

# LK-1940 Series

Computer-controlled Shape-tacking Machine with Full-rotary 3-fold Capacity Hook  
[ Sewing area : 60 mm (L) × 100 mm (W) ]

**LK-1941ZA** (For extra heavy-weight materials with heat cutter)

**LK-1942HA** (For heavy-weight materials with intermediate presser)

**LK-1942GA** (For extra heavy-weight materials with intermediate presser)

**LK-1942ZA/5050** (For seatbelts with heat cutter  
(needle/bobbin thread separate cutting method))



LK-1941ZA

LK-1942HA  
(Table stand is optionally available.)

# Standard shape-tacking machines for seatbelts and heavy-weight materials is now launched!



## The sewing pattern can be changed with ease.

- With its new electronic feed system, the operator can select and use the sewing pattern entered. When changing a sewing pattern, the conventional mechanical bartacking machine requires the replacement of a feed cam. Since the new electronic machine no longer uses a feed cam, this operation is no longer necessary and costs are substantially saved.
- With the handy PGM-7B programming device (optional), sewing patterns can be programmed on the main unit of the machine.

## Higher productivity

- The machine demonstrates a high-speed sewing capability of up to 2,200 sti/min for dramatically increased productivity.
- The machine is equipped as standard with a full-rotary 3-fold capacity hook. The hook reduces the frequency of the bobbin thread replacement, enhancing efficiency in sewing with thick thread.

## The machine offers improved seam quality and sewing capabilities when sewing heavy-weight or extra heavy-weight materials.

- The following features promise improved sewing capabilities for extra heavy-weight materials: A high-power, direct-drive motor that drives the needle with increased material-penetrating force; a higher-torque stepping motor that increases the feed efficiency, and a pneumatic work clamp that increases the material clamping force.
- Higher lift of the feeding frame (max: 25mm) enables easy placement of a material on the machine.
- Adoption of JUKI's unique 3-fold capacity hook and a profound knowledge of sewing grounded on years of extensive sewing research help eliminate sewing problems and improve seam quality.
- Standard device for G type or Z type.  
**Needle thread feeding device:** Feeds an adequate amount of needle thread in advance to prevent slippage from the needle when using bonding thread or the like.  
**Semi-rotary tension:** Applies higher tension on the needle thread.
- The needle hole guide for the Z type machine is optimally suited for the sewing of seatbelts and ensures seams of extremely consistent quality.



LK-1942GA



LK-1941ZA

## Excellent responsiveness

Select from three different types to best suit your application: the machine for seatbelts (Z), the machine for extra heavy-weight materials (G), and the machine for heavy-weight materials (H).

Specification	↔ Seatbelts (Z) ↔			
	↔ Extra heavy-weight materials (G) ↔			
	↔ Heavy-weight materials (H) ↔			
Yarn number count	#1 B277 8/3	#2 B207 10/3	#8 B92 30/3	#30 B46 60/3

### LK-1941

## A newly developed heat cutter ensures reliable and speedy trimming of thick thread.

- The thread trimmer offers outstanding reliability and durability. The ideal application for the device is the sewing of seatbelts with thick synthetic threads.
- The thread trimming operation can be executed in as little as 0.3 sec. — as fast as the thread-trimming speed achieved by a mechanical thread trimmer. The speed is adjustable and can be slowed down if desired.
- Unlike the thread trimmer using a knife, the heat cutter trims thick thread without fail and shortens the thread remaining at the seam end. It also offers improved durability to cut down on maintenance requirements.
- The heat cutter is designed to leave no thread chips on the hot wire section. This ensures consistent thread trimming at all times.
- The hot-wire temperature can be adjusted according to the operating environment.
- The heat cutter cuts both the needle thread and bobbin thread under the throat plate.
- This means the heat cutter will never hinder motions of the work clamp and other devices.



### LK-1942GA

## The intermediate presser securely clamps the material.

- By equipping the LK-1942GA as standard with an intermediate presser to prevent the material from flopping, beautifully finished seams are almost guaranteed. The height and stroke of the intermediate presser are both adjustable.



## Excellent operability

- The direct-drive system that directly connects a compact AC servomotor to the machine head achieves outstanding responsiveness and increased stopping accuracy. By omitting the use of a stop-motion mechanism in the system, users are promised a comfortable operating environment with reduced noise and vibration.
- The hand pulley is installed on this side of the machine head. This allows the operator to visually check the needle entry and adjust hook timing with ease.
- The machine is provided with a needle bar reverse-rotation mechanism. This enables the needle bar to stop at its topmost position to facilitate placement of heavy-weight materials on the machine.

# LK-1942ZA/5050 (For seatbelts with heat cutter (needle/bobbin thread separate cutting method))

This sewing machine is based on the LK1942GA and is provided with a heat cutter (needle/bobbin thread separate cutting method). In addition, the sewing machine is additionally provided with a bobbin thread detecting function, stitch-skipping detecting function, and in correct bobbin case insertion detecting function, thereby improving the seam quality.

## Seam quality

- The heat cutter (needle/bobbin thread separate cutting method) trims thread without fail even when thick thread is used.
- The length of thread remaining on the material after thread trimming is 5 mm or less. As a result, the thread-end securing process is not necessary.
- Bobbin idling is decreased by driving the bobbin thread trimmer by means of the air cylinder.

## Bobbin thread detecting function

If the sewing is performed without the bobbin thread, the bobbin thread detector detects it. As a result, products which have a not-sewn section (sewing products sewn without bobbin thread) will never be placed in the market.

## Stitch-skipping detecting function

The detector detects stitch skipping without fail and warns the operator with a buzzer sound. Inspection of products for skipped stitches is no longer required.

## In correct bobbin case insertion detecting function

The detector detects the absence or incorrect placement of the bobbin case to prevent sewing failure and bobbin case breakage.



**JUKI ECO PRODUCTS** The LK-1942ZA/5050 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.

Options are available to enhance the responsiveness of the machine to a variety of processes and applications.

### PGM-7 handy programming device

Sewing patterns can be entered or modified through the handy programming device while holding it. Dedicated keys for frequently-used functions are provided on the handy programming device to cut down the operation time.



### Needle cooler

[Part No.: 142-25056]

The needle cooler blows air to the needle, thereby preventing thread breakage caused by hot needle.



### Heat cutter

[Part No.: 144-47056]

The heat cutter cuts both needle threads and bobbin threads (#1 to #8 synthetic thread,) under the throat plate. (For the LK-1941 model, the heat cutter is equipped as standard.)

### Reverse sweeping wiper

Wiper [Part No.: 144-46009]  
Wiper base [Part No.: 144-45902]

In some sewing processes, the wiper may interfere with the needle when it actuates. In such a case, the wiper can be placed at the retracted position.

### Thread tension controller No. 3

[Part No.: B5019-222-0B0]

The tension controller unit is used to partially change the needle thread tension during the sewing of a pattern.

\*When used, the following parts are required:

- Air tube [Part No.: BT-0400251-EB]
- Solenoid valve [Part No.: PV-150209000]
- Solenoid valve connector assembly [Part No.: 142-04754]

### Silicon oil tank

[Part No.: B9211-850-0A0]

This device prevents breakage of synthetic threads.

### Work clamp, blank for seatbelts

- Work clamp foot (right), blank [Part No.: 144-44004]
- Work clamp foot (left), blank [Part No.: 144-44103]
- Feed plate, blank [Part No.: 144-44202]
- Belt positioning guide [Part No.: 144-44301]
- Setscrew for guide (2 pcs.) [Part No.: SM-9040603SC]
- Washer of setscrew for guide (2 pcs.) [Part No.: WP-0450826SC]

Knurled blank, designed for seatbelts, for machining that prevents slippage of material more effectively than the standard one. Adjustable belt positioning guide can be used.

### Thread-tension-releasing device

[Part No.: 142-24760]

This device requires if you want to change the sewing position without performing thread trimming. (Only applicable to the LK-1942HA)

### 3-pedal unit PK47

[Part No.: GPK-470010AB]

This 3 pedal unit is required if you want to use a double-step feeding frame.

\*When used, the following part is required:

- Junction cord [Part No.: M9025-580-0A0]

## SPECIFICATIONS

Model name	LK-1941ZA	LK-1942HA	LK-1942GA	LK-1942ZA/5050
Application	For extra heavy-weight materials	For heavy-weight materials	For extra heavy-weight materials	For seatbelts
Max. sewing speed	2,200sti/min (when stitch length is 3mm or less) *1			
Sewing area	60mm (L)×100mm (W)			
Stitch length	0.1~10mm			
Needle bar stroke	41.2mm			
Lift of the feeding frame	Max. 25mm			
Lift of the intermediate presser	—	18mm		
Stroke of intermediate presser	—	Standard 4mm (0mm and 4~10mm)		
Heat cutter	Provided as standard	Option		Provided as standard (needle/bobbin thread separate cutting method)
Thread that can be trimmed	Synthetic only: #8~#1 B92~B277 30/3~8/3	#30~#8 B46~B92 60/3~30/3	#8~#2 B92~B207 30/3~10/3	Synthetic only: #8~#1 B92~B277 30/3~8/3
Needle (at the time of delivery)	DP×17 (#25) #24~#26	DP×17 (#18) #18~#20	DP×17 (#23) #21~#23	DP×17 (#25) #24~#26
Hook	Full-rotary 3 fold-capacity hook *2			
Feed motion work clamp foot	R-theta intermittent feed			
Number of stitches that can be stored in memory	Max. 10,000 stitches			
Number of patterns that can be input	64 patterns			
Enlarging/Reducing facility	20~200% (1% step), by increasing/decreasing the stitch length			
Bobbin thread counter	Provided as standard			
Memory medium	EEP-ROM			
Lubrication	Centralized oil wick lubrication			
Lubricating oil	JUKI New Defrix Oil No.2 (equivalent to ISO VG32)			
Compressed air and air consumption	0.5MPa (5kgf/cm <sup>2</sup> ), 1.3Nℓ/min			
Sewing machine motor	550W compact AC servomotor (direct-drive system)			
Power consumption	Single-phase, 3-phase 600VA			
Weight	Machine head (include motor) 46kg, Control box 16.5kg			Completed-product 110kg
	Heater unit 3.5kg			

\*1 Normal sewing speed of the LK1942ZA/5050 is 1,600 st/min in the case of sewing seat belts.  
\*2 For the LK1942ZA/5050, exclusive hook (full-rotary 3-fold capacity hook) and exclusive bobbin are required.  
\*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:

### [ Machine head ]

(with heat cutter, without intermediate presser)

**LK1941ZA** □ □ □ □ **Z**

Subclass	Code
Standard	5000
Subclass	5001~

(without heat cutter, with intermediate presser)

**LK1942** □ **A** □ □ □ □ **Z**

Application	Code	Subclass	Code
For heavy-weight materials	H	Standard	5000
For extra heavy-weight materials	G	Subclass	5001~

### [ Control box ]

**MC594** □ □ **F**

Specification	Code	Power supply	Code	Pedal switch	Code
With heat cutter (for LK-1941)	1	Single-phase 200~240V	K	1-pedal unit	F
Without heat cutter (for LK-1942)	2	200~240V	D		
		3-phase 220~415V	L		
		Single-/3-phase 220~415V for CE (not provided with power switch)	M		

### [ Table stand: Optional ]

**JTK35**

\* The table stand is not equipped with casters.

### [ Complete ]

(For seatbelts with heat cutter (needle/bobbin thread separate cutting method))

**LK1942ZA5050A/MC5942** □ **C**

Specification	Code	Option	Code	Pedal switch	Code	Power supply	Code
With heat cutter (needle/bobbin thread separate cutting method)	5050	Fully optional	A	PK 2-pedal unit (PK78)	C	3-phase 200~240V	D
						Single-phase 200~240V	K
						220~240V for CE	M

● To order, please contact your nearest JUKI distributor.



**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

\* 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.