

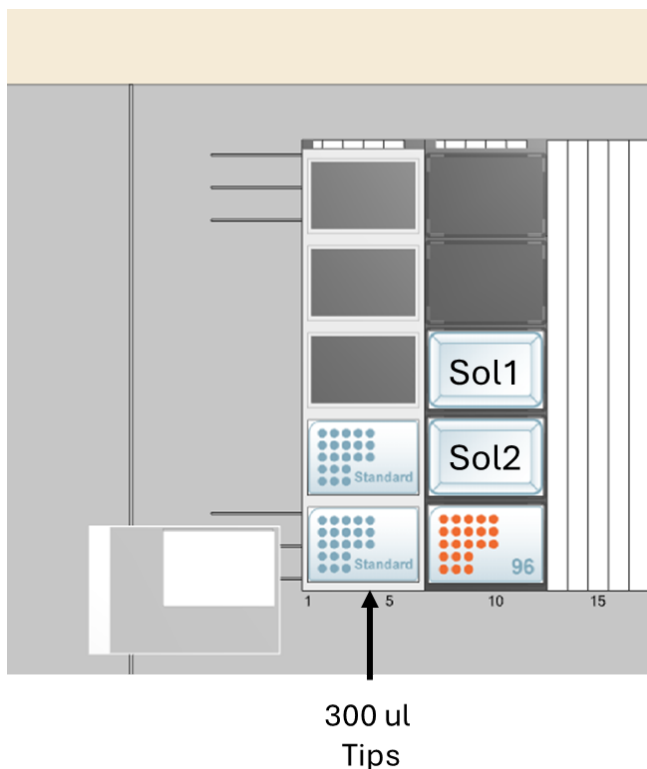
Volume Verification Information For Use

Quick start guide to performing Volume Verification on the STAR line of liquid handling robots.

Items	PN	Description	Quantity
Solution #1: Buffered Diluent	NSB-YYYYMM DD	Diluent solution for 10ul test method	1 x 125 ml bottle
Solution #2: Concentrated Dye	NSCD-YYYY MMDD	Concentrated dye solution for 10ul test method	1 x 60 ml bottle
Solution #3: Low conc Dye solution	NSLCD-YYYYMM DD	Low concentration dye solution for 200 ul test method	1 x 125 ml bottle
300ul Hamilton CO-RE Tips	235902 (Hamilton)	300ul filtered tips – Hamilton CO-RE II tips,	2 packs of 5 tip racks
Reagent Reservoirs	1200-1300 (Thermo)	Deep well reservoirs for holding reagents on the deck (Reusable; only send when need replacement or 1st time in field)	3
Thermo Fisher 96-well Microplate	269620 (Thermo)	96-well flat bottomed microwell plate (pkg of 5; 300ul volume; no coating)	1

1. Ensure that you have the most up-to-date version of the 10ul and 200ul Volume verification methods. Pkg files can be found on Shared Drives → Service → PM Test Methods → [Volume Verification](#)
2. You will need to use a Hamilton Tip carrier (**TIP_CAR_480BC_A00**) and deep-well plate carrier (**PLT_CAR_L5AC_A00**) from the customer.
3. Open Method Editor on your FSE laptop
4. Open the VV method → check the deck layout in the method and adjust carrier positions as needed (*ask for help if you need to adjust and are not sure how to do this*)
5. Load the necessary reagents, plate and tips onto the deck (See deck layout below)
6. Enable the desired test group (either Channels 1-8, 9-16 or 96 MPH), disable all other channel groups.
7. Run the test, and then repeat as necessary to gather volume verification data for each channel group (1-8, 9-16, 96mph). For each test, replace the tips in the carrier.
8. Read each completed plate using the Byonoy absorbance plate reader (wavelength = 562); for 10ul test plates, shake the plate for 10sec using the Thermo plate shaker prior to reading.
 - a. Export data using csv format using the following naming convention:
VV_SN_10ul_PX(or 96MPH) and VV_SN_200ul_PX(or 96MPH).
9. Check data to identify any positions that are lower than expected. O-ring may need to be replaced, and volume test repeated.

10 ul Volume Verification Deck Layout



200 ul Volume Verification Deck Layout

