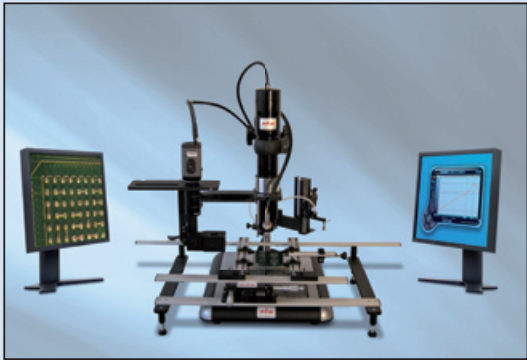


PDR IR-D3 Discovery Rework Station

*PDR's Focused IR SMT/BGA Rework System
for Lower Cost, BGA Rework*





Advanced Features

- **Focused IR component heating**
PDR's patented tool-free IR technology
- **Quartz IR PCB preheater**
Large area 2000w IR heating
Optional 750w or 1600w
- **Precision component pick and placement**
With low force landing and rotation
- **Precision X/Y PCB Workholder**
Macro-Micro movement and micrometer adjustment
- **Auto-profile process control package**
With PDR's ThermoActive software suite
- **BGA/ μ BGA alignment (optional)**
CCTV/prism based system
- **Non-contact component temperature sensing**
Real time measurement of component temperatures
- **Auxiliary Process Camera (optional)**
CCTV based system with LED Lighting
- **Precision PCB temperature sensing**
Contact or optional non-contact sensors

Keenly Priced Quality BGA rework

The PDR IR-D3 Discovery rework system, using PDR's patented Focused IR technology, has been specifically designed to cope with the challenges of repairing today's PCB assemblies.

The system is tool free, gas free, instantly/precisely controllable, clean, modular, upgradeable and produces 100% yield BGA rework without any complications. It provides the extremely high levels of profiling and process control necessary for the effective rework of even the most advanced packages, including SMDs, BGAs, CSPs, QFNs, Flipchips and is ready for 0201 and lead-free applications.

The IR-D3 Discovery is keenly priced and can be easily configured to your requirements, with a good range of advanced features to choose from, allowing the operator to quickly and safely rework all types of components without overheating the component, adjacents or the PCB. It uses all the proven attributes of PDR's Focused IR technology, first introduced in 1987 and now used worldwide by over 3500 customers.

Simple BGA rework procedure

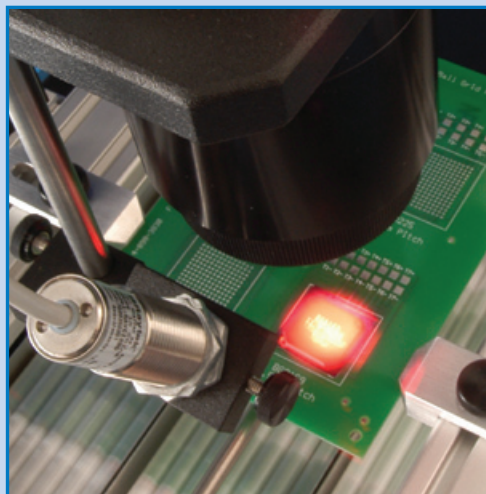
BGA rework poses the problem of accessing hidden interconnects in a high density environment. Consequently, it requires a system that is able to access the hidden joints without affecting neighbouring components, a system that is safe, gentle, adaptable and, above all, simple to operate. The IR-D3 Discovery is such a system. It is so easy to operate that technicians are able to instantly achieve excellent process control for BGA/SMT rework without the complexities and frustrations normally associated with 'high-end' rework systems.

Align - Place - Reflow

With the aid of excellent mechanics, optics and control, operators can simply pick up the fluxed BGA from the nest plate, align it, place it onto the PCB's pads and then reflow with the system's accurate PC based, closed loop component and PCB temperature control.

Detailed features and specifications

- **Advanced Focused IR Component Heating**
150W, lens based Focused IR heating with adjustable image system
PDR lens attachments with IR image from 4 to 70mm diameter
Reworks all SMDs/ BGAs including 0201s + lead free applications
- **Quartz IR PCB preheating**
High power, medium wave quartz IR
Standard 2000W, 2 x 1000W zones (240mm x 240mm area)
Optional 750W, single zone (120mm x 120mm area)
Optional 1600W, 2 x 800W zones (240mm x 240mm area)
- **PDR Lens Attachments**
F150 (Ø4 - 18mm spot size) optional
F200 (Ø10 - 28mm spot size) optional
F400 (Ø12 - 35mm spot size) optional
F700 (Ø25 - 70mm spot size) standard
- **Precision component pick and placement systems**
Professional vacuum placement system
With precise Z axis movement and rotation, soft component landing and Z-axis stop for placement in paste.
Interchangeable pick-up heads for different applications
- **Precision macro-micro X/Y PCB table**
Precision micrometer (micro) X/Y control
+/- 20 microns (.0008") movement in X/Y directions
Macro override facility in X/Y directions
Up to 12" X 18" (300mm X 450mm) capacity with lockable X/Y axis.
- **Component temperature sensing**
Non-contact, IR sensor
Manually adjustable, K-type non-contact IR sensor
Real time monitoring of component temperature throughout process
- **PCB temperature sensing**
Contact or optional non-contact sensors
Manually attached, K-type thermocouple contact probe, or manually adjustable, K-type non-contact IR sensor
Real time monitoring of PCB temperature throughout process
- **Auto profile process control with PDR ThermoActive software suite**
Type 5, digital controller with multi functional features
Advanced, Windows XP/Vista/NT ThermoActive V4+ software suite
Two channel, real time, closed loop component and PCB temperature control
Auto-profile' temperature profiling and data logging
Multi K-type thermocouple (x4) capacity for temp/time testing



- **Optional CCTV/prism based BGA/uBGA alignment system**
Split beam prism system for simultaneous PCB/component viewing
BGA, CSP and leadless component alignment
Integral LED lighting system with illumination level control
Full colour 1/2" CCTV camera and 17" TFT/LCD Flat screen colour monitor
High quality zoom lens with up to X50 magnification
Precise X/Y axis mounting system
- **Optional Auxiliary Process Observation Camera**
Integral LED lighting system with illumination level control
Full colour 1/2" CCTV camera and 17" TFT/LCD Flat screen colour monitor
High quality zoom lens with up to X40 magnification

Bench Top Requirements

Top heat power	150W IR
Back heater power	750W, 1600W or 2000W IR
Voltage/frequency	220-240 volts 50/60Hz, up to 2.4KW
Typical components	CSPs, BGAs, uBGAs, QFNs, QFPs, PLCCs, SOICs, small SMDs
Bench area	1400mm (w) x 600mm (d)
Weight	65 Kg

The above features are mostly optional and also, PDR reserves the right to improve or change specifications without giving notice.

PDR

PDR - Design and Manufacturing

Unit 3 Stanley Centre, Kelvin Way Crawley, West Sussex, RH10 9SE, England

T: +44 (0)1293 614 000 F: +44 (0)1293 613 600 E: sales@pdr.co.uk

PDR America

3869 Dividend Drive, Shingle Springs, CA 95682, USA

T: (530) 676 6262 F: (530) 676 6265 E: sales@pdr-america.com

PDR's products are available worldwide via our international distributors, all offering professional sales and support.

For contact, product and company details please visit www.pdr-rework.com



www.pdr-rework.com