



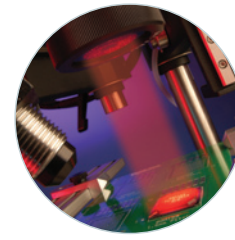
PDR's Entry-Level SMT/BGA Rework Station



**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 controller based thermal control



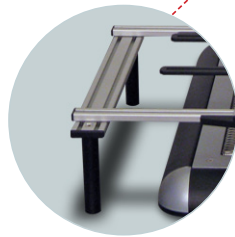
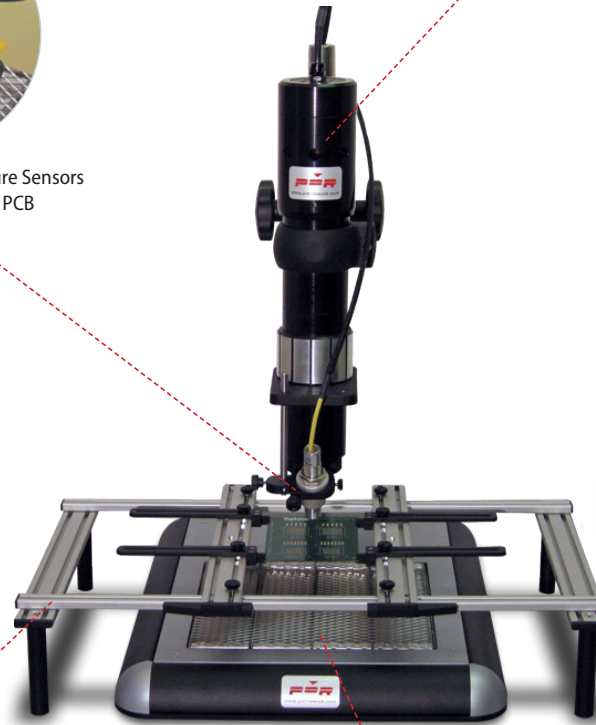
150w Focused IR Component Heating



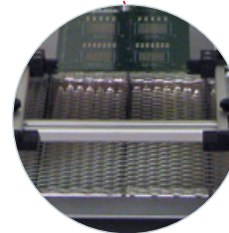
Non Contact IR Temperature Sensors  
for Component and PCB



Digital controller based thermal control



Portable Benchtop PCB workholder



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



Handheld vacuum placement system

## 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 station, using PDR's patented Focused IR technology, has been specifically designed 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 4000 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/CSFs + 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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