

LBH-1790A Series

Computer-controlled, High-speed, Buttonholing Machine

LBH-1790AB (Shorter-thread remaining functions) The world's first

LBH-1790A

LBH-1795A (120mm presser type)

LBH-1796A (220mm presser type)

The LBH-1790A Series follows
the world's highest sewing speed and
dry-head mechanism.



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

LBH-1796A

Buttonholing machine with a 220mm work clamp which supports the simplified indexer function has been added to the family of buttonholing sewing machines.

LBH-1796AS
(table stand and parts for indexer are optionally available)



LBH-1790A Series

The LBH-1790A Series follows the world's highest sewing speed and dry-head mechanism of its predecessor model. In addition, this machine comes with the latest model operation panel which is installed with a USB port. Furthermore, all drive mechanisms have been digitalized to manage each sewing pattern individually.

Excellent operability by Digitization

Higher productivity

- The maximum sewing speed is 4,200 st/min, and the jump speed is 200 mm/s. The cycle time has been further reduced for continuous sewing.

Cycle sewing and continuous sewing.

- **Cycle sewing**
Twenty different programs can be registered, and as many as 30 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 many 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.)

All drive mechanisms are electronically controlled

- Electronic control of the material feed mechanism, needle feed mechanism, needle thread trimming mechanism, bobbin thread trimming mechanism, cloth trimming mechanism, presser lifter mechanism and other mechanisms has been achieved.
- All adjustment values are digitalized to enable the operator to set and store those values on the operation panel.

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. 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.

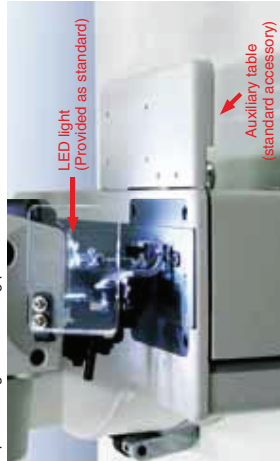
Explanation of pedal motion

Pedal motion	2-pedal (without intermediate position)	Pedal type (without intermediate position)	1-pedal (with intermediate position)
Initial position	① Intermediate position	① Maximum position	① Maximum 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. →③ Sewing position	The first step of the right side pedal →② Intermediate position →③ Sewing position	The first step of the right side pedal →② Intermediate position →③ Sewing position
Start of sewing	The right side pedal is depressed. ② Presser automatically goes up to intermediate position.	The second step of the right side pedal →① Maximum position	The third step of the right side pedal ① Presser automatically goes up to maximum position.
Work clamp position	① Maximum position ② Intermediate position ③ Sewing position	① Maximum position ② Intermediate position ③ Sewing position	① Maximum position ② Intermediate position ③ Sewing position



Operator-friendly environment

- Operation with reduced noise is ensured by the adoption of the direct-drive motor.
- The illuminance of the LED light is adjustable and is located on the underside of the arm jaw. It is provided as standard for all models of the LBH-1790A Series.
- 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.



Excellent seam quality by Digitization

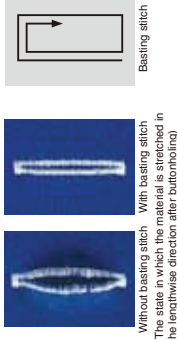
JUKI's unique active tension (Electronic thread tension control system).

- 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.



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

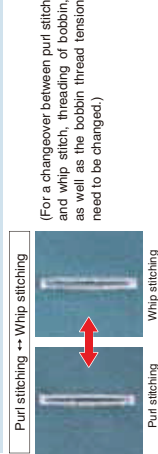
- The basting stitch is effective on elastic materials such as knits. Basting stitch: Since the needle thread is tucked in without fail, it will never jut out of the buttonhole seams. Basting stitch can be sewn by nine rounds.



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 stepping motor type knife mechanism is free from the faulty dropping/returning of the knife.
- The knife supports sewing lengths of 41mm at the maximum. In addition, knife mechanisms for 70mm and 120mm are optionally available.

Sewing settings can be easily changed.



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

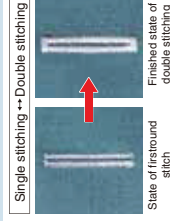
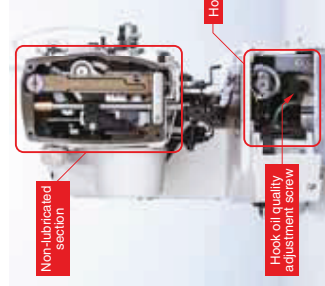
Improved maintainability

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 3,300stf/min)

Adjustment of the hook oil quantity

- The newly installed "hook oil quality adjustment screw" can be found by opening the hook lid cover. With this screw, the operator is able to adjust the oil quantity in the hook with ease.
- Oil can be easily added to the hook oil quantity tank with an oiler.



For double stitching, the bartacking section is skipped and only the parallel sections are sewn twice. This prevents any excessively light finishes in the bartacking section of the buttonhole.

● First- and second-round stitches can be sewn using different stitch widths.

Hook section (minute-quantity lubrication)

- Only a minute-quantity of clean oil is fed to the hook section from the oil tank.
- The oil tank is made of shatter proof material, thereby preventing tank-related troubles such as breakage by some mishap.



LBH-1790AB (Shorter-thread remaining functions) • LBH-1790A

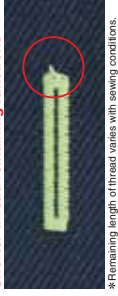
LBH-1790AB (Shorter-thread remaining functions)

■ The newly-developed shorter-thread remaining mechanism trims the thread short and eliminates the trouble of manual thread nipping.

The length of remaining bobbin thread becomes shorter, less than 2.5mm on average.

The newly-developed shorter-thread remaining mechanism trims the thread short and eliminates the trouble of manual thread nipping.

Shorter-thread remaining functions



* Remaining length of thread varies with sewing conditions.

Conventional Buttonholing Machine



LBH-1790AB

LBH-1790A

■ The LBH-1790A Series follows the world's highest sewing speed and dry-head mechanism of its predecessor model. In addition, this machine comes with the latest model operation panel which is installed with a USB port. Furthermore, all drive mechanisms have been digitalized to manage each sewing pattern individually. The maximum sewing speed is 4,200st/min., and the jump speed is 200mm/s. The cycle time has been further reduced for continuous sewing.

LBH-1796A (220mm presser type)

■ The LBH-1796A is a subclass model of the LBH-1790A Series. This product is provided with a 220mm work clamp foot. It follows the world's highest sewing speed, deeply recessed shape of the machine head and dry-head mechanism of the existing LBH-1790A. In addition, the LBH-1796A can also be used as a simplified indexer to sew three buttonholes in a row.



LBH-1796AS (table stand and parts for indexer are optionally available)

◎ **The maximum sewing speed of the LBH-1796A is 4,200 st/min** (equivalent to the maximum sewing speed of the LBH-1790A).

◎ **The jump speed has been increased.** (LBH-1790A: Max 200 mm/s LBH-1796A: Max 540 mm/s)

Productivity

Cycle time during continuous sewing has been improved to increase productivity.

Increased productivity is ensured !

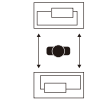
Simplified buttonholing indexer

When the optionally-available indexer mechanism is installed on the LBH-1796B, the operator can attend to two units of this model of sewing machine at one time or can use the LK-1903B button sewing machine together with the LBH-1796A, thereby not only further increasing productivity, but also ensuring consistent product quality due to the production capability without requiring the operator to have any special skills.

The sewing machine availability is further increased if one operator operates two or more sewing machines, thereby increasing productivity.



LBH-1796A
One operator operates 2 sewing machines.
14 sec./pc.



LBH-1796A
3 buttonholes x 1 twice
28 sec.
14 sec.

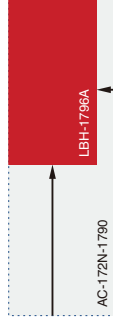
Number of units to which the operator attends
1
2

Required time per shirt
28 sec.
14 sec.

Productivity
857 pcs./8 hours
1,714 pcs./8 hours

Condition: Six buttonholes, Machine speed 3,600st/min, Allowance of 20%, Time required for placement of a garment body on the sewing machine: 6.5 sec. Time required for buttonholing: 9.5sec. x Twice Six buttonholes spaced at 100 mm intervals Travel between sewing machines in the case of one operator operating two sewing machines: 2 sec. Time required for placement of a garment body on the sewing machine: 4.0 sec.

Space-saving



As with the general-purpose indexer, the simplified indexer for the LBH-1796A permits easy addition to and change of the production line, thereby contributing to saved installation space. The table area of the LBH-1796A is 56% less than that of the AC-172N-1790.

Option <Parts for simplified indexer>

No.	Description	Part No.
①	Auxiliary carrier clamp asm.: A set of a solenoid valve and a regulator	40153979
②	A set of a laser marking lamp and an LED marking lamp	40153980
③	Both sets ① and ②	40153978

LBH-1795A (120mm presser type)

■ The knife supports sewing lengths of 41mm at the maximum. Since the LBH-1795AS is provided as standard with the 120 mm presser, it is capable of sewing 120mm long buttonholes. The LBH-1795AS 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.

■ The upper limit of the adjustment of the presser foot pressure has been expanded. The presser foot pressure is now digitally controlled. As a result, the machine acquires improved responsiveness to knit materials and car seats.



LBH-1795AS



120mm buttonhole



LBH-1795AS

The machine is provided as standard with as many as 31 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.

1	Square	1	Radial square	2	Round	3	Radial square	4	Radial	5	Radial straight bartacking	6	Radial taper bartacking	7	Eyellet square	8	Eyellet radial
9	Eyellet straight bartacking	10	Eyellet taper bartacking	11	Semilunar	12	Round square	13	Semilunar square	14	Semilunar straight bartacking	15	Semilunar taper bartacking	16	Semilunar taper bartacking	17	Eyellet semilunar
17	Eyellet round	18	Square radial	19	Square semilunar	20	Square round	21	Square straight bartacking	22	Square taper bartacking	23	Radial semilunar	24	Radial round	25	Semilunar radial
25	Semilunar radial	26	Semilunar round	27	Bartacking	28	Bartacking, right cut	29	Bartacking, left cut	30	Bartacking, center cut	31	Basing switch + Knife				

OPERATION PANEL

STANDARD LIQUID CRYSTAL PANEL (NEW)

■ USB Port is provided as standard on the standard panel

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. The main body of the sewing machine is provided as standard with a USB port. Now, data can be input/output to/from various kinds of media (SD (Secure Digital Card), CF (Compact Flash), etc.) by means of a USB thumb device and a card reader.

■ All kinds of data can be entered on or selected from the operation panel.

■ The panel display supports 14 different languages.

OPTION

Foot pedal for standing work



● **PK-57***
[Part No. GPK570010B0]
* To connect the cable asm. to the electrical box, conversion cable (separately available) is necessary.

● **Pedal switch conversion cable asm.**
[Part No. 400003493]

Foot pedal

● **Two-Pedal switch**
[Part No. 400003491]



Cloth cutting knife, Work clamp, Work clamp foot

Knife size	Cloth cutting knife* 	Work clamp*		Work clamp foot*
		For stitch width 5mm	For stitch width 6mm	
6.4mm (1/4")	F	LBH-1790A (standard)	LBH-1795A (standard)	1790 S
9.5mm (3/8")	K	Option* (for knits)	LBH-1795A (standard)	
11.1mm (7/16")	I	Part No. (Length of cloth cutting knife) <Type> (AxB)	Part No. (Length of cloth cutting knife) <Type> (AxB)	1795 S
12.7mm (1/2")	L	D1508-771-K00-A (6.4-19.1mm) <1> (4x25mm)	4000668 (5-120mm) 145-24409 (6.4-31.8mm) <3> (6x41mm)	
14.3mm (9/16")	V	B1552-781-000-A (6.4-19.1mm) <1> (4x25mm)		40006646
15.9mm (5/8")	M	D1508-771-K00-A (6.4-19.1mm) <1> (4x25mm)		
17.5mm (11/16")	A	B2702-047		40006658
19.1mm (3/4")	N	B2702-047		
22.2mm (7/8")	P	B1552-782-000 (6.4-25.4mm) <2> (5x35mm)		40006658
25.4mm (1")	Q	B2702-047		
31.8mm (1-1/4")	S	B1552-783-000 (6.4-31.8mm) <3> (5x41mm)		40006646
		B2702-047		

Ⓞ: Factory installed on machine. △: Supplied as an accessory. (For LBH-1790A)

*: The work clamp foot for option orders two screw part. (Part No. SS-6060210-SP)

Throat plate

For needle throwing width	Standard (S)	For Knit (option)*
5mm	40027553 (1.4x6.2mm)	40027554 (1.2x6.2mm)
6mm	D2402772E00 (1.4x7.4mm)	—

Other option parts for knit

Part No.	Description
13782065	Hook asm. *
13782107	Hook limiting gauge *

Ⓞ: Factory installed on machine

* When you change LBH-1790A into knitting.

Please order parts of cloth cutting knife (standard: 25.4mm), work clamp, work clamp foot, throat plate, hook asm. and hook limiting gauge.

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 3,300st/min)
	400-06349	RP bobbin case	
	137-29660	Hook sleeve (asm.)	
Work clamp (For sewing length of 70 mm, 120mm)	SS-9660612-TP (4 pcs.)	Screws	Exclusive to 70mm
	400-06340	Work clamp arm spacer	
	SM-6040450-TP (3 pcs.)	Screws	
	145-23252	Work clamp foot 70	
	145-23401	Work clamp 70	
Work clamp (For sewing length of 70 mm, 120mm)	145-23708	Urethane work clamp 70	Exclusive to 120mm
	145-24102	Flat work clamp 70	
	400-06646	Work clamp foot 120 (asm.)	Common to 70 mm and 120 mm
	400-06658	Work clamp 120	
	400-06335	Work clamp arm 120	
	400-06339	Cloth feeding plate 120	
	40028682	Close cam 120	
	40112711	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.)	
	400-05310	Tension controller (asm.)	
	SK-3452001-SE	Wood screws	
	GPK-510010B0	Pedal switch (asm.)	
2-pedal unit for standing work	400-03493	Junction cable (asm.)	

SPECIFICATIONS

Model name	LBH-1790AB	LBH-1790A	LBH-1795A	LBH-1796A
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	6.4~22.2mm (1/4"~7/8")	6.4~31.8mm (1/4"~1-1/4")		6.4~25.4mm
Bartacking width	Max. 4.0mm	Max. 5.0mm (with special-specification part: Max. 10mm*)		Max. 5.0mm
Buttonhole length	Max. 25mm	Max. 41mm (optional: 70mm, 120mm)	Max. 120mm	Max. 220mm
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)	DPx5 (#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)			Parallel lifting 6mm
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	Stepping motor			
Number of standard patterns	31 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	3-phase 200~240V/250VA			
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)			
Weight	Machine head (include motor) 55kg, Control box 5.5kg	Machine head (include motor) 55kg, Control box 6kg		

* "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.

WHEN YOU PLACE ORDERS

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

Machine head

LBH179 A

Model	Code	Type	Code
Standard	0	Standard	S
120mm type	5	Shorter-thread remaining functions	B
220mm type	6		

* "B": Model code "0" only.

Control box

MC602 S

Power supply			Code	Operation panel		Code
3-phase	200~240V		E	Standard	S	
	220~240V		K			
Single-phase	220~240V		N			
	CE 220~240V (not provided with power switch)					

● To order, please contact your nearest JUKI distributor.

JUKI ECO PRODUCTS

The LBH-1790A Series is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment



- 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 27% 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.



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 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.
- * This catalogue prints with environment-friendly soyink on recycle paper.