



# electra FA

●●●●●●●● FULLY AUTOMATED CLIA ANALYZER

## KEY FEATURES

- **High Speed Robotic Arm**
  - Performs two major functions i.e pipetting of reagents and samples into the micro plate and transfer of micro plates from one module to another
  - Two channel pipetting system - enhances pipetting speed.
  - Intelligent microplate transporter transfers micro plates from one module to another.
- **Robotic Washer**
  - Washing manifold of Electra FA is designed for efficient washing with speed. The washing manifold is designed with independent needles for aspirating and dispensing.
- **Robotic Reader**
  - Electra FA is equipped with 8 channel reading unit with an in-built agitation facility before reading. It consists of 4 filters 405, 450, 492, 630 nm wavelength with two empty filter positions.
- **Flexible Modular Platform**
  - Electra FA gives flexibility for user to customize the modular platform.
  - Flexible loading of pipette tips – 300 µl, 800 µl or both.
  - Flexible loading of samples, controls & calibrators in 6 rails of 24 positions each.
  - Continuous loading of samples & microplate.
  - Four plate loading positions with in-built incubator and shaker. All incubators & shakers are independent with programmable temperature, shake time & speed.
  - 18 reagent positions with flexibility 15 ml/60 ml reagent vials.
  - **Software**
  - Electra FA is operated through windows based software. It allows user to configure the modular Westgard or L-J QC functions support automatic creation of quality control charts and validation.

<b>General</b>	
Type	Processes the CLIA from pipetting to interpretation & print out of results.
Main Performance	Open system, Fully programmable, Walk away, Random access, Multi batch execution with continuous loading facility
Self – Check System.	The machine executes a verification of its hardware before it starts a new session.
Maximum Number of Assays Per Microplate	12
<b>Washer</b>	Manifold Type 8 well washer
Manifold Needles	8-way dispensing channels & 8-way aspiration channels (16 pins)
Plate Type	Flat, U and V shaped bottom
Wash Cycles	Programmable

Soak Time	Programmable
Residual Volume	Less than 2µl per well
Number Of Wash Buffer Bottles	5 (4 wash buffer bottle + 1 distilled water bottle)
<b>Reader</b>	
Measurement System	Counter type PMT for glow luminescence measurements
Wavelength range	300 – 650nm
Measurement range	0 – 2.5X10 <sup>7</sup> RLU
Measurement increment	1 RLU (Relative Light Units)
Background Signal	≤100RLU@25°C
Crosstalk	≤5X10 <sup>-5</sup>
Linear Range	0-2.5X10 <sup>7</sup> RLU
Linearity	≤99% Coefficient of correlation
PrecisionCV	<3%
Sensitivity	≤5X10 <sup>-17</sup> mol C14
Integration time	0.1 – 10sec/well
<b>Sampler</b>	
Number Of Pipetting Channels	2
Number Of Syringes	2
Syringe Volume	Up to 800 µl
Tips	Non-conductive, disposable tips
Tip Size	300 µl/800 µl
Pipetting Precision And Accuracy	Better than 1 % CV at 10 % syringe volume, based on gravimetric evaluation.
Liquid Detection	Pneumatic type
Carry Over	Zero due to usage of disposable tips
Primary Sample Capacity	Up to 144 positions (shared with controls/calibrators)
Maximum Number Of Controls/Calibrators	Up to 144 positions (shared with sample positions)
Maximum Number Of Reagents	18 reagent positions (15ml/60ml)
<b>Incubator</b>	
Number Of Incubators	4
Temperature Range	Programmable from room temperature to 50 °C
Temperature Accuracy	± 0.5 °C at 37 °C
Incubation Time	Programmable
Microplate Shaking	Programmable speed and time
Printer/ Interface/ Display	Windows, Stand alone PC with standard configuration (minimum 2 USB ports), Parallel (printer port) and RS-232 (bi-directional port for connection with host computer)
Power Consumption	500 to 700 W
Power Supply	220V, 50 to 60 Hz
Dimensions	127 cms x 78.5 cms x 100 cms
Weight	180 Kgs
Cat No.	835ET000004

#### LIST OF STANDARD COMPONENTS SUPPLIED ALONG WITH THE INSTRUMENT

Components	Qty	Components	Qty
1. Pipette arm (2-channel, disposal tips)	1 No.	14. Robotic arm	1 No.
2. Incubation position	4 Nos.	15. Washer	1 No.
3. CLIA Reader	1 No.	16. Tip rack (Holding 4 Tip boxes)	1 No.
4. Sample tube/ Control/Standard rack (Holding 24 tubes each)	6 Nos.	17. Reagent (18) & Incubation cover rack	1 No.
5. Incubation Cover	4 Nos.	18. Disposable tip box (Holding 96 tips)	4 Nos.
6. Control/Standard tubes	40 Nos	19. Manifold 16 needle	1 No.
7. Reagent Tank 15ml white & brown	25 Nos.	20. Reagent Tank 60ml	10 Nos.
8. Waste bottle with tubing	1 No.	21. 2500 ml Bottle with tubing & sensor	5 Nos
9. Instrument power cable	1 No.	22. Pressure bottle with tubing & sensor	1 No.
10. Bottle holder	1 No.	23. User manual	1 No.
11. RS 232 to USB Cable	1 No.	24. CAN Card cable	1 No.
12. Disposable tips 800ul	250 Nos	25. Disposable tips 300ul	750 Nos
13. Lenovo TFT Monitor	1 No.	26. Lenovo Desktop	1 No.
		27. Lenovo Keyboard	1 No.

<b>Components</b>	<b>Qty</b>	<b>Components</b>	<b>Qty</b>
28. Laser printer Model: Image class LBP6030B Sr. No.: NBKA320482	1 No.	31. USB Cable for printer	1 No.
29. Power Cable for CPU& Monitor	1 No.	32. Lenovo Optical mouse	1 No.
30. Power cable for Printer	1 No.		

**ACCESSORIES/CONSUMABLES FOR USE WITH ELECTRA FA**

<b>Accessories/ Consumables</b>	<b>Cat No.</b>	<b>Pack Size</b>
Disposable sample tips 300µl	810T3001000	1 x 1000 Pcs
Disposable reagent tips 800µl	810T8001000	1 x 1000 Pcs
Reagent Tank 15 ml Brown (Top,Bottom,Cap)	836RB000015	25 Nos.
Reagent Tank 15 ml White (Top,Bottom,Cap)	836RW000016	25 Nos.
Reagent Tank 60 ml	836RT600010	1 No.