DLU-5494N-7/IT-100A

1-needle, Bottom and Variable Top-feed, Lockstitch Machine
with Automatic Thread Trimmer and Program Shirring Control Device

**With its digital control,
the machine achieves high-quality
shirring with consistency.**

● Stitch guide (H062) and separating plate (Z061) are optionally available.

DLU-5494N-7-WB/IT-100A

DLU-5494N-7

**1-needle, Bottom and Variable Top-feed, Lockstitch Machine
with Automatic Thread Trimmer and Program Shirring Control Device**

With its digital control, the machine achieves high-quality shirring with consistency.

The machine enables even inexperienced operators to perform shirring operation smoothly and easily.

The digital-controlled shirring mechanism allows even inexperienced operators to carry out shirring operations skillfully, producing high-quality products with consistency. While shirring, an operator can enter a program through the use of the teaching function, thereby duplicating a high-quality shirring operation performed program by a skilled operator.

● Attach sleeve

The best seam quality is produced by low-tension sewing.

Through a thoroughgoing study of the sewing mechanism to enhance the machine's ability to respond flexibly to diversified kinds of materials, the DLU-5494N-7 is now able to perform low-tension sewing with even higher precision and quality. The machine produces beautifully finished seams with consistency while preventing sewing troubles such as puckering and uneven material feed.

Higher lift of the presser foot and upgraded operability.

The lift of the presser foot is as high as 13mm. The top feed amount can be easily adjusted by operating the panel. The machine incorporates a built-in top-feed mechanism which simplifies the area around the presser foot, thus allowing the operator to easily place and handle a material on the machine. The machine can be operated as the operator wants.

The thread trimmer cuts threads with high to low thread counts without fail.

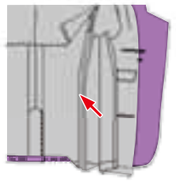
Through the combined use of a moving knife and counter knife, the thread-trimming mechanism cuts thread with consistency. Any thread, ranging from high-to low-count thread, can be cut quickly without fail.

TARGETED INDUSTRIAL APPLICATIONS AND PROCESSES

The machine is ready to be used for broader applications, such as men's wear, ladies' wear, jackets and baby clothes, increasing facility efficiency.

MEN'S AND LADIES' JACKETS

Seam side



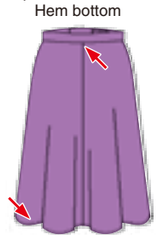
Join shoulder

BLOUSES

Seam side/Join shoulder/ Attach sleeve

SKIRTS

Topstitch waistband/ Hem bottom



BABY CLOTHES

Gathering

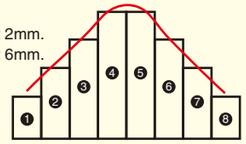
Targeted industrial applications	Processes
Men's and ladies' suits **Blazer coats** **Coats** **Blousons** **Slacks** **Skirts** **Baby clothes** **Men's shirts** **Blouses** **Dresses** **One-piece dresses** **Sportswear** **Sweaters** **Others**	**1) Runstitching process** Runstitch front edge, join shoulder, sew center of back, seam side, attach sleeve, etc. **2) Topstitching process** Topstitch front edge, topstitch sleeve cuff, topstitch collar, topstitch waistband, etc. **3) Gathering process** Attach yoke, attach cuff, join top and bottom, etc. **4) Sewing process with attachment used in combination with the machine** Hem bottom, piping, binding, etc. **5) Others** Zipper-attachment process, blind-stitching process, sewing processes in which different materials are used in combination, etc.

Dramatically improved functions and performance.

- The number of shirring programs has been increased to 16 different patterns. In addition, a maximum of 999 different patterns can be stored in the memory by the use of USB Memory in addition to the number of patterns stored in the main unit's memory.
- The number of shirring process steps has been increased to a maximum of eight. The number of stitches and shirring amount can be preset for each step to allow the number of process steps to be added or deleted.
- The process steps and shirring amounts are displayed on the IT-100A panel to offer improved operability.
- By the use of the smoothing function, abrupt changes which take place when changing over the process steps can be reduced to achieve upgraded seam quality.
- Once the data on one sleeve is programmed, the data for the other sleeve is automatically programmed by means of the mirroring function.
- The machine has been provided with an alternating sewing function, which works in such a way that once the machine performs thread trimming after completion of the sewing of one sleeve, it automatically starts the sewing of the other sleeve (according to the mirrored data).

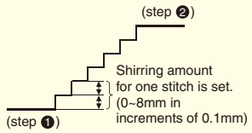
Input example of the smoothing function

Conditions
Step ❶ : Shirring amount set at 2mm.
Step ❷ : Shirring amount set at 6mm.
(Difference in the shirring amount between process step ❶ and ❷ is 4mm.)
Smoothing amount: 0.2mm
Offset set value: 9 (50%)

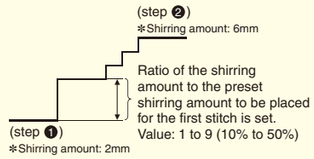


✻As many as eight different process steps can be set.
✻Shirring amount/the number of stitches can be set on a step-by-step basis.

Smoothing amount (shirring amount)



Smoothing offset



When the machine changes over process steps from ❶ to ❷, a shirring (offset function) of 2mm is placed for the first stitch and the shirring amount is increased from the second stitch on in step by step increments of 0.2mm until it reaches a maximum of 6mm.

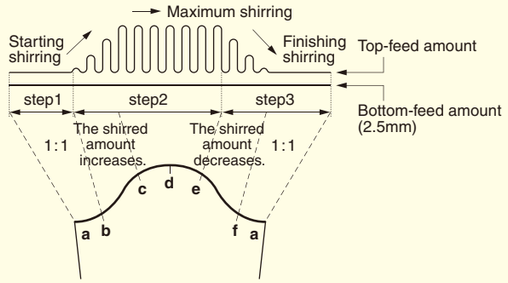
AN EXAMPLE OF INPUTTING A PROGRAM USING THE TEACHING FUNCTION

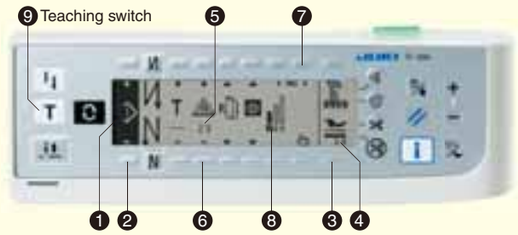
Teaching function: The function which enables setting the number of stitches using the number of stitches actually sewn.
This enables the quick and easy programming of data.

Example process: Attach sleeve

Input example

Section from **a** to **b** Step 1 (top feed amount 2.5mm)
The number of stitches for the step 1 is to be determined.
Section from **b** to **e** Step 2 (section of changeover of shirring + Top feed amount 5.0mm)
The number of stitches for the step 2 is to be determined.
Section from **e** to **a** Step 3 (top-feed amount 2.5mm)
The number of stitches for the step 3 is to be determined.





Inputting method

Press Pattern selector switch ❷ to select a desired pattern. (❶)
↓
Press Pitch indication changeover switch ❸ to select the pitch indication.
↓
Set the stitch pitch at 2.5mm (❹) using the Stitch Dial.
↓
Set the number of steps ❽ at 3.
↓
Operate ❻ to set ❺ at 2.5(mm) for step 1.
↓
Advance the step using the Step changeover switch ❼. (❽)
↓
Operate ❻ to set ❺ at 5.0(mm) for step 2.
↓
Advance the step using the Step changeover switch ❼. (❽)
↓
Operate ❻ to set ❺ at 5.0(mm) for step 3.
↓
Return the step using the Step changeover switch ❼. (❽)
↓
Press the Teaching switch ❾.
↓
Start sewing. (step 1)
↓
When notch **b**, which represents the starting point of shirring is reached, press the Shirring switch ❿.
↓
Pull the top cloth (sleeve) while aligning the notches until notch **e** is reached. (step 2)
↓
Press the Shirring switch ❿.
↓
Pull the top cloth (sleeve) while aligning the notches until notch **a** is reached. (step 3)
↓
Carry out thread trimming.

IT-supporting operation panel

IT-100A

Enhanced operability and operation efficiency help broaden its range of use.

Control box/
Compact servomotor unit

SC-922/M51N

Energy-saving and reduced vibration and noise have been achieved.

■OPTIONS (With its full array of options, the machine further increases productivity.)

- **Auto-lifter AK85 (pedal-driven)**
- **Stitch guide and Separating plate**
  Stitch guide H062 Part No. : MAH062000A0
  Separating plate Z061 Part No. : MAZ061000A0

■SPECIFICATIONS

Model name	DLU-5494N-7/IT-100A
Max. sewing speed	4,000sti/min (normal 3,500sti/min)
Max. stitch length	5mm (normal feed), 3mm (reverse feed)
Max. top-feed amount	8mm (top-feed amount varies depending on the type of gauge)
Needle bar stroke	30.7mm
Lift of the presser foot	By hand: 5.5mm, By knee: 13mm (max.)
Needle (at the time of delivery)	DB×1 (#14), For JE: 134 (Nm75)
Hook	Automatic-lubricating full-rotary hook
Lubrication	Automatic
Lubricating oil	JUKI New Defrix Oil No.1 (equivalent to ISO VG7)
Automatic reverse feed function	Provided as standard
Power requirement	Single-phase 100~120V, 200~240V, 3-phase 200~240V
Power consumption	Power rating 400VA
Total weight	83kg

✻"sti/min" stands for "Stitches per Minute."

■PROGRAMMING DEVICE PERFORMANCE

Function/Performance		SC-922/IT-100A
Input mode	Manual	Possible
	Teaching	Possible
Max. number of programs	Main unit's	16 patterns
	USB Memory	Max. 999 patterns
Number of steps		Max. 8 steps
Addition and deletion of steps		Possible
Detailed data on steps stored in memory	Shirring amount	0~8.0mm (in increments of 0.1mm)
	Number of stitches	1~500 stitches ("0" means that the number of stitches is infinite.)
On-screen indication of stitch shape		Possible
Smoothing function		Possible / Effective between each of the two process steps.
Shirring amount for one stitch is set		Possible / 0~8.0mm (in increments of 0.1mm)
Ratio of the shirring amount to the preset shirring amount to be placed for the first stitch is set		Possible / Indications on the panel Value: 1~9 (10%~50%)
Mirroring function (inversion of data)		Possible
Alternating sewing		Possible

■WHEN YOU PLACE ORDERS

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

Head **DLU5494N□□7□□□□□□/□□□□/□□□□**

Application	Code
For medium-weight materials (standard)	BB✻

✻Various gauges other than those shown are also available.

Wiper and automatic reverse feed function		
Wiper	Automatic reverse feed function	Code
Not provided	Provided	0B
Provided	Provided	WB

Auto-lifter (optional)	Code
Not provided	
Provided (AK85)	AK85

Attachment (optional)	Code
Not provided	
Stitch guide and Separating plate	H062/Z061

Panel **IT100A**

PSC box **SC922A□**

PSC box		Code
Single-phase	100~120V	S
3-phase	200~240V	D
Single-phase (For General Export)	200~240V	K
Single-phase (For CE)	200~240V	N

Motor **M51N**

●To order, please contact your nearest JUKI distributor.

JAB CM001 ISO14001 JSAE389 UKAS MANAGEMENT SYSTEMS 089

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 CORPORATION
SEWING MACHINERY BUSINESS UNIT
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.

JUKI ITALIA S.p.A.
20020 Lainate MI - Via Bergamo, 4
Tel. 02937579.1 - Fax uffici 0293570164
Fax ricambi 0293571066
http://www.juki.it - E-mail: info@juki.it

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