

Computer-controlled, Direct-drive, High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine

LZ-2290SS

LZ-2290SS-7

(with an automatic thread trimmer)

LZ-2290SU-7

(with an anti-material-slip capability
and an automatic thread trimmer)

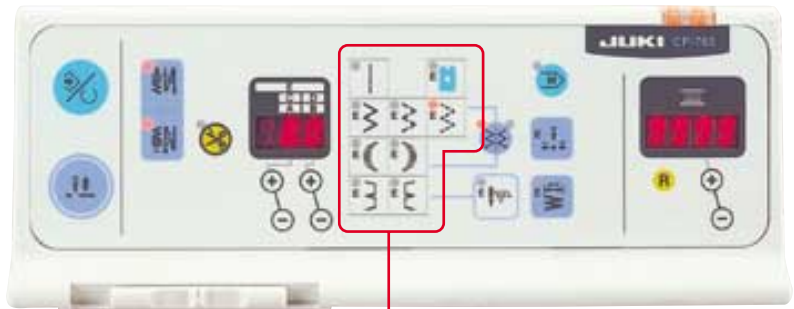
*Next-generation standard of
zigzag stitching machine!*



*Direct
Drive
Innovation!*

The machine permits easy creation of various kinds of zigzag stitching patterns

- The machine is provided as standard with fourteen different basic zigzag stitching patterns grouped into eight different types. You can choose the zigzag stitching pattern you want directly on the operation panel of the machine body. The zigzag width, needle throw position and number of blind stitches can also be easily adjusted on the operation panel.
- A single unit is extremely versatile and can perform straight stitching, standard zigzag stitching, 2-step zigzag stitching, 3-step zigzag stitching, scallop stitching, and blind stitching. As a result, the system is available for a far wider range of applications.



The machine permits direct selection of a desired sewing pattern.

Operation panel CP-760

SEWING PATTERN

Name of pattern	Straight stitch	Standard zigzag	2-step zigzag	3-step zigzag	Scallop (left)				Scallop (right)				Blind stitch (left)	Blind stitch (right)	Custom pattern
					Standard	Crescent	Equal-width	Equal-width	Standard	Crescent	Equal-width	Equal-width			
Stitch pattern															
Number of stitches	—	2	4	6	24				12				2 + α		Max. 64
Pattern selection key															

The feed length can be set to a maximum of 5 mm (LZ-2290SS, LZ-2290SS-7)

- A single machine handles various feed types, from standard feed to coarse feed. The coarse feed is effective when sewing stretched elastic tapes in processes such as elastic tape attachment to waistbands in shorts.
- The stitch dial is a stepless adjustable type. This enables fine adjustment of the feed amount.

* At the time of delivery, the maximum feed amount is factory-limited to 2 mm because of the relation with the gauge. The maximum feed amount for the LZ-2290SU-7 is 2.5 mm.



The zigzag width can be set to a maximum of 10 mm (For 2-step/3-step zigzag stitch.)

- When sewing wide tape, the machine can perform 3-step zigzag stitching with the zigzag width set to 10 mm. Sewing troubles such as stitch skipping or thread breakage will never occur even when sewing at the maximum zigzag width.
- The zigzag width and needle throw position can be input in increments of 0.1 mm. The entered data is stored in memory.

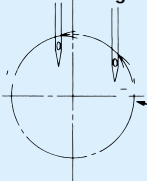
* At the time of delivery, the maximum zigzag width is factory-limited to 8 mm because of the relation with the gauge.

The machine inherits the market-proven seam quality from the LZ-2280N Series

- The machine is equipped with a hook-driving shaft-offset mechanism which places the hook-rotating shaft off-center from the center of zigzag stroke of the needle. This mechanism allows the blade point of the hook to catch the needle thread every time regardless of the needle throwing direction. As a result, the machine is immune to sewing troubles such as stitch skipping and thread breakage, annoyances likely to occur with the conventional machine, especially when the needle throws to the right.

Hook-driving shaft offset mechanism

Left Right



The position at which the blade point of the hook tacks the thread is almost uniform.

- With its newly developed hook and thread take-up lever, the machine produces high-quality, uniform seams even when sewing at extremely low thread tensions. In addition, these new components prevent stitch skipping and thread breakage during sewing and offer dramatically improved responsiveness to thread changing.



- The inner hook is finished with titanium to keep it from becoming hot. The machine requires only a very small quantity of oil. This prevents oil stains on the material and improves durability of the hook. In addition, the hook configuration is carefully designed to avoid needle breakage.



The computer-controlled machine offers extended zigzag stitching capabilities.

Custom patterns can be created on the operation panel

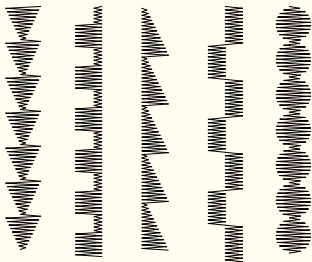
- You can quickly create an original stitching pattern on the operation panel and then try to sew it on a trial basis.
- The machine requires neither a programming device nor ROM writer.

● Custom patterns

Original sewing patterns can be quickly created and stored in memory.

- A maximum of eight patterns can be created and stored in memory, each with a maximum of 64 stitches.

(Example)

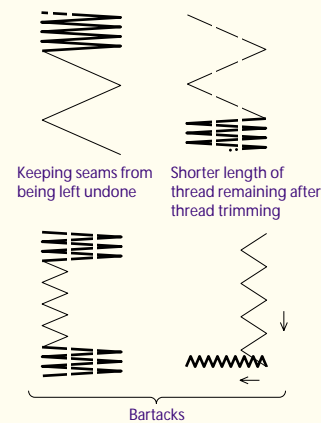


● Condense custom patterns (LZ-2290-7, LZ-2290-0B)

The user can specify original condense custom patterns. This type of pattern is very effective at producing improved bartacks and keeping seams from being left undone.

By the use of a suitable original type, the machine with an automatic thread trimmer trims the remaining thread shorter.

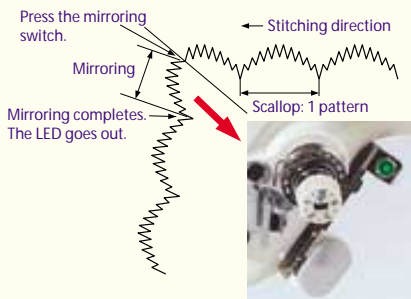
(Example)



● Mirroring of scallop stitches

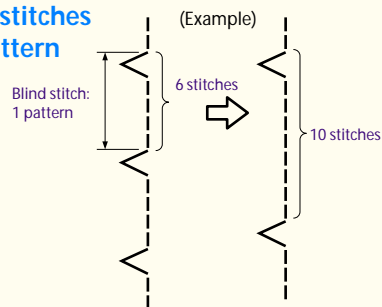
The machine produces beautifully finished scallop stitches on front part of a girdle, etc.

(Example)



● Setting the number of stitches for a blind stitching pattern

The user can set the number of stitches for a pattern. (3 to 250 stitches.)

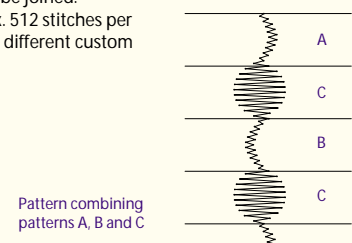


● Joining of patterns

Custom patterns can be joined.

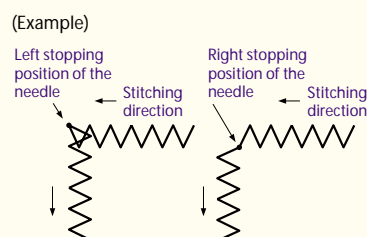
- Max. 8 patterns, max. 512 stitches per pattern. (when eight different custom patterns are joined)

(Example)



● Setting of the left and right stopping positions

The left and right stopping positions of the needle can be controlled. These settings are effective when performing corner stitching for label attachment or decorative stitching on the fronts of girdles.



● Copying data*

A pattern created on one operation panel can be copied to another on a different machine. Patterns can be copied all at once or on pattern-by-pattern basis.

*The optional parts listed below are required for copying.

Panel communication cable A (asm.)
Part No.: M8502-388-AA0



Newly developed long-arm machine head one size bigger than the conventional machine head

Wider space under the arm

JUKI has developed a new high-long arm machine head one size larger than the head for the conventional lockstitch machine. With its wider area under the arm, the machine permits easy handling of the sewing material for improved operability. The shape of the jaw gives the operator a clear view of the area around the needle.

Reduced noise and vibration

The machine comes with a more rigid and well-balanced machine head frame. This, coupled with the direct-drive method, dramatically reduces the noise and vibration of the machine and helps reduce operator fatigue.

Adoption of a direct-drive system that offers excellent stop accuracy and improved responsiveness

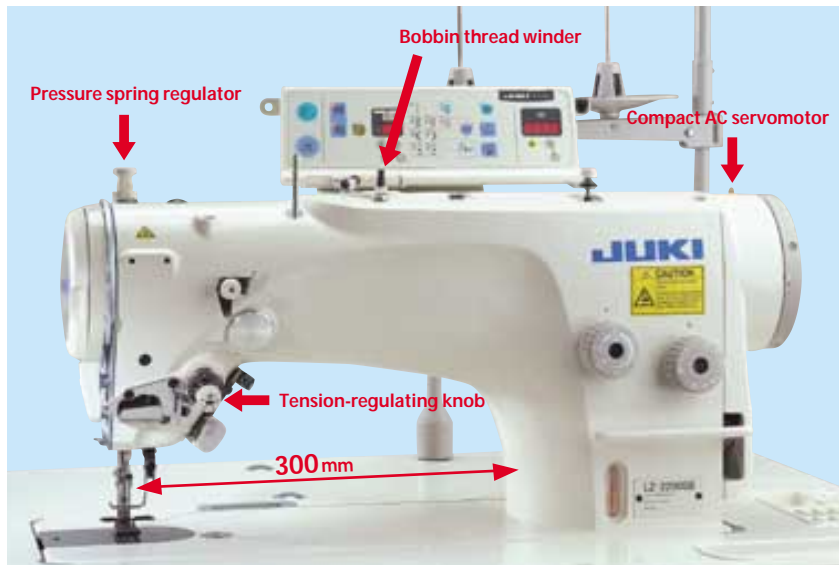
- The machine adopts a direct-drive system featuring a compact AC servomotor directly coupled with the main shaft. This system offers excellent responsiveness and allows the machine to start up more quickly and stop with better accuracy.
- Use of the servomotor in place of belt-driven parts serves to reduce power consumption and avoids stains on the sewing product.

Higher productivity

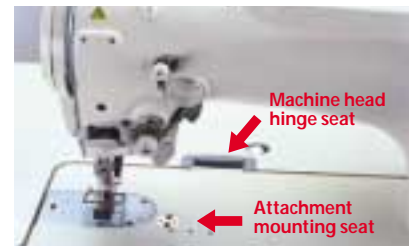
- In the standard zigzag stitching mode with the zigzag width set to 4 mm, a frequently selected operating condition, the machine sews at a top speed of 5000 rpm, that is the world's highest available speed as a computer-controlled zigzag stitching machine, to increase in productivity. (4,500 rpm for the LZ-2290SU-7)

The machine incorporates easy-to-use functions! Workability is further improved

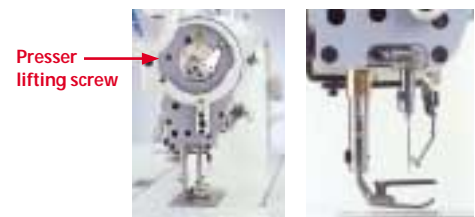
- The machine is equipped with a graduated tension-regulating knob and pressure spring regulator. These components show the machine settings for reference when adjusting the thread tension and presser foot pressure according to sewing conditions.
- The bobbin thread winder is built in the top surface of the machine head. This helps the user change the bobbin thread more easily. The bobbin thread winder also allows adjustments in the bobbin thread amount and is equipped with a thread trimming knife that cuts the thread after the bobbin is wound.
- An attachment mounting seat is installed on the bed surface. This facilitates replacement of attachments and improves the durability of the machine bed surface.
- Compared with the conventional machine, the machine head hinge seat has been moved 10 mm further back from the needle entry point. This improves the workability and prevents the sewing material getting caught in the seat.



LZ-2290SS



- The standard machine is equipped with a micro-lifter. This device works to keep the presser foot slightly raised, which effectively prevents material slippage and damage when sewing elastic materials.



Improved safety and maintainability

- The machine is structured without an oil pan. Only clean oil is supplied from the oil tank installed on the machine to the hook and needle bar. The machine supports high-speed sewing in a clean working environment.
- Time and effort are conventionally required to remove the knee lifter and cover. This means the machine head can be easily tilted when cleaning the machine or performing maintenance.
- A safety switch is mounted on the machine head. If the machine is tilted with the power on, the safety switch is activated and disables the machine operation. In this disabled condition, the machine will never run even if you depress the foot pedal.
- The area of needle throw can be limited. This prevents needle breakage or gauge breakage due to improper settings.



Designed with no oil pan

Spare parts for the conventional LZ-2280N Series are also used for this machine. (e.g., gauges, hooks, and thread-trimming knives)

- Parts used for the LZ-2290 Series are interchangeable with those for conventional models. This reduces the cost required for installation.

* See the listing of major gauges.

LZ-2290SS-7, LZ-2290SU-7 (with an anti-material-slip capability)

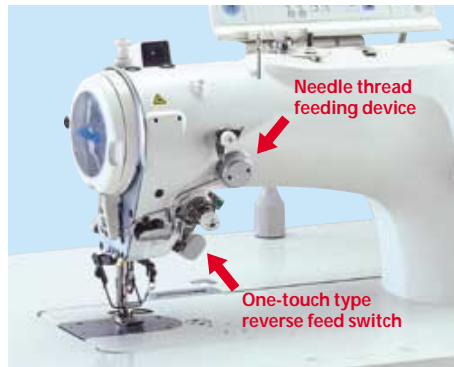
Thread trimming mechanism notable for its simple structure and extremely reliable performance

- The knife-sliding method employed by the thread trimmer guarantees that the thread is cut regardless of the needle throw position.
- The knife unit is installed under the bed slide to offer easier maintenance.



The machine is equipped as standard with a needle thread feeding device

- The machine comes with a needle thread feeding device that feeds the needle thread by only the required length at the beginning of sewing.
- The needle thread feeding device prevents stitch skipping and slip-off of the needle thread. It also greatly improves workability by shortening the thread remaining at the needle after it is trimmed.



A push-button-type reverse feed switch is adopted

- The newly adopted push-button-type reverse feed switch allows the operator to re-position buttons at desired locations. This prevents maloperation when the operator handles the material on the machine.
- When the "scallop stitching" is selected, this switch is used as a "mirroring" switch.



Troubles are prevented at the beginning of sewing by keeping the bobbin thread tension low

- The bobbin thread is retained at a low tension after thread trimming. This allows the thread to smoothly come off at the beginning of sewing, thereby preventing thread hitching and stitch gathering.

Anti-material-slip capability to further upgrade seam quality — LZ-2290SU-7

- Newly developed feed mechanism prevents the material slippage that is likely to occur when sewing slippery or elastic materials used for girdles or bodysuits.
- The machine never fails to produce beautiful, high-quality seams regardless of changes in the sewing material to fabrics such as power net and tricot. (*The effects of the machine may not be obvious on some types of materials.)
- The machine's bottom feed method prevents material slippage. Since the LZ-2290SU-7 is identical with the standard model in terms of its appearance and gauge parts, workability is entirely unaffected.



OPTIONS

● Automatic reverse feed kit

(Part No.: 235-46658)

When this device is installed, the LZ-2290SS (without a thread trimmer) can perform reverse feed operation. (The mirroring switch for scallop stitching is used as the push-button-type reverse feed switch.)

● Presser foot connecting components

Presser bar (Part No.: D1501-583-H00)
 Presser connecting rod (Part No.: D1502-583-H00)
 Screw (Part No.: SS-7091110-SP)
 The aforementioned parts are used when a lockstitching type presser foot is installed on the machine.



*Place a separate order for the parts

● Non-lubricated hook

(plastic hook with special race surface)

(Part No.: 225-26669)

The hook effectively prevents oil stains.
 *When the hook is used, setscrews are required for the front of the hook-driving shaft (Part No.: 110-79506).

● Hard-point hook

(Part No.: 225-26560)

The blade point of this hook prevents abrasion.

● Hook with a non-rotational bobbin

Hook (Part No.: 235-23152)
 Bobbin case asm. (Part No.: 235-22550)
 Bobbin (Part No.: 235-23004)
 The hook with a non-rotational bobbin eliminates sewing troubles resulting from bobbin idling. It provides a uniform bobbin thread tension at all times, thereby guaranteeing a consistent stitch formation.



● Tension-free feeder (Tape feeder) V059

(Part No.: MAV-059000AA)

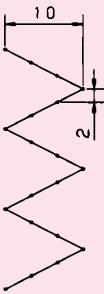
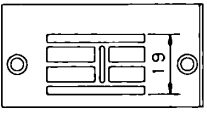
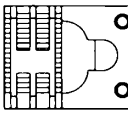
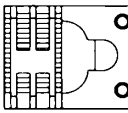
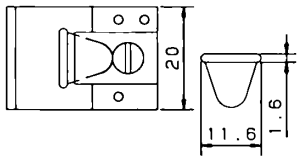
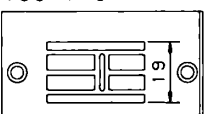
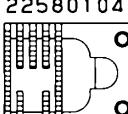
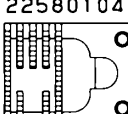
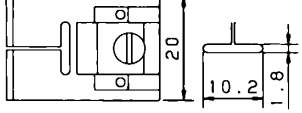
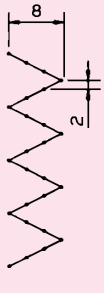

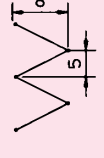
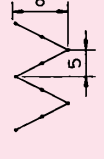
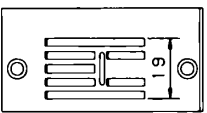
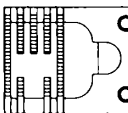
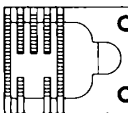
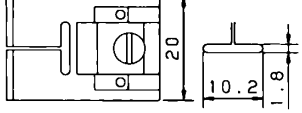
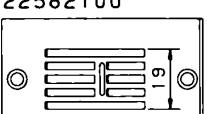
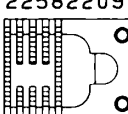
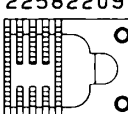
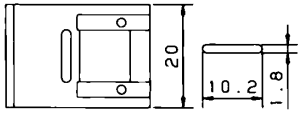
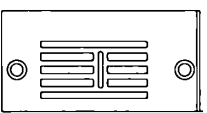
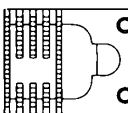
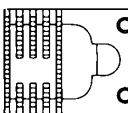
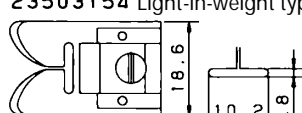
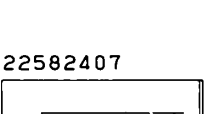
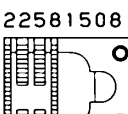
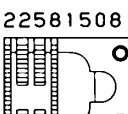
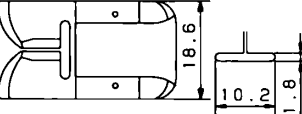
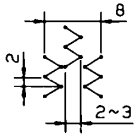

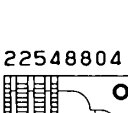
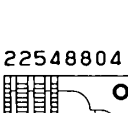
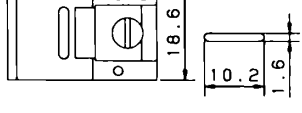
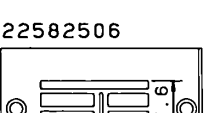
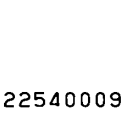
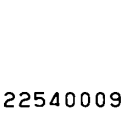
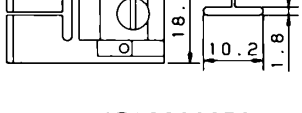
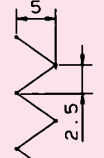
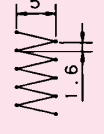
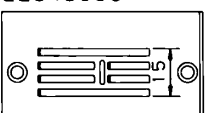
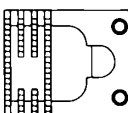
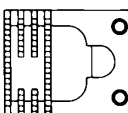
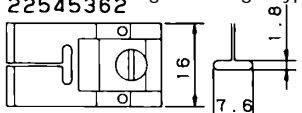
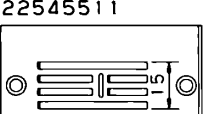
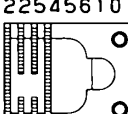
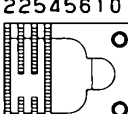
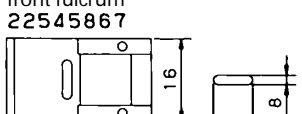
- The amount of tape to be fed can be adjusted in accordance with the sewing speed of the machine.
- It is adaptable to processes for attaching reinforcement tape, attaching elastic tape or lace to foundation.

● Elastic tape tensing device S189

Type	Part No.
S189A (Pneumatic type)	MAS-189000AA
S189B (Solenoid type)	MAS-189000AB

- Applies tension to desired portions of the tape fed from a tension-free tape puller.
- The device is started/stopped by operating the knee switch. This increases operator productivity without interrupting the sewing work.

LIST OF THE MAJOR GAUGES

Max. zigzag width / Max. feed pitch	Throat plate	Feed dog	Presser foot (with finger guard)	Remarks
	10041010   1.6 Max. feed amount: 2mm	10047017  1.6 Max. feed amount: 2mm	With a recess on the reverse side of the presser foot 22580369 	
	10041101   1.6 Max. feed amount: 2mm	22580104  1.6 Max. feed amount: 2mm	22580260 Light-in-weight type 	
  Max. 2  	22580005   1.15 Max. feed amount: 2mm	22580500  1.15 Max. feed amount: 2mm	22580260 Light-in-weight type 	
	22582100   1.6 Max. feed amount: 2mm	22582209  1.6 Max. feed amount: 2mm	22580765 Light-in-weight type with the front fulcrum 	
	22582704   1.5 Max. feed amount: 2mm	22582803  1.5 Max. feed amount: 2mm	23503154 Light-in-weight type 	<ul style="list-style-type: none"> • Suited to sewing tasks that require frequent changes in the needle throw position.
	22582407   1.5 Max. feed amount: 2mm	22581508  1.5 Max. feed amount: 2mm	23503204 Front fulcrum type 	
	22548804   1.5 Max. feed amount: 1.3mm	22548804  1.5 Max. feed amount: 1.3mm	22580864 	<ul style="list-style-type: none"> • Light-in-weight presser foot prevents jumping at the time of high-speed sewing.
	22582506   1.7 Max. feed amount: 5mm	22540009  1.7 Max. feed amount: 5mm	MAB109000B0  Max. 15.6 20.6 10.4 1.8 Presser foot with a tape guide	
 	22545008   1.7 Max. feed amount: 2.5mm	22545107  1.7 Max. feed amount: 2.5mm	22545362 Light-in-weight type 	
	22545511   1.15 Max. feed amount: 1.6mm	22545610  1.15 Max. feed amount: 1.6mm	Light-in-weight type with the front fulcrum 22545867 	

Max. zigzag width / Max. feed pitch	Throat plate	Feed dog	Presser foot (with finger guard)	Remarks	
	<p>22548705</p>	<p>22548804</p> <p>Max. feed amount: 1.3mm</p>	<p>22548960 Light-in-weight type</p>		
	<p>22548507</p>	<p>22548408</p> <p>Max. feed amount: 2.5mm</p>	<p>22547962 Light-in-weight type</p>	<ul style="list-style-type: none"> • For standard zigzag stitching • The 5mm-feed is suited to tape-attaching process where the elastic tape is sewn with stretched. 	
	<p>22548010</p>	<p>22548119</p> <p>Max. feed amount: 2.5mm</p>			<p>22541601</p> <p>Max. feed amount: 5mm</p>
	<p>22549000</p>	<p>22549109</p> <p>Max. feed amount: 2.5mm</p>			<p>22541809</p> <p>Max. feed amount: 5mm</p>
	<p>22549208</p>	<p>22549307</p> <p>Max. feed amount: 2.5mm</p>			<p>22541700</p> <p>Max. feed amount: 5mm</p>
	<p>22548663 Light-in-weight type</p> <p>22548671 (finger guard: small)</p>				
	<p>22546519</p>	<p>22546717</p> <p>1.15</p>	<p>22546618</p> <p>1.5</p>	<p>22546964 Light-in-weight type</p>	
	<p>22546212</p>	<p>22546410</p> <p>1.15</p>	<p>22546311</p> <p>1.5</p>	<p>Light-in-weight type with the front fulcrum</p> <p>22547269</p>	
	<p>MAD04060000</p>	<p>MAD04070000</p> <p>1.5</p>	<p>MAD040500A0</p>	<ul style="list-style-type: none"> • For attaching tape to brassieres, etc. 	
	<p>22549604</p>	<p>22549703</p> <p>1.15</p>	<p>22549869 Light-in-weight type</p>		

- Max. feed is 5 mm for the LZ-2290SS. Since the max. feed is 2.5 mm for the LZ-2290SU, gauges have to be selected with care.
- In addition to the above-listed ones, many different gauges and attachments for zigzag stitching are available. Please contact us for details.

SPECIFICATIONS

MODEL NAME	LZ-2290SS	LZ-2290SS-OB	LZ-2290SS-7	LZ-2290SU-7
	Without an automatic thread trimmer		With an automatic thread trimmer	
Application	Standard			With an anti-material-slip capability
Max. sewing speed	5,000rpm			4,500rpm
	(for standard zigzag stitching, the zigzag width has to be set to 4 mm or less.)			
Max. zigzag width	Standard zigzag: 8 mm / 2-step, 3-step zigzag: 10 mm (in increments of 0.1 mm)			
Needle throw mechanism	Computer-controlled			
Max. feeding amount	5.0 mm (stepless fine adjustment)			2.5 mm (stepless fine adjustment)
Lift of the presser foot	By hand: 5.5 mm / By knee: 10 mm			
Hook	DP hook (with a titanium-treated inner hook)			
Thread take-up	Rotary type			
Needle (at the time of delivery)	SCHMETZ 438 (#75), ORGAN DP x 5 (#70)			
Number of patterns for standard stitching	8 types / 14 patterns			
Input function of the main unit	Provided as standard (operation panel)			
Bobbin thread winder	Built-in the machine head			
Push-button-type reverse feed switch	Option	Provided as standard		
Machine head drive	Compact AC servomotor (direct-drive system)			
Lubrication	Automatic (needlebar, hook): no oil pan system			
Lubricating oil	JUKI New Defrix Oil No.1 (equivalent to ISO VG7)			
Free space for sewing	300 mm			
Bed size	517 mm x 178 mm			
Power requirement / Power consumption	Single-phase 100 ~ 120V, 200 ~ 240V, 3-phase 200 ~ 240V / Power rating 600VA			
Total weight	98 kg		100 kg	

WHEN YOU PLACE ORDERS

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

[without an automatic thread trimmer]

LZ-2290SS-□□

Application	Code	Push-button-type reverse feed switch	Code
Standard	S	Not provided	/
		Provided	OB

[with an automatic thread trimmer]

LZ-2290S□-7-□B□□□□

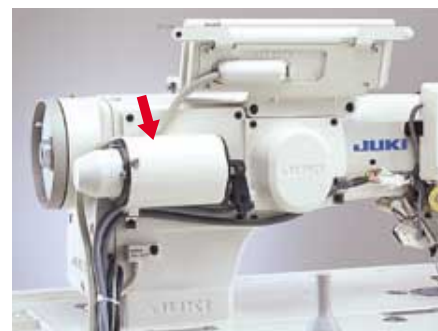
Application	Code	Wiper	Code	Device/attachment	Code
Standard	S	Not provided	0	With no device/attachment	/
Anti-material-slip type	U	Provided	W	Auto-lifter (pedal-driven)	AK121

● PSC box / control panel for SC

SC905-□□S-760

PSC box			Code
For General Export	Single-phase	220V PFL	07
	3-phase	220V PFL	11
For CE	Single-phase	230V PFL	34
	3-phase	220V PFL	38

JUS: North America and Central and South America.



AK121

● To order, please contact your nearest JUKI distributor.

JUKI[®]
JUKI CORPORATION
INTERNATIONAL SALES H.Q.

8-2-1, KOKURYO-CHO, CHOFU-SHI,
TOKYO 182-8655, JAPAN
PHONE : (81) 3-3430-4001 ~ 4
FAX : (81) 3-3430-4909.4914
TELEX : J22967
http://www.juki.co.jp

* 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.