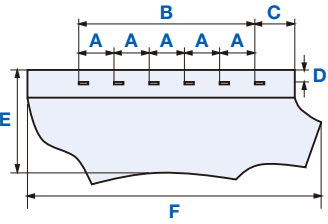


**SPECIFICATIONS**

Model name	AC-172N-1790AN
Max. sewing speed	4,200sti/min* (normal: 3,600sti/min*)
Sewing dimension	Standard: Width 4mm x length 25mm (Max. Width 6mm x length 120mm by repiacing parts)
Cloth trimming length	6.4~19.1mm (1/4~3/4 inch)
Lift of the work clamp foot	Max.14mm
Needle	DPx5 #11J-#14J (Needle installed at the time of delivery #11J)
Feed system	Stepping motor
Feed direction	Right (for men's garments) or left (for ladies' garments)
Unit of feed amount	0.1mm
Number of patterns that can be input	20 patterns
Number of buttonholes	1~20 pcs.
Presetting device	Provided as standard
Stacker	Provided as standard
Lubricating oil	JUKI New Defrix Oil No.1
Power requirement	3-phase 200~240V, Single-phase 220~240V
Power consumption	800VA
Compressed air and air consumption	0.5MPa (5kg/cm <sup>2</sup> ) 240Nl/min
Dimensions	1,910(W) x 850(D) x 920mm(H) (Up to the preset table surface)
Total weight	300kg

\*sti/min is the abbreviation for "stitches per minute"



**APPLICATIONS SIZE OF CLOTH**

<b>A</b>	Buttonhole interval	0~610mm (0.1mm steps)
<b>B</b>	Total feeding amount	MAX.610mm
<b>C</b>	Distance from the top end of the garment body to the first buttonhole	MAX.140mm
<b>D</b>	Distance from the front side end of the garment body to the buttonhole	7~21mm
<b>E</b>	Applicable size of the garment body to be sewn	Width: 220~420mm
<b>F</b>	Length of the garment body to be sewn	Length: 400~880mm

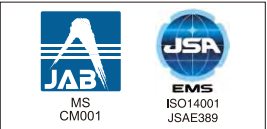
**WHEN YOU PLACE ORDERS**

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

**AC172N1790ANS** ☐ ☐ ☐

Type	Code	Options			Code	Power supply		Code
Standard	<b>S</b>	Marking light	Cloth edge sensor	Support clamp		3-phase 200~240V		<b>D</b>
		—	—	—	<b>ZZ</b>	Single-phase 220~240V		<b>K</b>
		○	—	—	<b>A1</b>			
		○	○	—	<b>A3</b>			
		○	○	○	<b>A4</b>			

JUKI ECO PRODUCTS	The AC-172N-1790AN is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment.
	<ul style="list-style-type: none"> <li>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.</li> </ul> <p>For details of JUKI ECO PRODUCTS, refer to: <a href="https://www.juki.co.jp/en/company/eco">https://www.juki.co.jp/en/company/eco</a></p> <p><small>*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.</small></p>



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.

# AC-172N-1790AN

High-speed, Computer-controlled Buttonholing Indexer

For a more sophisticated appearance, faster operation, and easier use!

The latest machine head reduces operating noise and improves the maintainability of the cloth-cutting knife. Comes with a large color LCD touch panel to improve operability.



AC-172N-1790ANS

High-speed, Computer-controlled **Buttonholing Indexer**

# AC-172N-1790AN



# For easier use and a more sophisticated appearance

The AC-172N-1790AN comes with a large color LCD touch panel and the latest machine head used in the LBH-1790AN.

JUKI's new buttonholing indexer is easier to use and ensures accurate and consistent buttonholing quality.



## Operator-friendly environment

### 1 Equipped with an LED light to illuminate the needle entry area

The LED light is equipped as standard under the arm jaw. The LED light lights up automatically whenever the sewing machine power is turned ON. This LED light provides a comfortable work environment to help the operator easily thread the needle and check the stitches.



### 2 Improved work environment with a quieter cloth-cutting knife

A new stepping motor to drive the cloth-cutting knife helps reduce annoying operating noise. The quieter operation improves the sewing environment and reduces operator fatigue.



### 3 Easier adjustment of the oil in the hook without tilting the machine head

In conventional models, the operator must tilt the sewing machine head to adjust the amount of oil in the hook. The latest machine head allows easy adjustment of the hook oil using a newly equipped "hook oil adjustment screw" located under the hook lid cover. This feature eliminates a difficult maintenance task common to automatic machines.

### 4 A large color LCD touch panel IP-420 for touch operation

The larger screen of the new color LCD touch panel displays sewing data such as the stitch shape and stitch number. The input function on the operation panel enhances ease of use by allowing the operator to input and edit sewing data while watching the area around the needle entry points. The operation panel is equipped with USB and Compact-Flash\* ports for easier software upgrades and data-sharing with other devices.



### 5 A single buttonholing indexer for both men's and ladies' shirts

The sewing mode can be easily switched between men's dress shirts and ladies' blouses on the operation panel. Sewing specifications (buttonhole size, buttonhole interval, etc.) can also be quickly and easily changed with a few touches of the panel interface. Buttonholes can be sewn from the top when sewing ladies' garment bodies, just as they are with men's. The machine can also space buttonholes at different intervals on a garment, as required.



Ladies' wear mode



Men's wear mode

Change the sewing mode with a single touch of the key

For ladies' wear  
For men's wear



# For the ultimate in efficiency

The preset mechanism comes with a sub-clamp device as standard. Overlapping work increases productivity, and the anti-material-slippage mechanism promises consistently accurate buttonholes.

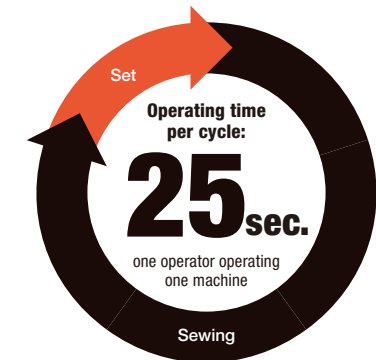
## The preset mechanism helps increase productivity!

Since the automatic buttonholing indexer carries out buttonholing successively, the operator conventionally has had waiting time while the sewing machine is in operation (for buttonholing). JUKI's preset mechanism allows the operator to place the subsequent garment body to be sewn on the preset board while the sewing machine is still engaged in the sewing of the current garment body (so-called overlapping work). Consequently, the operator now can use his/her waiting time effectively during operation to achieve increased productivity.

### What is the preset mechanism?

The preset mechanism allows the operator to place the next garment body to be sewn while still buttonholing the current garment body.

The next garment body to be sewn is placed on the sewing machine after the sewing of the current garment body is finished.



The waiting time increases...

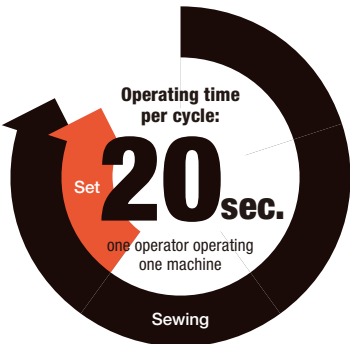
Not provided with the preset mechanism

The time required to place a garment body on the sewing machine can be **reduced by 5 seconds!**

In comparison with the buttonholing indexer not provided with the preset mechanism.



The next garment body can be placed on the preset mechanism while the current garment body is still being sewn!



Reduced waiting time increases productivity!

Provided with preset mechanism

AC-172N-1790AN

The sewing machine availability is further increased!

It is recommended that one operator operates two or more sewing machines!

### One operator operates 2 sewing machines



Provided with the preset mechanism AC-172N-1790AN

Two garment bodies are buttonholed in one 20-second cycle:

**10 seconds per garment body**

### One operator operates 3 sewing machines



Provided with the preset mechanism AC-172N-1790AN

Three garment bodies are buttonholed in one 21-second cycle:

**7 seconds per garment body**

- Difference in the number of finished garment bodies between sewing machines with and without the preset mechanism (eight working hours with a margin ratio of 20%)

	Provided with the preset mechanism	Not provided with the preset mechanism	Increased amount
1 sewing machine	960 pcs.	1,200 pcs.	+240 pcs.
2 sewing machine	1,920 pcs.	2,400 pcs.	+480 pcs.
3 sewing machine	2,880 pcs.	3,429 pcs.	+549 pcs.

Time required to place a garment body on the sewing machine: 5 seconds.  
Time required for buttonholing: 20 seconds (five buttonholes spaced at 100 mm intervals, with 113 stitches).  
Operator travel time between sewing machines when one operator operates two or more machines: 2 seconds.

Simply place the material on the preset mechanism and press the start switch. The following process will be carried out automatically.

The material is carried

Sewing

Thread trimmer

Stacking



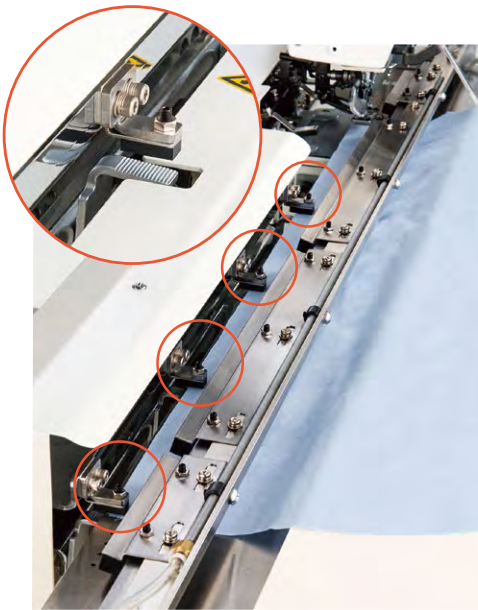


# Various technologies to achieve consistent quality



## Sub-clamp device to support the buttonholing of fabrics with vertical stripes

The sewing machine comes with a sub-clamp device that prevents material slippage during transport from the preset mechanism to the sewing machine. The independent sub-clamp device of the carriage unit on the machine head clamps the material to keep it from slipping out of position. This function promises reliable delivery operation and consistent seam quality even when sewing vertical-striped fabrics. The machine is also equipped with a function to eliminate false starts by detecting whether or not a material is present.



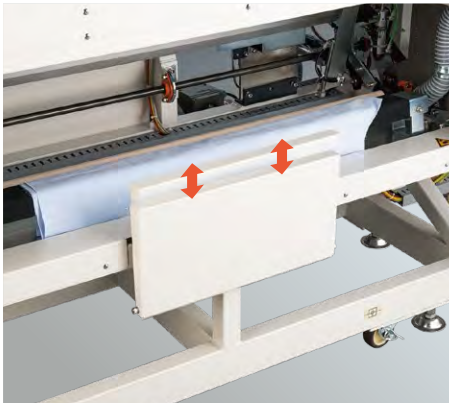
Sub-clamp device

## High-performance indexer mechanism

A stepping motor controls material feed amounts in increments of 0.1 mm to feed materials with both consistency and accuracy. The machine is able to sew 1 to 20 buttonholes and stores 20 different stitching patterns in its memory. The sewing machine is provided as standard with a facility that moves the carriage unit synchronously with the operation of the sewing machine during sewing, thereby enabling accurate and unailing feed of the material while preventing material slack.

## Space-saving type stacker built into the main body of the sewing machine

The stacker clamps the buttonholed garment body and automatically stacks it without fail. This operation increases productivity by improving the efficiency of the material taking/stacking by the operator.



Stacker / Knee switch

## Knee switch and hand switch are also provided

The operator can use the knee switch to turn ON the machine start switch while holding a garment body with both hands. This feature increases the stability of material placement and shortens the time required to complete it. The height of the knee switch is adjustable. If the operator turns ON the machine start switch with a material placed on the preset mechanism, the sub-clamp device automatically carries the next material to the sewing position after the current material is buttonholed. This function improves productivity by allowing the operator to run two or more sewing machines or carry out other tasks while buttonholing is underway.

## Options

### Cloth edge sensor (Only under the men's wear mode)

If the operator fails to place the garment body at the correct sewing position, the cloth edge sensor detects the edge of the material (on the collar side) to maintain a constant distance between the upper edge of the material and first buttonhole.

### Marking Light

The laser-type marking light confirms vertical stripe patterns and the positions of front plackets. This marking light streamlines the garment body placement work to improve quality and productivity by ensuring accurate positioning of vertically striped garment bodies.

### Support Clamp

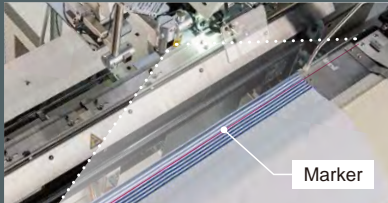
The support clamp clamps the edge of the garment body (on the collar side) to free up both of the operator's hands. When the clamp is used in combination with the marking light, patterned garment bodies can be placed on the machine more easily and accurately.

### Programming software for computer-controlled sewing machines [PM-1]

It is easy, accurate, and fast!

This data programming software is full of new functions.

With the PM-1 sewing data creation and editing software, sewing data can be easily input, confirmed, and corrected on a computer screen in more detail than is possible with the IP-420 intelligent panel.



Marking Light



Support Clamp

### Non-lubricated hook

Name of part	Part No.
RP hook (asm.)	40006345
RP bobbin case	40006349
Hook sleeve (asm.)	13729603
Screws	SS8660612TP (4pcs)

• By the installation of nonlubricated hook, the machine is changed to be a fully dry-head machine. (In this case, the maximum sewing speed will be 3,300sti/min)