

LBH-1790AN Series

Computer-controlled, High-speed, Buttonholing Sewing System

LBH-1790ANB (Shorter-thread remaining functions)

LBH-1790AN (Standard)

LBH-1795AN (120mm presser type)

LBH-1796AN (220mm presser type)



LBH-1790ANB

Computer-controlled, High-speed, Buttonholing Sewing System

LBH-1790AN Series

Management of sewing performance and sewing machine with JUKI's next-generation sewing system.

Machine is mounted with inbuilt NFC (Near Field Communication) and communication devices capable of a 2-way data transmission.

Computer-controlled, High-speed, Buttonholing Sewing System

LBH-1790AN Series



Excellent operability by Digitization

Higher productivity

- The maximum sewing speed is 4,200 sti/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

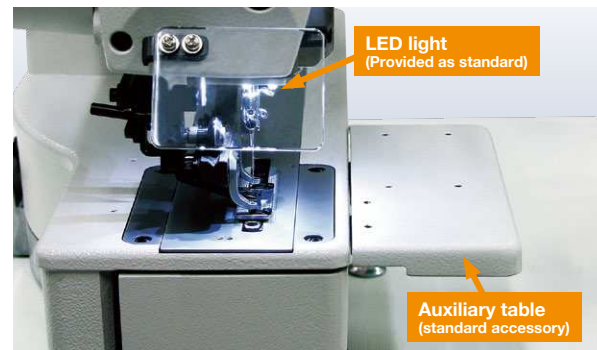
- The machine is provided as standard with a newly-developed auto-lifter driven by a stepping motor. This helps reduce the operator's fatigue. As for the pedal, one-pedal and two-pedal models can both be changed over and the intermediate stop, which facilitates positioning of the sewing product, can be specified.

Explanation of pedal motion

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

Operator-friendly environment

- Operation with reduced noise is ensured by the adoption of the direct-drive motor.
- The illumination 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-1790AN 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.



- 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.
* Please order two-pedal model by a part.



Management of sewing performance and sewing machine by the utilization of IoT (Internet of Things)



Management, browsing and editing of data can be carried out on the application software

■ Data on sewing machine adjustments made according to the product to be sewn can be transferred to a commercially-available Android tablet in contactless mode. This enables quick check for uniform settings as well as confirmation of conditions of sewing machines in a sewing line, thereby facilitating setup changes. The operation panel is also provided as standard with a USB port. Data management and software update can be carried out with ease using a USB thumb drive.

Data items of sewing can be numerically managed to ensure “stable quality” and “reduction in time required for setup changes”. Quantified sewing data can be externally taken from the sewing machine using an Android tablet or USB thumb drive.

※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.



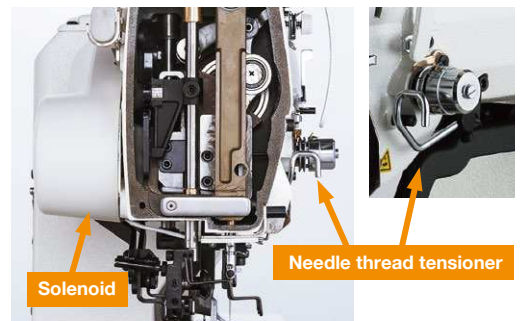
The sewing machine can be paired with equipment which supports NFC (Near Field Communication) only by holding the equipment over the sewing machine.



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

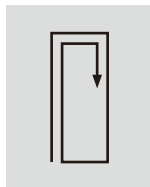
- The basting stitch is effective on elastic materials such as knits. Basting stitch: Since the needle thread is tucked in without fail, it will never jut out of the buttonhole seams. Basting stitch can be sewn by nine rounds.



Without basting stitch



With basting stitch



Basting stitch

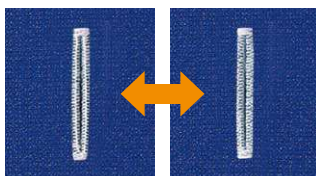
(The state in which the material is stretched in the lengthwise direction after buttonholing)

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

Purl stitching ↔ Whip stitching

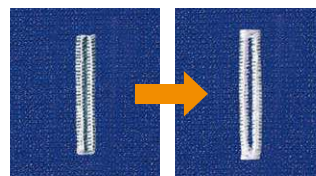


Purl stitching

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 firstround 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.

LBH-1790ANB (Shorter-thread remaining functions) • LBH-1790AN

LBH-1790ANB (Shorter-thread remaining functions)



LBH-1790ANB

■ Shorter - thread remaining mechanism

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

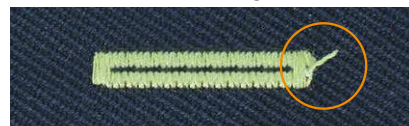
The newly-developed shorter-thread remaining mechanism trims the thread short and eliminates the trouble of manual thread nipping.

Shorter-thread remaining functions



* Remaining length of thread varies with sewing conditions.

Conventional Buttonholing Machine



LBH-1790AN

- The LBH-1790AN 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 4,200sti/min, and the jump speed is 200mm/s. The cycle time has been further reduced for continuous sewing.

LBH-1795AN (120mm presser type)

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



120mm presser type

LBH-1796AN (220mm presser type)



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

■ The LBH-1796AN is a subclass model of the LBH-1790AN 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-1790AN. In addition, the LBH-1796AN can also be used as a simplified indexer to sew three buttonholes in a row.

Productivity

- ◎ The maximum sewing speed of the LBH-1796AN is **4,200 sti/min**
(equivalent to the maximum sewing speed of the LBH-1790AN)
- ◎ The jump speed has been increased
LBH-1790AN: Max 200 mm/s
LBH-1796AN: **Max 540 mm/s**



Cycle time during continuous sewing has been improved to increase productivity

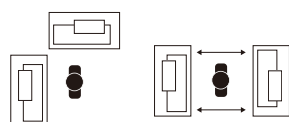
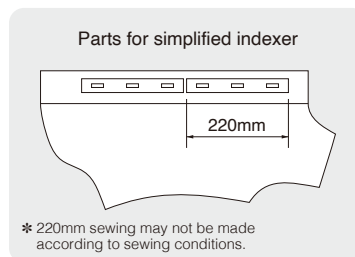
Increased productivity is ensured!

Simplified buttonholing indexer

When the optionally-available indexer mechanism is installed on the LBH-1796AN, the operator can attend to two units of this model of sewing machine at one time or can use the LK-1903BN button sewing machine together with the LBH-1796AN, 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.

Work waiting time is reduced even further when one operator operates two or more sewing machines, thereby increasing productivity.

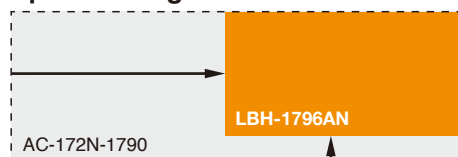


LBH-1796AN
One operator operates 2 sewing machines. 14sec./pc.

Model	Sewing method	Number of units to which the operator attends	Required time per shirt	Productivity
LBH-1796AN	3 buttonholes x Twice	1	28 sec.	857 pcs./8 hours
		2	14 sec.	1,714 pcs./8 hours

Condition: Six buttonholes. Machine speed: 3,600sti/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 2nd sewing machine: 4.0 sec.

Space-saving


































As with the general-purpose indexer, the simplified indexer for the LBH-1796AN permits easy addition to and change of the production line, thereby contributing to saved installation space. The table area of the LBH-1796AN 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

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.

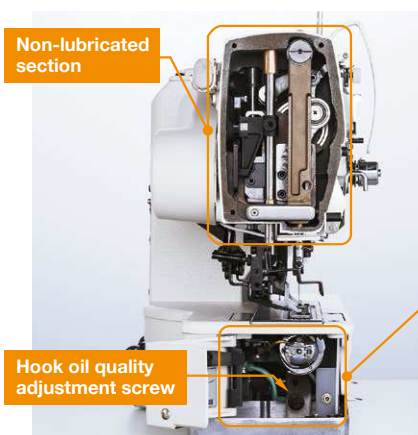
1  Square	2  Round	3  Radial square	4  Radial	5  Radial straight bartacking	6  Radial taper bartacking	7  Eyelet square	8  Eyelet radial
9  Eyelet straight bartacking	10  Eyelet taper bartacking	11  Semilunar	12  Round square	13  Semilunar square	14  Semilunar straight bartacking	15  Semilunar taper bartacking	16  Eyelet semilunar
17  Eyelet 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	26  Semilunar round	27  Bartacking	28  Bartacking, right cut	29  Bartacking, left cut	30  Bartacking, center cut	31  Basting stitch + Knife	

Improved maintainability

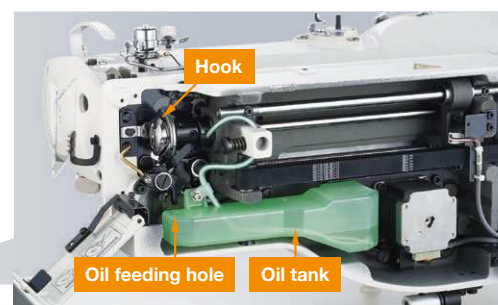
■ The machine eliminates oil stains on the sewing product.

- 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 3,300sti/min)

■ Adjustment of the hook oil quantity



- The newly installed "hook oil quantity 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.



- 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.

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. 40003493]

■ Foot pedal

- Two-Pedal switch
[Part No. 40003491]

Cloth cutting knife, Work clamp, Work clamp foot

Knife size	Cloth cutting knife*		Work clamp*				Work clamp foot*												
	Part No.	Mark	For stitch width 5mm		For stitch width 6mm		Part No. <Type>	1790 S	Option* (for knits)	Part No.	1795 S								
		Part No. (Length of cloth cutting knife) <Type> (AxB)		Part No. (Length of cloth cutting knife) (AxB)		Part No. (Length of cloth cutting knife) <Type> (AxB)													
6.4mm (1/4")	B2702-047 -F00	F	B1552-781-000-A (6.4~19.1mm) <1> (4x25mm)	D1508-771-K00-A (6.4~19.1mm) <1> (4x25mm)	40008658 (5~120mm)	145-24409 (6.4~31.8mm) <3> (6x41mm)	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> (5x35mm)	D1508-772-K00 (6.4~25.4mm) <2> (5x35mm)			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> (5x41mm)	D1508-773-K00 (6.4~31.8mm) <3> (5x41mm)			D1511-773 -KA0 <3>	*	*										

◎: Factory installed on machine △: Supplied as an accessory (For LBH-1790ANS) *: 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	40004351 (1.4x7.4mm)	40004353 (1.2x7.4mm)

◎: Factory installed on machine

* When you change LBH-1790AN into knitting.

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

Other option parts for knit

Part No.	Description
13782065	Hook asm.*
13782107	Hook timing 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 3,300sti/min)	
	400-06349	RP bobbin case		
	137-29603	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	
	SM-6040450-TP (3 pcs.)	Screws		
	145-23252	Work clamp foot 70		Selectable
	145-23401	Work clamp 70		
	145-23708	Urethane work clamp 70		
	145-24102	Flat work clamp 70		Exclusive to 120mm
	400-08646	Work clamp foot 120 (asm.)		
	401-67520	Work clamp 120		
	400-06335	Work clamp arm 120	Common to 70 mm and 120 mm	
	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.)		
	400-53150	Tension controller (asm.)		
	SK-3452001-SE	Wood screws		
2-pedal unit for standing work	GPK-510010B0	Pedal switch (asm.)		
	400-03493	Junction cable (asm.)		

SPECIFICATIONS

Model name	LBH-1790ANB	LBH-1790AN	LBH-1795AN	LBH-1796AN
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 is the abbreviation for "stitches per minute"

* The special-specification part is available on a special order. Contact our branch or office in your area.

* 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□AN□

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□N

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

JUKI ECO PRODUCTS

The LBH-1790AN 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.

For details of JUKI ECO PRODUCTS, refer to: <https://www.juki.co.jp/en/company/eco>

*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
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<https://www.juki.co.jp/en>

- * 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.
- * Paper from responsible sources FSC™ C001712