

Desktop Robot Lite Kit Tuned for Your Soldering

Simple and equipped with basic functionality
Simple Soldering Operation



- Semi-automated robot for point to point soldering after the SMT process.
- Best suited for use in cellular manufacturing.
- Fully versatile robots can be easily adapted to production changes due to product modifications.
- Desktop robots take up less space. A table, a power supply and dry air are all that is needed.
- The tip and heater can be replaced with one-touch operation (patented).
- A wide variety of specifically made tips for soldering robots, perfect for any works.
- Experienced technical staff will support before and after installation.



Configurations

Desktop Robot JR3304S-BC

| | |
|------------------|---------------------|
| Iron Tip Cleaner | UJC-213 |
| Switch Box | Simple Start Box |
| Teaching Pendant | (Option) |
| PC Software | JRC-Points (Option) |
| Blacket for USP5 | |

Soldering Controller USP5

| | |
|----------------------|-----------------------------------|
| Soldering Controller | USC-871 |
| Soldering Head | UMC-093A (Linear) / 093AS (Point) |
| Heater | 100BHS / 100BHL |
| Solder Feeder | UPM-023 |
| Tube Set | PT* *S-070 (* *=Solder Diameter) |

Specifications

Robot

| | | |
|--|--|--------------------------------|
| Model | JR3304S-BC | |
| Number of axes | 4 axes simultaneous control | |
| Range of operation | X-axis (Back and forth axis) | 300mm |
| | Y-axis (Right and left axis) | 320mm |
| | Z-axis | 100mm |
| | R-axis | ±360° |
| Maximum movable weight (Workpiece) | 15kg | |
| Maximum speed (PTP) | X,Y-axis | 900mm/sec. (5 to 500mm/sec.) |
| | Z-axis | 400mm/sec. (2.5 to 250mm/sec.) |
| | R-axis | 900°/sec. (6 to 600°/sec.) |
| Repeatability accuracy | X,Y-axis | ±0.01mm |
| | Z-axis | ±0.01mm |
| | R-axis | ±0.008° |
| Workpiece size (Maximum jig size) | 300mm×275mm (X,Y) | |
| X-axis table, Space between table and soldering tip (Z axis direction) | In case of UMC-093A : 85mm UMC-093AS : 85mm | |
| Position teaching method | Remote teaching (MDI) | |
| Teaching format | Direct teaching through teaching pendant Off-line teaching by personal computer (option) | |
| Number of programs | 255 programs | |
| Point memory capacity | 30000 points maximum ※1 | |
| Drive system | 5-phase stepping motor drive | |
| Control system | PTP control, CP control | |
| Interpolation function | 3-dimensional linear, circular arc interpolation | |
| External interface | RS232C 2channels (1channel for the PC and 1channel for USP5) RS422 1channel (dedicated for the teaching pendant) Ethernet | |
| Exclusive input/output (Max.) | 24 points for input, 24 points for output | |
| Simplified PLC function | 50 programs, 1000 steps per program | |
| Outside dimensions (W×D×H) | 432×435×783 (mm) | |
| Power source | AC100 to 120V 50/60Hz 200W(VA) AC220 to 240V 50/60Hz 200W(VA) | |
| Air | Dry air 4 to 5kg/cm ² | |
| Working temperature | 0 to 40°C | |
| Relative humidity | 20 to 95% (non-condensing) | |
| Weight | Approx. 38kg | |

※1 The point memory area is shared with the point attribute data, point work data and sequence data.
When such data amount increases, the maximum point data amount decreases.

Soldering Controller

| | |
|--------------------------------|--|
| Model | USP5 |
| Number of soldering conditions | 500 |
| Tip temperature range | 200-450°C maximum |
| Heater alarm value | ±0 to 100°C variable |
| Heater element | 250W Cross Heater |
| Applicable solder diameter | φ0.3 to φ1.6 (Standard), φ0.5 to φ1.0 (Clean Cut Type) |
| Solder feeding control | Stepping motor control |
| Alarms | Out of solder, solder jamming, heater alarm |

High performance options with the latest features



Clean Cut Feeder

At a solder feed, cutting is performed for the resin flux cored solder to prevent an explosion of flux.



Lock-on Mechanism

Perfectly maintains the original supply position.



Nitrogen Gas Generator

UNIX-200
Protection against oxidation and improves spread and wettability.



Iron Tip N2 Cap

Blows nitrogen gas from the end of the iron tip.

Spare Parts



Heater

100BHS-2510 (250W)
100BHL-2510 (250W)



Soldering Iron Tip

Custom design and production also possible.



Solder Feed Tube Set

PT**S-070
(* ** = Solder Diameter)



Needle

ND-***GP
(Depending on the solder diameter, the *** section may change.)



Heater Cable

WHC-881BH-5

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• This catalog reflect the products as of September 2018. The product appearance and specifications can change without notice.
• Be sure to carefully read the operating instructions included with the product before use.

Inquiry No.C00441
Printed in Japan 18090500 (G)