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

**DLU-5494N-7/IP-100C**

- Stitch guide (H062) and separating plate (Z061) are optionally available.
With its microcomputer control, the machine achieves high-quality shirring with consistency.

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

The microcomputer-controlled shirring mechanism allows even inexperienced operators to carry out shirring operations skilfully, 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.

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.

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 SmartMedia 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 IP-100C 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).

Control box/Compact servomotor unit

SC-910/M91

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

IT-supporting operation panel

IP-100C

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

Input example of the smoothing function

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Shifting amount set at 2mm.</th>
<th>Shifting amount set at 6mm. (Difference in the shifting amount between process step 0 and 1 (4mm.))</th>
<th>Smoothing amount (0.2mm)</th>
<th>Offset set value: 9 (50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 0</td>
<td>Shifting amount set at 2mm.</td>
<td>Smoothing amount (0.2mm)</td>
<td>Offset set value: 9 (50%)</td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>Shifting amount set at 6mm.</td>
<td>Smoothable shifting amount (0.2mm)</td>
<td>Offset set value: 9 (50%)</td>
<td></td>
</tr>
</tbody>
</table>

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

Smoothing amount (shifting amount)

- Shifting amount: 0.2mm
- Shifting amount: 6mm
- Offset set: 9 (50%)

Smoothing offset

- Ratio of the shifting amount to the preset shifting amount to be placed for the first stitch is set.
- Value: 1 to 9 (10% to 50%)

When the machine changes over process steps from 0 to 1, a shifting (offset function) of 2mm is placed for the first stitch and the shifting amount is increased from the second stitch on in step by step increments of 0.2mm until it reaches a maximum of 6mm.
**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.*

<table>
<thead>
<tr>
<th>MEN’S AND LADIES’ JACKETS</th>
<th>Processes</th>
</tr>
</thead>
</table>
| Targeted industrial applications | 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. |

**BLOUSES**

- Seam side/Join shoulder/Attach sleeve

**SKIRTS**

- Topstitch waistband/Hem bottom

**BABY CLOTHES**

- Gathering

**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** to select a desired pattern. (0)
- **Press Pitch indication changeover switch** to select the pitch indication.
- **Set the stitch pitch at 2.5mm** using the Stitch Dial.
- **Set the number of steps** at 3.
- **Operate** to set @ at 2.5(mm) for step 1.
- **Advance the step using the Step changeover switch** @ for step 1.
- **Operate** to set @ at 5.0(mm) for step 2.
- **Advance the step using the Step changeover switch** @ for step 2.
- **Operate** to set @ at 5.0(mm) for step 3.
- **Return the step using the Step changeover switch** @.
- **Press the Teaching switch**.
- **Start sewing. (step 1)**
- **When notch b, which represents the starting point of shirring is reached, press the Shirring switch**.
- **Pull the top cloth (sleeve) while aligning the notches until notch e is reached. (step 2)**
- **Press the Shirring switch**.
- **Pull the top cloth (sleeve) while aligning the notches until notch a is reached. (step 3)**
- **Carry out thread trimming.**
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model name</th>
<th>DLU-5494N-7/IP-100C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. sewing speed</td>
<td>4,000rpm (normal 3,500rpm)</td>
</tr>
<tr>
<td>Max. stitch length</td>
<td>5mm (normal feed), 3mm (reverse feed)</td>
</tr>
<tr>
<td>Max. top-feed amount</td>
<td>8mm (top-feed amount varies depending on the type of gauge)</td>
</tr>
<tr>
<td>Needle bar stroke</td>
<td>30.7mm</td>
</tr>
<tr>
<td>Lift of the presser foot</td>
<td>By hand: 5.5mm, By knee: 13mm (max.)</td>
</tr>
<tr>
<td>Needle (at the time of delivery)</td>
<td>DB 01 (#14), For JEU: 134 (N/75)</td>
</tr>
<tr>
<td>Hook</td>
<td>Automatic-lubricating full-rotary hook</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Automatic</td>
</tr>
<tr>
<td>Lubricating oil</td>
<td>JUKI New Defrix Oil No.1 (equivalent to ISO VG7)</td>
</tr>
<tr>
<td>Automatic reverse feed function</td>
<td>Provided as standard</td>
</tr>
<tr>
<td>Power requirement</td>
<td>Single-phase 100–120V, 200–240V, 3-phase 200–240V</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Power rating 400VA</td>
</tr>
<tr>
<td>Total weight</td>
<td>83kg</td>
</tr>
</tbody>
</table>

**PROGRAMMING DEVICE PERFORMANCE**

<table>
<thead>
<tr>
<th>Function/Performance</th>
<th>SC-910/IP-100C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input mode</td>
<td>Manual Possible</td>
</tr>
<tr>
<td>Max. number of programs</td>
<td>Main unit’s 16 patterns</td>
</tr>
<tr>
<td>SmartMedia</td>
<td>Max. 999 patterns</td>
</tr>
<tr>
<td>Number of steps</td>
<td>Max. 8 steps</td>
</tr>
<tr>
<td>Addition and deletion of steps</td>
<td>Possible</td>
</tr>
<tr>
<td>Detailed data on steps stored in memory</td>
<td>Shimming amount 0–8.0mm (in increments of 0.1mm)</td>
</tr>
<tr>
<td>Number of stitches</td>
<td>1–500 stitches (&quot;0&quot; means that the number of stitches is infinite.)</td>
</tr>
<tr>
<td>On-screen indication of stitch shape</td>
<td>Possible</td>
</tr>
<tr>
<td>Smoothing function</td>
<td>Possible Effective between each of the two process steps.</td>
</tr>
<tr>
<td>Shimming amount for one stitch is set</td>
<td>Possible 0–8.0mm (in increments of 0.1mm)</td>
</tr>
<tr>
<td>Ratio of the shimming amount to the preset shimming amount to be placed for the first stitch is set</td>
<td>Possible Indications on the panel Value: 1→9 (10%–50%)</td>
</tr>
<tr>
<td>Mirroring function (inversion of data)</td>
<td>Possible</td>
</tr>
<tr>
<td>Alternating sewing</td>
<td>Possible</td>
</tr>
</tbody>
</table>

**WHEN YOU PLACE ORDERS**

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

- **Gauge set**
  - H062
  - Z061

- **PSC box**
  - SC910

- **Motor for SC**
  - M91S

- **Pulley belt**
  - Standard

- **Control box**
  - Code S

- **Attachment**
  - Code WB

- **Auto-lifter (optional)**
  - Code AK85

- **Wiper and automatic reverse feed function**
  - Provided

- **PSC box**
  - Code S

**OPTIONS**

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

**Remaining bobbin thread detector**

AE-4 Part No.: GAE-040000A0

When the amount of remaining bobbin thread reaches the setting, the buzzer will sound to warn the operator not to press on the front part of the foot pedal. With this function, the operator doesn’t have to look away from the sewing work to check the bobbin thread.

**JUKI CORPORATION HEAD OFFICE**

Our mission is to pursue competitive advantage and conduct business ethically in line with our corporate philosophy and business strategy. We abide by international labor conventions and redress any complaints immediately and appropriately. We aim to inspire a sustainable future through our products and operations, supporting a sustainable lifestyle. By being mindful of our environmental impacts, we strive to create a better world for our children and future generations. Whether it's a product innovation or a new technology, our goal is to bring joy and well-being to people all around the world. To learn more, please visit our website at [http://www.juki.com](http://www.juki.com).

**Juki Corporation Marketing & Sales H.Q.**

8-2-1, KOKURYO-CHO, CHOBU-SHI, TOKYO 182-8655, JAPAN
PHONE: (81) 3-3480-2357, 2358
FAX: (81) 3-3430-4909, 4914
http://www.juki.com

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