing data such as stitch shape, needle thread tension, enlargement/reduction ratio, sewing speed and the number of stitches at a glance.
- 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 CompactFlash 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 (FD (floppy disks), SM (SmartMedia), CF (CompactFlash), SD (Secure Digital Card) etc.) by means of a USB thumb device and a card reader.

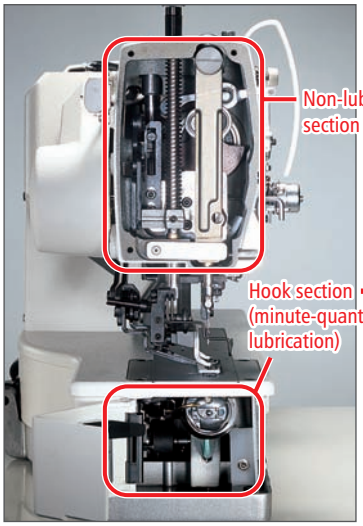


USB card reader

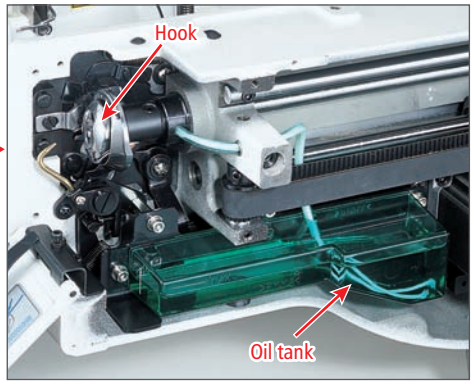
*IP-420A shouold be ordered as a part. [IP-420A:40105585]

The machine eliminates oil stains on the sewing product.

- Thanks to our advanced dry-head technology, no lubrication is required except for the hook section. This eliminates oil stains on the sewing product.
- The machine can be completely changed into a dry-head machine by replacing the hook with an optional non-lubricated hook. (In this case, the maximum sewing speed will be 3,300rpm.)

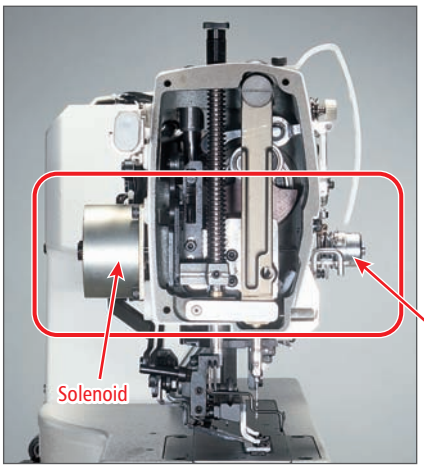


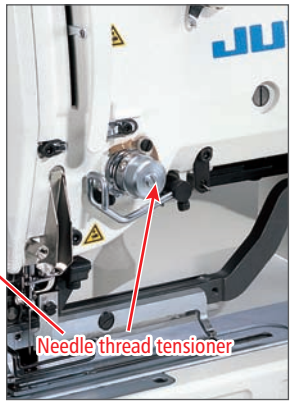
- Only a minute-quantity of clean oil is fed to the hook section from the oil tank.



JUKI's unique active tension (Electronic thread tension control system).

- Needle thread tension for sewing parallel and bartacking sections of buttonholes can be separately controlled through the operation panel and stored in memory according to various sewing conditions (e.g., type of thread, type of material and sewing speed).
- The machine is able to change the needle thread tensions at the parallel and bartacking sections of the buttonhole, to produce a beautiful buttonhole shape. This capability helps greatly in preventing thread breakage.
- Needle thread tension is activated at the beginning and end of sewing. This prevents unthreading of the needle thread, and thread fraying that is likely to occur at the beginning of sewing.
- Thread tension for basting stitching can be specified separately.





Frame shape offers improved operability.

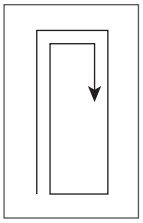
- The hollowed type frame promises efficient sewing of vertical buttonholes. The machine can be operated with its head positioned horizontally.
- The distance from the machine arm to the needle has been lengthened and the left side section of the needle entry has been reduced by a large margin. This helps in the smooth placement of the sewing product on the machine, thereby ensuring improved workability.
- The sewing product can further be placed on the machine easily by installing the auxiliary table (standard accessory). In addition, the needle entry is located in the center of the bed, promising easier positioning of the sewing product.

Basting stitch mechanism is effective for the production of beautiful buttonholes.

- The basting stitch is effective on elastic materials such as knits.
  Basting stitch: Since the needle thread is tucked in without fail, it will never jut out of the buttonhole seams. Basting stitch can be sewn by nine rounds.

Without basting stitch

With basting stitch

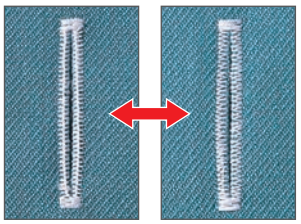


Basting stitch

(The state in which the material is stretched in the lengthwise direction after buttonholing)

Sewing settings can be easily changed.

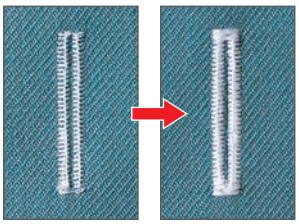
Purl stitching ↔ Whip stitching



Purl stitching　Whip stitching

(For a changeover between purl stitch and whip stitch, threading of bobbin, as well as the bobbin thread tension need to be changed.)

Single stitching ↔ Double stitching



State of first-round stitch　Finished state of double stitching

- For double stitching, the bartacking section is skipped and only the parallel sections are sewn twice. This prevents any excessively tight finishes in the bartacking section of the buttonhole.
- First- and second-round stitches can be sewn using different stitch widths.

Shorter length of bobbin thread remaining on the material.

- The new model of the bobbin thread trimming mechanism cuts the bobbin thread so that it leaves a shorter length of thread on the material. Furthermore, the machine produces bartacks at the end of sewing, thereby preventing finished seams from coming undone.
- With the soft-start function, the number of stitches, as well as the sewing speed at the start of sewing can be specified, thereby preventing the needle thread from slipping off from the needle eyelet. (From the first to the fifth stitches, the sewing speed can be specified on a stitch-by-stitch basis.)

The machine is equipped with a multiple knife-dropping function.

- Thanks to the multiple knife-dropping function, it is no longer required that the knife be changed at the time the buttonhole size is changed. The number of knife dropping times can be automatically set according to the buttonholing size in cases where the buttonhole size is frequently changed for small-lot productions or during the cycle sewing of buttonholes that are different in size.
- The double-acting solenoid type knife mechanism is free from the faulty dropping/returning of the knife. In addition, the knife pressure can be changed according to the material to be sewn.
- The knife supports sewing lengths of 41mm at the maximum. In addition, knife mechanisms for 70mm and 120mm are optionally available.

  Since the LBH-1795 is provided as standard with the 120 mm presser, it is capable of sewing 12-mm long buttonholes. The LBH-1795 is capable of sewing long buttonholes such as belt holes in car seats. In addition, it is applicable to the sewing of buttonholes in men's shirts (continuous sewing of two buttonholes and the use of two units of sewing machines), etc.

120mm buttonhole

LBH-1795S

Cycle sewing and continuous sewing.

Cycle sewing

- Twenty different programs can be registered, and as many as 15 different patterns can be stored in one program.

Continuous sewing

- The machine is able to continuously sew two or more different patterns without requiring the work clamp foot to be lifted. As may as 20 programs can be registered, and six different patterns can be stored in one program. (Related parts need to be exchanged for optional ones.)

Easy threading.

- The needle bar can be shifted to the rightmost end position with the work clamp foot lowered. This facilitates threading of the machine head.

Position of the needle bar during sewing

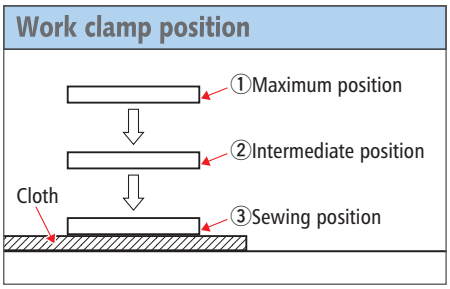
The needle bar can be shifted to the right at the time of threading

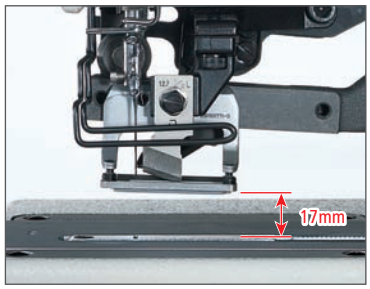
Many functions of the pedal.

- The machine is provided as standard with a newly-developed auto-lifter driven by a stepping motor. This helps reduce the operator's fatigue. This helps reduce operator fatigue. As for the pedal, one-pedal and two-pedal models can both be changed over and the intermediate stop, which facilitates positioning of the sewing product, can be specified.
- The work clamp foot lift can be set as desired. The reverse-rotation needle-up function offers a maximum work clamp foot lift of 17mm.

● Explanation of pedal motion

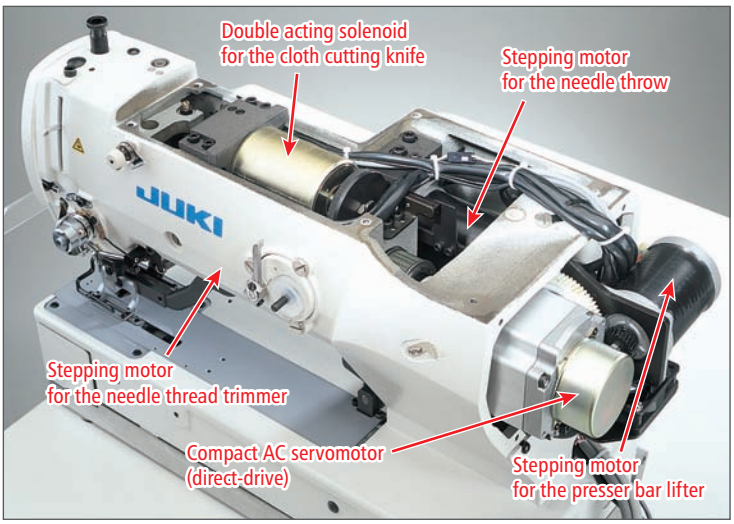
Pedal motion	Pedal type		
	2-pedal	1-pedal (without intermediate position)	1-pedal (with intermediate position)
Initial position	②Intermediate position	①Maximum position	①Maximum position
Setting of sewing product	Presser goes up as high as the pedal toe down amount of the left side pedal. Presser comes down when the left side pedal is depressed. →③Sewing position	The first step of the right side pedal → ③Sewing position	The first step of the right side pedal → ②Intermediate position ↓ The second step of the right side pedal → ③Sewing position
Start of sewing	The right side pedal is depressed.	The second step of the right side pedal	The third step of the right side pedal
End of sewing	②Presser automatically goes up to intermediate position.	①Presser automatically goes up to maximum position.	①Presser automatically goes up to maximum position.

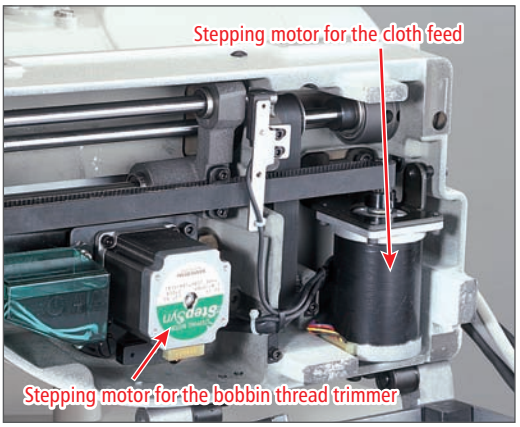




Major drive mechanism is electronically controlled.

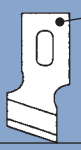
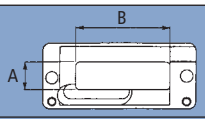
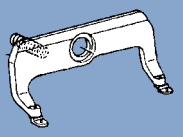
- An electronic control feature has been adopted for the material feed mechanism, needle rocking mechanism, needle thread trimming mechanism, bobbin thread trimming mechanism, cloth cutting knife mechanism and presser bar lifting mechanism. In addition, mechanisms such as V-belts, stop-motion mechanisms and cams have been substantially reduced to ensure operation with lower vibration and noise.
- A direct-driven system that directly connects the compact AC servomotor to the main shaft has been adopted.
- All adjustment values are entered as data. They can be set or stored in the memory on the operation panel.





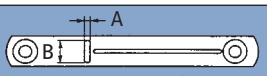
Options

● Cloth cutting knife, Work clamp

Knife size	Cloth cutting knife 			Work clamp 						Work clamp foot 				
				For stitch width 5mm					For stitch width 6mm					
				LBH-1790S (standard)		LBH-1792K (for knits)		LBH-1795S (standard)	LBH-1790S (standard)					
	Part No.		Mark	Part No. (Length of cloth cutting knife) <Type> (A×B)				Part No. (Length of cloth cutting knife) (A×B)	Part No. (Length of cloth cutting knife) <Type> (A×B)		Part No. <Type>	1790 S	1792 K	Part No.	1795 S
6.4mm (1/4")	B2702-047-F00		F	B1552-781-000-A (6.4～19.1mm) <1> (4×25mm)	◎	D1508-771-KA0-A (6.4～19.1mm) <1> (4×25mm)		40008658 (5×120mm)	145-24409 (6.4～31.8mm) <3> (6×41mm)	◎	D1511-771-KA0-A <1>	◎		40008646	◎
9.5mm (3/8")	B2702-047-K00-A	△	K											
11.1mm (7/16")	B2702-047-I00		I											
12.7mm (1/2")	B2702-047-L00-A	◎	L											
14.3mm (9/16")	B2702-047-V00		V											
15.9mm (5/8")	B2702-047-M00-A	△	M											
17.5mm (11/16")	B2702-047-A00		A											
19.1mm (3/4")	B2702-047-N00		N											
22.2mm (7/8")	B2702-047-P00		P	B1552-782-000 (6.4～25.4mm) <2> (5×35mm)	△	D1508-772-K00 (6.4～25.4mm) <2> (5×35mm)	◎				D1511-772-KA0 <2>	△	◎		
25.4mm (1")	B2702-047-Q00-A	△	Q											
31.8mm (1-1/4")	B2702-047-S00-A		S	B1552-783-000 (6.4～31.8mm) <3> (5×41mm)		D1508-773K00 (6.4～31.8mm) <3> (5×41mm)					D1511-773-KA0 <3> SS-6060210-SP (2 pcs.)				

◎Factory installed on machine　　△Supplied as an accessory (For LBH-1790S)

● Throat plate

For needle throwing width	 Part No. (Marking: A×B)			
	Standard (S)		For Knits (K)	
5mm	400-04350 (S5: 1.4×6.2mm)	◎	400-04352 (1.2×6.2mm)	
6mm	400-04351 (S6: 1.4×7.4mm)		400-04353 (1.2×7.4mm)	◎

◎Factory installed on machine

Designation	Part No.	Description		Feature	
Non-lubricated hook	400-06345	RP hook (asm.)		By the installation of non-lubricated hook, the machine is changed to be a fully dry-head machine. (In this case, the maximum sewing speed will be 3,300rpm.)	
	400-06349	RP bobbin case			
	137-29660	Hook sleeve (asm.)			
	SS-8660612-TP (4 pcs.)	Screws			
Work clamp (For sewing length of 70 mm, 120mm)	400-06340	Work clamp arm spacer		Exclusive to 70mm	The work clamp is applicable to the sewing length of 70mm or 120mm. With this work clamp, holing of belt holes in child seat is possible.
	SM-6040450-TP (3 pcs.)	Screws			
	145-23252	Work clamp foot 70 (asm.)			
	145-23401	Work clamp 70	Selectable		
	145-23708	Urethane work clamp 70			
	145-24102	Flat work clamp 70			
	400-08646	Work clamp foot 120 (asm.)		Exclusive to 120mm	
	400-08658	Work clamp 120			
	400-06335	Work clamp arm 120		Common to 70 mm and 120 mm	
	400-06339	Cloth feeding plate 120			
	400-06341	Close cam 120			
	400-06342	Lifting plate 120			
	SM-6050800-SP (2 pcs.)	Screws			
	SS-6060210-SP (2 pcs.)	Screws			
Electric bobbin winder	G5001-198-0A0-A	Electric bobbin winder (asm.)		It is a device for winding bobbin separately.	
	400-05405	Power cord (asm.)			
	400-53150	Tension controller (asm.)			
	SK-3452001-SE	Wood screws			
2-pedal unit for standing work	GPK-510010B0	Pedal switch (asm.)		—	
	400-03493	Junction cable (asm.)			

When you place orders

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

[Machine head]

LBH179□S

Model			Type	Code
Knife width	Work clamp type	Code	Standard	S
6.4～31.8mm	5mm× 35mm	0		
	5mm×120mm	5		

LBH1792K

Model			Type	Code
Knife width	Work clamp type	Code	For Knit	K
6.4～25.4mm	5mm× 35mm	2		

[Control box]

MC601□□□

Power supply		Code
3-phase	200～240V	E
Single-phase	200～240V	K
	CE 230V (not provided with power switch)	N

Operation panel	Code
Standard	SS

● To order, please contact your nearest JUKI distributor.

LBH-1790S (Table stand is optionally available.)

Specifications

Sewing speed	Max. 4,200sti/min, Normal 3,600sti/min
	When the non-lubricated hook (optional) is used: 3,300sti/min
Needle bar stroke	34.6mm
Size of cloth cutting knife	6.4～31.8mm (1/4"～1-1/4")
Bartacking width	Max. 5.0mm (with special-specification part: Max. 10mm*)
Buttonhole length	Max. 41mm (optional: 70mm, 120mm) , LBH1795:120mm
Precision of needle throwing mechanism	0.05mm
Needle thread tension	Active tension (electronic thread tension control system)
Number of stitches	Automatically computed from the size of the buttonhole and stitch pitch
Needle (at the time of delivery)	DP×5 (#11J) #11J～#14J
Hook	DP type, full-rotary hook
	Non-lubricated hook (optional)
Lift of the work clamp	14mm (17mm when the reverse-rotation needle-up function is used)
Auto-lifter	Provided as standard (stepping motor type)
Needle throwing system	Stepping motor
Cloth feeding system	Intermittent feed by stepping motor
Cloth cutting knife system	By double-acting solenoid
Number of standard patterns	30 patterns
Number of patterns that can be input	Max. 99 patterns
Bobbin thread winder	Built-in the machine head
Machine head drive system	Compact AC servomotor (direct-drive system)
Power requirement/ Power consumption	Single-phase 220V, 230V, 240V・3-phase 200～240V/600VA
Lubrication	Only the hook section needs a minute-quantity lubrication. ✻ No lubrication is required when the non-lubricated hook (optional) is used.
Lubricating oil	Hook: JUKI New Defrix Oil No.1 (equivalent to ISO VG7)
Total weight	112kg

✻ "sti/min" stands for "Stitches per Minute"
✻ The special-specification part is available on a special order. Contact our branch or office in your area.

★ 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.

JAB CM001 ISO14001 JSAE389 EMS 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.)

JUKI®
JUKI CORPORATION
SEWING MACHINERY BUSINESS UNIT
2-11-1, TSURUMAKI, TAMA-SHI,
TOKYO 206-8551, JAPAN
PHONE : (81) 42-357-2254
FAX : (81) 42-357-2274
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 soy ink on recycle paper.

NOVEMBER, 2012 Printed in Japan(A)