

• Newsletter of the Newbury Electronics group of companies •

## PCBTrain Assembly service now one year old

This service is very popular because it gets your pcbtrain PCBs assembled in just a few days. Pcbtrain Assembly is a fixed price assembly service with a turn-around from just 4 working days.

A unique feature of this service is that we supply you with any standard Rs & Cs required for the assembly at no charge. You will save much time and effort because you will not have to kit these low value parts.

However, you must send us all the other parts you require assembled. Prices start from £50 to assemble 50 parts, including complex devices such as QFPs. We specialize in BGA placement

and these are at additional cost.

Visit [www.pcbtrain.com](http://www.pcbtrain.com) where there is an online price calculator and more details. We have made the boards, so why not let us assemble them as well? 

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### PCBTRAIN ONLINE ORDERING AND PAYMENT BY CREDIT CARD

You can now order and pay for your PCBTRAIN pcbs online by credit card. Alternatively, for regular users, we will open a trade credit account.

E-mail us your company registered number and expected spend so that we can get appropriate credit clearance.

[pcbtrain@newbury.tcom.co.uk](mailto:pcbtrain@newbury.tcom.co.uk)



## 50 YEARS ON: A PROFILE OF THE NEW NE

It is nearly 50 years since Newbury Electronics was founded with the prime objective of manufacturing quality printed circuit boards for the major government research laboratories at Harwell, Culham, and Aldermaston.

Competitive pricing, speed of production, and innovation were the principles upon which the company was founded. Wholly owned and managed by the Directors, today's



Newbury Electronics retains these core values and follows a policy of continual

improvement and investment in the technologies and processes it employs to manufacture the finest PCBs - destined for all types of electronics applications throughout the UK and Europe.

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## 50 YEARS ON: A PROFILE OF THE NEW NE

Products include not only rigid and flexible, single and multi-layer printed circuit boards but also design and assembly as well. The demands of the electronics industry for increasingly complex PCBs have been met head-on with the installation of the latest production processes and computer management systems for improved production throughput and control, some of which are featured in this issue. All production processes are carried out in-house and comply with the internationally recognised standards of BS EN ISO 9002 and UL Approvals.

Reflecting the demand for global sourcing, we represent and distribute the products of Circuit Mission Ltd, a major high volume manufacturer of PCBs, based in China and Sunflex Ltd, a large manufacturer of flexible and flexi-rigid circuits based in Taiwan and China.



Consistent and repeatable processing is achieved using the newly installed Forced Air Convection Reflow Oven.

# New Forced Air Convection Reflow Oven

**With increasing production throughput, we have recently upgraded our SMD reflow oven. Our new machine is a forced air convection reflow oven with 4 computer-controlled zones on both top and bottom, making 8 zones in total.**

The 4 zones have a length of over 1.5m providing ample time for component temperature stabilisation. This technology will cope with even the most difficult components. Temperature profiles are constantly monitored and logged enabling consistent and repeatable processing.

Our Philosophy is that quality products spring from quality in manufacturing. To this end, we seek to provide our customers with the very best service of which we are capable to enable them to achieve their aims.

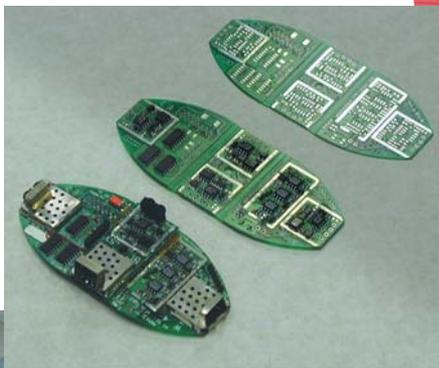
At Newbury Electronics, the needs of the customer align with our company objectives. The consequence is a powerful partnership which draws upon our wealth of experience in the world of electronics.



# LARGER FACTORY FOR ELECTRONIC ASSEMBLY

Our new home for Newbury Electronics Contracts Division is over twice the size of our old premises and has a total area of 3,500 square feet.

It is just 2 minutes from our PCB plant and the new address is Unit 6 River Park Estate, Ampere Road, Newbury. It has been specially fitted out for electronic assembly with complete anti-static flooring. Some of the extra area has already been taken up with new machinery, but we still have plenty of room for expansion. 🌀



Assembly floor of the new home for Newbury Electronics Contract Division at River Park Estate, offering anti-static flooring and plenty of room for expansion.



The Zevac DRS 20 for small batch SMD placement.

## New BGA Placement and re-work Equipment

If you have 100s of BGAs to place, then our Tenryu FV7100 is a fine machine to use. However, small batches of BGAs can present a problem. 

BGAs cannot be placed by eye and soldered by hand. The solution is a specialised machine. Our new Zevac DRS 20 is a highly accurate small batch SMD placement machine which allows even the finest pitch flat-packs and BGAs to be placed with absolute accuracy and removed without damage to the pcb. It is a miniaturised placement machine combined with a component size batch convection oven.

Closed loop temperature measurement, joy-stick control of the component pick-up and placement, and camera vision for alignment all ensure consistent results. 🌀



Tenryu FV7100 - ideal for larger volume BGAs.

# NEW AUTOMATIC SOLDER PASTE SCREEN PRINTER

provides new levels  
of pin-point accuracy  
for SMD Assembly



An automatic solder paste screen printer with vision alignment control has just been installed. The new machine enables very accurate printing of solder paste on even the finest pitch devices.

Tight computer control of all aspects of the solder paste screen-printing process is essential for reliable SMD assembly and this machine achieves it all, perfectly printing the finest micro-BGAs time after time. Both first time pass rates for finished product and overall product reliability are significantly improved.

A particular feature of the machine is the vision system which checks that the solder paste screen will line up with the pcb to be pasted before it is printed. This almost eliminates the possibility of mis-registered solder paste prints. The solder paste squeegee is motor driven and controlled by computer as is the snap-off of the solder screen from the pasted board.

Once the process variables have been optimised, they are stored indefinitely for rapid set-up of future batches.



Vision alignment control on this newly installed machine enables very accurate solder paste printing and increases product reliability.

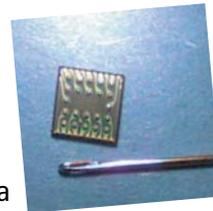
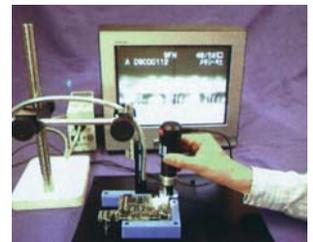
## New BGA Soldering Inspection System

Once a BGA is placed, it must be inspected to ensure that the connections are sound.

Unfortunately, conventional inspection devices are not capable of viewing solder balls underneath a

BGA. To solve this problem, we have installed a MS-1000LW inspection microscope

with 70 x magnification, and a miniature prism that can see under BGA packages. Identification of BGA faults becomes easy and fast - misalignment, solder bridging, solder balls, no reflow, etc. can readily be seen.



### CONTACT US



ISO 9002 Approval  
Certificate Nos:  
FM40205 & FM24949  
UL Approval (ZPMV2.E132578)



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