SmartDispenser®

LDAV HIGH TORQUE CA BENCHTOP AUTOMATION SYSTEM

**SmartDispenser®
Large Dot Any Viscosity**
Use this model for dispense volumes between .00086 & 30cc, ideal for large dot and potting. For use with industrial grade Genius® CA reservoirs and dispense tips.

AirFree® Technology & Cyanoacrylate

Traditional air pressure systems inject moisture filled air into the syringe reservoir activating the cyanoacrylate (CA) cure cycle. AirFree® technology eliminates moisture filled air from the dispensing process protecting the CA formulation. As a secondary safeguard Genius® CA components are made from proprietary plastics that inhibit CA bonding between components.

AirFree® Technology & Automation

AirFree® technology acts as an additional axis when mounted on a benchtop automation system. The precise control engineered into the X, Y and Z axis is now applied to the fluid delivery axis. All axes are motor driven lead screws with known speeds and can be coordinated providing the highest precision and repeatability available on a benchtop robot.

Total Cost of Ownership

AirFree® Technology Adds Profits When Replacing Air Driven Systems

Cost of ownership, Air vs. AirFree®, one fluid dispenser
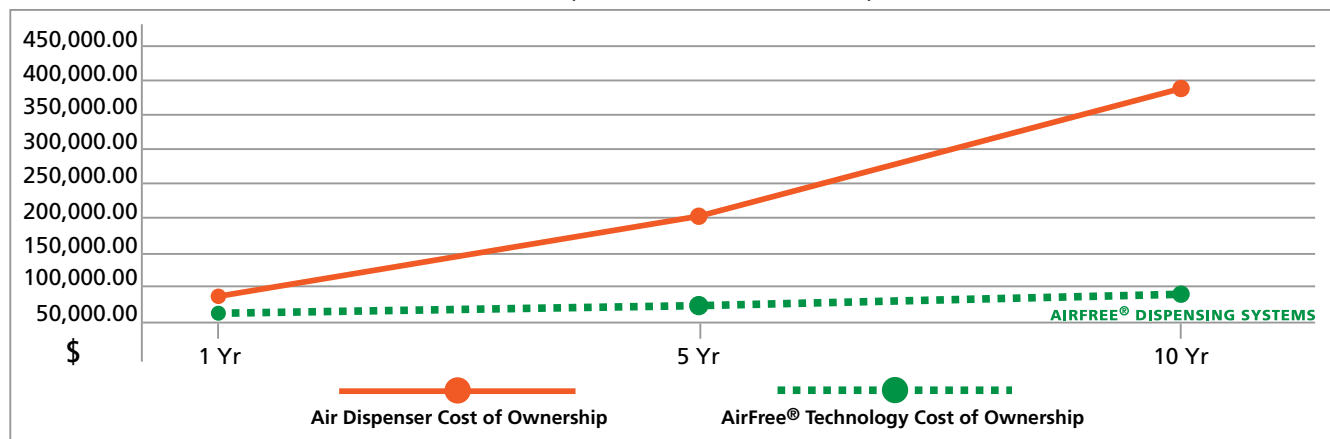
AIRFREE® DISPENSING SYSTEMS

Air Dispenser Cost of Ownership   AirFree® Technology Cost of Ownership

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SmartDispenser® LDAV HIGH TORQUE CA BENCHTOP AUTOMATION SYSTEM

LDAV-HT-CA-BA Large Dot Any Viscosity

BARREL SIZE	3CC	5CC	10CC
MIN.VOL. (CC)	.00086	.00151	.00251
MAX. VOL. (CC)	3.0	5.0	10.0
MIN. RATE (CC/SEC)	.022	.038	.063
MAX. RATE (CC/SEC)	.518	.908	1.504
MAX. BACKOFF (STEPS)	500	500	500
MAX. DELAY (SEC)	9.99	9.99	9.99

**The SmartDispenser® LDAV-HT-CA-BA (3-10cc) comes with 3-10cc Dispense Gun and 3, 5, 10cc Retaining Rings.**

BARREL SIZE	30CC
MIN.VOL. (CC)	.00494
MAX. VOL. (CC)	30.0
MIN. RATE (CC/SEC)	.123
MAX. RATE (CC/SEC)	2.963
MAX. BACKOFF (STEPS)	500
MAX. DELAY (SEC)	9.99

The SmartDispenser® LDAV-HT-CA-BA (30cc) comes with 30cc Dispense Gun and 30cc Retaining Rings.

Genius® Cyanoacrylate Dispensing Components

Genius® CA dispensing components are designed from a proprietary plastic that prevents the CA from bonding the syringe piston to the syringe barrel and the syringe tip cap to the syringe luer.
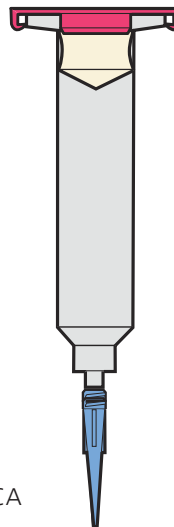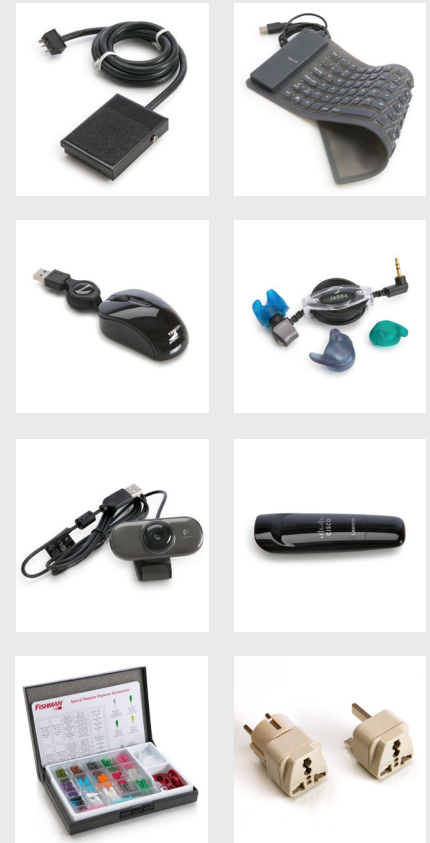
Genius® CA FreeFlow™ Tips and Teflon® Tips

Genius® FreeFlow™ CA Tips and Teflon®* Tips both prevent CA from clogging the tip during the fluid dispensing process.

Teflon is a registered trademark of the Dupont Corporation.
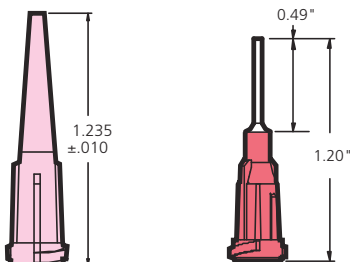
SMARTDISPENSER® LDAV-HT-CA-BA 3–30CC DISPENSE STARTER KIT CONTENTS

- Foot Pedal
- Keyboard
- Mouse
- Earphone
- Video Camera
- Cisco Wireless Connectivity Device
- Needle Kit
- Manuals
- Power Supply Connection
- Universal Power Supply

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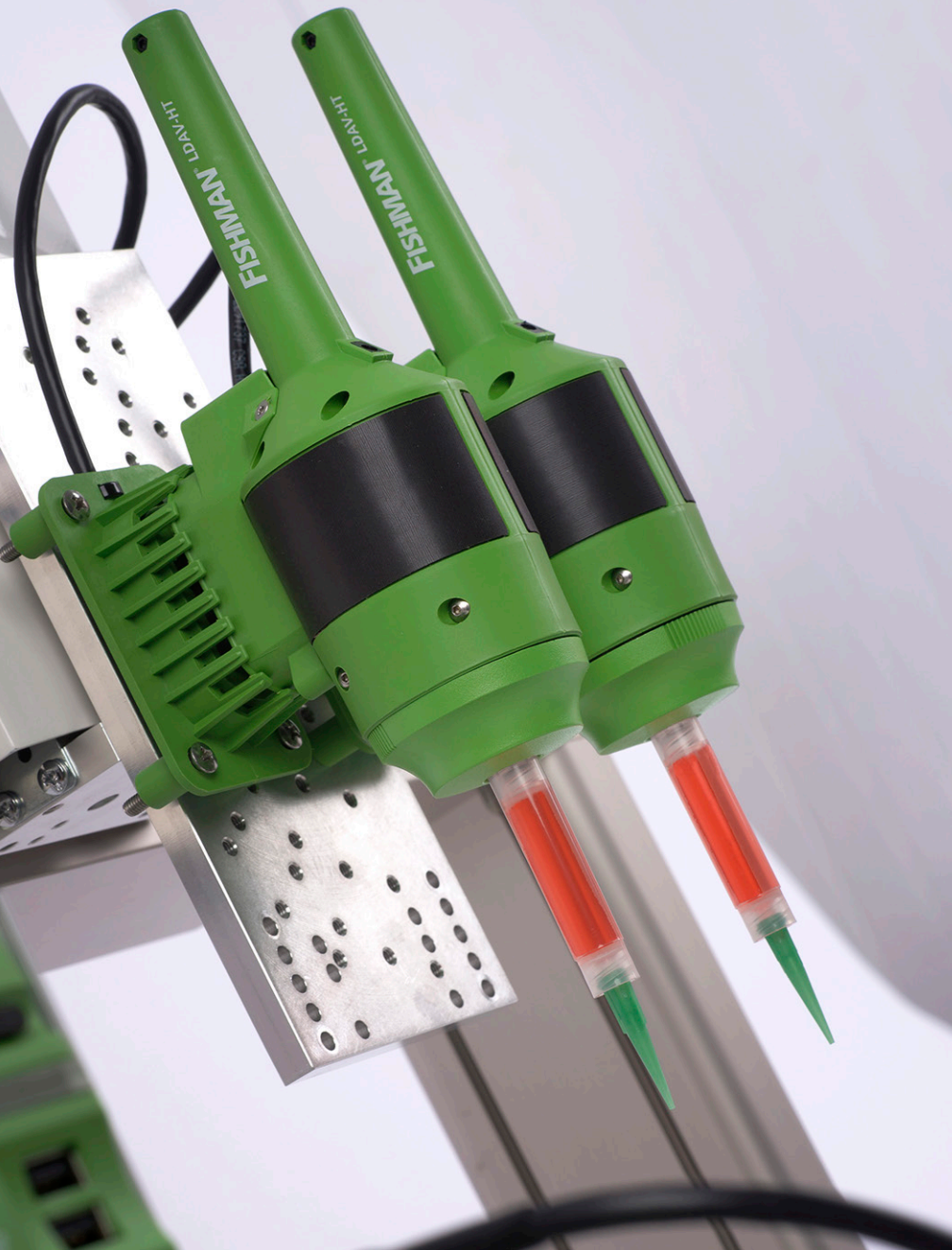
SPECIFICATIONS

Usage:	Indoor use
Altitude:	Up to 2000m
Temperature:	0˚ to 40˚ C
Maximum Relative:	80% for temperatures up to 31˚ C decreasing linearly to
Humidity:	50% relative humidity at 40˚ C
Mains Supply Voltage Fluctuations:	Not to exceed ±10%
Installation Overvoltage:	Category II
Pollution:	Degree 2, Class 1
Input Voltage:	100-240 VAC 47-63Hz
Max Inrush Current:	3.2A-1.8A
Output Voltage:	5.0VDC
Output Power:	4.6W
Fuse Rating:	1.0A/250 VAC
Initiate Circuit:	Dry contact
Drive Motor:	LDAV-HT-CA-BA 1.8 Degree 200 Steps/Rev
Axial Movement:	LDAV-HT-CA-BA .096 Axial Pitch .00048"/Step
Control Circuitry:	CMOS microprocessor
Interface:	Touch Screen or Keyboard/Mouse
Minimum Dispense Volume:	0.00086ml

CONTROL UNIT

Size:	5.6 x 9.9 x 6.3in (14.23 x 25.15 x 16cm)
Weight:	4.7lbs (2.13 kg)

GUN

Length:	7in (17.8cm)
Weight:	10.6oz (301 gr)
Cable Length:	3 feet (91.5cm)

What makes the SmartDispenser® so smart?
The combination of 3 powerful platforms.

AIR-FREE MANUFACTURING
- One program – worldwide
- Closed-loop feedback
- 6-10X more repeatable than pneumatics
- Volume base numeric dispensing
- Positive displacement via stepper motor
- Firmware proven for over a decade
- Eliminates expensive air compressor
- Designed to integrate into automation systems using PLCs

WINDOWS 7 NETWORKING
- SD Device to MES System Networking
- Remote programming and lock out
- Real time production data
- Live video feed
- Auto e-mail of unauthorized program changes
- On screen work instruction (audio option)
- Connectivity between SmartDispensers® Desktop, Laptop and Smartphone.
- Video/Audio training and tutorials

SMARTPHONE FUNCTIONALITY
- Touch screen
- Finger gesturing controls
- MES Networking Apps
- Custom Manufacturing Apps

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JANOME FEATURES

High Precision

High Rigid Structure
A solid aluminum alloy is employed on the base and an aluminum alloy extention with a high rigid section is employed on the column

Labyrinth Mechanism
A social labyrinth mecharism underneath the work table keeps foreign oblects (e.g. screws, liquid or dust) out.

X TABLE

X TABLE

LABYRINTH STRUCTURE

ORDINARY STRUCTURE

JANOME
JR 2300N

Smooth Movement
Smooth movement is attained with the micro-step controle system

Flexible Interface
• RS-232C port for PC connection
• RS-422 port for teaching pendant
• I/O (Output 16, Input 16)

User Friendly

Clear Wide Screen
Wide and easy viewable teaching pendant screen
Language: English/German/Japanese etc..
Measurement: mm/inch

Simple Teaching
Using the JN C-Points software users can teach dates easily. It also has commands to operate particular jobs. Users can also create their own original software.

### Simple Teaching
Using the JN C-Points software users can teach dates easily. It also has commands to operate particular jobs. Users can also create their own original software.

Enhanced Memory Capacity
Up to 255 programs (2.5 times that of the exitisting model) and 30,000 points (increased 5-fold) can be stored as teaching data.

Simple Sequencer
The robot has a built-in simple sequencer which functions independently (it is not necessary to add more hardware in the case of siumple PLC connection).

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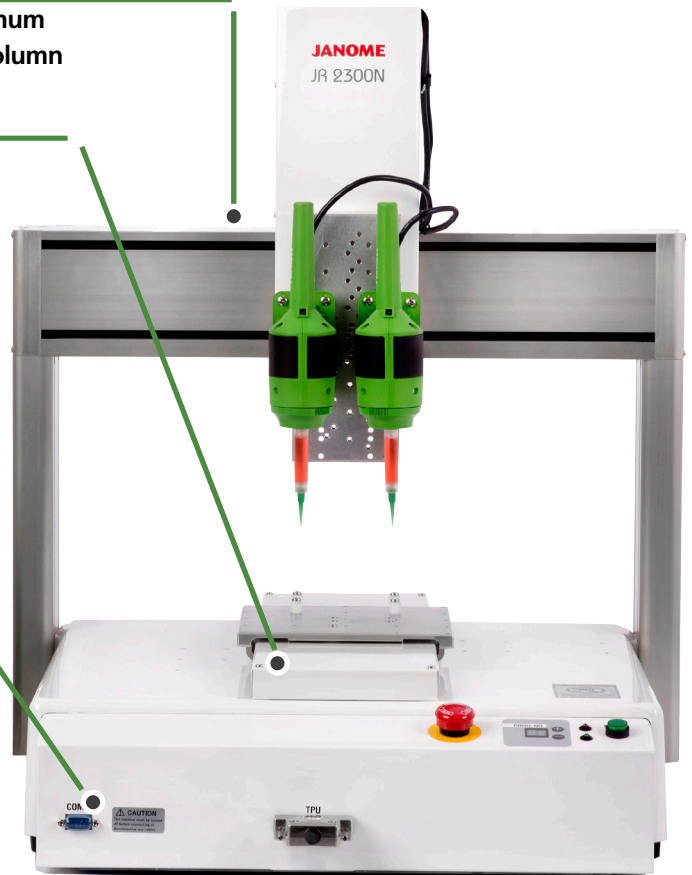
SmartDispenser® LDAV HIGH TORQUE CA BENCHTOP AUTOMATION SYSTEM

JANOME SPECIFICATIONS

(CL) Indicates Clean Room Compatible

Model[1]		JR2203N (CL)	JR2303N	JR2403N	JR2503N	JR2603N
Operating Range	X・Y Axes (mm)	200×200	300×320	400×400	510×510	510×620
	Z Axis (mm)	50	100	150		
Maximum Portable Load	Workpiece(kg)	7	11			
	Tool(kg)	3.5	6			
Maximum Speed[2] <PTP Movement>	X・Y Axes (mm/sec)	700	800			
	Z Axis (mm/sec)	250	320			
Maximum Speed[2] <CP Movement>	X・Y・Z Axes Combined Speed(mm/sec)	500	800			
Repeatability[3]	X Axis ・Y Axis (mm)	±0.006	±0.007		±0.008	±0.008 (X Axis) ±0.01 (Y Axis)
	Z Axis (mm)	±0.006	±0.007		±0.008	±0.008
External Dimensions	W×D×H(mm) (excluding cables and protrusions)	320×387×540	560×529×649.5	584×629×799	676×731×799	788×731×799
Main Unit Weight(kg)		18	35	42	46	48

Model[1]		JR2204N(CL)	JR2304N	JR2404N	JR2504N	JR2604N
Operating Range	X・Y Axes (mm)	200×200	300×320	400×400	510×510	510×620
	Z Axis (mm)	50	100	150		
	R Axis (°)	±360				
Maximum Portable Load	Workpiece(kg)	7	11			
	Tool(kg)	3.5	6			
Maximum Speed[2] <PTP Movement>	X・Y Axes (mm/sec)	700	800			
	Z Axis (mm/sec)	250	320			
	R Axis (°/sec)	600	800			
Maximum Speed[2] <CP Movement>	X・Y・Z Axes Combined Speed(mm/sec)	500	800			
Repeatability[3]	X Axis ・Y Axis (mm)	±0.01				
	Z Axis (mm)	±0.01				
	R Axis (°)	±0.008				
External Dimensions	W×D×H(mm) (excluding cables and protrusions)	320×387×655	560×529×840	584×629×890	676×731×890	788×731×890
Main Unit Weight(kg)		18	35	42	46	48

[1] 2-axes models are also available. (Please contact us for further information.)

[2] Maximum speed cannot be achieved when the robot is bearing its maximum portable load.

[3] Repeatability does not guarantee absolute precision.

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JANOME SPECIFICATIONS *CONTINUED...*

Drive Method	Pulse Motor
Control Method	PTP (Point to Point) control, CP (Continuous Path) control
Interpolation	3-dimensional linear and arc interpolation
Teaching Method	Remote teaching (JOG)/Manual Data Input (MDI)
Teaching System	・ Direct teaching using the optional teaching pendant ・ Off-line teaching with JR C-Points software from a PC
Program Capacity	255 Programs
Data Capacity*4	Up to 30,000 Points
External Interface	RS422 1ch (for teaching pendant) RS232C 1ch (for PC interface: COM1) RS232C 2ch (for external devices: COM2, COM3) (optional)
External Input/Output	I/O-SYS 16 Inputs, 16 Outputs I/O-1 (optional)　8 Inputs, 8 Outputs (including 4 relay outputs)
Simple PLC Function	100 programs (1,000 steps/program)
Power Source	AC90~1323V/AC180~250V (single phase)
Power Consumption	200W

*4　Point data capacity reduces as the total function data setting/point job data/sequencer data increases, due the shared data storage area.

・ CE compliant models are also available.
・ Specifications may be modified without prior notice to improve product quality.

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