

**JUKI®**

# MO-6900R Series

High-speed, Variable Top-feed, Overlock / Safety Stitch Machine



*MO-6914R*

# *MO-6900R Series*

*A smooth feed mechanism free from damage on the material.*

# MO-6900R Series

The MO-6900R Series comes with a newly-developed feed mechanism that moves the top and bottom feeds separately. With the combination of the feed's increased differential feed ratio and improved feeding capacity, the machine is able not only to prevent uneven material feed, but also to easily finish difficult processes, such as sewing different types of materials together, ruffling and piping.



MO-6916R

## ● Excellent bottom and variable top feed mechanisms.

- The locus of the top feed dog increases the surfaces of the top feed dog that horizontally synchronize with the bottom feed dog, to reliably feed the materials without damaging them. The feed mechanism smoothly feeds light-weight materials softly or feeds heavy-weight materials with an increased cloth-biting force.

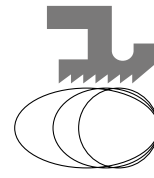


● Runstitching in general fabric  
MO-6914R-BE6-307

- The fulcrum of the top feed locus can be set at the best-suited position according to the material or process.

### Shift of fulcrum position of the top feed dog

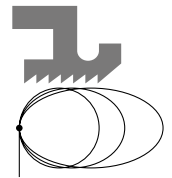
Front-end fulcrum position



Fulcrums front ends of which are fixed

- Since the rake-in starting time is consistent at all times, the feed offers increased bite, to demonstrating its capabilities when sewing heavy-weight materials such as jeans.

Rear-end fulcrum position



Fulcrums rear ends of which are fixed

- The machine is able to make ruffles uniformly.

## ● The machine has been developed with the intention of providing an extended service life.

- The bottom and top feeds are equipped with separate differential feed micro-adjusting mechanisms. Various adjusting mechanisms to adjust the feed to ideally match the material being sewn are equipped as standard, such as the bottom feed dog inclination-adjusting mechanism and the external differential feed-increasing mechanism.



Bottom differential-feed micro adjustment mechanism



Bottom and top differential-feed micro adjustment mechanism

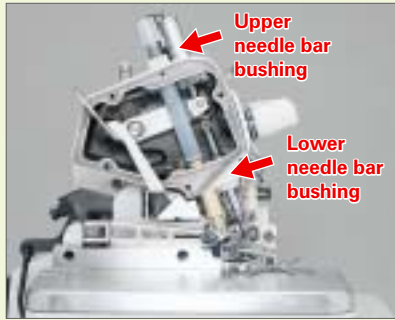


Micro-lifter

- Comfortable operation is all but guaranteed, by a wider area around the needle entry, the adoption as standard of a micro-lifter feature that offers improved responsiveness to materials and provides the operator with upgraded operability, and by the reduction of operating noise and vibration, which has been achieved by designing an optimally balanced machine.

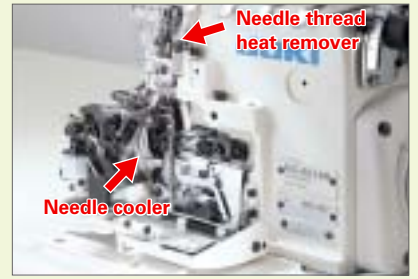
● **Further increased reliability.**

The introduction of a shield-structured needle bar mechanism and upper and lower needle bar bushings, contributes to increased durability and reliability. Additionally, the machine incorporates an improved upper looper unit as well as coming standard with a cartridge type oil filter and cooling fan, thereby ensuring enhanced reliability.



● **The needle thread heat remover and needle cooler are equipped as standard.**

To offer improved sewing capabilities as well as to prevent stitching misshapes, the machine is equipped as standard with the needle thread heat remover and needle cooler.



● **Devices intended for conventional JUKI machines are also interchangeable.**

Gauges and devices you have used with your existing JUKI machines are also interchangeable with no additional machining required. This eliminates both the waste of resources and unwanted extra costs.



**SUBCLASS MACHINE LIST**

Seams	Model No.	Materials L ~ H	Number of needles	Number of threads	Needle gauge (mm)	Overedging width (mm)	Number of feed dog rows	Stitch length (mm)	Bottom differential feed ratio	Longitudinal stroke of top-feed dog (mm)	Presser lifting amount (mm)	Needle system	Max. sewing speed (rpm)	Remarks
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<1-needle overlock>

● **For runstitching in general fabric**



	MO-6904R-0D4-3F6	L ~ M	1	3	-	3.2	2	4	1:0.7 ~ 1:2	1 ~ 7.5	7	DC x 27 #11	7,000	For soft-chains
	MO-6904R-0E4-300		1	3	-	4.0	2	4	1:0.7 ~ 1:2	1 ~ 7.5	7	DC x 27 #11	7,000	
	MO-6904R-0F6-500	M ~ H	1	3	-	4.8	3	4	1:0.7 ~ 1:2	1 ~ 7.5	7	DC x 27 #14	7,000	
	MO-6904R-0H4-50M		1	3	-	6.4	2	4	1:0.7 ~ 1:2	1 ~ 7.5	4.5	DC x 27 #16	7,000	For zipper attaching

<2-needle overlock>

● **For runstitching in general fabric**



	MO-6914R-BD4-307	L ~ M	2	4	2.0	3.2	2	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	
	MO-6914R-BD6-307		2	4	2.0	3.2	3	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	
	MO-6914R-BE6-307		2	4	2.0	4.0	3	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	
	MO-6914R-BD6-40H	M ~ H	2	4	2.0	3.2	3	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	Upper looper extra high throw type
	MO-6914R-BE6-40H		2	4	2.0	4.0	3	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	

<Safety stitching>

● **For runstitching in general fabric**



	MO-6916R-DD6-300	L ~ M	2	5	3.2	3.2	3	4	1:0.7 ~ 1:2	1 ~ 7.5	5.5	DC x 27 #11	7,000	
	MO-6916R-DE4-300		2	5	3.2	4.0	2	4	1:0.7 ~ 1:2	1 ~ 7.5	5.5	DC x 27 #11	7,000	
	MO-6916R-DE6-300		2	5	3.2	4.0	3	4	1:0.7 ~ 1:2	1 ~ 7.5	5.5	DC x 27 #11	7,000	
	MO-6916R-FF6-300		2	5	4.8	4.8	3	4	1:0.7 ~ 1:2	1 ~ 7.5	5.5	DC x 27 #11	7,000	
	MO-6916R-FF6-50H	M ~ H	2	5	4.8	4.8	3	4	1:0.7 ~ 1:2	1 ~ 7	5	DC x 27 #16	7,000	Upper looper extra high throw type
	MO-6916R-FH6-60H		2	5	4.8	6.4	3	4.5	1:0.9 ~ 1:1.7	1 ~ 7	5	DC x 27 #21	7,000	For jeans Upper looper extra high throw type

<3-needle safety stitching>

● **Multi-purpose runstitching**



	MO-6943R-1D6-307	L ~ M	3	6	4.8 +2.0	3.2	3	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	
	MO-6943R-2D6-40H	M ~ H	3	6	3.2 +2.0	3.2	3	4	1:0.7 ~ 1:2	1 ~ 7.5	6.5	DC x 27 #11	7,000	Upper looper extra high throw type

## DEVICES AND ATTACHMENTS

Model	Part No.	Description
<b>Chain-off thread trimming device</b>		
T039	40044157	One-touch type tape cutter and chain-off thread trimming device (electromagnetic type)
	40044158	
T040	40043900	Automatic tape cutter + chain-off thread trimming device (number-off-stitch control and electromagnetic type)
	40043901	
	40043902	For semi-sunken type
	40043903	
T041S	400-60703	Pneumatic flat cutter
T042S	400-45959	Pneumatic side cutter

### Pneumatic chain-off thread suction device

MC-4		Specific to chain-off thread, pedal-operated
MC-5		Specific to chain-off thread
MC-8		Pneumatic chain-off thread + cloth chips
MC-9		Function of MC-8 + auto-lifter
MC-24		Pneumatic chain-off thread + cloth chips

\* The aforementioned devices are not equipped with air regulator.  
Please purchase the following components when you need to regulate air pressure.

	PF-0552010-B0	Air regulator (F.R. unit asm.)
	GMD-01080000 x 2	Fixing screw for F.R. unit asm.
	F1021-003-000	Tube connector (male)
	GAS-12063000 *	One-touch connector * Selection parts instead of the tube connector

### Auto-lifter

AK32	GAK-320000B0	Pneumatic type (knee-operated)
AK49	GAK-490000A0	Pneumatic type (pedal-operated)
AK52	GAK-520000A0A	Pneumatic type (with chain-off thread suction device)
AK101	GAK-A01000A0	Pneumatic type (for servomotor)

### [Reference]

Combination table of "chain-off thread suction device" and "auto-lifter" which correspond to "chain-off thread trimming device".

Chain-off thread trimming device	Chain-off thread suction device	Auto-lifter
T039	MC-8	AK101 (JUKI servomotor)
	MC-9	(MC-9 is equipped with auto-lifter.)
T040	MC-5	AK32 (any motor will do)
	MC-24	AK32 (any motor will do)
T041S or T042S	MC-4	
	MC-8	AK101 (JUKI servomotor)
	MC-9	(MC-9 is equipped with auto-lifter.)

Model	Part No.	Description	Feature
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### Gathering device

S167	MAS-167000A0	Swing-type upper-cloth gathering device (interlocked with pedal)	The attachment opens with the presser foot pedal. This facilitates material setting on the machine. Furthermore, knee-control type differential-feed adjusting device is built in the attachment. It controls a differential-feed ratio as desired, thereby enabling the operator to make beautiful gathers.
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### Blind hemming device

L121	MAL-121000A0	Blind stitch hemming attachment	A ruler used for blind hemming in knits
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### Piping folder

M056	MAM-0560J0A0	Piping folder	This piping folder makes a piping first, then turns up the tape.
M075	MAM-0750J0A0	Piping folder (to be used with knit tape)	This attachment can be used for both "cotton bias tape with gimp" and "knit tape". The operation mode can be changed over with a fingertip control.
M076	MAM-0760N0A0	Ready-made piping folder	The dimension of ready-made tapes can be adjusted within the range of 8 to 13mm.
M077	MAM-0770J0A0	Piping folder for gathering	The attachment makes gathers on the lower fabric while making decorative piping.
M222	MAM-2220M0A0	Piping folder upper-cloth gathering (finished width 12mm, tape width 26mm)	This folder is to be used together with upper-cloth gathering device S167. Gimp size that can be used is 2 to 2.5mm.
	MAM-2220J0A0	Piping folder upper-cloth gathering (finished width 9mm, tape width 20mm)	
M224	MAM-2240N0A0	Ready-made piping folder for upper-cloth gathering	This folder is to be used together with upper-cloth gathering device S167. Tape, of which width is 8 to 18mm, can be used.

### Guide, Ruler

H153	MAH-153000A0	Cloth edge guide ruler (for overlock machine)	A swing type edge guide.
H154	MAH-154000A0	Cloth edge guide ruler (for safety stitch machine)	
Q141	MAQ-141000B0	Tape guide	This attachment is used attached on the machine head (face plate). It is used for tapes with the width of 7mm or less.

### Miscellaneous

Z173□	MAZ-173000A0□	Pneumatic chain-off thread suction device (for 1-needle machines)	Simplified device for tucking chain-off thread sewn at the beginning of sewing in overlocked seams. (chain-off thread lower clamping method)
Z195□	400-33882	Pneumatic chain-off thread suction device (for 1-needle machines)	Simplified device for tucking chain-off thread sewn at the beginning of sewing in overlocked seams. (chain-off thread lower clamping method)

# MO-6900R Series

## WHEN YOU PLACE ORDERS

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

Stitch type	U.S.A	Code
1-needle overlock	504	04
2-needle overlock	514	14
2-needle safety stitch	516	16
3-needle safety stitch		43

Type	Code
Variable top-feed	R

MO69   R

Needle gauge (mm)	Overredging width (mm)	Feed dog	Code
	3.2	2-row	0D4
	4.0	2-row	0E4
	4.8	3-row	0F6
	6.4	2-row	0H4
2.0	3.2	2-row	BD4
2.0	3.2	3-row	BD6
2.0	4.0	3-row	BE6
3.2	3.2	3-row	DD6
3.2	4.0	2-row	DE4
3.2	4.0	3-row	DE6
4.8	4.8	3-row	FF6
4.8	6.4	3-row	FH6
4.8+2.0	3.2	3-row	1D6
3.2+2.0	3.2	3-row	2D6

Material		Application	Special machine classification	Code
Light- to medium-weight	For general fabrics	Runstitching	Standard	300
		Runstitching	Upper looper high throw	307
		Soft-chain	Throat plate and feed dog both provided with a lip	3F6
Medium- to heavy-weight	Specific to knits such as sweaters	Runstitching	Upper looper extra high throw	40H
		Runstitching	Standard	500
	Medium- to heavy-weight materials such as denim	Runstitching	Upper looper extra high throw	50H
		Runstitching	For zipper attaching	50M
	For heavy-weight	Runstitching	Upper looper extra high throw	60H

## AC SERVOMOTOR/Machine head

MO69   R         /AK101/SY35

Pneumatic auto-lifter	Code
Standard type	AK101
For the machine provided with T040	AK32

\* Only the pneumatic auto-lifter is prepared for the MO-6900R series.

Built-in synchronizer	
Set speed*	Code
6,500rpm	SY35

\* Select a sewing speed that is lower than the machine head's maximum sewing speed by 500rpm.

● To order, please contact your nearest JUKI distributor.

## SPECIFICATIONS

Model name	MO-6904R	MO-6914R	MO-6916R
Stitch type	1-needle overlock	2-needle overlock	Safety stitching
Stitch style in the U.S.A.	504	514	516
Max. sewing speed	7,000rpm (longitudinal stroke of top feed dog is 6mm or less) 6,000rpm (longitudinal stroke of top feed dog is 6 ~ 8.5mm)		
Stitch length	0.8 ~ 4mm		1.5 ~ 4mm
Needle gauge (mm)	-	2.0	3.2, 4.8, 4.8+2.0, 3.2+2.0
Overedging width (mm)	3.2, 4.0, 4.8, 6.4	3.2, 4.0	3.2, 4.0, 4.8, 6.4
Bottom differential feed ratio	For gathering 1:2 (max. 1:4), For stretching 1:0.7 (max. 1:0.6)		
Needle bar stroke	24.5mm		
Inclination angle of the needle	20 °		
Needle mechanism	Needle bar method and upper/lower bushing		
Needle	DC × 27 (excluding some subclass model)		
Vertical stroke of top feed dog	3.5 ~ 8.5mm (it differs with the machine's specifications.)		
Longitudinal stroke of top feed dog	1 ~ 7.5mm (it differs with the machine's specifications.)		
Max. lift of the presser foot	7mm (excluding some subclass model)		
Max. presser foot pressure	63.7N (6.5kgf)		
Stitch adjusting method	By push-button		
Bottom differential feed adjusting method	By lever (with micro-adjustment)		
Top differential feed adjusting method	By lever (with micro-adjustment)		
Weight of the machine head	29kg		
Lubrication	Automatic		
Lubricating oil	JUKI Machine Oil 18 (equivalent to ISO VG18)		
Needle cooler	Provided as standard		
Needle thread heat remover	Provided as standard		
Micro-lifter	Provided as standard		



### 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.

- ①The development of products and engineering processes that are safe to the environment
- ②Green procurement and green purchasing
- ③Energy conservation (reduction in carbon-dioxide emissions)
- ④Resource saving (reduction of papers purchased, etc.)
- ⑤Reduction and recycling of waste
- ⑥Improvement of logistics efficiency (modal shift and improvement of packaging, packing, etc.)

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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 soy ink on recycle paper.