



Blue®Washer: Quick Start Guide

For complete instructions, refer to User Manual

Do

1. Set up Waste Tubes

Don't

- **Line up waste spout with edge of bench** so waste tubes run straight down into waste bottle
 - **Better:** drill hole in bench for waste tubes so that plate nest does not stick out
 - If hole impossible: **buy feet extension kit** - lifts Blue®Washer 30mm off the bench to create sufficient slope for drainage
- **Cut waste tubes** so they reach less than 2" (5cm) into waste bottle

- **No kinks** in waste tubes – risk of **backup**
- **No flat tube sections**
 - Do not push BlueWasher too far back on bench
 - Flat tubes risk **backup**
- **Do not submerge tube ends** in waste liquid – risk of **contamination & backup**

Do

2. Initialize & Balance

Don't

- **Use correct balance plate**
 - Follow pop-ups in "Initialize & Balance" menu
 - Use exact same plate type for assay & balance
- **Use plate carrier pair matched to plate height**
 - **Std carrier:** 14.5mm tall "regular" 96w & 384w plates
 - **h10.5 carrier:** 10.5mm tall "regular" 1536w and "thin" 384w PCR or MSD plates
 - **h8 carrier:** 8mm tall "thin" 1536w plates

- **Never evacuate plate on carrier that is too thin for plate – plate may eject & shatter**
- **No mismatch of balance & assay plate type**
 - Some plates look similar, but have different weight, causing **vibrations & excess wear of rotor bearings**

Do

3. Clean Blue®Washer

Don't

- **Find** three 1 liter lab bottles with GL-45 thread & place in tub
- **Prepare reagents, label bottles, connect** to inputs:
 - Blue®Daily 1:10 – connect to **yellow** input
 - Blue®Intense 1:10 – connect to **red** input
 - DI water **50k-1 Meg Ω** - connect to **blue** input
- **Run QuickClean 2x/ day:** During lunch & end of day
- **Run IntenseClean 2x/ week:** Wed & Fri at end of day instead of QuickClean
- **Clean clogged dispenser w/ syringe** – forcefully pump 70% EthoH in and out

- **No highly purified DI water**
 - Resistance not to exceed 1 Meg Ω
 - No MilliQ or HPLC grade water
 - High grade water may **corrode Blue®Washer**
- **No waste residue inside Blue®Washer for > 4h:**
 - **Risk of contamination**

Do

4. Swap Dispenser Heads

Don't

- **Prime dispenser** with DI water to flush out any buffer
- Remove blue input tube and run "Prime/ AirPurge/ Blue" to **blow out residual liquid** from dispenser with air
- **Pull off dispenser** from magnetic mount, **shake out** residual liquid, **wipe pins dry**, then **place in storage bag**
- **Snap** new dispenser into magnetic mount, **connect** tube
- Go to File/ Configure Blue®Washer to **swap configuration**

- Never **leave buffer** in dispenser – **will crystallize and clog needles**
- Never put **dispenser with ethanol residue** in **storage bag** – **will dissolve glue**
- Never forget to **update dispenser configuration** in **GUI** - **dispense index and volumes will be off**

5. Optimize Evacuation for Z'

- **Grow cells** in test plates with clear bottom
- **Evacuate plate @** lowest evacuation option
- **Check cells under microscope**
 - If cells ok, add buffer & evacuate @ next stronger evacuation option
 - Repeat until cell loss visible
 - Note: g-force strongest in outmost rows – check!
- **Use strongest viable evacuation option**
 - Stronger evacuation -> less residual volume -> **typically best z'**
 - Cell adherence better in denser plates
 - Check data for g-force effects, reduce evacuation strength if needed
- **Reduce number of wash steps**
 - Eliminate post media change cell wash
 - Reduce # of assay wash steps (e.g., 3 to 1)

Evacuation Option	96w	384w	1536w
HardDecant	Some residual center rows	Visible residual	Not effective
MagBeadSpin		Some residual center rows	Visible residual
GentleSpin			Some residual center rows
LightSpin			
RegularSpin			
StrongSpin	Pot. cell loss	Pot. cell loss	



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Sample Bench Set-Up

Use lab bottles with GL-45 thread for reagents

Blue®Intense
1:10 – red
input

DI water
(50k-1
MegΩ) -
blue
input

Blue®Daily
1:10 –
yellow
input



Place Blue®Washer forward on bench so waste spout lines up with edge of bench ...

... so waste tubes run straight down into waste bottles



Additional bottles for buffers, etc.

Cap with thin hole:
for thin waste tube
("clean waste" from priming)

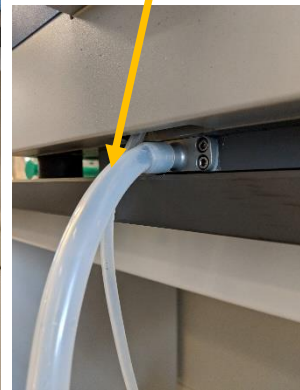


Cap with thick hole:
for thick waste tube
("dirty waste" from plates)

Cut waste tubes so they reach less than 2" (5cm) into waste bottles

Clean clogged dispenser with syringe:

- Remove dispenser
- Place in trough with 70% EthOH
- **Forcefully** pump in and out to clear pins



Place waste bottles in tub for secondary containment