



5-axis Orthogonal Soldering Robot

SUPER-ROBO

® LS-5TPS III

Perfect soldering, all the time, introducing LS-5TPS III.

The top selling robot in the world for linear soldering, the LS-5TPSIII is used by many top manufacturers to produce high quality parts with significant labor savings. It has been applied successfully in the manufacture of liquid crystal TAB, as well other hard to solder parts.

Standard Configurations

- Soldering robot body (LN3-01)
- Soldering controller (LN3-02)
- Teaching box (LN3-03)
- Iron tip cleaner (UJC-212)
- Soldering head (UMC-101/UMC-058)
- Solder feed tube set (PT Series)



LS-5TPSIII



• Soldering controller (LN3-02)



• Teaching box (LN3-03)

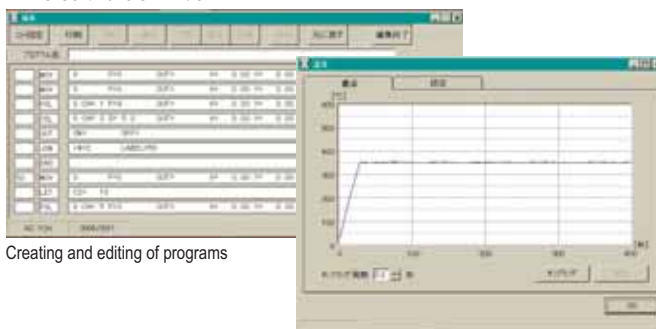


• Iron tip cleaner (UJC-212)

FEATURES

- Robot exclusively developed for soldering.
- It is possible to monitor changes in the temperature of the iron tip during soldering. (A personal computer is used.)
- This robot is also equipped with an automatic adjusting function to optimize the amount of solder during this operation. 3-dimensional (on X, Y and Z axes) linear soldering is possible using triaxial interpolation.
- “Date Edition” software (option) facilitated preparation and editing of programs on personal computer. (The software is Windows version only. Users provide personal computers for this purpose.)
- Applicable for use with lead-free solder.

< PC software's window >



Creating and editing of programs

Tip Temperature Real Time Monitor

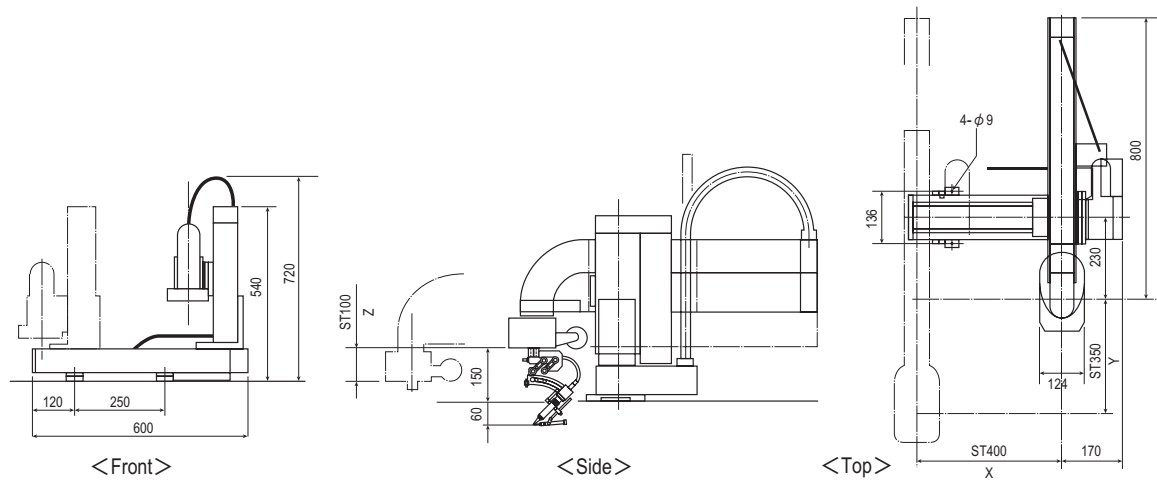
APPLICATIONS

- PC card connector soldering
- SOP, QFP and flat cable soldering
- IC card socket connector soldering
- BGA, CSP and fine TAB terminal soldering
- Pattern preparatory soldering
- Automotive electrical components, etc

*Windows ® either registered trademarks or trademarks of Microsoft Corporation in United States and/or other countries.



OUTLINE DIMENSIONS



SPECIFICATIONS

Main Body of Robot

Working range	X-axis	Y-axis	Z-axis	θ -axis	L-axis
Stroke	400mm	350mm	100mm	360°	999.9mm
Maximum speed	800mm/sec.	800mm/sec.	400mm/sec.	720° /sec.	250mm/sec.
Repeatability accuracy	±0.02mm	±0.02mm	±0.02mm	±0.05°	±0.10mm
Motor capacity	110W	60W	110W (with brake)	40W	23W
Drive system	DC servomotors				
Solder diameter *	φ 0.5 to φ 1.6mm (φ 0.3 and φ 2.0 : Optional)				
Heater capacity	100W or 150W Cross heater				
Weight	Approx. 47kg				

*Solder splashing / solder ball prevention mechanism (Optional)

Robot Controller

Number of controlled axes	5 axes (X, Y, Z, and L) simultaneously controlled	
Control system	Point-to-point control and continuous path control (Linear interpolation)	
CPU	Main CPU and servomechanism CPU: 16 bits, temperature regulating CPU: 8 bits	
Number of programs	NC programs	50
	Point soldering programs	50
	Linear soldering programs	50
	Cleaning programs	1
Number of steps	NC programs	2000 steps
	Point soldering programs	300 steps
	Linear soldering programs	300 steps
Preparation of programs	Teaching box or personal computer	
Position Indicating system	Teaching playback system or MDI system used in parallel	
Tip temperature range	200 to 450° C, Digital readout	
Speed setting	NC programs	10 steps ranging F0 to F9
	Point soldering programs	10 steps ranging F0 to F9
	Linear soldering programs	Automatically calculated from the travel speed on X, Y and Z axes
External output	General purpose	Number of inputs: 8, Number of outputs: 8
	Exclusive	Number of inputs: 12, Number of outputs: 9
	Emergency stop	Number of outputs: 1, inside the controller
Number of interfaces	1 RS-232C port connected to personal computer	
	1 RS-422C port connected to teaching box	
Ambient temperature	0 to 40° C	
Ambient humidity	45 to 85% (without dewing)	
Power supply	AC100V ± 10%, 50/60Hz, 0.7KVA	
Outline dimensions	350 (W) × 410 (D) × 180 (H) mm, excluding protrusions	
Weight	Approx. 18kg	

- The specification and exterior described in this catalog are subject to change without notice due to improvements.
- Safety note: Be absolutely sure to familiarize yourself with the Operating Instructions to ensure that this product will be used safely.

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