BioTek's 50 TS Microplate Washer is a compact microplate washing system with functionality that is unsurpassed in its class. The color touchscreen provides a visual interface with menu-driven programming that makes creating protocols fast and intuitive. Its performance for conventional ELISA plate washing is excellent, but the 50 TS offers much more. Its modularity makes it ideal for cell-based assay washing, biomagnetic separation and vacuum filtration processes.

The 50 TS is an affordable choice for automating the wash steps of a variety of applications in clinical and research laboratories. Used in conjunction with the 800 TS Absorbance Reader or other detection system, the 50 TS offers a welcome upgrade from manual processing - bringing convenience and consistently high quality results to your laboratory's plate washing workflows.

### Touchscreen User Interface:



Programming and operating the 50 TS is intuitive and easy with the



#### Features:

- From the #1 microplate washer brand, BioTek, known for performance, reliability and support
- Application versatility: ELISA, cell-based assays and bead-based assays
- Color touchscreen makes programming quick and easy
- Easy touch operation for washing full or partial plates
- Reliable and safe: liquid level sensing
- Automated switching of up to 3 buffers for even greater automation
- Automated, built-in maintenance routines for continued reliable operation

## **Typical Applications:**

- ELISA
- Cell-based assays
- Biomagnetic particle separation assays
- Filtration-to-waste protocols



### Magnetic Bead Washing and Vacuum Filtration:



Wash filter-bottom plates and magnetic bead assays with available modules

## Configurations:

Configuration	Part #	96-well only	96-/384- well	Buffer Switching	Biomagnetic Separation	Vacuum Filtration
	50TS8	•				
	50TS8V	•		•		
	50TS8M	•			•	
	50TS8MV	•		•	•	
50™ TS	50TS8F	•				•
30 13	50TS8MF	•			•	•
	50TS12	•				
	50TS12V	•		•		
	50TS16		•			
	50TS16V		•	•		

# **Optional Accessories:**

- 4-. 8-, 8s-, 2 x 8- and 12-well manifolds
- 96-well magnets choice of immobilization patterns
- Product Qualification Package



BioTek's 50™ TS Washer is ideal for pairing with 800 TS for routine workflows.



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## Specifications:

#### General

Microplate types: 24-, 96-, 384-well plates and microwell strips

Programmable in minutes and seconds up to 30 minutes Shaking:

5 intensities from 15-19 Hz

Programmable in minutes and seconds up to 30 minutes Soak time: Biomagnetic separation ("M" configurations)

Separation methods: Vacuum filtration ("F" configurations)

4.3" color LCD touchscreen User interface:

• Up to 75 user-programmable protocols Onboard software:

Quick menu

• Create or edit custom protocols

Run protocols created onboard or downloaded from LHC™

Liquid Handling Control™ (LHC™), for PC wash protocol Software:

programming and execution (optional)

Washing Manifold types:

96-well washing: 8-well (1x8) manifold, 2x8-well manifold, 12-well (1x12) manifold

8-well short tube (1x8) manifold

96-/384-well washing: Dual-Action™ 16-well manifold

24-well washing: 4-well manifold 25-3,000 μL well

Volume range:

Fluid delivery: One positive displacement syringe drive

Wash cycles:

Buffer/reagent selection: Automated switching for up to 3 buffers ("V" configurations)

Wash speed:

Plate	Manifold	Speed	
96 well	2x8 well	<80s for 12 strips (3 cycles, 300 μL/well, no soak)	
96 well	12 well	<90s for 8 strips (3 cycles, 300 μL/well, no soak)	
96 well	8 and 8s well	<130s for 12 strips (3 cycles, 300 μL/well, no soak)	
384 well	8, 16 well	<260s for 24 strips (3 cycles, 100 μL/well, no soak)	
24 well	4 well	<60s for 24 wells (1 cycle, 1120 μL/well, no soak)	

#### Dispense Precision:

		Manifold	Performance	
	96-well	8 and 8s well	$\leq$ 3.0% CV when measured over six 300 µL-per-well dispenses of deionized water with 0.1% Tween 20.	
	96-well	12 well	$\leq\!3.0\%$ CV when measured over four 300 $\mu\text{L-per-well}$ dispenses of deionized water with 0.1% Tween 20.	
	384-well	8,16 well	≤4.0% CV when measured over six 100 µL-per-well dispenses of deionized water with 0.1% Tween 20.	
	96-well	2x8 well	≤4.0% CV when measured over six 300 µL-per-well dispenses (whole plate) of deionized water with 0.1% Tween 20.	
	24-well	4 well	≤4.0% CV when measured over six 1120 μL-per-well dispenses of deionized water with 0.1% Tween 20.	

### Residual Volume:

		Manifold	Performance
	96-well	8 and 8s well	≤2.0 µL/ well after 3-cycle wash, 300 µL/well dispensed
	96-well	12 well	≤2.0 µL/ well after 3-cycle wash,300 µL/well dispensed
	384-well	8,16 well	≤4.0 µL/ well after 1-cycle wash, 100 µL/ well dispensed
	96-well	2x8 well	≤4.0 µL/ well after 3-cycle wash, 300 µL/well dispense
	24-well	4 well	≤50 µL/ well after 1120 µL is dispensed per well
	96-well	Vacuum filtration	Average increased weight of the plate is <1.2 grams after dispensing 300 $\mu L$ of DI water per well

#### Physical Characteristics

Connectivity: 1 USB port for computer control

Power: External 24VDC power supply compatible with 100-240VAC

@ 50-60 Hz. Power consumption: 40 Watts 15"W x 15"D x 8"H (35.6 x 40.6 x 16.5 cm)

Dimensions Weight 22 lbs (9.8 kg)

#### Regulatory

CE and TUV marked. Models for In Vitro Diagnostic use are available.

Preliminary performance values represent the average observed factory test values. Specifications subject to change. Rev. 155SS063017