

LPKF ProtoPlace

Pick & Place assembly system

Item	LPKF ProtoPlace
Part #	114459
Order info	Inside front cover



The LPKF ProtoPlace is an ergonomically designed, semi-automatic pick & place system for the professional assembly of SMD printed circuit board prototypes and small batch projects. The ProtoPlace quickly assembles SMT boards, with the user controlling each step of the assembly process through an LCD display. Most functions are easily executed from an interface panel with four directional arrows.

A camera system coupled with the monitor ensures easy and accurate component positioning control, so the ProtoPlace can precisely assemble complex circuits.

Manually guided movements of the ProtoPlace manipulator can be locked in both the X- and Y-directions, and fine adjustments can be performed using micrometer screws. A pneumatic device supports the positioning of the components, eliminating errors and guaranteeing accuracy.

Three different feeders supply the components. An integrated dispenser for solder paste is standard equipment.

- **Precise fine-pitch component assembly**
- **Pneumatic component placement**
- **Integrated multifunctional solder paste dispenser**
- **Optional camera system aids component positioning**
- **Optional motorized turntable**
- **Microprocessor-controlled electronics**

Plotters

Laser

Plating

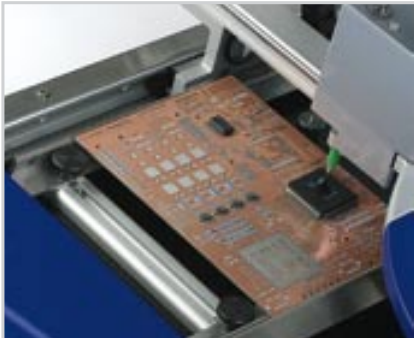
Multilayer

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The LPKF ProtoPlace features:



Micro-table

The micro-table clamps printed circuit boards as large as 297 x 420 mm (11.8" x 16.5"). A fine-adjustment capability and X- and Y-axis lockdowns make the ProtoPlace ideal for the placement of complex components.



Manipulator

The manipulator picks & places components, and applies paste, glues and washers. The manipulator easily reaches every feeder (stick and tape feeders, turntable, or palette) by using vacuum and a picking needle. An additional manual control rotates components where needed and automatically places components.

And many more, such as:

Multifunctional dispenser

This external unit dispenses soldering paste, glues, and washers from its mount directly on the manipulator. It also enables dispensing of low viscosity media.

Air regulator

The air regulator regulates pressure during dispensing, vacuum during placement, and vacuum during dispensing.

Foot switch

The integrated foot switch provides additional hands-free mode control to the user.

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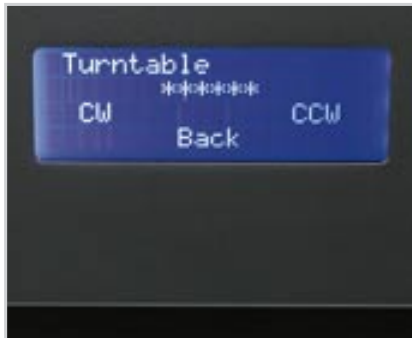
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Keyboard

The integrated multifunctional keyboard allows the direct selection of options, fine control of adjustments, and setting precise individual parameters.



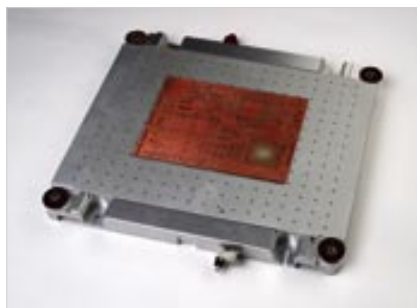
LCD display

Control and monitor the process via the 4-line LCD display. All functions and parameters can be easily selected and displayed on the four-lined LCD display, while directing the operator to the next step.

Options

Vacuum table

Vacuum table for placement of components on flex or rigid PCBs.



Part # **119684**

Accessories



Accessories



Motorized turntable

The optional motorized turntable stores individual components in bins, and permits a significantly accelerated picking process. The bins can be labelled with type, value and sign.

45 component bins: Part # **114460**

75 component bins: Part # **114461**

90 component bins: Part # **114462**



Feeder carrier

Place up to thirteen different component feeders into the optional feeder carrier. The feeder carrier is necessary if additional tape feeder or stick feeders are required.

Part # **115590**



Tape feeders

The LPKF ProtoPlace uses tape feeders serving 8 mm, 12 mm, and 16 mm components.

Tape feeder 8 mm: Part # **116004**

Tape feeder 12 mm: Part # **116008**

Tape feeder 16 mm: Part # **116009**



Stick feeders

The LPKF ProtoPlace supports stick feeders serving different components.

S08-S028: Part # **101356**

S08L-S028L: Part # **101356**

PLCC28-PLCC44: Part # **101357**

PLCC52-PLCC84: Part # **103897**



Micro camera

The micro camera mounts directly on the manipulator and feeds a video signal of the process to the optional monitor. This increases control and accuracy when placing fine-pitch components.

Part # **115040**



Color LCD monitor

The optional LCD monitor, in tandem with the optional micro camera, allows the user to track and control small parts placement very precisely.

Part # **119777**



Compressor

It features extra quiet operation (52 dB), a 6-l container, and produces 6 bar and an output of 50 l/min.

Part # **101092**

Specification table

LPKF ProtoPlace	
Part #	114459
Maximum PCB size	400 x 300 mm (15.7" x 11.8")
Minimum size of components	0201 chip components
Pulse/pause duration	0.1–9 sec/0.1–2 sec
Number of dosing points	Up to 300 per minute
Dosing quantity	Min. 0.2 µliters
Turntable position	Left and/or back
Feeders position	Left
Operating air pressure	0.1–4 bar (1.4–58 psi)
Vacuum	Max. 0.8 bar (11.6 psi)
Weight	25–35 kg (55–77 lbs) depending on accessories
Dimensions (W/H/D) (w/ all feeders and turntable)	1,000 x 500 x 900 mm (40" x 10" x 35")
Dimensions (W/H/D) (bare machine)	760 x 250 x 760 mm (30" x 10" x 30")
Ambient operating conditions	Temperature: 5–35 °C, (41–95 °F) Humidity: 30–95%
Compressed air supply	6 bar (87 psi), min. 10 l/min (0.35 cfm), oil free, water free
Power supply	120/240 V, 50–60 Hz, 10 W
Specifications subject to change.	

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