

Electronic single needle zigzag lock stitcher

ZE-855A

Electronic single needle zigzag lock stitcher with thread trimmer

ZE-856A

- Sew many different patterns with a machine
- Accurate sewing finishes even when sewing at high speeds
- Multifunctional panel for easy operation
- Comfortable operation gives better efficiency



ZE-856A

Electronic zigzag stitcher that opens up new sewing possibilities with an abundance of sewing patterns!

Abundant variations possible without needing cams

Abundant pattern variations

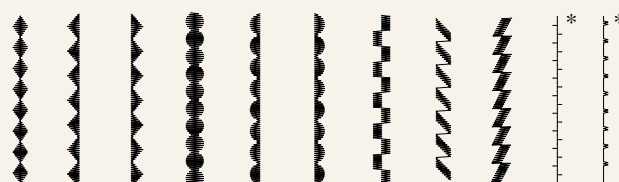
This is a zigzag lock stitcher with 14 different basic patterns of eight different types built in. Furthermore, you can add up to 99 different types of custom-made patterns. There is no need to prepare a different cam for each sewing pattern, so creating a more economical machine.

	Straight stitch	Plain zigzag	2-step zigzag	3-step zigzag	Scallop (left)				Scallop (right)				Blind stitch (left)	Blind stitch (right)
					Crescent	Even	Standard	Even	Crescent	Even	Standard	Even		
Sewing pattern														
No. of stitches	—	—	—	—	24	12	24	24	24	12	24	24	Up to 99 stitches can be set for straight-line sections.	

Custom patterns add even more value

The customer can create and add their own pattern designs to the machine's memory. Custom patterns can be used for a wide variety of decorative sewing for ladies wear, knitted garments, neckerchiefs, towel handkerchiefs, foundations and swimsuits. (Up to a maximum of 99 patterns with a total of 10,000 stitches, at 500 stitches or less per pattern. Creating new patterns requires the PS-3000 programming software.)

Custom made pattern examples

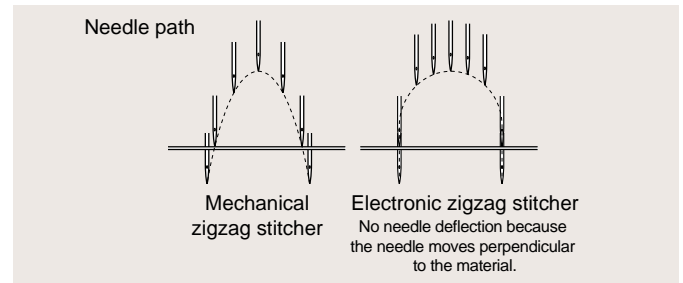


* Optional circuit board is required for T-stitch.

Seams with a new level of attractiveness and accuracy

No needle deflection even at high speeds

The high-speed damper mechanism (patent pending) absorbs the damping characteristics which can occur during high-speed drive control. As a result, there is no widening of the zigzag width during high-speed sewing. And almost no needle deflection when the needle is piercing the material, so preventing puckering.



Soft sewing with high quality

The needle and rotary hook timing has been changed. The shape of the rotary hook and thread take-up have also been changed, and the thread path has been improved. These improvements allow stable soft sewing finishes to be obtained even at low thread tensions.



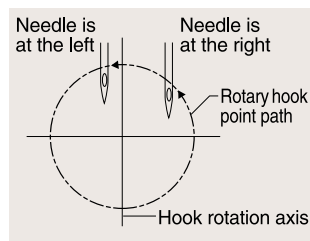
High-durability titanium-coated rotary hook

The inner rotary hook has a titanium coating that boosts the rotary hook's heat resistance, so that less oil needs to be supplied for lubrication. This eliminates problems with oil staining the thread and contaminating the material.



Trouble-free hook shaft offset mechanism

This mechanism prevents skipped stitches and thread breakages which can occur particularly at the right zigzag position. It makes rotary hook timing adjustment easier and improves ease of maintenance. It also prevents damage to the rotary hook tip from the needle guard.



Simple condense stitch setting

An adjustment dial for condense stitches is provided. This makes it much easier to set condense stitches in order to produce finer seams (feed amount) during backtacking.



Stable small-amount lubrication for rotary hook

A unique oil valve method (patent pending) has been adopted in the rotary hook lubrication mechanism.

Easy-to-use multifunctional panel

Settings can be easily changed and restored at the panel

- All settings including changing the pattern or zigzag width and moving the pattern to the left or right can be made at the control panel.
- Zigzag width settings and pattern movement amounts can be set in steps of 0.1 mm, making fine adjustments possible.
- Because settings such as zigzag width are made numerically, it is much easier to restore settings to what they were previously than for lever adjustment-type sewing machines.
- The desired sewing speed can also be entered at the panel. The sewing speed can be changed easily to the ideal speed to accommodate changes in sewing processes, sewing materials and threads.

Lower thread amount and pattern can also be checked at the panel

The lower thread counter on the panel shows the amount of thread remaining at all times. The selected pattern is also displayed on the panel so that it can be checked at a glance.



855A-00□



855A-A0□ and 856A

Zigzag widths can be saved separately for each pattern

The zigzag width changes automatically when the pattern is changed, so that the zigzag width does not need to be set each time.

Combining both ease of use and high cost performance

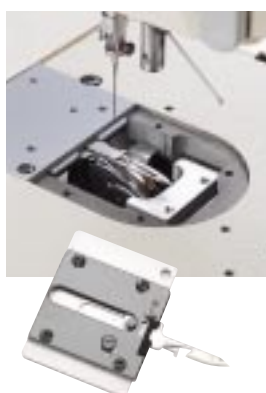
Needle up and needle down stopping

AC servo motors are provided as standard equipment. The needle position function lets you change the material direction easily when the needle is at the down stop position, and replace the material smoothly when the needle is at the up stop position. Furthermore, the sewing speed can be changed easily to the ideal speed to accommodate changes in sewing processes, sewing materials and threads.



No thread trimming errors (856A)

A grooved cam method has been used to reduce thread trimming errors. In addition the knife mechanism have been combined into a single unit to greatly simplify maintenance.



Gentle pedal operating feel

The pedal operating feel is much better compared to when a clutch motor is used, making overall operation much more comfortable. Sewing can be carried out with light touches of the pedal even when sewing a small number of stitches.

Efficient energy saving

The adoption of AC servo motors provide an energy saving of approximately 40% compared to clutch motors. In addition, there are no clutch parts to become worn, so a major maintenance requirement has been eliminated.

Smooth starting and rhythmical sewing

The needle zigzag movement is controlled by a pulse motor, which reduces the load placed on the machine motor.

No thread pulling out at the sewing start (856A)

An upper thread feeding device supplies just the right length of upper thread required at the sewing start.



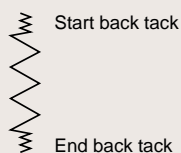
Sewing example

You can set patterns which cannot be sewn using mechanical zigzag lock stitchers.

This allows you to use the type of sewing which best suits the process and design of the item being sewn.

- You can change the widths of the backtacking zigzag stitches. (855A-A0□, 856A)

Example



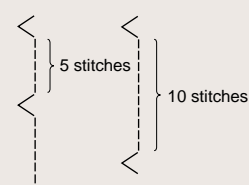
- The needle can be set to stop at either the left or right side when the sewing machine is stopped.

Example



- The number of blind stitches can be set as desired.

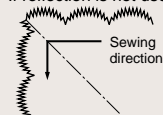
Example



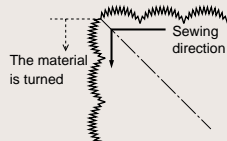
- A reflection function lets you sew attractive scalloping at corner sections.

Example

If reflection is not used



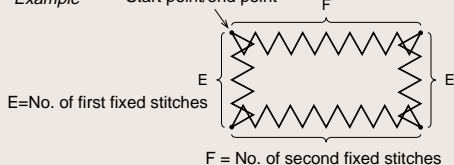
If reflection is applied when the material is turned



- Two types of stitch number setting can be applied using the NAME LABEL key. (855A-A0□, 856A)

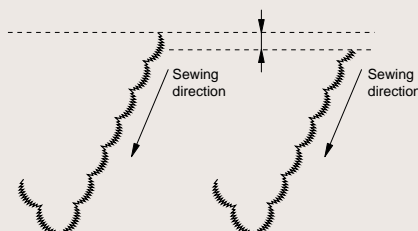
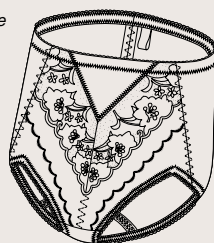
Example

Start point/end point



- 1/2 scallop can be sewn at sewing start.

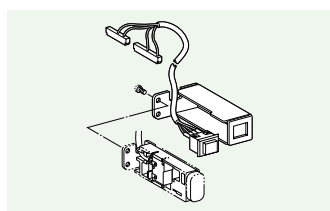
Example



Options

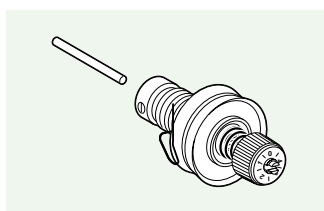
Reflection pattern switch set

In addition to scallop patterns, 2-step zigzag, 3-step zigzag (with no zigzag stop position set) blind stitch and custom made patterns can also be sewn as reflection patterns. In addition, correction sewing can also be carried out using the actuator while the above reflection patterns are being sewn.



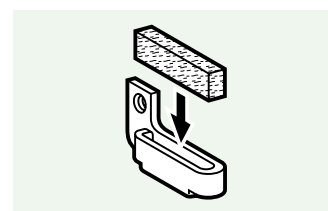
Thread tension assy (disc type)/ Tension release pin

The difference in thread tightening depending on sewing speed when ladies wear and knitted garments are sewn is more reduced.



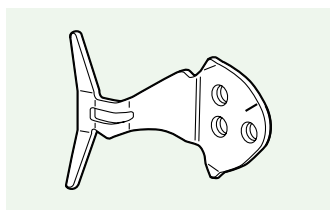
Thread guide, F / Felt

Prevents upper thread flapping causing skipped stitches and thread breakage when sewing coarse materials.



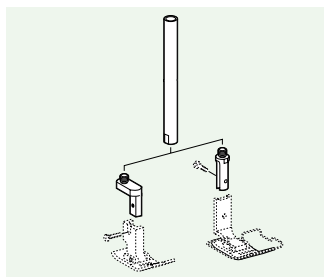
Thread take-up/Rotary hook for medium materials (tape attachment, plain zigzag)

This prevents thread tightening problems from occurring during processes such as attaching tape to medium materials. This is effective especially when continual sewing is performed with plain zigzag.



Presser bar

This is the separate type presser bar for using the presser foot for lock stitchers.



PS-3000 Programming software

This software is used to create sewing patterns on a computer. It allows you to create patterns which are different from those which have been preset.



Gauge set for attaching pocket


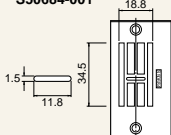
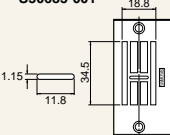
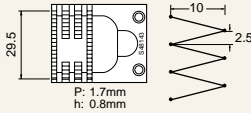
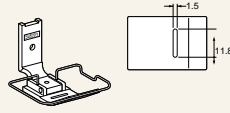

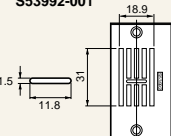
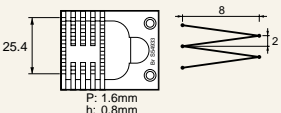
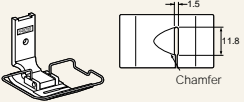
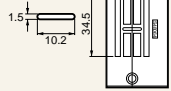
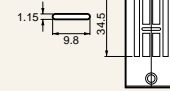
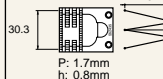
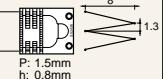
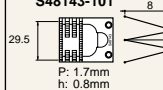
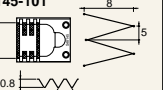
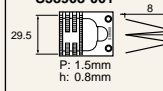
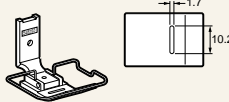
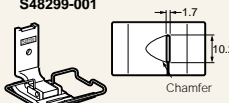
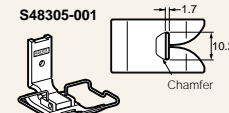

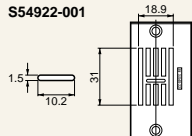
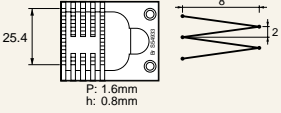
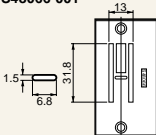
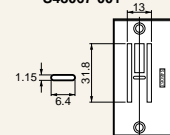
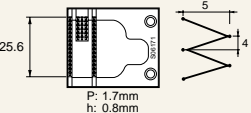
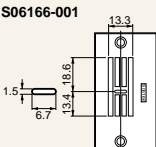
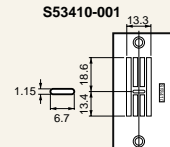
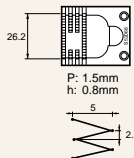
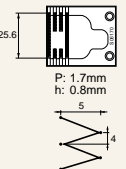
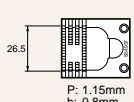
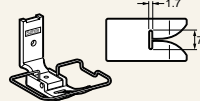

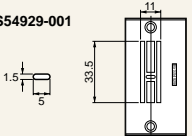
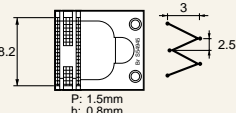
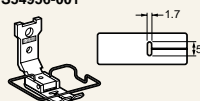

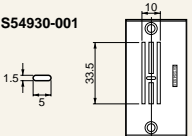
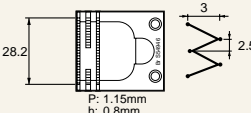
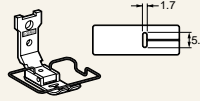
This is used for blind stitching in process of attaching a pocket onto a knit jacket.

Rotary hook (Carbide-reinforced hook tip)

This prevents the hook tip from becoming worn and thus increases rotary hook durability.

Rotary hook (For light-weight and coarse materials)

Gauge parts

Zigzag width	Needle plate	*1 Feed dog  (p: pitch, h: height)	Presser foot	Stopper
10 mm	S50684-001  S50685-001 	S50686-001 	S51227-001 	S50246-000 
	S53992-001 	S54933-001 	S51231-001 	
8 mm	S48064-001(Standard *2)  S48065-001(Standard *2) 	S52435-001(Standard)  S52436-001  S48143-101  S48145-101  S58908-001 	S48293-001(Standard)  S48299-001  S48305-001 	S48073-000 (Standard) 
	S54922-001 	S54933-001 		
5 mm	S48066-001  S48067-001 	S06171-101 		
	S06166-001  S53410-001 	S52068-001  S06170-101  S54937-001 	S48308-001 	S48074-000 
3 mm	S54929-001 	S54945-001 	S54956-001 	S48075-000 
	S54930-001 	S54946-001 	S54957-001 	

*1 For -1 specifications, max. feed amount is 2.5mm.
*2 According to destination.

Specifications

ZE-855A- ☐ **0** ☐

ZE-856A- ☐ **0** ☐

Back tack / Condense device*1		Use	
0	—	1	General (foundation)
A	○	3	General (long stitch)*2

	Thread trimmer	Upper thread feeding device	Back tack / Condense device*1	Thread wiper	Solenoid type presser foot lifter	Use	
3	○	○	○	—	—	1	General (foundation)
4	○	○	○	○	—		
9	○	○	○	○	○	3	General (long stitch)*2



ZE-855A



ZE-856A

Model	Zigzag stitch	1-needle	Bottom feed	Height of presser foot	Needle stroke	Thread trimmer	Automatic presser foot lifter	Max sewing speed
855A	10 mm*3	★	★	Manual 6 mm Knee 10 mm	33.3 mm	—	—	5,000 rpm*4
856A	10 mm*3	★	★	Manual 6 mm Knee 10 mm	33.3 mm	★	7 mm (-90°)	5,000 rpm*4

	855A,856A - <input type="checkbox"/> 01 General (foundation)	855A,856A - <input type="checkbox"/> 03 General (long stitch)
Max. feed amount	2.5 mm	5 mm
Thread take up	Rotary	
Presser pressure	20-60 N*5	20-60 N
Needle type	SCHMETS SY1965 Nm70/10	
Height of feed dog	1.0 mm	
Arm pocket area	W 269 × D 178 mm	
Motor	Machine drive : MD-631Z 400 W Induction motor (Single/3-phase)	
Control box	Single-phase 100V, 110V, 220V, 230V, 240V 3-phase 200V, 220V, 380V, 400V, 415V, 50,60Hz W 332 × D 253 × H 285 mm	

*1 Condensed stitches and back tack stitches can be sewn.

*2 If fine adjustments to the stitch length are needed, use "General (foundation)".

*3 At the time of shipment from the factory, Max. zigzag width is set to 8 mm.

*4 At the time of shipment from the factory, the maximum sewing speed is set to 4,500 rpm. For some patterns, the maximum sewing speed may be limited by the zigzag width has been set.

*5 For ☐01 specifications, a 9.8 – 29.4 N presser spring is provided an accessory.

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

brother
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