

# NextGen 300/300+ and RF/ RF200/RF+ Verification After A Prolonged Shutdown

## Introduction

Follow this procedure to verify the *CombiFlash* Nextgen 300/300+ and RF/RF200/RF+ is ready for use after a prolonged shutdown.

## Powering on the System (NextGen only)

1. Confirm the power cord is connected securely and the rear panel circuit breaker is switched ON. The switch can be found on the lower right side of the back panel. The ON position is with the rocker switch lowered towards the top of the unit (Figure 1).



**Figure1: Power switch**

2. Press the power switch to turn the system on. The system's power switch is located on the lower right side panel, near the front of the instrument.

The system will begin its startup routine which includes self-diagnostics.

## Note

**The momentary power button on the right side of the instrument can be used to turn on the system or shut it down on a daily basis. The rear panel circuit breaker switch is only used when you desire to completely remove power from all internal electronics.**

3. The system is ready for operation when the PeakTrak screen is displayed.

## Powering on the System (RF only)

1. Confirm the power cord is connected securely to the system.
2. Turn the power switch on. The system's power switch is located below the touchscreen on the right side. The system will begin its startup routine which includes self-diagnostics.
3. The system is ready for operation when the PeakTrak screen is displayed.

## Priming

The Auto Prime feature will pump solvent through the fluid path and out the the waste to remove any air and fill each line with solvent.

1. Ensure that the solvent containers are full and place the solvent lines in the appropriate bottles.
2. Place the waste line(s) in the appropriate container.
3. Select the TOOLS>AUTO PRIME menu command. This command automatically primes each line with 50 mL of solvent in the order directed by the user as seen in the Figure 2.
4. Select the order of solvents to be primed. There are 4 solvent selection lists labeled from first solvent through fourth solvent. The solvent choices for each list are those defined by the CONFIGURATION window. You can also rename your solvents by using this screen to switch solvents. These changes will also be reflected in the configuration menu.
  - If all solvents are of a similar polarity, it is recommended that the solvent be primed in order of decreasing solvent strength, with the weakest solvent primed last.
  - If the 4 solvents are of mixed polarity (aqueous and nonpolar), ensure that sequential solvents are compatible, such as water, acetonitrile, ethyl acetate, hexane.
  - If you are performing an auto prime after redefining some of the solvents, it may be beneficial to run 2 auto prime operations sequentially to get full flushing of the lines.

- Click the PLAY button to start priming the system.  
The Auto Prime window closes when finished.



Figure 2: Auto Prime

## Fill the P-trap

*CombiFlash with ELSD only*

The P-trap must be filled with fluid to prevent sample loss. Depending on your application, the P-trap fluid may need periodic replenishment to ensure maximum signal from the ELSD.

- Raise the drain tubing attached to the P-trap drain vent assembly above the instrument.
- Place 10 mL of liquid, such as isopropyl alcohol, into the tube. Make sure the fluid level in the tubing doesn't exceed the level of the instrument case top. If the tubing is raised too fast, fluid may flow out the top of the vent tube causing a spill. Lift it high enough so the fluid enters the P-trap drain (Figure 3).



Figure 3: Filling the P-trap drain. Keep liquid level lower than the top of the system

- Route the end of the P-trap drain tube to a suitable waste fluid collection container. As the tubing is lowered, several mL of isopropyl alcohol will run out of the tubing. This is normal and means that the P-trap is properly filled.

## Perform a Blank Separation

Watch for increased system pressure or error messages.

- Raise the column mount and insert the prime tube into the top column mount. Slowly lower the injection valve while aligning the bottom column fitting.
- Prepare an empty solid load cartridge fitted with the solid load cartridge cap (SLCC). Place the cartridge assembly on the system and secure it to the luer fitting. Connect the SLCC to the liquid port if not already attached.
- From the main separation screen, Figure 4:
  - Select Silica 4 gram from the column drop down window.
  - Increase the flow rate to 40ml/min.
  - Decrease the Run Length to 5 min.
  - Set Peak Collection to All.
- Install a fraction collection rack.
- Press play
- Select the SOLID from the sample LOADING TYPE list.

7. Select Begin Equilibration to start the blank separation.
8. When the run is finished select the REWIND button.



Figure 4: Main Separation Window

## System Verification Test

It is recommended that the system operation be verified using the CombiFlash Universal verification kit, part number 60-523-4317. Follow the instruction sheet included in the test kit.

## Additional Assistance

Please contact your local Technical Sales Representative or Field Service Engineer with any questions or concerns. The technical support team can also be reached at:

**Isco.Service@teledyne.com**

**(800) 775-2965**

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