

# Non-Apparel General Catalog

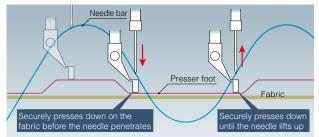






#### Fabric presser with optimal pressure

A new motion control allows the presser foot to press down on various types of fabric, from thin to thick materials, with optimal pressure.

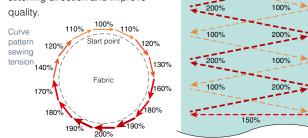


#### Optimizes thread tightness in all stitching directions

\_\_\_\_100%

100%

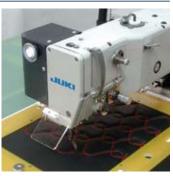
This function reduces variation in tightness according to the stitching direction and improve quality.



#### Faster and more attractive

The world's highest class of actual sewing speed is achieved (as of April 2020). Curves and large seams can be sewn quickly and beautifully.

\* 3.0mm pitch: 2,300rpm (PLK-J6040R intermittent feed)



#### Automatic checking of setting mistakes

The sewing machine checks the thickness of the fabric and detects setting mistakes prior to sewing.

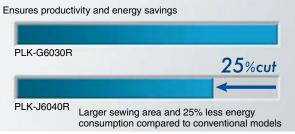
The oiling timing of the hook is digitized to ensure proper oiling and prevent

excessive oil use.



#### **Excellent energy-saving effects**

The new arm bed structure and new XY feed control realize low vibration and low sound, and thereby realize energy savings.



\* Enforce with conditions designated by the company

#### **Detects stitching errors\***

In addition to visual detection by the operator, stitch errors (skipped stitches, thread breaks) are detected by the machine to help discover defective items.

\*This function does not warranty all abnormal stitch detections. Depending on the sewing conditions, there may be undetected or false detection.



#### Faster adjustment of presser foot height

The height of the presser foot is adjusted after automatically measuring the overall fabric thickness along the stitching pattern.



#### Open/close window for bobbin exchange

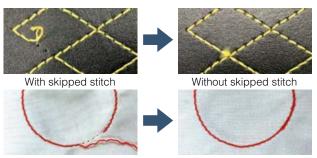
Unlike conventional large models which required the operator to get under the sliding plate to replace the bobbin, the J series models have an open/close window on the sliding plate so that the bobbin can be easily exchanged. This greatly reduces the operator's work.

\* Excludes PLK-J2516-YU/ J2516R-YU



#### Stable thread interlocking from the first stitch

"Stitch interlock faults" are resolved by minimizing the flapping of fabric at the start of stitching.



#### Neat corners by anyone

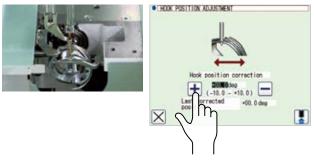
Corner stitches, start of stitching and end of stitching can be adjusted intuitively and easily.





# Faster adjustment and reproduction of past adjustments

The hook, presser foot, and thread trimmer are digitally adjusted.



#### Quick sewing of even thick materials

Work efficiency is greatly improved with batch stitching.

- \* Supported by
  - PLK-J4040RH/J10050RH only



# Traceability model which supports quality



In addition to acquiring sewing information, pressure on take-up lever and changes of material thickness during sewing operation can be collected and accumulated. This machine come standard with traceability functions. With the help of independently driven take-up lever, we will offer better sewing quality compared to our previous models (PLK-G series).

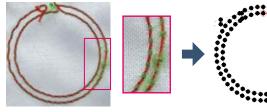


#### **Traceability**

### Monitoring the pressure on take-up lever during the sewing operation

By detecting the pressure on take-up lever during the operation, every stitching condition can be monitored. It will help discover defective items such as skip stitches and fiber stitches.

(Example) When fiber stitches occurred



### Monitoring the changes of material thickness during the sewing operation

In addition to detecting material placement mistake, the machine can monitor the changes of material thickness during operation. When the changes occur, it helps discover additional or misplaced fabric.

(Example) When fabric was folded by mistake

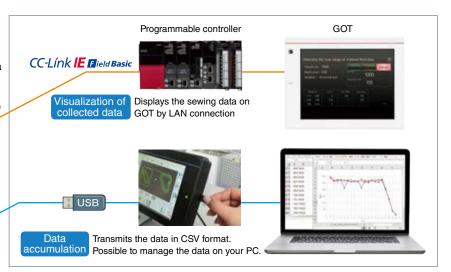


#### Save the sewing results

The data of take-up lever pressure and materials thickness can be accumulated into the sewing machine. It allows to utilize the data for quality control as well as for reliable data source to your clients. It is compatible with the company FA products which makes it possible to display data in a real time.



Data can be collected through USB or CC-Link



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### Improvement of sewing quality

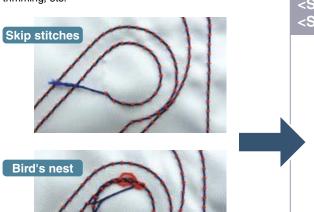
#### Reduces skip stitches at start of sewing

#### <SE-Stitch>

Even the remaining thread is short, it reduces skip stitches which may occur at the start of sewing cycle.

#### Before

Time consuming for adjustment of skipped stitches at the start of sewing, preventing birds nest and thread trimming, etc.



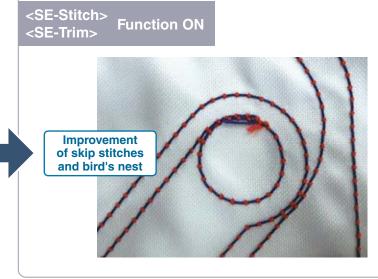
#### Improves appearance (bird's nest) at start of sewing

#### <SE-Trim>

The remaining thread tail when trimming is adjustable to a certain length. It greatly reduces the case of bird's nest by adjusting the amount of thread tail on the back of the fabric.

#### Now

Improving skipped stitches and birds nest just by turning on this function











Model Item	PLK-J2516-YU	PLK-J2516R-YU
Stitching style	Single-need	lle lockstitch
Hook	Double-size shuttle hook	Double-size rotary hook
Needle	DP x	17 #18
Max. speed (Note 1)	Intermittent feed 2,300rpm,	Continuous feed 2,300rpm
Feeding system	Intermittent or continuo	us (switchover method)
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)	
Max. stitches	20,000 stitches/pattern	
Max. patterns (Note 2)	9,000	
Memory medium	USB flash memory	
Work holder	Air cylinder drive	
Thread break detection, skipped stitch detection (Note 3)	Option available (MP-J25-AD)	
Stitch alert (Note 3)	-	
Outline dimensions	1,200 x 1,144 x 1,230mm (WxDxH)	
Mass	187kg	
Power supply	200 to 240V single-phase/three-phase	

Note 1: Sewing speed may be limited by the type of sewing material, presser weight, stitch length, etc.

etc. Note 2: Max. patterns may be limited depending on the number of stitches per pattern in the memory. Note 3: Detection of all stitch errors is not guaranteed. Always complete adjustments according to the stitching conditions before use.



#### Sewing area 300 x 200mm: PLK-J3020R-SE

Model Item	PLK-J3020R-SE	
Stitching style	Single-needle lockstitch	
Hook	Double size rotary hook	
Needle	DP× 17 #18	
Max. speed (Note 1)	Intermittent feed 2,300rpm, Continuous feed 2,300rpm	
Feeding system	Intermittent or continuous (switchover method)	
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)	
Max. stitches	20,000 stitches/pattern	
Max. patterns (Note 2)	9,000	
Memory medium	USB flash memory	
Work holder	Air cylinder drive	
Thread break detection, skipped stitch detection (Note 3)	Option available (MP-J25-AD)	
Stitch alert (Note 3)	-	
Outline dimensions	1,200 x 1,144 x 1,320mm (WxDxH)	
Mass	190kg	
Power supply	200 to 240V single-phase/three-phase	



# PLK-74040/6040 @ PLK-74040R/6040R @ PLK-74040R3/6040R3





#### Sewing area 400 x 400mm: PLK-J4040/4040R/4040R3 600 x 400mm: PLK-J6040/6040R/6040R3

Model			
	PLK-J4040/	PLK-J4040R/	PLK-J4040R3/
	PLK-J6040	PLK-J6040R	PLK-J6040R3
Item			
Stitching style	S	ingle-needle lockstite	ch
Hook	Double-size shuttle hook	Double-size rotary hook	Triple-size rotary hook
Needle		DP x 17 #18	
Max. speed (Note 1)	Intermittent: 2,000rpm Continuous: 2,000rpm		t: 2,300rpm s: 2,500rpm
Feeding system	Intermittent or continuous (switchover method)		
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)		
Max. stitches	20,000 stitches/pattern		
Max. patterns (Note 2)		9,000	
Memory medium	USB flash memory		
Work holder	Chucking system		
Thread break detection, skipped stitch detection (Note 3)	Standard equipment		
Stitch alert (Note 3)	-		
Outline dimensions	1,350 x 1,570 x 1,205mm (WxDxH)		
Mass	440kg		
Power supply	200 to 240V single-phase/three-phase		

#### Sewing area 400 x 400mm: PLK-J4040RH

Model Item	PLK-J4040RH	
Stitching style	Single-needle lockstitch	
Hook	6-fold rotary hook	
Needle	DD x 1 #26	
Max. speed (Note 1)	Intermittent feed 1,000rpm, Continuous feed 1,000rpm	
Feeding system	Intermittent or continuous (switchover method)	
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)	
Max. stitches	20,000 stitches/pattern	
Max. patterns (Note 2)	9,000	
Memory medium	USB flash memory	
Work holder	Chucking system	
Thread break detection, skipped stitch detection (Note 3)	-	
Stitch alert (Note 3)	Standard equipment	
Outline dimensions	1,350 x 1,570 x 1,250mm (WxDxH)	
Mass	460kg	
Power supply	200 to 240V single-phase/three-phase	



# PLK-710050 @2 PLK-710050R @2 PLK-710050R3 @3



#### Sewing area 1,000 x 500mm: PLK-J10050/10050R/10050R3

Model Item	PLK-J10050	PLK-J10050R	PLK- J10050R3
Stitching style	s	ingle-needle lockstite	h
Hook	Double-size shuttle hook	Double-size rotary hook	Triple-size rotary hook
Needle		DP x 17 #21	
Max. speed (Note 1)	Intermittent: 2,000rpm Continuous: 2,000rpm	Intermittent Continuous	t: 2,500rpm s: 2,500rpm
Feeding system	Intermittent or continuous (switchover method)		
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)		
Max. stitches	20,000 stitches/pattern		
Max. patterns (Note 2)	9,000		
Memory medium	USB flash memory		
Work holder	Chucking system		
Thread break detection, skipped stitch detection (Note 3)	Standard equipment		
Stitch alert (Note 3)	-		
Outline dimensions	2,122 x 1,941 x 1,205mm (WxDxH)		
Mass	620kg		
Power supply	200 to 240V single-phase/three-phase		

Note 1: Sewing speed may be limited by the type of sewing material, presser weight, stitch length,

Note 1: Sewing speed may be limited by the type of sewing material, presser weight, stitch length, etc.
 Note 2: Max. patterns may be limited depending on the number of stitches per pattern in the memory.
 Note 3: Detection of all stitch errors is not guaranteed. Always complete adjustments according to the stitching conditions before use.



#### Sewing area 1,000 x 500mm: PLK-J10050RH

Model Item	PLK-J10050RH	
Stitching style	Single-needle lockstitch	
Hook	6-fold rotary hook	
Needle	DD x 1 #26	
Max. speed (Note 1)	Intermittent feed 1,000rpm, Continuous feed 1,000rpm	
Feeding system	Intermittent or continuous (switchover method)	
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)	
Max. stitches	20,000 stitches/pattern	
Max. patterns (Note 2)	9,000	
Memory medium	USB flash memory	
Work holder	Chucking system	
Thread break detection, skipped stitch detection (Note 3)	-	
Stitch alert (Note 3)	Standard equipment	
Outline dimensions	2,122 x 1,941 x 1,250mm (WxDxH)	
Mass	640kg	
Power supply	200 to 240V single-phase/three-phase	





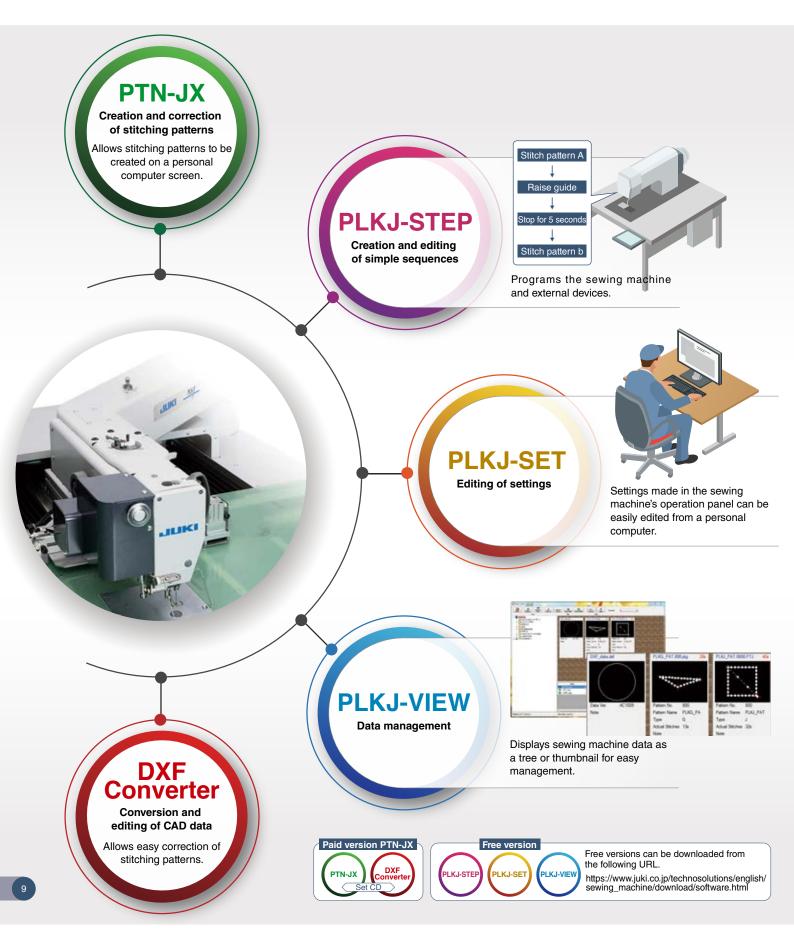
#### Sewing area 1,200 x 600mm: PLK-J12060/12060R/12060R3

Model Item	PLK-J12060	PLK-J12060R	PLK- J12060R3
Stitching style	S	ingle-needle lockstite	:h
Hook	Double-size shuttle hook	Double-size otary hook	Triple-size rotary hook
Needle		DP x 17 #21	
Max. speed (Note 1)	Intermittent: 2,000rpm Continuous: 2,000rpm	Intermittent Continuous	
Feeding system	Intermittent or continuous (switchover method)		over method)
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)		
Max. stitches	20,000 stitches/pattern		
Max. patterns (Note 2)	9,000		
Memory medium		USB flash memory	
Work holder		Chucking system	
Thread break detection, skipped stitch detection (Note 3)	Standard equipment		
Stitch alert (Note 3)	_		
Outline dimensions	2,522 x 2,112 x 1,205mm (WxDxH)		VxDxH)
Mass	650kg		
Power supply	200 to 240V single-phase/three-phase		

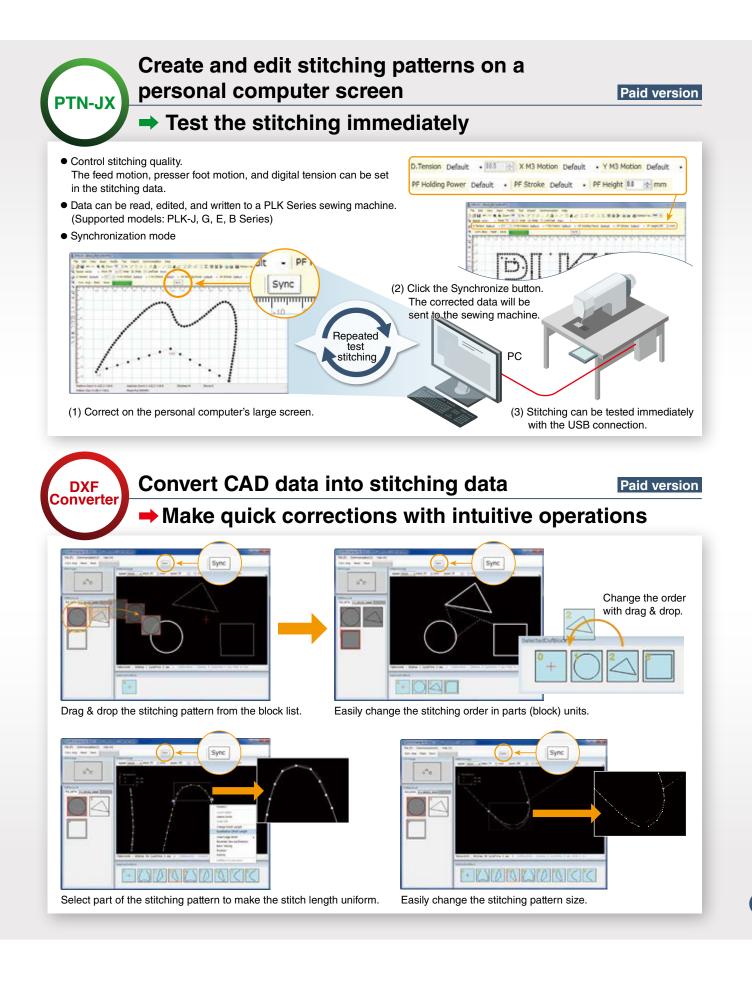


#### Software

# Software that enhances J Series usability



Next-generation Sewing





Make a difference in various fields with superior sewing power

#### Max. speed of 2,800 stitches/minute

Feedback control is used for the XY table mechanism to deliver intermittent high-speed stitching.  $\ensuremath{^{11}}$ 

\* PLK-G1010, G2516, G2010R, and G2516R only

#### \*1

[Measurement conditions] Stitching data: Square (100 x 100mm) + diagonal Number of stitches: 232 Stitch length: 3mm Stitching speed: 2,800rpm (PLK-G Series) (2,440rpm (PLK-E Series))

#### **Beautiful stitches**

Improvements to the rigidity of the presser foot mechanism and feed mechanism coupled with the latest feed control (feedback control) ensure beautiful and accurate stitches from low to high speed, such as for corners and straight seam lines according to sewing data. In addition, the use of both rotary and shuttle hooks provides stable stitching depending on the fabric that is sewn.



#### Powerful needle penetration force

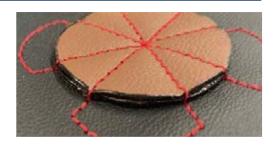
Equipped with an improved 750W direct servo motor, this series realizes one of the strongest needle penetration force in the industry. Stitching can be performed easily even at low speeds (200rpm) for thread trimming and start of stitching, which are conventionally difficult.





### Programmable presser foot height control

This series is equipped with a function for programming the presser foot height. Changing the presser foot height according to the thickness of the material can prevent skipped stitches and thread breaks. The programmed presser foot height is stored in the stitching data; therefore, the presser foot height does not need to be adjusted even if the thickness of the material varies by the stitching pattern.



#### Improved work efficiency

Use of USB memory and a high-speed processing system greatly reduces the time required to input and correct pattern data with a large number of stitches, which used to be time consuming. In addition, the jog key ensures speedy clamp movement for improved work efficiency.

#### Chucking specifications (Optional)

Chucking specifications are available on all wide-area series<sup>2</sup>. With chucking specifications, it is possible to prepare the next sewing material during stitching. It also enables a single person to operate multiple sewing machines, thereby improving work efficiency and productivity.

\*2. PLK-G4030/G4030R, PLK-G6030/G6030R, PLK-G5050/G5050R, PLK-G10050/G10050R



#### Compatible with extra-thick materials (equipped with an extra-thick thread trimmer)

This is ideal for stitching safety belts, suspension fittings, and sling belts for lifting. Thread fraying is prevented by an extra-thick needle thread and bobbin thread trimmer that uses a heat cutter.

\* PLK-G2008H only





### PLK-G1010/1010-K2 💷



# PLK-G2008H 쪧 PLK-G2008H-BTRM



#### Sewing area 100 x 100mm: PLK-G1010/1010-K2

Model Item	PLK-G1010	PLK-G1010-K2
Stitching style	Single-need	lle lockstitch
Hook	Double-size	shuttle hook
Needle	DP x 1	17 #18
Max. speed (Note 1)	Intermittent feed 2,800rpm,	Continuous feed 2,800rpm
Feeding system	Intermittent or continuo	us (switchover method)
Stitch length	0.1 to 20.0mm (min	. resolution 0.1mm)
Max. stitches	20,000 stite	hes/pattern
Max. patterns (Note 2)	900/intern	al memory
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)	
Work holder	Electromagnetic	Pneumatic
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)	
Outer presser foot lift stroke	Max. 25mm	Max. 30mm
Manual holder system	Standard	-
Presser foot lift stroke	Max. 15mm (min. setting unit 0.2mm)	
Presser foot stroke	4 to 10mm	
Main shaft motor	750W direct servo motor	
Operation panel	5.7-inch LCD touch panel, white LED backlight	
Outline dimensions	1,200 x 867 x 1,225mm (WxDxH) (not including thread stand)	
Mass	133kg	
Power supply	220 to 240V single-phase/three-phase	

Note 1: Sewing speed may be limited by the type of sewing material, presser weight, stitch length, etc. Note 2: Max. patterns may be limited depending on the number of stitches per pattern in the

memory.

#### Sewing area 200 x 80mm: PLK-G2008H/2008H-BTRM

Model	PLK-G2008H	PLK-
Item	F LK-6200011	G2008H-BTRM
Stitching style	Single-needle lockstitch	
Hook	Special semi-rotation hook (with	th bobbin removal mechanism)
Needle	794	#230
Max. speed (Note 1)	Intermittent feed 700rpm,	Continuous feed 700rpm
Feeding system	Intermittent or continuous (swi recomm	tchover method) * Intermittent nended
Stitch length	0.1 to 20.0mm (min	. resolution 0.1mm)
Max. stitches	20,000 stite	hes/pattern
Max. patterns (Note 2)	900/intern	al memory
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)	
Work holder	Pneumatic	
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)	
Outer presser foot lift stroke	Max. 20mm	
Thread cutting system	Heat cut system	Heat cut system (lower thread cutting only)
Presser foot lift stroke	25mm	
Main shaft motor	XL-G554-20(Y)	
Operation panel	5.7-inch LCD touch panel, white LED backlight	
Outline dimensions	1,200 x 780 x 1,320mm (WxDxH) (not including thread stand	
Mass	172kg	170kg
Power supply	200 to 240V single-phase/three-phase	

### PLK-G2010R

# PLK-G2516 @2 PLK-G2516R @2





#### Sewing area 200 x 100mm: PLK-G2010R

Model Item	PLK-G2010R
Stitching style	Single-needle lockstitch
Hook	Double-size rotary hook
Needle	DP x 17 #18
Max. speed (Note 1)	Intermittent feed 2,800rpm, Continuous feed 2,800rpm
Feeding system	Intermittent or continuous (switchover method)
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)
Max. stitches	20,000 stitches/pattern
Max. patterns (Note 2)	900/internal memory
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)
Work holder	Pneumatic
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)
Outer presser foot lift stroke	Max. 30mm
Manual holder system	Option
Presser foot lift stroke	Max. 15mm (min. setting unit 0.2mm)
Presser foot stroke	4 to 10mm
Main shaft motor	750W direct servo motor
Operation panel	5.7-inch LCD touch panel, white LED backlight
Outline dimensions	1,200 x 930 x 1,230mm (WxDxH) (not including thread stand)
Mass	147kg
Power supply	220 to 240V single-phase/three-phase

#### Sewing area 250 x 160mm: PLK-G2516/2516R

Model Item	PLK-G2516	PLK-G2516R
Stitching style	Single-need	le lockstitch
Hook	Double-size shuttle hook	Double-size rotary hook
Needle	DP x 1	17 #18
Max. speed (Note 1)	Intermittent feed 2,800rpm,	Continuous feed 2,800rpm
Feeding system	Intermittent or continuo	us (switchover method)
Stitch length	0.1 to 20.0mm (min	. resolution 0.1mm)
Max. stitches	20,000 stite	hes/pattern
Max. patterns (Note 2)	900/interna	al memory
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)	
Work holder	Pneumatic	
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)	
Outer presser foot lift stroke	Max. 30mm	
Manual holder system	Option	
Presser foot lift stroke	Max. 15mm (min. setting unit 0.2mm)	
Presser foot stroke	4 to 10mm	
Main shaft motor	750W direct servo motor	
Operation panel	5.7-inch LCD touch panel, white LED backlight	
Outline dimensions	1,200 x 1,068 x 1,230mm (WxDxH) (not including thread stand)	
Mass	161.5kg	168.5kg
Power supply	220 to 240V single-phase/three-phase	

### PLK-G2516-YU 💷



# PLK-G4030 ©2 PLK-G4030R 塗



#### Sewing area 300 x 200mm: PLK-G2516-YU

Model Item	PLK-G2516-YU
Stitching style	Single-needle lockstitch
Hook	Double-size shuttle hook
Needle	DP x 17 #18
Max. speed (Note 1)	Intermittent feed 2,300rpm, Continuous feed 2,300rpm
Feeding system	Intermittent or continuous (switchover method)
Stitch length	0.1 to 20.0mm (min. resolution 0.1mm)
Max. stitches	20,000 stitches/pattern
Max. patterns (Note 2)	900/internal memory
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)
Work holder	Pneumatic
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)
Outer presser foot lift stroke	Max. 30mm
Manual holder system	-
Presser foot lift stroke	Max. 15mm (min. setting unit 0.2mm)
Presser foot stroke	4 to 10mm
Main shaft motor	750W direct servo motor
Operation panel	5.7-inch LCD touch panel, white LED backlight
Outline dimensions	1,200 x 1,107 x 1,230mm (WxDxH) (not including thread stand)
Mass	163.5kg
Power supply	220 to 240V single-phase/three-phase

Note 1: Sewing speed may be limited by the type of sewing material, presser weight, stitch length, etc. Note 2: Max. patterns may be limited depending on the number of stitches per pattern in the

Note 2: Max. patterns may be limited depending on the number of stitches per pattern in the memory.

#### Sewing area 400 x 300mm: PLK-G4030/4030R

Item	PLK-G4030	PLK-G4030R	
Stitching style	Single-needle lockstitch		
Hook	Double-size shuttle hook Double-size rotary h		
Needle	DP x 1	17 #18	
Max. speed (Note 1)	Intermittent feed 2,000rpm,	Continuous feed 2,000rpm	
Feeding system	Intermittent or continuo	us (switchover method)	
Stitch length	0.1 to 20.0mm (min	. resolution 0.1mm)	
Max. stitches	20,000 stite	hes/pattern	
Max. patterns (Note 2)	900/intern	al memory	
Memory medium	USB flash memory (not provided with sewing machine)		
	(USB-connected floppy disk drive may also be used)		
Work holder	Pneumatic		
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)		
Outer presser foot lift stroke	Max. 30mm		
Chucking equipment	Special specifications		
Presser foot lift stroke	12mm (max. 15mm) (min. setting unit 0.2mm)		
Presser foot stroke	4 to 10mm		
Main shaft motor	750W direct servo motor		
Operation panel	5.7-inch LCD touch panel, white LED backlig		
Outline dimensions	1,081 x 1,572 x 1,234mm (WxDxH) (not including thread s		
Mass	420kg	430kg	
Power supply	200 to 240V single-phase/three-phase		

# PLK-G6030 💷 PLK-G6030R 塗

# PLK-G10050 @2 PLK-G10050R @2



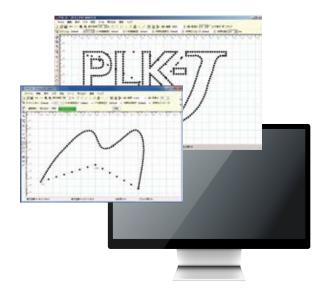
#### Sewing area 600 x 300mm: PLK-G6030/6030R

Item Model	PLK-G6030	PLK-G6030R	
Stitching style	Single-needle lockstitch		
Hook	Double-size shuttle hook Double-size rotary		
Needle	DP x 17 #18		
Max. speed (Note 1)	Intermittent feed 2,000rpm,	Continuous feed 2,000rpm	
Feeding system	Intermittent or continuo	us (switchover method)	
Stitch length	0.1 to 20.0mm (min	. resolution 0.1mm)	
Max. stitches	20,000 stite	hes/pattern	
Max. patterns (Note 2)	900/intern	al memory	
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)		
Work holder	Pneumatic		
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)		
Outer presser foot lift stroke	Max. 30mm		
Chucking equipment	Special specifications		
Presser foot lift stroke	12mm (max. 15mm) (min. setting unit 0.2mm)		
Presser foot stroke	4 to 10mm		
Main shaft motor	750W direct servo motor		
Operation panel	5.7-inch LCD touch panel, white LED backlight		
Outline dimensions	1,350 x 1,572 x 1,234mm (WxDxH) (not including thread		
Mass	440kg	450kg	
Power supply	200 to 240V single-phase/three-phase		

#### Sewing area 1,000 x 500mm: PLK-G10050/10050R

Item Model	PLK-G10050	PLK-G10050R		
Stitching style	Single-needle lockstitch			
Hook	Double-size shuttle hook	Double-size rotary hook		
Needle	DP x 1	17 #18		
Max. speed (Note 1)	Intermittent feed 1,600rpm,	Continuous feed 2,000rpm		
Feeding system	Intermittent or continuo	us (switchover method)		
Stitch length	4.3	Intermittent feed 0.1 to 20.0mm, Continuous feed 0.1 to 4.3mm (min. resolution 0.1mm)		
Max. stitches	20,000 stite	hes/pattern		
Max. patterns (Note 2)	900/interna	al memory		
Memory medium	USB flash memory (not provided with sewing machine) (USB-connected floppy disk drive may also be used)			
Work holder	Pneumatic			
Zoom function	10 to 200% per X/Y axis (variable by 0.1% step)			
Outer presser foot lift stroke	foot lift stroke Max. 30mm			
Chucking equipment	Special spe	ecifications		
Presser foot lift stroke 12mm (max. 15mm) (min. s		nin. setting unit 0.2mm)		
Presser foot stroke	4 to 10mm			
Main shaft motor	750W direct servo motor			
Operation panel	5.7-inch LCD touch panel, white LED backlight			
Outline dimensions	2,105 x 1,855 x 1,234mm (WxDxH) (not including thread s			
Mass	500kg	510kg		
Power supply	200 to 240V single-	-phase/three-phase		

### **PTN-JX**



Item Model	PTN-JX
Recommended op	eration environment
CPU	1.5GHz or higher 32bit (x86) or 64bit (x64) processor
OS	Windows <sup>®</sup> 8/8.1 (32bit/64bit)/Windows <sup>®</sup> 10 (32bit/64bit)
RAM	32bit: 1GB or more, 64bit: 2GB or more
HDD	Windows <sup>®</sup> 8/8.1, Windows <sup>®</sup> 10 : 32bit (16GB or more open space), Windows <sup>®</sup> 8/8.1, Windows <sup>®</sup> 10 : 64bit (20CB or more open space)
Monitor resolution	Capable of displaying 1024x768 or higher
Monitor color setting	Full color (32bit) or higher
	CD-ROM drive (used for installation),
Peripheral devices	USB memory (medium for electronic sewing machine and pattern data),
	USB port x 2 (for USB memory or USB communication, for protection key),
	RS-232C port (when exchanging stitching data between PTN-GX and sewing machine)

\*1. The CPU, memory, and hard disk specifications may vary depending on the amount of data being processed.
\*2. A relatively high PC performance is required for the best use.

Windows is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.

Main specification	S
Protector type	USB
Input type	Linear, arc, circle, curve, polygonal line, point, multiple/offset, zigzag, tacking (same input functions as PLK-J Series electronic sewing machines)
Modification type	Delete, insert, change, move, convert, code (in addition to PLK-J Series electronic sewing machine modification function, data can be deleted, inserted and moved in block units)
Display scale	20 to 5000%
Grid line pitch	0.1 to 100mm, or hidden
Input method	Personal computer mouse, coordinate value input (absolute coordinate, relative coordinate)
Supported data types	Data compatible with PLK electronic sewing machines (J, G data)*1 DXF data* <sup>2</sup> (R12, R13, R14), embroidery data (only specified versions are supported)

\*1. G data is read only.
\*2. Some restrictions apply to the data conversion function. Please refer to the instruction manual before use.

# **Optional equipment**

Pneumatic 2-stage tension equipment MP-G10-AT



Upper thread break detection equipment MP-G10-TS



Product name	Model	G1010	G2010R	G2516R	G2516/ G2516-YU	G4030/ G4030R	G6030 G6030R	G5050 G5050R	G10050 G10050R	Application
Pneumatic holder	MP-G10-AO	0	-	-	-	-	-	-	-	Ideal for sewing projects that require strong holding force.
2-tier left-right alternate holder	MP-G10-K2	0	-	-	-	-	-	_	_	The left and right holders can be lowered individually, making it ideal for parts and labeling.
Pneumatic inverted holder	MP-G10-AH	0	-	-	-	_	-	-	-	Equipment for sewing the full circumference of parts and labels.
	MP-G10-AT	0	-	-	-	-	_	-	-	Uniformizes the
Pneumatic 2-stage tension equipment	MP-G20-AT	-	0	0	0	-	_	-	-	differences in sewing conditions due to changes in sewing
	MP-G40-AT	-	-	-	-	0	0	0	0	direction or thickness.
Area expansion kit	MP-G10-EX	0	-	-	-	-	-	-	-	Can be expanded up to 210mm in the X axis direction.
Upper thread holder	MP-G10-TH	0	-	-	-	-	-	-	-	Holds the upper thread after cutting and prevents tangles when starting to sew.
	MP-G20R-TH	-	0	0	0	0	0	0	0	
	MP-G10-TS	0	-	-	-	-	-	-	-	
Upper thread break	MP-G25-TS	-	0	0	0	-	-	-	-	Detects upper thread breaks and stops the sewing machine.
detection equipment	MP-G40-TS	-	-	-	-	0	0	-	-	
	MP-G50-TS	-	-	-	-	-	-	0	0	
	MP-G10-TE	0	-	-	-	-	-	-	-	
I/O expansion unit	0	-	-	-	-	Expands the number of I/O points for connecting to the sewing machine.				
	MP-G40-TE	-	-	-	-	0	0	-	_	(Additional 12 input and 12 output points)
	MP-G50-TE	_	-	-	-	-	-	0	0	

# Lockstitch vertical feed

### Our proven vertical feed mechanism and servo motor improve ease of use and increase productivity. The high long arm enables diverse sewing projects.

The reliable vertical feed mechanism firmly captures material that is difficult to feed and slippery fabric, demonstrating the power to create reliable stitches. In addition, sewing machine operability and sewability are further improved by using the Limiservo XC-G Series.



### Vertical feed mechanism for reliable feeding



Uses vertical feed to clamp and reliably feed material that is difficult to feed.

# Built-in detector that detects the position with high accuracy



Upper and lower needle stop positions can be separately adjusted with a single operation. The display lamp shows the power status at a single glance. (Supports LY2-3750/LY2-3310/ LY3-6840)

### Standing and sitting T-type table legs

The control panel comes complete with functions for standing sewing machines. (Thread cutting type)

# Stable thread cutting performance from thin to thick threads



Our proven left female rotating and right female fixed meshing system enables excellent cutting of thread from fine to thick threads (#6). (Supports LY2-3750/LY2-3310)

### Hold-up lever on the front of the arm



The hold-up lever is equipped on the front of the arm for improved operability. (Supports LY2-3750/LY3-6840)

#### Variable speed lever

Lever can be mounted on the

- side of the control panel.
  Easy disassembly from the control panel.
- A pedal for standing sewing machines can be easily installed.

Stitch adjustment dial with simple forward/backward seam pitch adjustment lock



Adjustments can be easily made by turning the adjustment pin on the front of the arm. (Supports LY2-3750/LY3-6840)

#### Touchback switch



Light touch for quick response. Enables needle raising and correction stitches. (Supports LY2-3750/LY2-3310/ LY3-6840)

#### Powerful and highperformance Limiservo XC-G Series

- Comes with a simple sequence function.
- The reverse needle raising function enables easy insertion and removal of materials.
- The fabric stop function ensures proper needle drop location.

Automatic oil lubrication system for easy maintenance



An automatic oil lubrication system eliminates the need to feed oil. Oil in the oil tank is supplied by pump to required areas, thereby improving durability of the sewing machine. (Supports LY2-3750/LY3-6840) Single-needle lockstitch: Vertical feed





Model Item	LY2-3750-B1T
Stitching style	Single-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	8mm
Holder lift stroke (manual)	6mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #22 (DB x 1 #22)
Hook	Vertical double-size rotary hook
Needle bar stroke	38mm
Thread cutting equipment	Available
Touchback equipment	Available
Oil lubrication	Automatic oil lubrication system
Upper feed foot alternate amount	2 to 5mm (dial system)
Bed shape	Flat bed system
Throat length	335mm
Bed dimensions	517 x 178mm
Mass	34kg





Model Item	LY2-3300-B0B
Stitching style	Single-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	8mm
Holder lift stroke (manual)	6mm
Holder lift stroke (knee)	13mm
Needle	DP x 17 #22 (DB x 1 #22)
Hook	Vertical double-size rotary hook
Needle bar stroke	35mm
Thread cutting equipment	Not available
Touchback equipment	Not available
Oil lubrication	Manual lubrication
Upper feed foot alternate amount	2 to 5mm (long groove adjustment type)
Bed shape	Flat bed system
Throat length	279mm
Bed dimensions	475 x 178mm
Mass	29kg



Model Item	LY2-3310-B1T
Stitching style	Single-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	8mm
Holder lift stroke (manual)	6mm
Holder lift stroke (knee)	13mm
Needle	DP x 17 #22 (DB x 1 #22)
Hook	Vertical double-size rotary hook
Needle bar stroke	38mm
Thread cutting equipment	Available
Touchback equipment	Available
Oil lubrication	Manual lubrication
Upper feed foot alternate amount	2 to 5mm (long groove adjustment type)
Bed shape	Flat bed system
Throat length	279mm
Bed dimensions	475 x 178mm
Mass	32kg

Single-needle lockstitch: Vertical feed (cylindrical high long arm)







Model Item	LY3-6840-B0T
Stitching style	Single-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	7mm
Holder lift stroke (manual)	6mm
Holder lift stroke (knee)	15mm
Needle	DP x 17 #22 (DB x 1 #22)
Hook	Vertical double-size rotary hook
Needle bar stroke	38mm
Thread cutting equipment	Not available
Touchback equipment	Available
Oil lubrication	Automatic oil lubrication system
Upper feed foot alternate amount	2 to 5mm (dial system)
Bed shape	Cylinder bed system (cylinder diameter 47mm)
Throat length	335mm
Bed dimensions	Not available
Mass	39kg

Note: Mass includes the mass of the sewing machine only. Note: An operation caution sticker is attached to the sewing machine unit.

# Lockstitch unison feed

### New high-performance model with long arm and support for unison feed holders for sewing car seats, bags, sofas, and other thick projects

Introducing a new tried and trusted unison feeding sewing machine for sewing thick projects with a new shortened thread cutting device added to the car seat (CS) specifications. Complete with features and operability including stable sewing, use of builtin detector for lower position adjustment, and improved maintenance. Sewing machine operability and sewability are further improved by using the Limiservo XC-G Series.

#### Lineup of car seat (CS) specifications



The lineup includes a CSspecification model for sewing car seats and other projects. Changes have been made to the balance stroke and feed motion to further improve sewing quality in seat sewing projects.

#### Stable thread cutting performance from thin to thick threads



The meshing of the fixed female and the female linearly moving in parallel with the feed dog enables excellent cutting of thread from fine to thick threads (#8)

#### Reverse needle raising function (when using Limiservo X)



After thread cutting, the reverse function of the sewing machine can be used to prevent the needle from coming out from the holder and to ensure the holder is raised to 16mm. This function ensures easy insertion and removal of thick materials.

#### 2-fold hook max. speed for 3,000 stitches/minute



A maximum speed of 3,000 stitches/minute can be achieved with a 2-fold hook thanks to improvements to the needle bar swing mechanism, balance mechanism, and upper vertical feed mechanism. (Supports LU2-4652)

#### Touchback switch with release function

Turning the button releases the touchback function. (Supports LU2-4410/LU2-4430)

#### Stitch adjustment dial with lock

Reliably prevents stitch change problems during sewing.

#### Automatic presser bar device

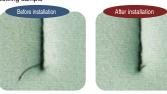
Setup is made easier.

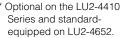
\* Optional on the LU2-4400 Series and built-in on LU2-4652.

#### Shortened thread cutting device (LU-ST-KIT)

The amount of thread that remains after thread cutting is shortened so that no thread nipping is needed.

#### Sewing sample





#### Single-needle lockstitch: Unison feed



Model Item	LU2-4410-B1T-CS
Stitching style	Single-needle lockstitch
Application	Car seat
Max. speed	2,000rpm
Max. stitch length	9mm
Holder lift stroke (manual)	8mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #21
Hook	Horizontal double-size rotary hook
Needle bar stroke	35mm
Thread cutting equipment	Available
Touchback equipment	Available
Oil lubrication	Automatic oil lubrication system
Needle width (standard)	Not available
Needle width (special)	Not available
Upper feed foot alternate amount	2 to 6mm
Bed shape	Flat bed system
Throat length	250.5mm
Bed dimensions	517 x 178mm
Mass	36kg

Single-needle lockstitch: Unison feed

LU2-4400-B0	B
Bag (Car seat) Container bag (Sofa)	

Model Item	LU2-4400-B0B
Stitching style	Single-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	9mm
Holder lift stroke (manual)	8mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #23
Hook	Horizontal double-size rotary hook
Needle bar stroke	36mm
Thread cutting equipment	Not available
Touchback equipment	Not available
Oil lubrication	Automatic oil lubrication system
Needle width (standard)	Not available
Needle width (special)	Not available
Upper feed foot alternate amount	2 to 6mm
Bed shape	Flat bed system
Throat length	250.5mm
Bed dimensions	517 x 178mm
Mass	33kg

Double-needle lockstitch: Unison feed

### LU2-4420-B0B



Model Item	LU2-4420-B0B
Stitching style	Double-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	9mm
Holder lift stroke (manual)	8mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #23
Hook	Horizontal double-size rotary hook
Needle bar stroke	36mm
Thread cutting equipment	Not available
Touchback equipment	Not available
Oil lubrication	Automatic oil lubrication system
Needle width (standard)	6.4mm
Needle width (special)	9.5mm
Upper feed foot alternate amount	2 to 6mm
Bed shape	Flat bed system
Throat length	250.5mm
Bed dimensions	517 x 178mm
Mass	34kg



Model Item	LU2-4430-B1T
Stitching style	Double-needle lockstitch
Application	Thick items
Max. speed	2,000rpm
Max. stitch length	9mm
Holder lift stroke (manual)	8mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #23
Hook	Horizontal double-size rotary hook
Needle bar stroke	36mm
Thread cutting equipment	Available
Touchback equipment	Available
Oil lubrication	Automatic oil lubrication system
Needle width (standard)	6.4mm
Needle width (special)	3.2/4.0/4.8/8.0/9.5/16.0mm
Upper feed foot alternate amount	2 to 6mm
Bed shape	Flat bed system
Throat length	250.5mm
Bed dimensions	517 x 178mm
Mass	37kg

Model Item	LU2-4652-B1T
Stitching style	Single-needle lockstitch
Application	Thick items
Max. speed	3,000rpm
Max. stitch length	8mm
Holder lift stroke (manual)	9mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #21
Hook	Horizontal double-size rotary hook
Needle bar stroke	35mm
Thread cutting equipment	Available
Touchback equipment	Available
Oil lubrication	Automatic oil lubrication system
Needle width (standard)	Not available
Needle width (special)	Not available
Upper feed foot alternate amount	2 to 6mm (dial system)
Bed shape	Flat bed system
Throat length	310mm
Bed dimensions	517 x 178mm
Mass	43kg

Note: Mass includes the mass of the sewing machine only. Note: An operation caution sticker is attached to the sewing machine unit. Single-needle

LU2-4710-B1T





Model Item	LU2-4710-B1T
Stitching style	Single-needle
Application	Heavy material
Max. speed	3,000rpm
Max. stitch length	0 - 9mm
Holder lift stroke (manual)	9mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #23
Hook	Horizontal full-rotating Large
Needle bar stroke	36mm
Thread cutting equipment	0
Touchback equipment	0
Oil lubrication	Automatic lubrication
Needle width (standard)	_
Needle width (special)	_
Upper feed foot alternate amount	2 - 6mm (dial)
Bed shape	Flat bed
Throat length	250.5mm
Bed dimensions	517 x 178mm
Mass	47kg (sewing machine head)

Double-needle





Model Item	LU2-4730-B1T
Stitching style	Double-needle
Application	Heavy material
Max. speed	2,500rpm
Max. stitch length	0 - 9mm
Holder lift stroke (manual)	9mm
Holder lift stroke (knee)	16mm
Needle	DP x 17 #23
Hook	Horizontal full-rotating Large
Needle bar stroke	36mm
Thread cutting equipment	0
Touchback equipment	0
Oil lubrication	Automatic lubrication
Needle width (standard)	3.2mm
Needle width (special)	6.4mm
Upper feed foot alternate amount	2 - 6mm (dial)
Bed shape	Flat bed
Throat length	250.5mm
Bed dimensions	517 x 178mm
Mass	47kg (sewing machine head)

Note: Mass includes the mass of the sewing machine only. Note: An operation caution sticker is attached to the sewing machine unit.

Icon legend Thread cutting II Double-needle II Hook 📰 Throat

# Motor

Variable speed motor with automatic fixed position stop device

### Limiservo X G Series

#### Motor

Model Item	XL-G554-10Y	XL-G554-20Y	XL-G754-20Y
Voltage	100 to 120V	200 to 240V	200 to 240V
Output	550W	550W	750W
Rated speed	3600rpm	3600rpm	3600rpm
Output shaft	Tapered shaft		



#### Control panel

Model Item	XC-GMFY-10-05	XC-GMFYCE-20-05 <sup>*1</sup>	XC-GMFY-20-05	XC-GMFY-20-07
Output	550W	550W	550W	750W
Power supply (phase)	Single-phase	Single-phase	Single-phase/three-phase (Note)	Single-phase/three-phase (Note)
Power supply (voltage)	100 to 120V	200 to 240V	200 to 240V	200 to 240V
Functions	Equipped with full functions including automatic thread cutting, presser foot lifting, fixed needle, line bar, and lock stitching. Equipped with simple sequence and computer communication function. Equipped with 8 solenoid drive outputs, 2 solenoid valve outputs, 1 small signal output, and 14 input terminals including variable voltage input.			

Note: See the instruction manual for the connection method. \*1: Type [XC-GMFYCE] is CE marking type.

> User-friendly functions

Computer interface

Use the setup software to manage setting data such as to batch write/load and save settings. (XCG\_SET)
 Use the step sequence software to create and edit step sequences. (XCG\_STEP)

XC-G500-Y-CE control switch panel

### XC-G500-Y-CE



## XC-G10S-CE/L-CE



Model Item	XC-G500-Y-CE	
Number of number displays	5	
Straight stitch	Available	
Straight stitch (lock stitch)	6 types	
Straight stitch (fixed needle sewing)	Available (1 to 9999 stitches)	
Continuous fixed needle sewing	Max. 8 patterns and 25 steps depending on the program	
Continuous fixed needle sewing (lock stitch)	6 types	
Up/down counter	Up counter: 1 type (4 digits) Down counter: 1 type (4 digits)	
Thread cutting (release) key	Available	
Automatic key	Available	
Slow start key	Available	
Control panel setting data copy function	Read and write setting data (for 2 models)	
Program key LED	Configurable input switch: 3 types Configurable output LED: 3 types	

### **LE-FA** Automatic pneumatic presser bar

Presser bar torque is approximately double that of the electromagnetic model (XC-FM-2) with a normal air pressure of approximately 0.49MPa (5kg/cm<sup>2</sup>).



,	Air pressure use range	Continuous 0.147MPa to 0.97MPa (1.5kg/cm <sup>2</sup> to 9.9kg/cm <sup>2</sup> )
	Presser bar torque	Max. 13.73N•m (max. 140kg-cm) with air pressure of 0.49MPa (5kg/cm²)
	Application	For thick materials (especially sewing machines with strong presser pressure)

Model Item	XC-G10S-CE/L-CE
Number of number displays	5
Straight stitch	Available
Straight stitch (lock stitch)	6 types
Straight stitch (fixed needle sewing)	Available (1 to 9999 stitches)
Up/down counter	Up counter: 1 type (4 digits) Down counter: 1 type (4 digits)

### XC-CVS-3 Variable speed pedal

Variable speed operation is possible for standing work. It is especially effective such as when sewing corner curves.

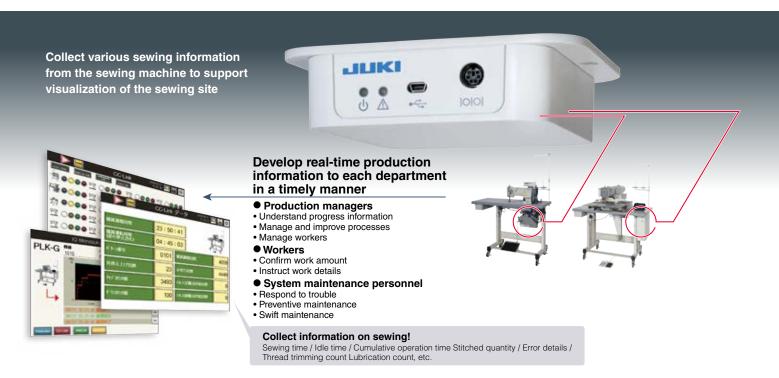
• Variable speed operation is possible according to how much the pedal is depressed.

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- The pedal can be easily secured on the table leg side rail.
- External signal operation is possible by using the foot switch for thread trimming and presser foot operation.

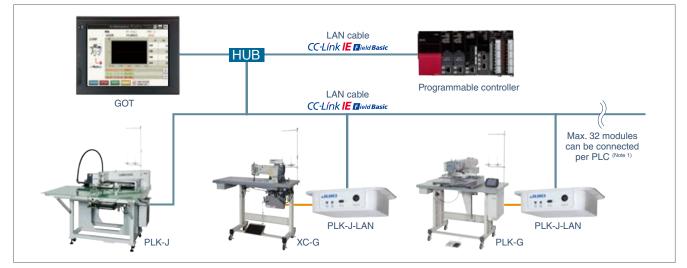
# PLK-J-LAN LAN unit for XC-G/PLK-G

Build a system for data collection and visualization using original network



#### Image of LAN module connection

The LAN module is connected to the sewing machine with a serial cable, so there's no need for a separate power supply. CC-Link IE Field Basic is supported with post-installation, allowing IoT to be achieved.



Connection destination	XC-G	PLK-G
Communication interface	Ethernet (Note 2) communication (CC-Link IE Field Basic compatible)	
	Serial communication (control panel, operation box)	
Connection equipment	XC-G Series control panel Operation panel (XC-G10/G500)	PLK-G Series control panel (Note 3) (Note 4)
External device	Digital input x 2, analog input x 2, digital output x 2, analog output x 1 (total 7) (rear connectors) (Hote 5)	
Rating	12V DC, supplied from XC-G control panel	12V DC, supplied from PLK-G control panel
Outline dimensions	125 x 155 x 40mm (WxDxH)	
Mass	300g	

Note 1: Depends on programmable controller performance.

Note 2: Ethernet is a trademark of Fuji Xerox Co., Ltd.

Note 3: PLK-G Series requires a system update (Ver. 18 or higher). Note 4: Not compatible with PLK-G1306.



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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.

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