

QC Cal Kit Lite

Automated Liquid Handling & Pipetting System

- Accuracy & Precision Verification
- Calibration Recommendations

Training

Services

Reagent Kits

QC Cal Kit Lite uses similar (and improved) methods, as those found in **ISO IWA 15** *“Specification and method for the determination of performance of automated liquid handling systems.”*

Tartrazine-based dye solutions are made up of well characterized components which improve consistency and provide (12) twelve-month shelf-life



Tools and Services for the Simplification and Practical Application of Measurement Standards in Automated Liquid Handling and Pipetting Systems

Single Run, Single Test

for 1 to 384-tip liquid transfer to a microplate (96 or 384-well)

Compatible with most existing readers*



4-Reference dye pillow-packs; 4- Troughs



4-Test dye pillow-packs; 5-Reservoirs



13-Microplates with lids



1-Manual hand-held reference pipette

Method

1-Hardcopy Manual

Performance Test Analysis Excel & Cloud Software

30-day Access to Excel based upgradable to Cloud Software

* Other user supplied components required

Satisfaction Guarantee

Simple. Practical. Cost-effective.

Automation Trainer LLC 5907 Elvas Ave Sacramento, CA 95819

© 2022 Content subject to change without notice. For research use only. Not for diagnostic procedures.
(617) 752-2288 EST www.AutomationTrainer.com support@automationtrainer.com

PATENT PENDING. Rev 20220926

Simple. Practical. Cost-effective.

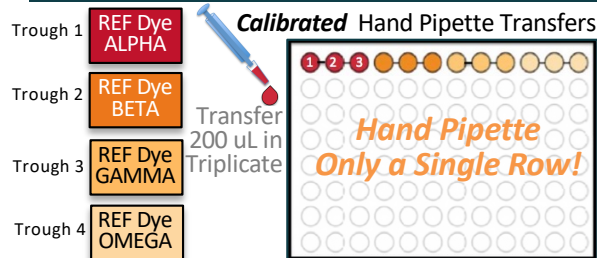
Automation Trainer Reagent Kits are the direct response to feedback gained from training scientists, engineers and academic researchers in automated liquid handling volume verification and calibration. These professionals, were looking to bridge the gap between inconsistent, single-dye home brews, and the more costly, commercial, dual-dye method.

Specifications

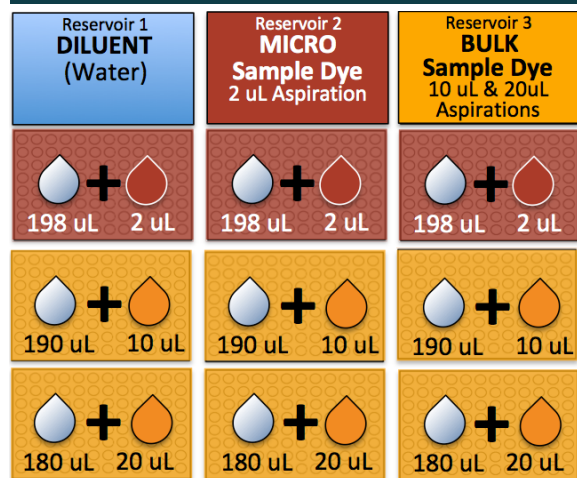
Part Number	QC Cal Kit Lite (96-Well PN 27997 / 384-Well PN 27998)
Test/Capacity	Accuracy & Precision Verification plus Calibration recommendations for testing 1 to 384-tip liquid transfer to a microplate (96 or 384-well). Single run, single test; water liquid class; One-time use kit.
Test Time, Typical	Single run, single test, 1 to 384-tip liquid transfer to a microplate (96 or 384-well)
Reference Dye	≤ 20 minutes + read time (With established liquid class; robot and reader methods)
Measurement System Performance	Tartrazine-based solution made up of well characterized components which improve consistency and extend shelf-life
Pipettors, Compatible	$\% \text{ Relative Error } \pm 0.8\%, \% \text{ CV } \pm 0.2\%*$ *SLAS Presentations Feb 2018 & 2020 (3 rd -party reproducibility study comparing results w/gravimetric & dual-dye methods) Your actual results depend on your optimization of the liquid class, performance and calibration of your plate reader, performance of the hand-held manual pipette used to generate the reference curve, and the reproducibility of the environmental conditions.
USER SUPPLIED ITEMS	1 to 384-fixed-tip & disposable tip heads, $\geq 100\text{nL}$ to 200 μL
In the Box (Sterile Dye & Labware)	<ul style="list-style-type: none"> <input type="checkbox"/> Automated Liquid Handler (ALH) or Pipetting System / Tips <input type="checkbox"/> Absorbance Microplate Reader in Calibration (Signal: 405-450 nm; Noise 605-650 nm.) <input type="checkbox"/> Orbital Shaker (600 rpm) <input type="checkbox"/> Distilled Water, HPLC Grade (diluent for test samples) $\geq 30\text{mL}$ <input type="checkbox"/> PC with Internet access required for cloud-based software/Excel template for data gathering
Shelf-life	<ul style="list-style-type: none"> 4-Reference Dye Pillow-packs; 4-Troughs 4-Test Dye Pillow-packs; 5-Reservoirs 13-Microplates w/lids 1-Manual hand-held reference pipette Method 30-day Access Code to Cloud Software / Excel Template
Warranty, Limited	12 months
Traceability / Compliance	90-day Satisfaction Guarantee. Reagent Kits are intended for laboratory research use by trained users. Determination of their suitability for specific end-use is the responsibility of the user, who assumes all liability for loss or damage arising out of the use of the product. Warranty is limited to replacement of defective materials, if returned with authorization, within 1-year of purchase date.
	Provides accuracy, precision and calibration recommendations using similar (and improved) methods, as those found in ISO IWA 15 "Specification and method for the determination of performance of automated liquid handling systems."

Method
Example based on 96-Channel,
20 μL , fixed-tip head, 2, 10, 20 μL test (test samples in triplicate)

1-Prepare Reference Plate

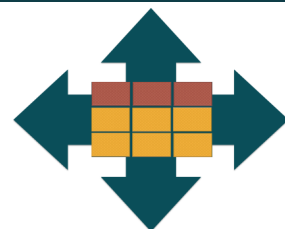


2-Prepare Test Plates in Triplicate



3-Orbital Shake Test Plates

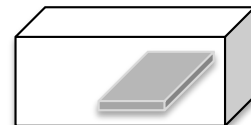
600 RPM
2 MINUTES



4-Read Plates

Calibrated Photometer

425 nm Signal
625 nm Noise



5-Excel Data or Cloud Software



**Automation
TRAINER**

Automation Trainer LLC
© 2022 Content subject to change without notice.
For research use only. Not for diagnostic procedures.
(617) 752-2288 EST www.AutomationTrainer.com
support@automationtrainer.com

Tools and Services for the Simplification and
Practical Application of Measurement Standards
in Automated Liquid Handling and Pipetting Systems