

# EL406™ Microplate Washer Dispenser

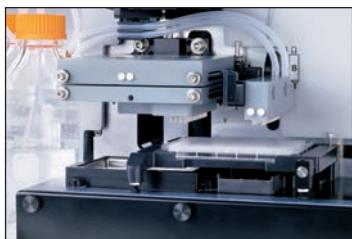
Efficiency and productivity are increased with BioTek's new EL406™ Microplate Washer Dispenser. This automation friendly, multifunctional instrument uniquely combines the industry standard ELx405™ Washer with a peristaltic reagent pumping system and two highly accurate syringe drive dispensers; all from the industry leader in microplate washing. The wash module incorporates BioTek's patented Dual-Action™ manifold design for a variety of microplate formats along with optimized flow rates for cell-based applications. The EL406 also features BioTek's built-in patent pending Ultrasonic Advantage™

for unattended wash manifold maintenance and up to four wash buffers for complex wash routines. The peristaltic pump utilizes a unique design to provide accurate and precise volumes ranging from 1  $\mu$ L to 3 mL. Three different autoclaveable cassettes (1  $\mu$ L, 5  $\mu$ L, and 10  $\mu$ L) are each designed to deliver full incremental volumes for best performance. With two syringe drive dispensers, a total of three reagents can be dispensed without operator intervention. Automate the entire process by adding a BioStack™ Microplate Stacker. Now you can simply press a button and walk away.

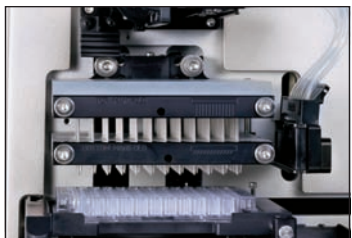


## Features:

- Fast microplate washing and dispensing
- Up to three reagent dispensers
- 1536-, 384-, and 96-well microplates
- Automates long and tedious assay liquid handling processes
- Smaller benchtop or robotic system footprint compared to separate washer and three dispensers
- BioStack compatible for automated processing of up to 50 standard height microplates
- Patented Dual-Action wash manifold for full microplate washing
  - Optimized washing for loosely adherent cell layers
- Choice of software control from instrument keypad or Liquid Handling Control™ PC software
- Built-in, patent pending Ultrasonic Advantage
- Optional buffer switching of up to four buffers



1536-well microplates are washed with two 32-tube dispense manifolds and one 128-tube aspiration manifold for speed efficiency.



For 384- and 96-well washing, BioTek's patented Dual-Action 192- and 96-tube manifolds provide independent control of aspirate and dispense functions for precise control of all washing parameters.

## Models:

1536-/384-/96-well Washer with 3 Reagent Dispensers

1536-/384-well Washer with 3 Reagent Dispensers

1536-well Washer with 3 Reagent Dispensers

384-/96-well Washer with 1 or 3 Reagent Dispensers

384-well Washer with 1 or 3 Reagent Dispensers

Additional models available. See website for complete listing.

## Optional Accessories:

- Automatic switching for up to 4 wash buffers
- 192-tube wash manifold (faster 384-well washing)
- Interchangeable 96-tube (96-/384-well washing) and 192-tube (faster 384-well washing) wash manifolds
- Dispense/Waste System – choice of 4L or 10L bottles, high flow\* or standard vacuum pump, and 115V or 230V configurations
- Product Qualification Package
- BioStack Microplate Stacker

\*High flow vacuum pump recommended for 1536- or 384-well washing with buffers not containing surfactant.

## Specifications:

### Washing

Washing Speed:  
 (1 asp. / 1 disp. cycle) 300  $\mu$ L/well, 96 wells, 96-tube manifold: 13 seconds  
 100  $\mu$ L/well, 384 wells, 192-tube manifold: 17 seconds  
 10  $\mu$ L/well, 1536 wells, 2 32-tube manifolds: 34 seconds

Volume Range: 3 - 3000  $\mu$ L/well

Dispense Accuracy $\pm 3\%$ typical	Dispense Precision $\leq 3\%$ CV	Residual Volume $\leq 2$ $\mu$ L/well
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### Dispensing – Peristaltic Pump

Dispensing Speed: 10  $\mu$ L/well, 96 wells, 8-tip cassette: 7 seconds  
 5  $\mu$ L/well, 384 wells, 8-tip cassette: 10 seconds  
 1  $\mu$ L/well, 1536 wells, 8-tip cassette: 23 seconds

Volume Range: 1 – 3000  $\mu$ L/well

Cassette Size	Recommended Volume Range	Dispense Accuracy	Dispense Precision
1 $\mu$ L	1 $\mu$ L to 50 $\mu$ L	$\pm 5\%$ typical at 1 $\mu$ L	$\leq 5\%$ CV typical at 1 $\mu$ L
5 $\mu$ L	5 $\mu$ L to 2500 $\mu$ L	$\pm 2.5\%$ typical at 5 $\mu$ L	$\leq 2.5\%$ CV typical at 5 $\mu$ L
10 $\mu$ L	10 $\mu$ L to 3000 $\mu$ L	$\pm 2.5\%$ typical $\geq 10$ $\mu$ L	$\leq 2.5\%$ CV typical $\geq 10$ $\mu$ L

### Dispensing – 2 Syringe Pumps

Dispensing Speed: 10  $\mu$ L/well, 96 wells, 16-tube manifold: 8 seconds  
 5  $\mu$ L/well, 384 wells, 16-tube manifold: 9 seconds  
 3  $\mu$ L/well, 1536 wells, 2 32-tube manifolds: 10 seconds

Volume Range: 3 – 3000  $\mu$ L

Dispense Accuracy $\pm 1$ $\mu$ L typical at 5 $\mu$ L $\pm 1$ $\mu$ L typical at 20 $\mu$ L $\pm 1\%$ typical at 100 $\mu$ L	Dispense Precision $\leq 10\%$ CV typical at 5 $\mu$ L $\leq 5\%$ CV typical at 20 $\mu$ L $\leq 2\%$ CV typical at 100 $\mu$ L
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### General

Microplate Types: 1536-, 384-, and 96-well  
 Standard height and low profile

Shaking: User-programmable speed and timing

Dimensions: Length: 18" (46 cm)  
 Width: 16.5" (42 cm)  
 Height: 12.5" (31.8 cm)

Weight: 32 lbs (14.5 kg)

Power: Compatible with 100 to 240 V~  $\pm 10\%$  at 50-60 Hz