

• Newsletter of the Newbury Electronics group of companies •

Automatic optical inspection for assembled PCBs

SMD assembly has become so complex that inspection by eye has become increasingly difficult. Our new AOI machine inspects assembled PCBs for correct component type and orientation as well as solder joint quality.

The inspection machine is programmed from the same pick & place coordinate data as the assembly machines. Every component on a circuit being inspected is compared with the correct image in the machine's memory. Text on components can be read and verified.



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SOLDER-PASTE DISPENSING MACHINE

For small batches of assemblies, a solder paste dispensing machine has considerable advantages.

The machine is fast and economical. It places individually measured amounts of solder paste on each solder pad. It can be programmed from CAD data as and when required, and eliminates the waiting time and expense of laser cut stencils. The net result of all these benefits? Your costs are reduced and turnarounds are accelerated.



This Swiss-built machine brings precision to the solder-paste dispensing process.

SECOND BARE BOARD electrical testing machine

Moving probe electrical testers are very effective for testing small batches of bare PCBs.

However, some complex PCBs can take minutes to test. Our second machine will ensure the elimination of bottlenecks at final electrical test and maintain our on time delivery performance. Efficiency is also improved since one operator can now test twice as many boards. 🌐



New digital technology replaces old silk-screen processes for legend printing.

Digital ink-jet legend printer

Until now, there has been little change in the technology used for printing legends on PCBs. Silk-screen printing has ruled for 50 years.

All this will change. We have installed one of the first digital ink-jet legend printers in the country. The resolution and accuracy of digital ink-jet printing far exceeds traditional screen printing techniques. There is no film-work or silk-screen tooling to prepare, keeping set-up costs to a minimum. The machine automatically aligns the image against fiducial markers on the PCB, ensuring perfect image registration every time.

Different PCB types may be printed within minutes of each other. There is one restriction, the only colour you can have is white, so we still have to keep the silk-screen benches for the other colours. 🌐



Performance and efficiency are greatly enhanced with the installation of a second electrical testing machine.



3 new drill routing machines

We have replaced our previous machines with 3 identical state of the art drill-routing machines.

These machines are especially interesting because they incorporate separate drilling and routing heads rather than combining the same functions in one head. Consequently, the drilling and routing operations are not compromised in any way. 'X', 'Y' and 'Z' axis drives are by powerful linear motor drives allowing very high speed operation. They also eliminate the notorious lead-screw wear problems of previous generations of machine. The new machines automatically load PCB panels, and have full drill integrity checking and digital camera alignment.



Three new state-of-the-art drill-routing machines bring increased productivity and new levels of precision.

PCB Train
Express

Extra services - at your request...

Following customer requests, we have added 3 new PCB Train services. Our complete timetable is set out opposite. The prices are remarkably low - starting from just £30.00 for a single PCB, with no additional tooling charges.

New services may be added from time to time, so please regularly check the website at

www.pcbtrain.com for the latest timetable.

Production Timetable	PCB Type	Specification	Departure (9.00am deadline)	Service (Wkng days)	
	2-layer PTH	1.6mm FR4 1oz. cu. immersion silver	Every day	5/10/15	
2-layer PTH	1.6mm FR4 1oz. cu. Au/Ni finish	Tuesday	10	new	
2-layer PTH	1.6mm FR4 1oz. cu. HASL lead-free	Tuesday	10	new	
2-layer PTH	1.6mm FR4 2oz. cu. immersion silver	Tuesday	10	new	
4-layer M/L	1.6mm FR4 1oz. cu. immersion silver	Mon/Wed/Fri	5/7/10/15		
6-layer M/L	1.6mm FR4 1oz. cu. immersion silver	Wednesday	5/10		

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1 day turnaround service - every day!



