

i=Rad-B

Infrared High Intensity PCB Rework Station ... Cost Effective Solution for Difficult Applications



PCB rework is not as easy as it appears. Most equipment for this purpose involves the heating, or reflow, of the entire PCB or a portion using conventional heaters or hot air. I-Rad takes a completely new approach employing exclusive use of electromagnetic radiation in the invisible infrared spectrum. The extremely localized heat is completely dependant on the physical ability of the PCB to absorb the radiation. Therefore, reflow takes place at lower device temperatures.

I-Rad is truly a remarkable instrument that looks as simple as it is to operate. True appreciation of its flexibility can only come from hands-on use. Installed with the optional 10x to 30x stereo microscope and I-Rad Bx auxilliary station lends unprecedented capability to PCB rework or original equipment assembly. In addition, the cost effectiveness of I-Rad, unparalleled in the industry, is at savings of thousands of dollars.

- * Efficient and Optically Directed IR
- * PCB Is Hand Held During Reflow
- * IR Enhanced Dual 100W Sources
- * Optional 10x - 30x Microscope
- * Intensity Variable 10% to 100%
- * I-Rad B Model is Programmable
- * I-Rad Bm Features Manual Control



 **KINETIC
INSTRUMENTS inc.**
17 Berkshire Blvd. Bethel, CT 06801

800-233-2346
www.kineticinc.com

I-Rad Bxm Auxilliary Station

The first problem when doing SMT rework is to remove the component parts. I-Rad B or I-Rad Bm performs that tedious task in just seconds instead of minutes. A typical 8-SOIC device can be easily removed in 8 to 10 seconds. Afterward, the next problem is to place and reflow a new component. I-Rad Bxm incorporates a soldering pencil to permit the necessary cleaning of PCB pads to remove excess solder and provide a clean surface for new part placement. Also included with I-Rad Bxm is a unique precision solder paste dispenser capable of 10 mil. diameter paste dots.

- Solder paste dispenser and soldering pencil
- MCU controlled positive displacement
- Dispenser capable of 10 mil solder paste dot
- Pre-filled individual solder paste cartridges
- Automatic OFF 50 watt soldering pencil



Microscope Provides Perfect Vision Field

Some of the components that must be reworked are super fine pitch devices that require magnification to be placed accurately. This handy stereo microscope attaches to I-Rad in place of the upper emitter. The perfect field of vision is centered over the infrared emitter providing visual location of the heated area. Optical grade lenses are mounted in a rotating turret and can be rotated from 10x to 30x.

- Microscope attaches directly to I-Rad B
- Self-contained 20 watt halogen illuminator
- Turret style magnification adjust 10x or 30x
- Vertical height travel of seven inches
- Rack and pinion fine focusing mechanism



Unique Positive Displacement Dispenser

This unique and convenient instrument permits the precise placement of 10 mil. diameter paste dots to effortlessly prepare the smallest devices for reflow. Front panel selector switch adjusts shot displacement from 1x to 10x.

- Convenient positive displacement dispenser
- Capable of precise placement of 10 mil dots
- MCU controlled logic and timer functions
- Shot volume size variable from 1x to 10x



Easily Place Super Fine Pitch Components

These pictures illustrate the ability of I-Rad to easily and efficiently remove and replace even super fine pitch packages. On the left, is a typical 14 pin TSSOP device positioned by hand and prepared for reflow using single 10 mil. diameter paste dots. On the right is the device after reflow performed in under 10 seconds. The completed rework is clean and free of any excess solder and solder rosin.

- Easily replace TSSOP devices and smaller
- Clean and efficient reflow in under 10 seconds
- Part stays cooler since only leads are heated
- Finished rework leaves no excess solder or rosin
- Precise hand placement using only tweezers

