SMT SOLDERING EQUIPMENT

Please see our detailed catalog on web site(www.jpl.com).

JAPAN PULSE LABORATORIES,INC.

Printing of Solder Paste

Manual Screen Printers

(These printers use metal masks to apply solder paste for printed circuit boards.)

SP-300L

(The mask sold separately)

- This is a low-cost screen printer and easy-to-use.
- Capable of printing on boards up to Max 200×300mm (A4).
- Both a cast frame and pipe frame can be used.
  Max frame size : 410×330×20mm
  (W)250×(D)600×(H)200mm 7kg

SP-450

(The mask sold separately)

- This is an ideal manual screen printer.
- Capable of printing on boards up to Max 200×300mm (A4).
- Both a cast frame and pipe frame can be used.
- Fine-adjustment by micro meter X,Y,Θ(±10mm).
  Max frame size : 410×330×20mm
  (W)350×(D)660×(H)360mm 11kg

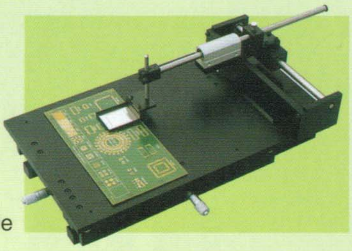
SP-650

(The mask sold separately)

- This is a large manual screen printer.
- Capable of printing on boards up to Max 350×450mm (A3).
- Both a cast frame and pipe frame can be used.
- Fine-adjustment by micro meter X,Y,Θ(±10mm).
  Max frame size : 650×550×30mm
  (W)400×(D)1030×(H)480mm 25kg

SP-100

(The mask sold separately)



- This is a screen printer for single LSI (QFP, BGA, CSP).
- This printer prints the solder paste of LSI 1 piece by using micro screen.
- Fine-adjustment by micro meter X,Y(±10mm).
  (W)250×(D)450×(H)160mm 8kg

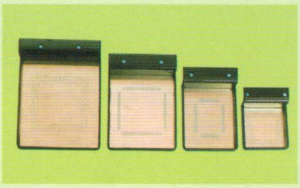
Dispenser (Printing of Solder Paste)

HD-6780

- Dispenser applies solder paste and adhesives to a circuit board.
- Usable as a vacuum pincette.
- One cream solder attachment.
  Air in : 2 to 7kgf/cm^2
  AC120V/220V 8W
  (W)200×(D)190×(H)70mm 1.9kg

Micro Screen (QFP,BGA,CSP)

μS-100series



- This is a metal mask for single LSI (QFP, BGA, CSP).
- There is standard screen more than 100 kinds.
- Used for printing of solder paste and mounting of solder ball.
- Custom made screen is available.
  Material : SUS304　Thickness : 0.03 to 0.20mm
  Frame : 14×28mm to 54×63mm

Mounting of Parts

Vacuum Suction Pincettes

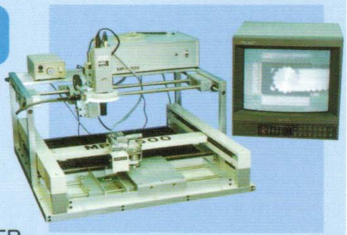
VPseries

(VP-41WD)

- This is the best for the handling of LSI or chip parts.
- 6 models for different uses.
- Picks up chips as small as 0603 up to large size QFP with the change of a nozzle.
- Operates with AC power supply.(Excluding VP-100SD)
  (W)91×(D)132×(H)60mm 420g

QFP Pick and Place Equipment

MP-7500series



(Model-3)

- For manual Pick and Place of QFP.
- 3 models for different uses.
- For use on QFP of 0.3mm pitch and BGA,CSP.
  Applicable circuit board : Max 360×220mm
  (W)640×(D)650×(H)500mm 35kg (Excluding CRT)

Reflow soldering system

Far-Infrared Reflow Soldering Equipment

RF-110
RF-110N2

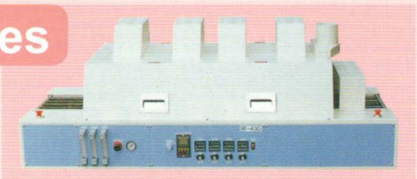
Pb-free

- This is a manual type 1 zone reflow soldering equipment.
- Heating time and temperature can be set up by timer and temperature controller.
- RF-110N2 is corresponds to nitrogen. (O₂ ≦ 1000ppm)

  Temperature : Max 300°C
  Applicable circuit board : Max 200×200mm (Less than 20mm high)
  AC120V/220V 1.5kW
  (W)300×(D)550×(H)195mm 12kg(RF-110)
  (W)340×(D)590×(H)210mm 14kg(RF-110N2)

RF-430series

Pb-free



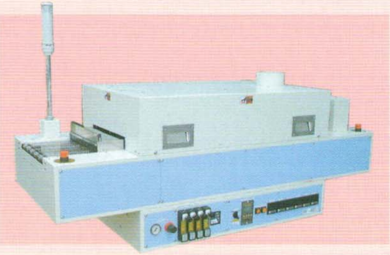
(Model-4)

- This is a reflow soldering equipment of IR 4 zones.
- 4 model exist, such as correspondence to nitrogen gas or hot air convection.

  Temperature : Max 300°C
  Conveyer : W300mm, SUS304 mesh belt.
  Applicable circuit board : Max 300×300mm (Less than 50mm high)
  AC220V 7.8kW (W)1600×(D)660×(H)600mm 180kg

RF-460

Pb-free

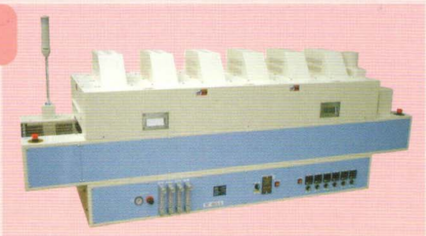


- This is a reflow soldering equipment of IR 6 zones.
- Correspondence to nitrogen gas and all lead-free soldering.

  Temperature : Max 350°C
  Conveyer : W300mm, SUS304 mesh belt.
  Applicable circuit board : Max 300×300mm (Less than 30mm high)
  AC220V 7.8kW (W)1500×(D)590×(H)640mm 150kg

RF-560

Pb-free



- This is a reflow soldering equipment of IR 6 zones.
- Correspondence to nitrogen gas and hot air convection.

  Temperature : Max 350°C
  Conveyer : W300mm, SUS304 mesh belt.
  Applicable circuit board : Max 300×300mm (Less than 30mm high)
  AC220V 12.7kW (W)2200×(D)590×(H)820mm 280kg

Reflow Soldering Equipment for Ceramic and Metallic Boards

RF-221

(Photo : with SH-1)

- This is a hot plate type reflow soldering equipment of 2 zones.
- A Teflon belt moves over a hot plate and a circuit board is heated from the bottom through the Teflon belt.

  Temperature : Max 270°C
  Conveyer : W140mm, Teflon belt.
  Applicable circuit board : Max140×150mm / Ceramics and metal core boards. (Less than 20mm high if with SH-1)
  Top heater : SH-1 200W (Option)
  AC120V/220V/240V 1kW
  (W)800×(D)370×(H)234mm 25kg

RF-250

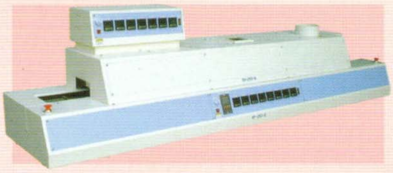
Pb-free

- This is a hot plate type reflow soldering equipment of 5 zones.
- For large-sized metal boards works with high heat capacity.
- A circuit board is slides over a hot plate quickly, and a circuit board is heated from the bottom.

  Temperature : Max 400°C
  Conveyer : W150mm
  Applicable circuit board : Max150×150mm / Ceramics and metal core boards (Less than 40mm high)
  AC220V 8.3kW (W)1680×(D)550×(H)391mm 120kg

RF-250-8

Pb-free



- This is a hot plate type reflow soldering equipment of 8 zones.
- For large-sized metal boards works with high heat capacity.
- A circuit board is slides over a hot plate quickly, and a circuit board is heated from the bottom.

  Temperature : Max 400°C
  Conveyer : W150mm
  Applicable circuit board : Max150×150mm / Ceramics and metal core boards (Less than 40mm high)
  AC220V/240V 13.6kW (W)2370×(D)550×(H)620mm 181kg

RF-250N2

Pb-free

- This is a hot plate type reflow soldering equipment of 5 zones and correspondence to nitrogen gas.
- For large-sized metal boards works with high heat capacity.
- A circuit board is slides over a hot plate quickly, and a circuit board is heated from the bottom.

  Temperature : Max 400°C Conveyer : W150mm
  Applicable circuit board : Max150×150mm / Ceramics and metal core boards (Less than 40mm high)
  AC220V 8.3kW (W)1680×(D)550×(H)1070mm 170kg

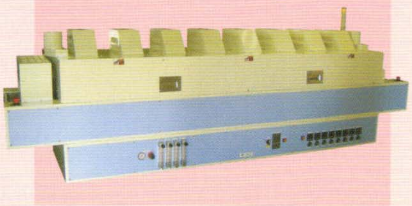
RF-630

Pb-free

- This is a reflow soldering equipment of IR 6 zones.
- Correspondence to lead-free reflow soldering.
  Temperature : Max 350°C
  Conveyer: W300mm, SUS304 mesh belt.
  Applicable circuit board : Max 300×300mm (Less than 30mm high)
  AC220V 7.8kW (W)1500×(D)590×(H)640mm 140kg

RF-810

Pb-free



- This is a reflow soldering equipment of IR 8 zones.
- Correspondence to nitrogen gas and hot air convection.
  Temperature : Max 350°C
  Conveyer : W300mm, SUS304 mesh belt.
  Applicable circuit board : Max 300×300mm (Less than 30mm high)
  AC220V 17.9kW (W)2730×(D)630×(H)850mm 360kg

Reflow Cheker

CTP-300J

Number of channel : 3ch
To PC : RS-232C

CTP-300U

Number of channel : 3ch
To PC : RS-232C / USB
With USB convertor cable

CTP-600U

Number of channel : 6ch
To PC : RS-232C / USB
With USB convertor cable

- Super low-priced reflow checker.
- Able to see the temperature profile on time while measuring the temperature by computer screen.
  Temperature measurment range : Max 400°C
  Time range : Max 12min
  Sensor : CA(K) 3m (5m are possible, too)

Hot Plates

HT-1350

- Soldering, thermosetting of adhesives, etc. wide range of uses.
- Is fitted with a work plate making work after heating simple and safe.
  Temperature : Max 300°C
  Heating area : 120×140mm
  AC120V/220V/240V 360W
  (W)250×(D)180×(H)100mm 2.5kg

HT-1370

(High Power)

- Soldering, thermosetting of adhesives, etc. wide range of uses.
- Is fitted with a work plate making work after heating simple and safe.
  Temperature : Max 300°C
  Heating area : 120×140mm
  AC120V/240V 510W
  (W)250×(D)180×(H)120mm 2.5kg

HT-1420

- Exclusive rework hot plate for SMT circuit board.
- Equipped with a point marker, which makes working with even large boards simple.
  Temperature : Max 400°C
  Heating area : 26×26mm to 50×50mm (3 kinds)
  AC120V/240V 510W
  (W)200×(D)220×(H)270mm 3kg

HT-1800

- Two high precision independent hot plates are equipped.
- Two step heating, such as preheating and heating, can be performed.
  Temperature : Max 400°C
  Heating area : each 100×100mm
  AC120V/240V 1.2kW
  (W)430×(D)180×(H)100mm 5kg

Vapor Phase Soldering Equipment

VF-500IS

- The VF-500IS is for an experimental use or pilot production use batch type vapor phase reflow soldering equipment.
- It allows reflow soldering by heating at a constant temperature of 215°C with heat of condensation emitted from the vapor of Fluorinert.
  Applicable circuit board : Max100×100mm
  AC120V/220V 1kW
  (W)260×(D)260×(H)520mm 10kg

Light-Beam Soldering Equipment

LP-8150MKⅡ

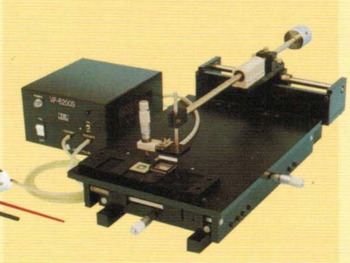
- This is a manual light beam soldering equipment. Application to an automatic machine can be performed simply.
- Near-infrared rays emitted by the halogen lamp are collected by the reflecting mirror, which heat.
  Temperature : Max 850°C
  Heat spot : 5mmØ diameter
  AC120V/220V/240V 150W
  (W)230×(D)200×(H)300mm 6.5kg

Mounting of solder ball / BGA,CSP and MCM

Simple Ball Mounting Device

SP-100BR

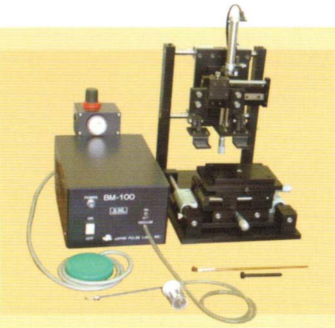
(Micro screen is sold separately)



- This is a low-cost, easy-to-use ball mounter for BGA.
- Also this equipment can be used for printing of solder paste and flux.
- A separate micro screen is necessary in each size of LSI.
  (W)250×(D)450×(H)190mm 8kg

BM-100

(Micro screen is sold separately)



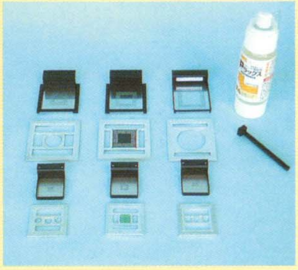
- This equipment is only for ball mounting of BGA, CSP and MCM.
- It supports ball solder of size more than 0.3mmØ.
- A separate micro screen is necessary in each size of LSI.
  (W)240×(D)350×(H)410mm 10kg

BM-100V

(Micro screen is sold separately)

- BM-100V is equipped with a vision system on BM-100.
- CSP of pitch 0.5mm and ball diameter 0.3mmØ can be easily mounted.
- A separate micro screen is necessary in each size of LSI.
  (W)240×(D)350×(H)410mm 10kg (Only Main Body)

BM-11series



- This is a low-cost, simple ball mounting device.
- Because aerosol flux is sprayed, the print is unnecessary.
- Position adjustment of a screen is unnecessary by using a special tool comes with the packages.
- Package Holder : 50×50mm to 80×80mm(Magnesium)

Epoxy Mold

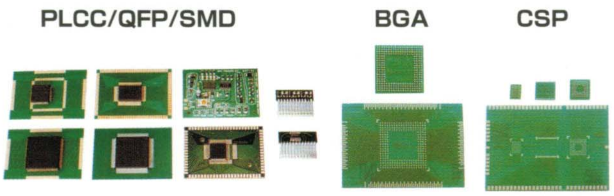
Powder Coating Equipment

PC-1000

- The PC-1000 is a powder coating equipment designed for the uniform coating of powder resin on Hybrid-IC and other electronic parts.
- It is only for SIP.
- Capable of handling everything from powder coating to curing.
  Applicable H-IC : Max 90×40×20mm
  AC 120V/220V 300W
  (W)350×(D)220×(H)200mm 4.5kg

Training

SMT training kit



- From 1005 chips to 160pin QFP and BGA training is possible for handling and soldering all kinds of surface mounted parts.

Other Products (Please look at our website)

- Hard Disk DATA TERMINATOR
- Digital timer clock for business
- Automobile speed measurement equipment
- Automobile's door closing speed measurement equipment
- Automatic switching device in lighting disconnection for studios
- Safeguard system for the elderly aimless behavior monitor

Company Information

Company name	Japan Pulse Laboratories, Inc.	
Trademark	J.P.L	
Address	Main office	425-3 Inari-cho, Isesaki-city, Gunma, 372-0804 Japan Phone 81-270-23-1031 Fax 81-270-23-1943
	Branch office	506-3 Komagata-machi, Maebashi-city, Gunma, 379-2122 Japan Phone 81-27-266-6381 Fax 81-27-267-1373
Founded	June, 1972	
Established	July 30, 1974	
Capital	10 Million Japanese Yen	
President	Kimitaka Kubota (CEO)	
Main bank	Sumitomo Mitsui Bank, Maebashi Branch / Ashikaga Bank, Isesaki Branch Tokyo-Mitsubishi UFJ Bank, Omiyaekimae Branch / Gunma Bank, Isesaki Branch Towa Bank, Isesaki West Branch / IO shinkin Bank, Otemachi Branch	
Main products	Digital clock, Electronic timer, Electronic counter Reflow soldering equipment for SMT Hard disk crasher / crash service, Data rescue service for PC.	
Internet	http://www.jpl.com/ info@jpl.com	

History

Jun. 1972	Founded as Japan Pulse Laboratories, Inc.
Sep. 1972	Released 10 keys calculator LSI Kit.
Jun. 1973	Released Character height as 25mm, 4 digits Large Liquid Crystal Display Clock Kit be the first in the world.
Jul. 1974	Established the Company with capital stock of 1 million yen.
Jun. 1975	Commenced the manufacture and marketing of large LCD clock.
Aug. 1978	Released 4 digits digital clock built for machinery DIGITAL-360 series (14 models).
Mar. 1979	Released 6 digits digital clock built for machinery DIGITAL-380 series (13 models).
Sep. 1984	Established the new Maebashi Office and Factory in Gunma.
Nov. 1985	Commenced the manufacture and marketing of Light-beam Soldering Equipment.
Jan. 1986	Had Booth at INTERNEPCON'86 Convention in Tokyo (Harumi/Tokyo)(Every year since)
Feb. 1987	Released Table top Reflow soldering machine RF-221 and etc., a small amount of SMT board production equipment.
Sep. 1988	Commenced the manufacture and marketing of manual reflow soldering machine RF-110.
Mar. 1989	Commenced the manufacture and marketing of vapor phase reflow soldering machine VF-500IS.
Jan. 1993	Commenced the manufacture and marketing of reflow soldering machine RF-250 for metal PCB.
Jan. 1995	Released Nitrogen gas Reflow soldering machine RF-430 series.
Nov. 1995	Started Web Site. (http://www.jpl.com/)
Dec. 1995	Up to 10 million yen capital increase.
Apr. 1996	Released the world smallest Nitrogen gas reflow soldering machine RF-110N2.
Oct. 1998	Commenced the manufacture and marketing of ball mounter of BGA.
Aug. 2002	Released Hard Disk DATA TERMINATOR DT-2000.
Jan. 2003	Released medium size Nitrogen gas Reflow soldering machine RF-460L.
Nov. 2006	Patented Hard Disk DATA TERMINATOR.
Aug. 2007	Released 8 zones IR and Hot Air N_2 Reflow soldering machine RF-810.
Jan. 2008	Released Hard Disk DATA TERMINATOR for Degauser DTM-4000GII.

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Agent

* Specifications are subject to change without notice. We have detailed brochure each device.

<Made in Japan>