

**JUKI**®



# AB-1351

Automatic 1-needle Belt-Loop Attaching Machine

AB-1351 is **the world's first** belt-loop attaching machine with the ability to solely sew seven different belt-loop sewing patterns!

— The number of belt-loop patterns has been increased to **12** —



AB-1351-DS-AZ

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## Automatic 1-needle Belt-Loop Attaching Machine

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The machine can be used for attaching diversified belt-loop styles! JUKI's unique flexible automatic belt-loop attaching machine!

### Improved productivity

This machine not only reduces the time required for the belt-loop attaching process, but also achieves labor-saving, such as the elimination of the previous process (belt-loop cutting). Productivity can be dramatically increased when one operator attends to two AB-1351 units.

### Quality production without relying on operator skill

This machine allows an inexperienced operator to sew various types of belt-loops. The operator only needs to place a garment body on the machine and press the switch. The belt-loop sewing shape and sewing size can be easily changed through the operation panel.

### Quality improvement

JUKI's unique belt-loop feeding/folding mechanism helps achieve beautifully-attached consistent-quality belt-loops with constant sewing dimensions (amount of slack).

### Productivity is dramatically increased when the operator attends to two AB-1351 units.

Two AB-1351 units can be operated by only one operator. In the case where two AB-1351 units are placed, as shown in the picture, the operator is able to operate them alternately to attach belt-loops on two different garment bodies, thereby substantially increasing productivity.

AB-1351 / Productivity	One operator attends to one AB-1351 unit.	One operator attends to two AB-1351 units.
Number of belt-loops	4,114	7,542
Number of products to be produced	685	1,257

Sewing condition: (for 8 hours with an allowance of 20%)  
Belt-loop sewing pattern No. 4; number of first bartacking stitches: 12; number of second bartacking stitches: 21; number of third bartacking stitches: 12; number of belt-loops per garment-body: 6

Belt-loop folding mechanism which supports various belt-loop specifications (patent pending)

This is the world's first automatic belt-loop attaching machine which can be used for seven different belt-loop attaching processes. The main mechanisms have been computerized to develop a belt-loop attaching machine which sews diversified belt-loop styles.

JUKI's unique belt-loop feeder unit



The belt-loop feeder unit incorporates JUKI's unique twin system. It is able to feed belt-loops with consistency even when a soft and elastic material is used. The belt-loop feeder unit is arranged in front of the main body of the sewing machine. This allows the operator to insert belt-loops from the front of the machine. In addition, the operator can visually check the belt-loop state whenever necessary, even during sewing.

Belt-loop size adjustment and belt-loop specification changing have been digitalized.



The AB-1351 has adopted, as its operation panel, the IP-420 which has a large color liquid crystal touch panel. With this operation panel, the operator can change the belt-loop shape or sewing pattern, set the belt-loop sewing position and carry out cycle sewing. When the belt-loop width is changed, the bartacking width can be automatically changed according to the percentage of change of the belt-loop width. Digitalization helps substantially reduce the time required for sewing data adjustment.

The machine can be used for two different sewing styles by installing / removing the sub-tables.

● Sewing belt-loops on waistbands ● Sewing belt-loops on garment bodies



The sewing machine can be used for two different sewing styles, i.e., for sewing belt-loops on waistbands (flat sewing) and for sewing belt-loops on garment bodies (tubular sewing), by installing / removing the sub-tables (auxiliary table and waistband table). The position of the start switch can also be changed. (The machine is provided with sub-tables as standard accessories.)

## 12 different sewing patterns

\* The finished belt-loop shapes illustrated below represent the finished shape of major belt-loops of various sewing patterns.

**No.1**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 59~99mm	59~99mm

※Belt-loop length : Max. 130mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Zigzag BT
3rd			Zigzag BT

**No.2**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 15~30mm	15~30mm
C 45~99mm	45~99mm

※Belt-loop length : Max. 130mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT

**No.3**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 45~109mm	45~109mm
C 5~11mm	5~11mm
D (2)mm	(2)mm

\*The belt-loop is actually finished without being folded, as illustrated. D is a reference value.

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT
4th			Linear BT

**No.4**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 30~50mm	30~50mm
C 5~11mm	5~11mm
D 5~30mm	5~30mm
E 6mm	8mm

Finally-finished dimensions: G=40~66mm  
※Belt-loop length : 58~130mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT/AB
4th			Linear BT

**No.5**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 30~61mm	30~61mm
C 5~11mm	5~11mm
D 2~8mm	2~8mm
E 2.5mm	4mm
F 10mm	10mm

Finally-finished dimensions: G=34.5~68.5mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT/AB

For the 3rd bartack, zigzag bartacking can be carried out.

**No.6**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 45~99mm	45~99mm
C 15~30mm	15~30mm
D 2.5mm	4mm

※Belt-loop length : Max. 130mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Zigzag BT/AB
4th			Zigzag BT

For the 3rd bartack, linear bartacking can be carried out.

**No.7**

Linear bartacking	Zigzag bartacking
A 10mm	10mm
B 30~60mm	30~60mm
D 4mm	3mm
E 4mm	3mm
F 10mm	10mm

Amount of slack 0~20mm 0~20mm  
Finally-finished dimensions: G=36~66mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Zigzag BT/AB
2nd			Zigzag BT/AB

For the 1st and 2nd bartacks, linear bartacking can be carried out.

**No.8**

Linear bartacking	Zigzag bartacking
A 10mm	10mm
B 49~109mm	45~109mm
D 4mm	3mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT

For the 1st bartack, zigzag bartacking can be carried out.

**No.9**

Linear bartacking	Zigzag bartacking
A 10mm	10mm
B 30~60mm	30~60mm
D 4mm	3mm
E 6mm	12mm

Amount of slack 5~30mm 5~20mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT

For the 1st bartack, zigzag bartacking can be carried out.

**No.10**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 45~109mm	45~109mm
C 5~11mm	5~11mm
D 4mm	3mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT/AB
4th			Linear BT
5th			Linear BT

For the 3rd bartack, zigzag bartacking can be carried out.

**No.11**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 30~50mm	30~50mm
C 5~11mm	5~11mm
D 4mm	3mm
E 6mm	12mm

Amount of slack 5~30mm 5~30mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT/AB
4th			Linear BT/AB
5th			Linear BT

For the 3rd bartack, zigzag bartacking can be carried out.

**No.12**

Linear bartacking	Zigzag bartacking
A 4mm	6mm
B 30~56mm	30~56mm
C 5~11mm	5~11mm
D 4mm	3mm
E 2.5mm	4mm
F 10mm	10mm

Amount of slack 4~16mm 4~16mm

(Finished shapes of major belt loops for each sewing pattern)

Waistband	Body	1st	Linear BT/AB
2nd			Linear BT/AB
3rd			Linear BT/AB
4th			Linear BT/AB

For the 3rd and 4th bartacks, zigzag bartacking can be carried out.

※ The gauge for zigzag bartacking is supplied with the sewing machine.

## Options

### ● LOOP DRAWER DEVICE [400-94294]

It is the LOOP DRAWER DEVICE which helps the belt-loop feeder unit of the main body feed belt-loops. The loop drawer device pulls out, beforehand, the belt-loop to be sewn next. This prevents belt-loop length variation when using belt-loops made of elastic material. In addition, it detects any faulty feeding resulting from belt-loop entangling.

### ● PEDAL SWITCH [400-90639]

It is a foot-control pedal unit. The presser foot can be lifted and lowered by the foot pedal. This improves accuracy and ease of garment-body placement. The presser foot can be lifted and lowered by the foot pedal. This improves accuracy and ease of garment-body placement. Junction cord (part No.: 400-73659) is required.

### ● 2-PEDAL SWITCH [401-11910]

The front and rear garment pressers can be separately moved up and down.

### ● Lower bartacking cancellation switch [400-97205]

This switch is used, for sewing patterns No. 4, 5, 7, 9, 11 and No. 12 to cancel lower bartacking in the case where a belt-loop cannot be attached onto a material which is too thick to sew, such as the back top center of trousers.

### ● MARKING LIGHT

LED MARKING LIGHT ASM. (Cross-hairs in green) [401-11891]  
LASER MARKING LIGHT ASM. (130mm, Straight lines in red) [401-11906]  
(300mm, Straight lines in red) [401-11907]

This is the marking light to be retrofitted on the machine. Generally, one led marking light (cross-hairs in green), which has been provided as standard, and the "cloth guide" are used to place a garment-body on the sewing machine. However, additional marking lights can be retrofitted in the case of sewing belt-loops on a garment-body with reference to the back center or a dart. (A total of three marking lights can be retrofitted.)

### ● AIRGUN ASM. [401-11887]

### ● FEED PLATE-C [400-93451]

Drop-in type feed plate. (It does not support the work clamp foot B)

### ● Narrow gauge for zigzag bartacking

WORK CLAMP FOOT -BN [400-91156], FEED PLATE-BN [400-75975]

### ● Narrow work clamp for linear bartacking

WORK CLAMP FOOT (NARROW) [400-91157]

This part is suitable for sewing belt-loop width of which is up to 14mm.

### ● Needle Plate ASM. N [400-91154]

## Specifications

Model name		AB-1351
Machine head		LK-1961/ABH (Exclusive machine head based on the LK-1900A, Semi-dry-head)
Max. sewing speed		2,500sti/min*
Lift of the work clamp foot		Max.14mm
Hook		Standard shuttle hook
Stored bartacking patterns (Stitches)		Linear bartacking (12, 15, 21, 28, 36, 41) / Zigzag bartacking (28, 36, 42, 56, 64)
Bartacking size	length-wise	0~3.2mm (0"~1/8") (adjustable in increments of 0.1mm)
	cross-wise	6~23mm (15/16"~57/64") (adjustable in increments of 0.1mm)
Number of bartacking patterns that can be input		Max. 200 patterns, (Max. 20,000 stitches in total patterns)
Number of belt-loop sewing patterns		99 patterns
Number of cycle sewing patterns		Number of programs: 20 (30 different patterns can be set within one program.)
Needle		DP x 17 #14, 135 x 17 #90
Thread		Spun 80Nm (recommend), Filament 80Nm (80Nm=#50)
Belt-loop width		8~20mm (5/16"~25/32")
Power requirement / Power consumption		Single-phase 220~240V / 280VA, 3-phase 200~220V / 250VA
Compressed air and air consumption		0.5MPa (5kg/cm <sup>2</sup> ), 10Nl/min
Total weight		205.5 kg
Dimensions		1,200(W) x 850(D) x 1,210mm(H)
Height of the top face of the throat plate		Minimum: 930 mm (from the floor surface)
Needle thread breakage detecting device		Provided as standard (Sewing can be re-started in the case of thread breakage.)
Belt-loop multi-layered part detecting device		Provided as standard

\*sti/min stands for Stitches per Minute.

## When You Place Orders

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

Table	Code	Options	Code
Sub-table (provided as standard)	S	Not provided	Z
		Pedal switch	A
Power supply	Code	Device	Code
Single-phase 220~240V	K	Not provided	Z
3-phase 200~220V	D	Loop drawer	A
Single-phase 220~240V (for CE)	N		

\*For code "D" the machine is adaptable to single-phase 100V power supply by changing over the tap.

**A B 1 3 5 1**  **S**

### JUKI ECO PRODUCTS



The AB-1351 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: [http://www.juki.co.jp/eco\\_e/index.html](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.



### 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**®

2-11-1, TSURUMAKI, TAMA-SHI,  
TOKYO 206-8551, JAPAN  
PHONE : (81) 42-357-2254  
FAX : (81) 42-357-2274  
<http://www.juki.com>

**JUKI CORPORATION**  
**SEWING MACHINERY BUSINESS UNIT**

\* 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.