

Dispensing with Camera Specifications

Model**1		JR3303	JR3403	JR3304	JR3404
Number of Axes		3 Axes (Synchronous Control)		4 Axes (Synchronous Control)	
Operating Range	X & Y-Axes	300x320mm	400x400mm	300x320mm	400x400mm
	Z-Axis	100mm	150mm	100mm	150mm
	R-Axis	-	-	±360°	±360°
Maximum Portable Load	X-Axis (Workpiece)	14kg	14kg	14kg	14kg
	Y-Axis (Tool)	5kg	5kg	5kg	5kg
Maximum Speed*2 (PTP Drive)	X-Axis	900mm/sec	900mm/sec	900mm/sec	900mm/sec
	Y-Axis	800mm/sec	800mm/sec	800mm/sec	800mm/sec
	Z-Axis	400mm/sec	400mm/sec	400mm/sec	400mm/sec
	R-Axis	-	-	900°/sec	900°/sec
Max. Speed (CP Drive)	X, Y, Z-Axes Combined	850mm/s	850mm/s	850mm/s	850mm/s
Acceptable Moment of Inertia		-	-	90kg·cm ²	90kg·cm ²
Repeatability*3	X & Y-Axes	±0.007mm	±0.007mm	±0.01mm	±0.01mm
	Z-Axis	±0.007mm	±0.007mm	±0.01mm	±0.01mm
	R-Axis	-	-	±0.008°	±0.008°
External Dimensions (excluding protrusions)*4		W624xD613xH657mm	W647xD673xH715mm	W624xD613xH769mm	W647xD673xH844mm
Open Height (variation type height)		200mm (275mm)	208mm	275mm (300mm)	300mm
Robot Weight*5		40kg	49kg	42kg	53kg
Drive Method		5 Phase Pulse Motor			
Control Method		PTP (Point to Point) , CP (Continuous Path)			
Interpolation		3-dimensional linear and arc interpolation			
Teaching Method		Simple and versatile teaching using our original software			
Teaching Pattern		Offline teaching from your PC using our dedicated software			
Screen Display Options	Measurement Units	mm, inch			
	Languages	English, German, Japanese, simplified & traditional Chinese			
Program Capacity		999 Programs			
Database Capacity*6		Up to 32,000 points			
Simple PLC Functions		100 programs (1,000 steps/program)			
External Input/Output	I/O-SYS*7	16 Inputs / 16 Outputs			
	I/O-1*7	8 Inputs / 8 Outputs (including 4 relay outputs)			
	I/O-MT	Controls up to 2 external motors (optional)			
	I/O-S	Interlock connector for an area sensor, etc. (optional)			
	Field Networks	EtherNet/IP / PROFINET / CC-Link / DeviceNet / PROFIBUS / CANopen (optional)			
	COM*7	RS232C 3ch (for external devices, laser displacement sensor control)			
	MEMORY	USB memory connector (save and readout teaching and customizing data, upgrade system software)			
	LAN	Industrial hub connector			
Camera Dispensing Specifications Attachments*8	Camera	AS200 (specialized model exclusively for Janome) (manufactured by COGNEX)			
	Lens	LM12-16-01 (16mm F2.5) (manufactured by COGNEX)			
	Closeup Ring	LM12-SPACER-16-01 (for 16mm lens) (manufactured by COGNEX)			
	Lighting	IFS-2000-HBRING-WH white LED ring light (manufactured by COGNEX)			
	Laser Displacement Sensor	Sensor: LK-G30A (small spot type), Controller: LK-G3000VA (integrated display type) (manufactured by KEYENCE)			
	Needle Adjuster	3 Axes: NADS (PR-1) or NADE (PR-2), 4 Axes: OGLW2-40T-2PS6			
Industrial Hub		Phoenix Contact FL SWITCH 1005N			
Power Source		AC100~120V/ AC200~240V ±10% (single phase)			
Power Consumption*5		250W			
Operating Environment Temperature*5		0~40°C			
Relative Humidity*5		35~85% (no condensation)			

<Notes>

- *1 All models are double column types.
- *2 Maximum speed can vary depending upon conditions.
- *3 Repeatability was measured at a constant temperature and does not represent a guarantee of absolute precision.
- *4 When the Y-Axis is at its full stroke, the cable carrier protrudes outward from the robot unit.
- *5 Values are for the robot with peripheral devices attached.
- *6 Point data memory capacity reduces as additional function data settings/point job data/sequencer data are added, due to the shared data storage area.
- *7 For the purpose of system configuration, some of these connections are assigned in advance.
- *8 We request customers to please prepare the PC (and connecting cable) and dispenser at their side.

<Standard Accessories>

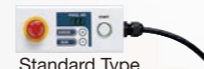
- Power Cord • Switchbox (option switch/mode changing switch are optional) • Dispenser Base Unit • Operation Manual (CD-ROM)
- PC Software JR C-Points II (Windows® 10, Windows® 11 compatible)

<Options>

- Teaching Pendant (3 types: standard/emergency stop switch/emergency stop switch and enable switch) • I/O-1 Cable • I/O-MT Cable

- Specifications may change without notice to improve product quality.
- If you have any questions, please contact us at the telephone number listed below, or visit our website.

[Switchbox]



Standard Type



With Optional Mode Changing Switch

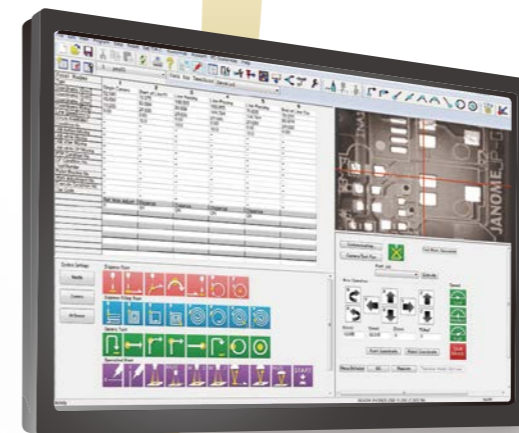


With Optional Switch

C24-18(03.0) EN 2023.04-000

Desktop Robot JR3000 SERIES

Adjustment Package for Dispensing



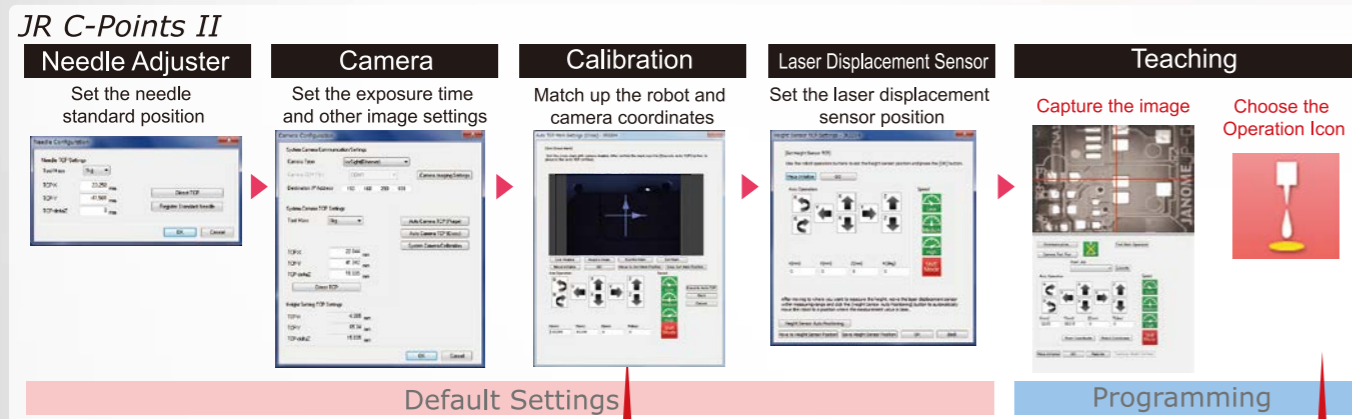
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URL: www.janome.co.jp/industrial.html

The same software for all your settings!

We combined the camera, laser displacement sensor, and needle adjuster for precision dispensing on fine workpieces with the highly rigid, high precision JR3000 Series to create a comprehensive machine vision system package. In addition, our dedicated software, "JR C-Points II" is even more user-friendly. Now anyone can do precision robot teaching using camera images.

Easy settings from start to finish with our specialized software



Auto Calibration

Capture the purged dispensing agent and the camera calibrates automatically. (Line up the needle position with the cross to capture with the camera.)



Easy Teaching

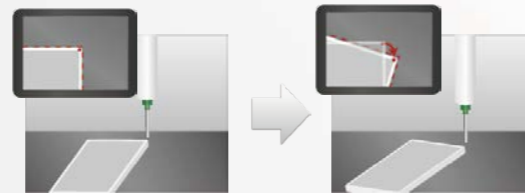
Teaching is done in JOG mode. Use the camera images to move to the location and then choose the icon for the operation you want.



Adjustment functions for high precision dispensing

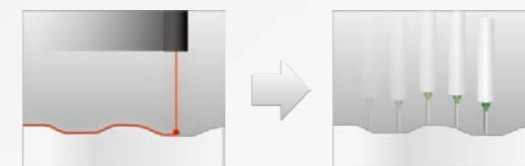
1 Camera Adjustment

The robot dispenses while making adjustments on displaced workpieces.



2 Continuous Height Adjustment

The laser displacement sensor continuously measures the workpiece height.



3 Needle Adjustment

If the needle tip position is displaced after nozzle replacement, the robot automatically detects the current needle position and makes adjustments.



Dynamic Adjustment Package Dispensing Robot

JR C-Points II: a dedicated interface for dispensing with a camera

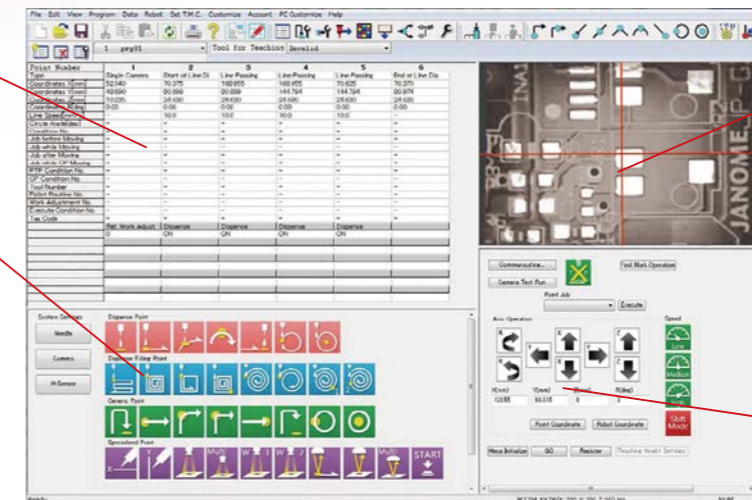
The Programming Area, Camera Imaging Area, Basic Operations Area and Robot Operations Area are all integrated on one screen for a clear, convenient interface.

Programming Area

Displays programming data point by point. Choose and edit the point values directly.

Basic Operation Icons

Program just by choosing the icons you want!



Camera Imaging Area

Use magnified camera images to designate precise positions. With "JR C-Points II" making camera settings is easy. Click on the camera image, and the robot recenters on the position you clicked and moves accordingly.

Robot Operations Area

Make JOG movements while watching the camera image.

All this high quality in one package...

Robot

JR3000 SERIES

A highly rigid desktop robot designed for precision dispensing. Do jobs faster and with greater accuracy and dependably high repeatability over the long term.

Camera

AS200 COGNEX

High performance camera in a compact casing with its own built-in light.

Resolution (Pixels): 1,280 x 960

Laser Displacement Sensor

LK-G3000A KEYENCE

Stable measurement achieved through high-speed sampling

Measuring Range: 30±5mm
Spot Diameter: Ø30µm
Repeatability: 0.5µm

Needle Adjuster

3 Axes Type | 4 Axes Type

Repeatability: ±0.05mm | Repeatability: ±0.05mm

Compatible Needles (PR-1): Ø0.35~2.50mm | Compatible Needles (PR-2): Ø0.20~2.50mm

<System Components>

