



Focused IR SMT/BGA Rework Systems

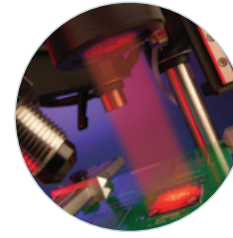


PDR's Entry-Level SMT/BGA Rework Station

**PDR IR-C3 Chipmate** BGA Rework Station

## Advanced features:

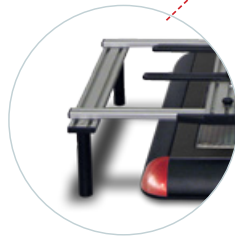
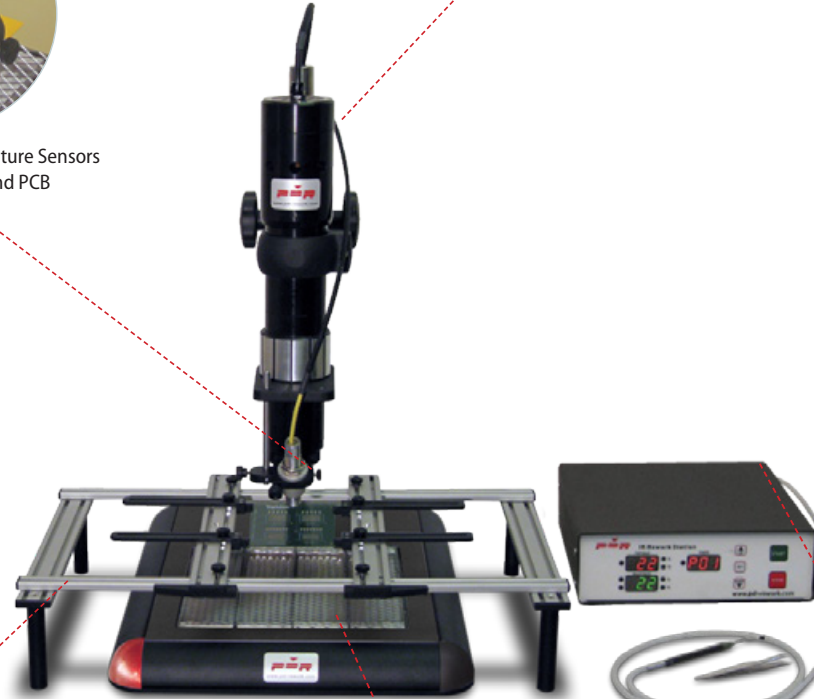
- **Advanced Focused IR component heating**  
150W, lens based Focused IR heating with adjustable image system
- **Quartz IR PCB preheating**  
2000W, single zone (240mm x 240mm heating area)
- **Precision Component Pick and Placement**  
Handheld vacuum placement system
- **Precision PCB Handling**  
Portable Benchtop PCB workholder
- **Component Temperature Sensing**  
Standard non-contact IR temperature sensor
- **PCB Temperature Sensing**  
K-type wire thermocouple
- **Advanced Thermal Process Control**  
Digital auto profile thermal control



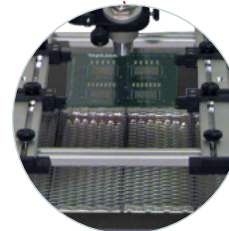
150w Focused IR Component Heating



Non Contact IR Temperature Sensors  
for Component and PCB



Portable Benchtop PCB workholder



2000W, single zone  
(240mm x 240mm heating area)



Digital auto profile thermal control

## Low Cost, Upgradeable BGA Rework Station

Today there is a need for lower cost and upgradeable equipment without a loss in soldering quality. The PDR IR-C3 Chipmate SMT/BGA rework stations, using PDR's patented Focused IR technology, have been specifically engineered to meet this challenge.

The IR-C3 Chipmate comes with a good range of standard features allowing the operator to quickly, safely rework all types of components.

The station is tool free, gas free, instantly/precisely controllable, clean, modular and produces 100% yield BGA rework without any complications. The IR-C3 uses all the proven attributes of PDR's Focused IR technology, first introduced in 1987 and now used worldwide by over 4500 customers.

## Simple BGA rework procedure

BGA rework poses the problem of accessing hidden interconnects in a high density environment. Consequently, it requires a station that is able to access the hidden joints without affecting neighbouring components. A station that is safe, gentle, adaptable and, above all, simple to operate.

The IR-C3 Chipmate is such a station. 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 stations.

The IR-C3's standard features, with the use of simple aids, operators can simply pick up the BGA, align it, place it into fluxed pads and reflow with the station's accurate closed-loop component temperature control.

## Details and specifications of advanced features available

- **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 SMDs/ BGAs/QFNs/CSPs + lead free applications
- **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
- **Quartz IR PCB preheating**  
High power, medium wave quartz IR  
Large area IR PCB preheater system  
2000W, single zone (240mm x 240mm heating area)  
Optional 750W, single zone (120mm x 120mm heating area)
- **Handheld Vacuum Placement System**  
Vacuum operated pick up tool, hand held with silicon cups
- **Standard Vacuum Placement System (Optional)**  
With precise placement action, Z axis movement and rotation  
Interchangeable pick-up heads for different application
- **Handheld Component Nest and Flux Application Tool (Optional)**  
Handheld nest plate with 'component print frame' or dip tray for flux and solder paste application
- **Portable Benchtop PCB Workholder**  
650mm, up to 12" x 10" (300mm x 250mm) PCB capacity
- **Component Temperature Sensing - Non-contact, IR Sensor**  
Manually adjustable, K-type non-contact IR sensor, Ø7-10mm spotsize  
Real time monitoring of component temperature throughout process.
- **PCB Temperature Sensing - Non-contact, IR Sensor (Optional)**  
Manually adjustable, K-type non-contact IR sensor, Ø7-10mm spotsize  
Real time monitoring of component temperature throughout process
- **Digital, Closed-loop Electronic Control**  
Digital programmable controller (20 internal profile storage)  
Simple key pad setting power/time/temperature controls  
2 Channel component and PCB temperature control

### Bench Top Requirements

Top heat power	150W IR
Back heater power	2000W IR
Voltage/frequency	110-240 volts 50/60Hz
Typical components	CSPs, BGAs, uBGAs, QFNs, QFPs, PLCCs, SOICs, small SMDs
Bench area	1200mm (w) x 600mm (d)
Weight	45 Kg

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

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