

## **Direct Drive**

Programmable electronic pattern sewer



The world's highest sewing speed has been achieved and beautiful seams can be produced even at high speeds. It provides high sewing quality and increases productivity for a wide range of applications while saving energy.

## High quality sewn products made with beautiful stitching

### High quality stitching exactly the way it is programmed even at high-speed sewing

With adoption of the high-rigid feed mechanism with servo-control, high-precision pattern sewing is available and feed drifting, which is electronic sewing machinespecific, does not occur even with high speed or weighty material sewing.

#### Low thread tension sewing is possible with stable thread tension

PD-3000

The high-rigid feed mechanism with servo-control and the needle bar / thread take-up mechanism having optimal timing and stroke have realized stable thread tightening at low tension sewing. It has enlarged the range of balanced thread tensions.



BAS-311G-01S

## Presser foot control mechanism always provides uniform thread tightness

When thickness of material has been changed, the height of the stepping presser foot is changed so that a fixed amount of presser foot moving is constantly provided. This prevents the stepping presser foot from lifting too much or being excessively pressed and thus uniform thread tightness can be obtained. The height of the stepping presser foot can be set with no tools required, simply by entering a numeric value from the operation panel or in a program.

Furthermore, you can use user programs to set the stepping presser foot height to the desired height separately for each sewing program.



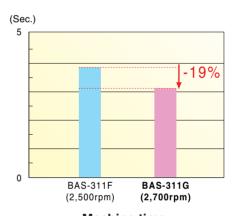


## Smooth and beautiful stitches can be produced with a minimum resolution of 0.05 mm

Since the data is resolved at 0.05 mm per pulse for the feed, slanted lines and curves are accurately sewn with beautiful finishes. Also, a simple single point embroidery motif can be sewn, and embroidering on heavy materials, which is not easy with a general embroidery machine, is also possible.

## Productivity is increased with maximum sewing speed of 2,700 rpm

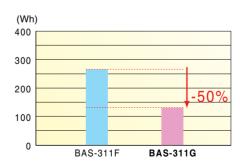
With the adoption of a Brother's unique direct drive motor, starting and stopping is quick. Machine time has been reduced by approximately 19% compared to the previous model and thus productivity is increased.



# Machine time Sewing rectangle pattern, 60x99mm (No.of stitches:106, stitch length:3mm)

## **Economical operation with low power consumption**

The direct drive mechanism greatly reduces power transmission losses, and a compact and energy-efficient motor has also been adopted. These innovations result in energy savings of approximately 50% from previous models. This is a programmable electronic pattern sewer with the lowest power consumption in the market.

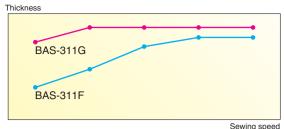


#### **Power consumption**

Sewing rectangle pattern, 60x99mm (No. of stitches: 106, stitch length: 3mm, sewing speed: 2,500 rpm, sewing 504 pieces/hour)

## Powerful needle penetration force

A more powerful motor (550W) has been adopted. The needle penetration force is powerful even at low speeds, and there is plenty of power available for sewing thick materials.



Needle penetration force

Sewing speed

### Work clamp lift amount can be set on operation panel (Motor-driven work clamp spec

As the work clamp operation is controlled by a pulse motor, the work clamp lift amount can be set simply by entering a numeric value at the operation panel without need of using tools. Furthermore, you can use the user programs to set desired work clamp lift amount for each program respectively. No need to adjust the amount at every change of programs.



## 3 types of work clamp lowering operation (Motor-driven work clam

You can select desired work clamp lowering operation from three patterns by changing memory switch settings.

Two-step lowering: The work clamp is lowered from the highest position to pause at an intermediate position, then lowered to the lowest position. Quick and accurate positioning of materials can be made with an optimal work clamp height. The total cycle time can be reduced.



One-step lowering: The work clamp is lowered from the highest position to the lowest position at once. The quick pressing operation is suitable for occasions when positioning materials with the work clamp is not necessary while it is positioned with the feed plate beforehand.

Analog lowering: The work clamp is lowered in direct proportion to the pedal depression amount without steps. You can lower it with making subtle positioning of materials.

## Large-capacity memory capable of storing bulky data

Large-capacity memory (\*512 programs, 500,000 stitches) is embedded in the sewing machine so that a large quantity of data can be stored. There is no need to read a program each time it has been changed.

A compact flash (CF) card has been adopted for handling a large amount of data. Read and write speed is fast, which allows multiple data to be copied or moved to other sewing machines or computers for data management.



<sup>\*</sup>The number of patterns and stitches which can be stored depends on the number of stitches for each program.

<sup>\*</sup> The factory setting is two-step lowering.

### Easy programmer\* with large color LCD

### **Easy programming**

- Programs can be easily created in the same procedure as the programmer of the previous model.
- A shape of pattern data can be checked while it is created.
- Comments can be added to the program. Also, horizontal and vertical sizes are displayed so that programs of similar figures can be identified.

### Sewing data can be managed with programmer

Sewing data management is easy because sewing data image can be displayed and sewing data can be copied and moved easily.

\*optional product







## Sewing area 130x100mm (BAS-311G)

The sewing area of the BAS-311G is 130x100mm, which is larger than that of the previous model. It offers a wider range of applications, especially in sewing bags and jeans.

## **Evenly applied presser pressure**

The angle of the work clamp can be adjusted. Pressure is given evenly to the front, rear and sides of the work clamp so that a sewn product can be clamped firmly and accurate sewing finish is obtained.

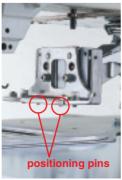


## Changing sewing pattern is simple

# Work clamp can be replaced quickly and accurately

Simply by loosening the two screws, the work clamp can be replaced quickly. It can also be installed accurately by using the positioning pins.





### Feed plate can be replaced accurately

When replacing the feed plate, stitch data can be easily and accurately aligned with the feed plate by aligning the reference holes of the needle plate and the feed plate.



## Simple adjustment

### Driver phase can be adjusted easily

The driver phase can be adjusted from the side without tilting the sewing machine. This reduces time taken for the adjustment and improves productivity when materials are changed.



### **Pulley positioned in convenient location**

The pulley is positioned in the convenient location on the side of the sewing machine arm. Needle drop and hook timing can be checked easily.



## Improved durability

The adoption of a linear guide (both X and Y feed directions) has improved feed durability.

## **Environmentally friendly**

Brother has established the "Brother Green Label" in conformity with ISO 14021 international standard and JIS Q14021 Japanese Industrial Standard. BAS-311G and 326G have been approved for this standard. The models are environment-conscious machines achieving industry's top energy saving with the direct drive system, use of lead-free solder in all PCB, and significant extension of the hook's lifetime.



Industry's top energy saving with the direct drive system
Use of lead-free solder in all PCB
Significant extension of the hook's lifetime

## **Options**

# Inner clamping device\*\* (SA7189101)

This is operated with the outer presser by air and so material slippage will not occur. It is suitable for sewing around labels, emblems and Velcro straps.

#### Thread wiper\*(SA5575101)

This is driven by a pneumatic cylinder and useful when a thread cannot be completely pulled out from fabric in sewing extra heavy materials.

## Sewing data programming software PS-300B

This is a software package that lets you create, edit and modify sewing patterns for electronic sewing machines using a personal computer with no skill required.

#### Needle cooler\*(SA5559101)

This is a pneumatic type needle cooler which prevents thread breakage due to heat. It is particularly useful for sewing heavy materials or sewing at high speeds.



#### Thread breakage detector(SA5193101)

When it detects thread breakage, the sewing machine stops automatically and warns its operator. It is helpful when one operator uses many machines at the same time.



#### Triple pedal foot switch(SA6495101)

In addition to the start pedal, the right and left pedals operate independently. This allows fabric to be positioned even more precisely.



## 2-step thread tension device\* (SA7197101)

This allows the upper thread tension to be switched between two settings at any desired time by using the programmer (PD-3000). It can be used to produce attractive finishes with sewing in which the thickness of the material changes during the course of a single pattern such as overlapping part sewing, or the sewing direction is changed.

# Floppy disk drive (FDD) set (SA5201001)

Sewing data which were created with the old models can be loaded to the machines with this set.

- \* This device requires the optional solenoid valve set.
- \*\*The part codes are different for 311G and 326G.

## **Specifications**

# **BAS-311G-0**

Application*			
1	For heavy materials (#20 or similar thread)		
2	For medium materials (#50 or similar thread)		
3	For seat belt		

Work clamp			
S	Motor-driven work clamp		
Α	Pneumatic work clamp		

BAS-311G-01S



	Application*
1	For heavy materials (#20 or similar thread)
2	For medium materials (#50 or similar thread)

For seat belt

(#4 or similar thread)

**BAS-326G-0** 

Work clamp

Pneumatic work clamp



Model	Lock stitch	⊚ <b>⊙</b> Double hook	Y X Sewing area	Stitch length	Thread trimmer	Thread wiper	Max sewing speed	Air consumption
BAS-311G	*	2	130×100mm	0.05 - 12.7mm	*	*	2,700rpm	1.7 l/min
BAS-326G	*	2	220×100mm	0.05 - 12.7mm	*	*	2,700rpm	1.7 l/min

	DAG 0440	DAG 0000			
	BAS-311G	BAS-326G			
Sewing machine	Lock stitch pattern tacking sewing machine (with double-capacity hook)				
Stitch form	Single needle lock stitch				
Max. sewing speed	2,700 rpm 2,700 rpm				
Sewing area (X×Y)	Max. 130×100 mm Max. 220×100 mm				
Feed mechanism	Intermittent feed (pulse motor drive)				
Stitch length	0.05 - 12.7mm				
Max. number of stitches	20,000 stitches per pattern				
Work clamp drive	Pulse motor drive / Pneumatic drive Pulse motor drive				
Work clamp lift amount	-0□S: Max. 25 mm -0□A: Max. 30 mm	Max. 30 mm			
2-step work clamp	-0□S: Unit work clamp -0□A: Separate work clamp	Separate work clamp			
Height of stepping presser foot	22 mm				
Stepping presser foot stroke	0 or 2 - 10 mm (Factory setting: 3 mm)				
Hook	Double-capacity shuttle hook (Standard capacity hook: Option)				
Thread wiper	Standard equipment				
Thread trimmer	Standard equipment				
Data storage media	Flash memory (Sewing patterns can be added using CF card) 3.5 floppy disk 2HD/1.44MB, 2DD (option)				
Motor	AC servo motor 550W				
Mainle	Machine head: Approx. 88 kg Operation panel: Approx. 0.6 kg				
Weight	Control box: 14.2 - 16.2 kg (depending on destination)				
Power supply	Single phase 100V / 220V, 3-phase 200V/220V/380V/400V 400VA				
Air pressure/consumption	0.5 Mpa 1.7 l/min				

<sup>\*</sup> Thread counts are for reference. Please consult your local Brother sales office for details.

Product specifications are subject to change for improvement without notice. Please read instruction manual before using the machine for safety operation.

CHINA

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