



Direct-drive, high-speed, lockstitch sewing system
with automatic thread trimmer

DDL-9000C Series

JUKI Smart Solutions



Registered Organization : JUKI CORPORATION Head Office
The Scope of the Registration : The activities of research, development, design, sales, distribution, and maintenance services of industrial sewing machines, household sewing machines and industrial robots, etc., including sales and maintenance services of data entry systems.

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* 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.

Creation of "sewing"

Commitment to "seam quality" is poised to enter a new era with JUKI's next-generation sewing system.

The change is driven by digitalization.

Until recently, sewing machines have been adjusted by human operators based on personal hunches and experience.

Now, with JUKI's digital sewing system DDL-9000C, sewing machine adjustments are fully digitalized. The settings can be reproduced with total accuracy to perfectly suit the materials being sewn.



The promotional video is available by reading the QR code.



DDL-9000CF (Full-digital type)

JUKI Smart Solutions
DDL-9000C Series
 Direct-drive, high-speed, lockstitch sewing system with automatic thread trimmer



DDL-9000C Series
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Management of sewing performance and sewing machine by the utilization of IoT (Internet of Things)

Management, browsing and editing of data can be carried out on the application software

Data on sewing machine adjustments made according to the product to be sewn can be transferred to a commercially-available Android tablet in contactless mode. This enables quick check for uniform settings as well as confirmation of conditions of sewing machines in a sewing line, thereby facilitating setup changes. The operation panel is also provided as standard with a USB port. Data management and software update can be carried out with ease using a USB thumb drive.



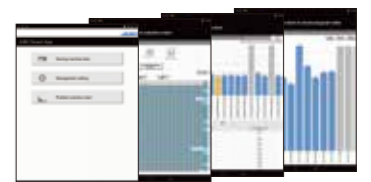
Data items of sewing can be numerically managed to ensure "stable quality" and "reduction in time required for setup changes". Quantified sewing data can be externally taken from the sewing machine using an Android tablet or USB thumb drive.



※Android OS Version 6.0 is recommended to use JUKI Smart APP.
 (Operation is confirmed with respect to Versions 5.0 and later.)
 Contact JUKI distributor in your area for how to use the application software.

Various data can be obtained by using the Smart APP.

The data obtained by the APP are reflected in the graph.



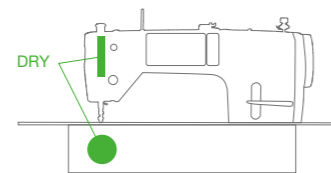
DDL-9000C Series comes in three different types. These three types of the DDL-9000C Series are environmentally friendly sewing machines that prevent the material from being stained with oil.

FD Fully-dry head type

DDL-9000C-D Max. sewing speed : 4,000sti/min

The machine prevents the material being sewn from being stained with oil.

The DDL-9000C is the comfort sewing machine that prevents oil stains on the material during sewing. It totally supports the improvement of finished seam quality.



•The section around the needle bar, the thread take-up lever and the hook are not lubricated.

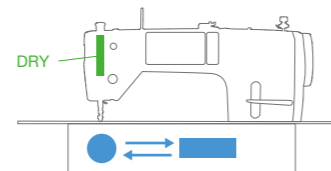


FM, SM Semi-dry head type

DDL-9000C-M Max. sewing speed : 5,000sti/min

Sewing work free from oil stains by means of our leading-edge dry-head technology.

With the advanced dry technology of enabling operation without being lubricated, a frame which does not need lubrication has been developed. It is provided with not only a high-speed sewing capability, but also a safety feature for preventing oil stains.



•The needle bar and thread take-up components are not lubricated.
 •For the hook section, the standard method of lubrication is employed.

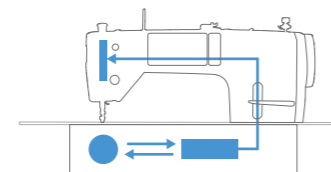


FS, SS Minute-quantity lubrication type

DDL-9000C-S Max. sewing speed : 5,000sti/min

The sewing speed of 5000sti/min, which is the highest speed of any direct-drive lockstitch machines, contributes to increased productivity.

The DDL-9000C-S is the standard model developed with the emphasis on durability. It produces seams with consistency when run at speeds which falls in the range of the highest sewing speeds.



•The needle bar and thread take-up components are lubricated with the minimum required quantity of oil. For the hook section, the standard method of lubrication is employed.



Digitalized control panel

Two different modes; i.e., the operator mode which prioritize ease of operation and the serviceperson mode, are prepared to respectively display indications according to the user.

In addition, installation of NFC enables data transfer to an Android tablet. Data transferred from the sewing machine to an Android tablet can be edited on the tablet.

Full Digital Type

Adoption of a 4.3-inch large color liquid crystal touch panel ensures easy operation.

The touch panel is provided with JUKI's unique intelligent sewing system features.



Digital Type

Adoption of a black-and-white liquid crystal switch panel ensures easy operation. Since, unlike the CP panel, the black-and-white liquid crystal panel provides verbal explanation of its operation, it is easier for the operator to understand how to operate it.



Main functions of the full-digital model and digital model

	Full-digital model	Digital model
Digital feed (Horizontal direction)	○	○
Digital feed (Vertical direction)	○	○
Active presser foot	○	×
Active tension	○	×
Support to an Android tablet	○	○
Network	○	△ (Support through an Android tablet)
Shorter-thread remaining type thread trimming	○	○
Color touch panel	○	×

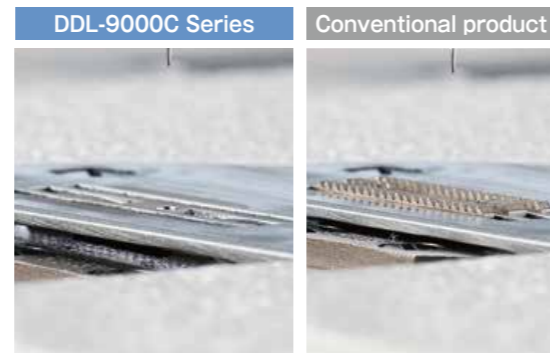
The sewing machine can be paired with equipment which supports NFC (Near Field Communication) only by holding the equipment over the sewing machine.

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



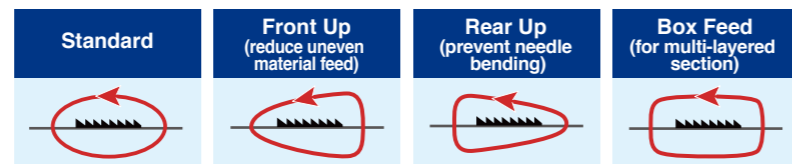
Vertically- and horizontally-driven digital feed mechanism World first

Thanks to the world's first vertically-driven digital feed mechanism, the feed dog height can be adjusted with ease according to the material fabric of product to be sewn, thereby improving seam quality. Thanks to this digital feed mechanism, thread trimming is carried out with the feed dog lowered in the case the shorter-thread remaining thread trimming function is enabled. As a result, the clearance provided between the throat plate and the material is eliminated, thereby stabilizing the length of thread remaining after thread trimming. The feed dog does not protrude the top surface of throat plate when the sewing machine stops with its needle bar up, thereby facilitating placement/removal of the material on/from the top surface of throat plate and preventing the material from being damaged by the feed dog.



Various kinds of feed locus can be selected.

Digitalized vertically- and horizontally-driven feed mechanism allows easy adjustment of settings such as the feed locus only on the operation panel according to the material to be sewn.



Digital functions which accentuate excellent "seam" quality

Full-digital type

I. Adoption of the needle-thread active tension

Needle tension is digitally controlled

Needle thread tension which matches sewing conditions given can be set on the operation panel and stored in memory.

The needle thread tension adjustment needs experience. However, for this sewing machine, thread tension data stored in memory is reproducible, thereby reducing the setup time when the product to be sewn is changed.

Example: Needle-thread active tension demonstrates its effectiveness in the topstitching process.

For welting shoulders of a difficult-to-sew material, uniform stitches can be produced continuously by appropriately changing the sewing conditions even if the right and left material fabric differ in texture grain.

Full-digital type

II. Active presser foot pressure mechanism

The presser foot pressure is digitally controlled

Digital control system controls the presser foot pressure.

Under the automatic mode, the multi-layered section detection function detects changes in material thickness to increase/decrease the presser foot pressure accordingly.

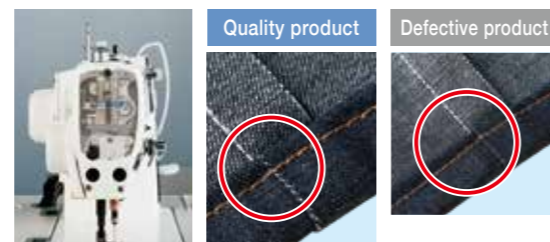
Under the manual mode, the presser foot pressure control function is assigned to the hand switch to enable operation with the hand switch.

Full-digital type

Digital type

III. Needle thread clamp

The device clamps the needle thread and draws it under the material at the beginning of sewing. The needle thread clamp device works to reduce the size of thread tangling in on the wrong side of the material. This expands the area around the needle entry, thereby allowing the use of various gauge components.



The active presser foot pressure mechanism demonstrates its effectiveness in prevention of stitch gathering and loose stitches.

The needle thread tension, presser foot pressure, pitch, feed locus and feed dog height can be totally changed to link their adjustments appropriately.

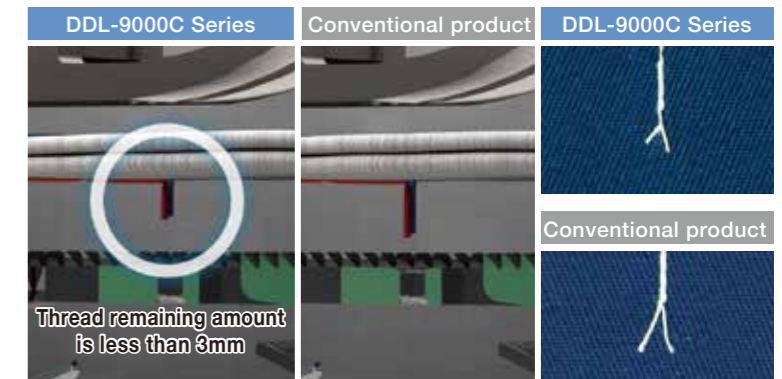
Remaining thread at the end of sewing reduced to 3 mm

Double-edge driven rotary knife system is adopted. The double edges of the knife intersect with each other directly under the needle entry point to trim the thread.

Achievement of thread length remaining on the material after thread trimming as short as 3 mm. The grooved cam system is adopted to enable forcible release of the thread trimmer even if the thread trimmer locks.

The picker device is also adopted.

The picker device secures a sufficient length of needle thread, as well as it stabilizes the length of thread remaining on the material.

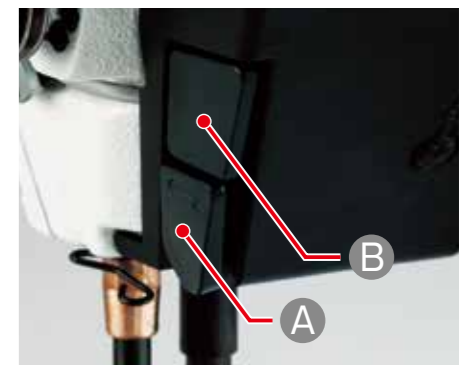


With reverse stitching
(Wrong side)

Functions necessary for sewing machine operation can be used with the hand switch

Functions of two hand switches can be set through the operation panel. Since the reverse-feed stitching lever is provided as standard, added functions can be customized. 20 different functions (needle-up/down correction sewing, reverse-feed correction sewing, 1-time reverse-feed stitching cancellation function, etc.) are available. Highly convenient operation is enabled by setting the functions which match the sewing process in combination.

The hand switches have been factory-assigned respectively with **A** Touch-back switch" and **B** Custom switch (to be set by the customer) at the time of shipment. The customer may assign other functions to these two hand switches.



Hand switch (in the case it is assigned with the multi-layered section changeover function)

Full-digital type

- Detect Multi-layered section of material and **automatically carry out the changeover** of multi-layered section <Automatic mode>
- **Manually carry out the changeover** of multi-layered section at an arbitrary timing with the hand switch <Manual mode>
- **Set thread tension, presser foot pressure, pitch, feed locus and feed dog height** separately for the normal section and multi-layered section of material
- **Digitally control** presser foot pressure

Digital type

- **Manually carry out the changeover** of multi-layered section at an arbitrary timing with the hand switch
- **Set thread tension, presser foot pressure, pitch, feed locus and feed dog height** separately for the normal section and multi-layered section of material

Auto-lifter AK-154 Full-digital type

Newly-developed auto-lifter device comes with a stepping motor. This not only increases the amount of lift of the presser foot from 8.5 mm to 13.5 mm at the maximum but also reduces the operating noise.

After the thread cutting of the sewing machine, thanks to the feature of the world's first top and bottom drive electronic feed mechanism to prevent the feed dog from protruding the top of throat plate, the material can be placed under presser foot and removed from there with ease and is not easily damaged.

※To lift the presser foot to its maximum amount of lift, it is necessary to set the amount of lift in two stages.

※For the full-digital type model, the auto-lifter function is provided as standard.



Commitment to seam quality "Reverse-feed stitching function by means of the reverse feed lever" is provided as standard.

The operator carries out fine adjustment of correction sewing (within the stitch length of 1 pitch) using the reverse feed lever, thereby achieving "further improved seam quality".



LED light

The LED light illuminates the needle entry area in the just-under direction from the right and left sides of the needle bar. In comparison with the single-direction illumination, this LED light helps the operator carry out sewing more easily. Illuminance of the LED light is adjustable in five levels. It can also be used as an auxiliary lamp for working.



OPTIONS

■ Non-lubricated hook 22890206

■ Non-lubricated hook(with a needle guard) 22890404



Non-lubricated hook

The hook is used with the lubrication stopped, thereby preventing oil stains. The non-lubricated hook has a lace made of special plastic.

★The following two parts must be added to enable use of the non-lubricated hook in semi-dry head type machines or minute-quantity lubrication type machines.

Hook driving shaft stop-plug screw : 11079506
O-ring : RO036080200

■ Auto-lifter AK-154 (foot-pedal type) 40174617 Digital type

Newly-developed auto-lifter device comes with a stepping motor. This not only increases the amount of lift of the presser foot from 8.5 mm to 13.5 mm at the maximum but also reduces the operating noise.

★To lift the presser foot to its maximum amount of lift, it is necessary to set the amount of lift in two stages.

★For the full-digital type model, the auto-lifter function is provided as standard.

■ Electric-fan hook cooling device 40065571

JUKI ECO PRODUCTS The DDL-9000C 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

*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.

■ Non-rotary bobbin

Hook : 27003557 Bobbin case : 27003755

Bobbin : 27003805



The non-rotary bobbin eliminates irregular stitches which have a tendency to occur at some sewing speeds and bobbin-thread tension fluctuations which have a tendency to occur according to the bobbin thread remaining on the hook. Since the bobbin thread is fed without rotating the bobbin, the bobbin never idles.

★The non-rotary bobbin requires an exclusive hook, bobbin and bobbin case.

SPECIFICATIONS

MODEL	DDL-9000C-FDS	DDL-9000C-FMS	DDL-9000C-FSH	DDL-9000C-SMS	DDL-9000C-SSH
Type	Full Digital Type			Digital Type	
Application	Medium-weight		Heavy-weight	Medium-weight	Heavy-weight
Lubrication	Fully-dry head type	Semi-dry	Minute-quantity lubrication	Semi-dry	Minute-quantity lubrication
Max. sewing speed	4,000sti/min*	5,000sti/min* ¹	4,500sti/min* ²	5,000sti/min* ¹	4,500sti/min* ²
Hand switch	Provided as standard (At the time of shipment : Hand switches are assigned respectively with the touch-back switch function and the one-touch changeover switch function.) 5mm				
Max. stitch length	5mm				
Thread trimming method	Double-edge rotary system				
Needle bar stroke	30.7mm		35.0mm	30.7mm	35.0mm
Feed dog height	0.8mm		1.2mm	0.8mm	1.2mm
Needle thread tension	Active tension			Spring type	
Presser foot pressure	Electronic control			Spring type	
Lift of the presser foot	By hand : 5.5mm, By knee : 15mm Auto : 1st stage 5.0 mm (*0.1~8.5mm), 2nd stage 8.5 mm (*8.5mm~13.5mm) * Adjustable on the operation panel				
Needle* ³	DBx1·DBx5 (#11) #9~18 (Nm65~110)		DBx1·DBx5 (#21) #20~23 (Nm125~160)	DBx1·DBx5 (#11) #9~18 (Nm65~110)	DBx1·DBx5 (#21) #20~23 (Nm125~160)
Bobbin thread winder	Built in the top of machine head (provided with the bobbin thread retaining plate)				
Lubricating oil	JUKI New Defrix Oil No. 1 or JUKI CORPORATION GENUINE OIL 7 (equivalent to ISO VG7)				
Size of bed	517×178mm (distance from needle to machine arm : 303mm)				
Machine head drive	Compact AC servomotor (400W) that is directly connected to the main shaft (direct-drive system)				
Power consumption	520VA				
Net weight	Machine head : 40.5kg (with AK-154)				

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

*1 Stitch length of 4.00 mm or less: 5,000 sti/min; Stitch length of 4.05 - 5.00 mm: 4,000 sti/min

*2 Stitch length of 4.00 or less: 4,500sti/min; Stitch length of 4.05 - 5.00mm: 4,000sti/min

*3 Differs on a destination-by-destination basis

WHEN YOU PLACE ORDERS

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

Machine head

DDL-9000C

Digital Specifications	Machine head	Sewing specifications	Code
Full digital type	Fully-dry head type	Medium-weight	FDS
Full digital type	Semi-dry head	Medium-weight	FMS
Full digital type	Minute-quantity lubrication	Heavy weight materials	FSH
Digital type	Semi-dry head	Medium-weight	SMS
Digital type	Minute-quantity lubrication	Heavy weight materials	SSH

*FDS is only available to NB(with Nipper).

Wiper	Code	Automatic foot lifter	Code
Not provided	OB	Not provided	
provided	NB	Provided (driven by pedal)	AK154

*AK154 can be selected only digital spec=>

S(Digital type)only

*For the full-digital type model, the auto-lifter function is provided as standard.

Control box

SC95 A

Head	Code	PSC box	Code
Full digital type	0	Single-phase 100~120V	S
Digital type	1	3-phase 200~240V	D
		Single-phase 200~240V(For General Export)	K
		Single-phase 200~240V(For CE)	N
		Single-phase 200~240V(For CHINA)	U

To order, please contact your nearest JUKI distributor.