

# American Hakko Products, Inc.

# PRODUCT BULLETIN

Bulletin No: PB424
Issue Date: 1-15-2019
Effective Date: 2-1-2019

Description/Title:

NEW HAKKO HU-200 Robotic Soldering System

**Part No:** HU200-03Z

Specification:

Model HU-200				
Model				
Part No.		HU200-03Z		
Input Voltage		100-240 VAC		
Power Consumption		300W		
Movement	X axis	400mm		
	Y axis	300mm		
	Z axis	200mm		
	Θ axis	±200°		
Drive System		Servo motor (All axes)		
Position Detection		Absolute Encoder		
Max Speed	X axis	800mm/s		
	Y axis	800mm/s		
	Z axis	800mm/s		
	Θ axis	800°/s		
Repeatability	X axis	±0.01mm		
	Y axis	*Only when the unit		
	Z axis	temperature is constant		
	Θ axis	±0.01°		
Noise Level		56dB		
Ambient Temperature Range		0-40°C		
Max Workpiece Payload		20kg (44.1 lb.)		
External I/O Ports		20 Inputs		
		12 Outputs (2 for cleaner)		
External Interface		4 USB Ports (1 for PC)		
Dimensions (WxHxD)mm		600 x 910 x 650mm		
,		(23.6 x 35.8 x 25.6in.)		
Weight		50 kg (110.23 lb.)		
ESD Safe		Yes		



## **Contents:**

Contents:		
HU200-03Z		
Part No.	Description	
	Soldering Robot	
FU601-40X	Robotic Soldering Station	
BX1052	Tube Unit B 0.5-1.0mm	
BX1053	Tube Unit B 1.2-1.6mm	
BX1054	Tube Unit B 0.3mm	
BX1042	Tube Unit 1.2-1.6mm	
BX1055	Tube Unit 0.3-1.0mm	
BX1062	USB Cable	
BX1045	Feeder Cable 4m	
CX5004	Soldering Unit Mount	
CX5002	Soldering Unit Fixture Base	
CX5003	Cleaner Base	
CX5005	Feeder Unit	
	PC (Windows Tablet)	
	Quick Manual	
	PC Software	
CX1003	Cleaner	
	I/O Cable for Cleaner	
	Attachment Holder	
	Display Arm	
	Instruction Manual	



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#### Station:

Model	FU-601
Part No.	FU601-40X(L-shaped Iron)
Input Voltage	120 VAC 50/60 Hz
<b>Power Consumption</b>	300W
Temperature Range	50°C – 500°C (120°F – 940°F)
ESD Safe	Yes
Output Voltage	29 V
Outer Dimension (W	145 x 107 x 211 mm
x H x D)	(5.7 x 4.2 x 8.3 in.)
Weight (w/o Cord)	4 kg (8.8 lb.)

### Handpiece:

Power Consumption	260W (29V)
Tip-to-Ground Resistance	< 2 ohms
Tip-to-Ground Potential	< 2 mV
Heater	Composite Ceramic Cartridge
Tips <sup>1</sup>	TX1 and TX2 Series
Cord Length	5 m (16.4 ft.)
Total Length (w/o Cord) <sup>2</sup>	168mm (6.6 in.)
Weight (w/o Cord) <sup>2</sup>	173g (0.38lb.)

<sup>&</sup>lt;sup>1</sup>Tips not included

#### Comments:

The new Hakko HU-200 Robotic Soldering System is an expansion of Hakko's robotic soldering solutions first built by the FU-Series soldering station and feeder for automation. The HU-200 is a 4-axis system and has a large working envelope of 200mm x 300mm with the top speed of 800mm/s and boasts a repeatability of 0.01mm. An absolute encoder enables the machine to monitor the location of the soldering iron at all times, ensuring a high level of repeatability. The HU-200 utilizes the power of the Hakko FU-601 Robotic Integration Soldering Module but integrates the communication of the Hakko FU-500 Feeder Controller directly into the robot.

The HU-200 software allows for simple and easy to program soldering as the entire system is designed specifically for soldering in mind. The program is focused to help the user optimize movements that are ideal for soldering robots while also keeping the number of programming steps required to a minimum. Additionally, the HU-200 also carries a feature for reading Gerber data. If a Gerber file is available, the file can be read by the HU-200 to locate and program the positions of the solder joints. Another prominent feature of the HU-200 are the joysticks used for teaching the positions of the robot. Instead of having to input position points or controls on touch screens that are hard to feel, the joysticks allow the operator to find the correct position while focusing on the solder joints. The touch and feel of the joysticks allow for a much faster and more accurate robot positioning method.

With the power of the FU-601, the easy robot programming and the reliability of Hakko products, the HU-200 offers a solution to almost any soldering project.

For more information please visit www.HakkoUSA.com or call 1-800-88-HAKKO (42556)

<sup>&</sup>lt;sup>2</sup> As measured with TX2-4XD Tip installed