MITSUBISHI ELECTRIC

*Changes for the Better*

# PLK-G5050-10050

Electronically controlled large area sewing machine. Large shuttle hook, direct drive motor and programmable presser foot height adjustment. Continuous or intermittent feed method.

Sewing area (5050) 500x500mm

Sewing area (10050) 1000x500mm

# Advanced, Large G Series – Equipped with Industry-leading Machine Specifications

## 1

Prevention of skipped stitches and thread breakage even when stitching material thickness changes is ensured using the programmable presser foot height adjustment function.

**Digital Feedback Control**

### Sewing quality improved with new control method

(Digital sewing technology)

## 2

The digital feedback control suppresses vibrations.
Reduced noise of **82 dB or less**

### Low Vibration and Low Noise

## 3

Powerful penetration force even at the start of stitching and thread trimming.
**750W** direct servo motor increases sewing applications.

(As of March 2011)

### Industry's top-class penetration force

## 4

Quicker processing of pattern data with high stitch count.
Pattern creation time minimized up to **one-tenth**
Work efficiency increased by **3 to 10-fold.**
(Comparison with PLK-E Series)

### USB memory & high-speed processing

## 5

Direct-drive method reduces power consumption by
**approximately 40%.**
(Comparison with PLK-E Series)

### Power consumption reduced in consideration of the environment

## 6

Easy expandability for customization and automation
Superior **compatibility** with **host control units.**
(Mitsubishi Electric programable controller)

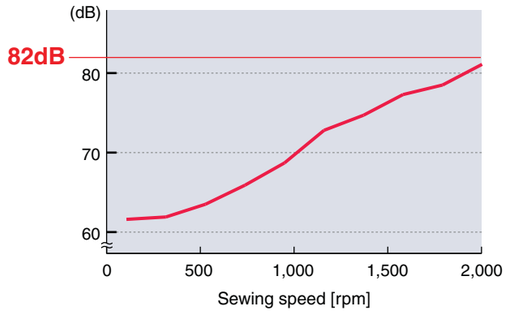
### Automation support functions

G series

## Low Vibration and Low Noise

The digital feedback control suppresses vibrations, achieving a low noise of 82 dB or less *1.

*1: Measurement condition
- Stitch length : 3 mm
- Sewing speed : 2,000 rpm
- Feed method : Continuous
- Sewing area : Maximum sewing area for each model



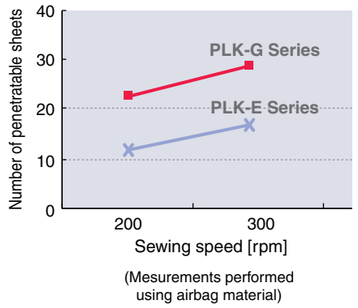

## Beautiful Stitches

The improved presser foot mechanism and feed mechanism rigidity together with the latest feed control (feedback control) realize beautiful stitches, from low to high speeds, in all areas including corners which follow the sewing data and stitch linearity.

## Industry Top-class Penetration Force (As of March 2011)

The increased power of the 750W direct-drive servo motor provides the industry top-class penetration force. Low-speed sewing (200 rpm) at the start of sewing and thread cutting, which was conventionally difficult to carry out, can now be performed with ease.

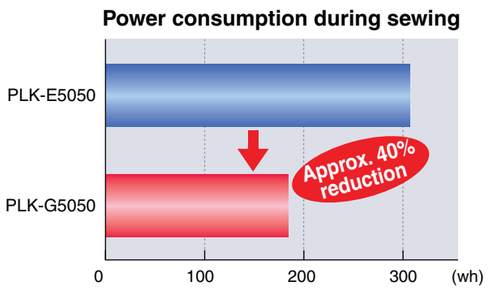
Increased applications!! Improved stability!! Improved quality!!




(Mesurements performed using airbag material)

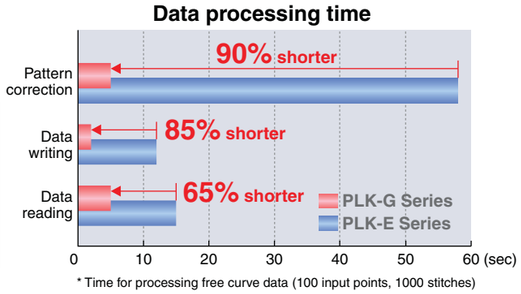
## Reduced Power Consumption

The direct-drive method helps to reduce the power consumed during sewing by approximately 40% (for G5050).




## Improved Work Efficiency

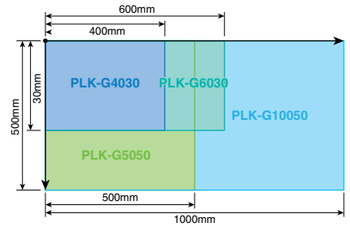
Adoption of a USB memory and high-speed processing system has greatly shortened the time required to input and correct data for patterns with many stitches.
The inching key greatly improves the speed during clamp movement, and improves work efficiency.




* Time for processing free curve data (100 input points, 1000 stitches)

## Wide Sewing Area

Sewing can be performed on small to large material in high accuracy. With the wide sewing area, a user can easily perform checks at material setup and during sewing, and make high-quality stitches.



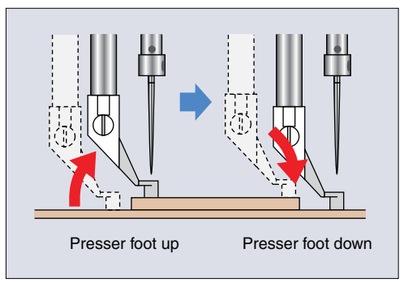

## Large, High-visibility, Easy-to-use LCD Touch-type Operation Panel

In addition to the basic sewing machine operations*1, this panel can be used to process patterns*2, confirm the status of the various sensor input and solenoid output signals, and individually set the sewing machine functions and input/output ports.
- •Frequently used switching patterns can be selected quickly with the shortcut button.
- •A simple explanation function is incorporated to display the application of each screen button when the button is touched.
- •When inputting patterns, the clamp frame movement speed can be selected from three different settings.
- •An easy-to-carry and use shape has been adopted.

*1: Home position return, jog, speed change, pattern call, up/down counter, bobbin winding, etc.
*2: Pattern call, write, input, correction, conversion, etc.


## Programmable Presser Foot Height Control

A programmable presser foot height function is incorporated. Skipped stitches and thread breakage can be prevented by changing the presser foot height according to the material thickness. The programmed presser foot data is saved in the sewing data, so the presser foot height does not need to be adjusted even if the material thickness changes.



# PLK-G5050-10050

PLK-G5050-10050

This machine uses an external USB memory for sewing pattern storage as well as an internal memory with high-speed processing. It is equipped with an on-board touch screen for easily creating sewing patterns, customizing parameters and adjusting the presser foot sewing height to name a few. Digital feedback control is also added on the PLK-G models for improved stitch quality and low viberation and noise. For that hard to penetrate material even at a low speed, a 750 watt direct drive servo is provided.

## Specifications

| MODEL | PLK-G5050-10050 |
|---|---|
| Stitch Type | Single Needle Lockstitch |
| Sewing area (5050) | (X) 500mm x (Y) 500mm (19 11/16" x 19 11/16") |
| Sewing area (10050) | (X) 1000mm x (Y) 500mm (39 3/8" x 19 11/16") |
| Max. Speed | 2000 rpm (Depending on Application) |
| Feeding System | Intermittent or Continuous |
| Stitch Length | 0.1~20.0mm (Min. Resolution 0.1mm) |
| Pattern Storage | Internal Memory or External USB |
| Max. Number of Stitches | 20,000 Stitches per Pattern |
| Max. Number of Patterns | 900 Patterns (Internal Memory) |
| Scale up / Scale down | 10~200% for X and Y axis |
| Presser Foot | Adjustment by Stepping Motor |
| Hook | Shuttle/Large/Size R Bobbin |
| Needle | 135 x 17 size #18 |
| Work Holder Lift | Max. 30mm |
| Presser foot lift | Max. 15mm |
| Operation Panel | Touch Screen (PLK-G-PAL) |
| Main Driving Motor | 750 Watt Direct Drive |
| Power | 220 Volt / Single or 3 Phase |
| Clamp (No Factory Clamp) | Optional Pallet Clamping System (Air) |
| Mass | 5050 (470 kg) 10050 (500 kg) |

## Applications

Automobile seats and airbags, aircraft seats and belts, tactical gear and other items.