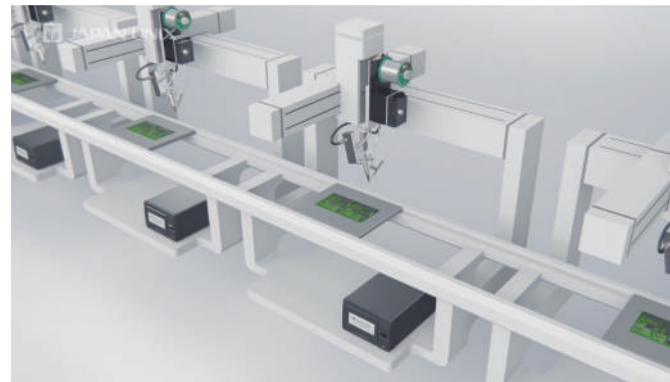# USP5
Automatic Soldering Module

www.japanunix.com

Simple System – Low Cost, Simple Soldering Robotization
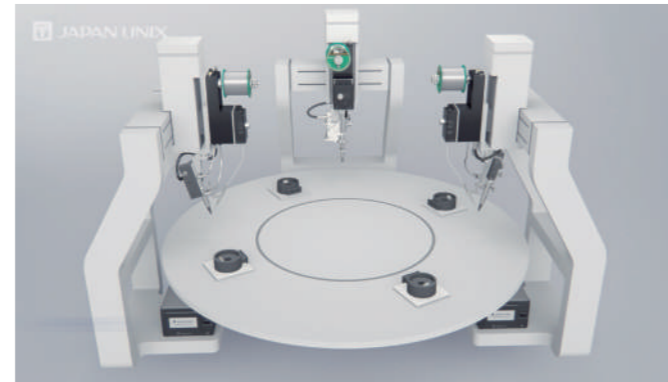
USP5

USP5

Our soldering module that allow you to introduce the soldering expertise by Japan Unix to your current robots easily and at low cost.

Simple configuration that can be built into a variety of production lines.

Inline

Rotary Table

New heater with improved sensor for soldering tip temperature.

• Equipped with new 250W heater.
• Achieving the ideal temperature profile with superior sensing.
• Separation of the heater and soldering tip brings easy maintenance.

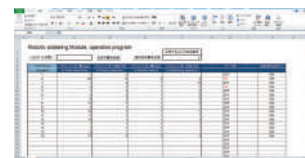## High-precision solder feeder due to positioning of the encoder.

• Achieving highly precise solder feed control with an encoder fitted after the solder feeder roller.
• Can be equipped with a clean cut (feeder) to reduce flux spattering. (optional)

Connect to (external) devices using the communication port to monitor operational status.

• Operational status and temperature can be output externally, allowing data to be utilized.

Program setting and management become easy due to data export to Microsoft Excel.

• Data output, program setting & editing becomes simple with using the Microsoft Excel.
• Data management becomes simple with the use of PC and multiple device setting becomes integrated to carry out at once.
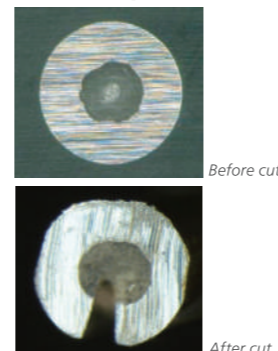
Clean Cut Feeder

OPTION

• Making an incision into the solder reduces solder balls and flux dispersion by 90% or more.
• The special two-blade method※ stabilizes solder feeding and prevents solder slippage. PATENTED
• Easily switch between standard feeder and clean cut feeder by simply replacing the feed block.
※ Solder diameter: φ0.8 and φ1.0 only.

[Clean Cut type solder cross section]

Before cut

After cut

Standard configuration

Soldering controller

● Up to 255 soldering conditions can be registered.
● Global specification allows multiple voltages and multi-lingual configuration (English, German, Spanish, Chinese, Korean, Japanese).

Soldering head

● Equipped with new model of 250W heater.
● Superior sensing and easy maintenance.

Solder feeder

● Fitted with an encoder.
● Enhanced detection function prevents "slippage", "jamming" and "running out".

Specifications

Number of soldering conditions	255 conditions	External I / O	Sink / source selection (factory setting)
Detail of soldering conditions	1st to 4th solder feed		Input: Start, stop, tip drop, solder feed
	1st to 4th timer		Sleep mode, heater ON, error reset
	Tip Up/Down: ON / OFF		8-bit solder condition input
	Tip Up/Down sensor: Valid / Invalid		Output: during operation, ready, solder alarm
Solder feeding controller	Solder feeding motor: 2-phase		Heater alarm, shift output
	Solder error detection: by an encoder system		Automatic mode, during tip down
Number of heater controllers	1 circuit		* External I / O: 24V external supply
Heater types	250W: Cross heater L · Cross heater LS	Languages	English, German, Spanish, Chinese (simplified/traditional), Korean, Japanese
Heater temperature setting range	200-450℃		
Sleep temperature setting range	150-250℃	Power supply	Single Phase 100V AC 50/60Hz
Supported solder diameter	φ0.3-φ1.2 (Standard)　φ0.6-φ1.0 (Clean Cut Type)		Single Phase 110-120V AC 50/60Hz
Operation panel	3.7″ type monochrome touch panel		Single Phase 220-230V AC 50/60Hz
Monitor function	Input, output, sensor, ready, conditions, counter value	Power consumption	260VA
Operating conditions	Environmental temperature: 10-40℃ Relative humidity: 45-85%RH	External dimensions (mm)	Approx. 170 (W) × 254 (D) × 110 (H) (controller only / excluding protrusions)
		Weight	100V AC: 2.5kg 110-120V AC: 5.0kg 220-230V AC: 5.0kg

・For details, please contact your sales representative.