

## SOP: Flash master; CombiFlash® Companion®

See also: Quick Start Guide - CombiFlash® Companion®

### Contact person / responsible for the equipment in Ø201:

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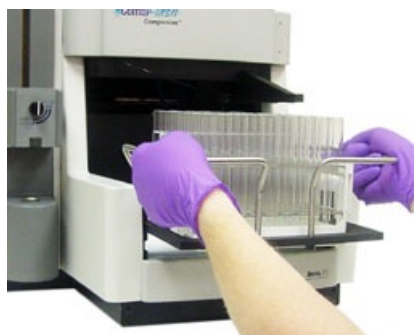
**No one is allowed to use the equipment in Ø201 without going to a training session with the responsible person the first time**

### 1. Preparation

1. Find a solvent system and TLC plate combination that provides an R<sub>f</sub> in the range of .2 to .8 for the target compound.
2. Select an appropriate RediSep® silica column size based on the amount of the sample. (A sample size of .1% to 10% of column weight is recommended, depending on the sample resolution.)

### 2. Install a Collection Rack

1. Select a rack and insert the tubes into the rack.
2. Load the rack onto the carrier.
3. Insert the carrier into the guides. Select the guide that places the top of the tube as high as possible under the drop former without contacting it.



### 3. Start PeakTrak

1. Start PeakTrak by logging in to the Companion. The default password is “companion”. (Companions with touch screen do not need a password.)
2. If this is the first time the system has been used, or if a different rack has been selected, verify the rack setting by selecting “Tools>Configuration”. Click “Save” to save the settings.

### 4. Prime the Solvent Lines

1. Priming needs to be done for the first run or when solvents are changed.
2. Before starting, make sure the operation knob is vertical.
3. Insert a priming tube between the upper and lower column mounts.

4. Select “Tools>Autoprime”.
5. Click “OK” to start priming the system. The Autoprime process completes automatically.

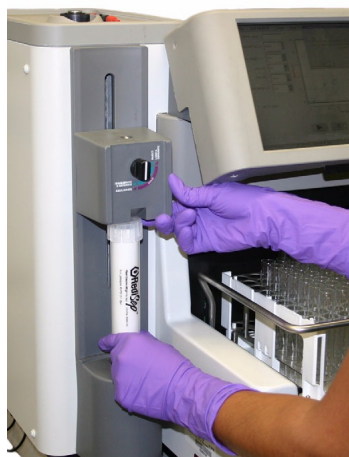


### 5. Load a RediSep Column

1. Chose column size:

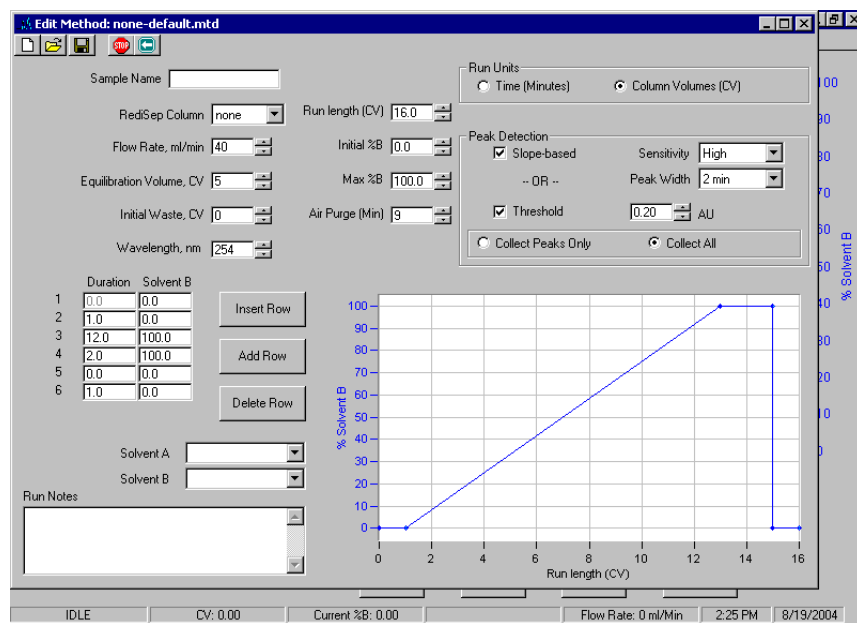
Sample Size (mg)	Column Size (g)
4	400
12	1200
40	4000
80	8000
120	12000
330	33000

2. Remove the priming tube.
3. Raise the top column mount and insert the RediSep column into the upper fitting. The flow direction arrow on the RediSep column should always point down.
4. Slowly release the upper column mount while aligning the lower column fitting. Give the column a slight twist to seat it in its upper and lower fittings.



### 6. Select a Method

1. PeakTrak will automatically detect the column size, and display it. You will be asked if you want to use the default method for the detected column. If so, select “Yes”. If you want a different method, select “No”.
2. To modify or create a method, click on Edit Method from the PeakTrak Main window. Make any needed changes. Click the arrow icon to implement the changes for the current run, or click the disk icon to save for a future run.

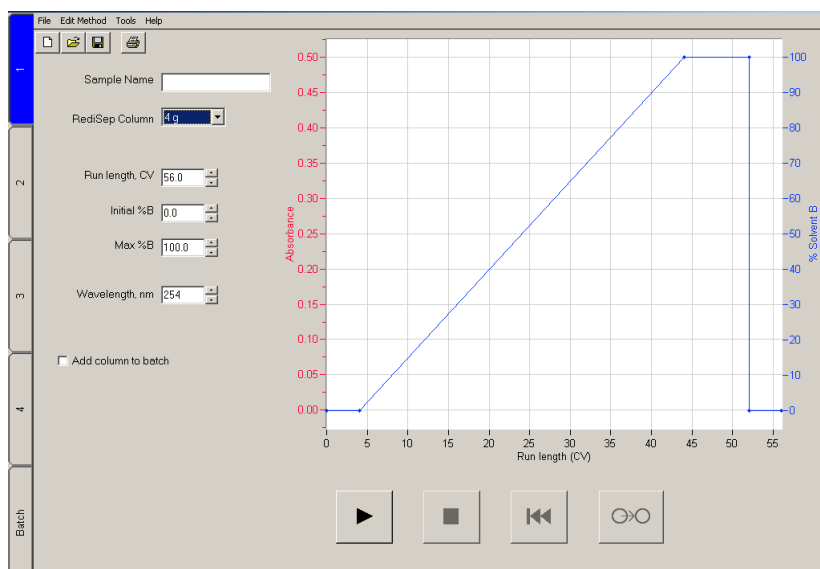


## 7. Prepare the Sample

1. Prepare your sample for liquid or solid load injection.

## 8. Equilibrate the Column

2. Enter a sample name. If you choose not to, Peak-Trak will enter the date and time for the sample name when you start the run.
3. Verify the parameters shown on the screen.
4. Turn the operation knob to the "Equilibrate" position (white line on knob is vertical).
5. Click the Play button.
6. The Run Requirements window will open. Verify the run parameters and click OK.
7. The Companion will equilibrate the column with the gradient's initial solvent mixture. After equilibrating, PeakTrak will instruct you to inject the sample.



## 9. Sample Introduction

### 9.1 Liquid Sample

1. Turn the operation knob to “Inject” (white line on knob is horizontal).
2. Place the injection syringe in the injection port.
3. Slowly force the liquid into the injection port. Wait a moment for the pressure to subside.
4. Inject 1.0 ml of solvent A (or starting mixture of A & B) to carry all the sample onto the column. This is commonly called the “chase” solution.
5. Return the operation knob to the Separate position (white line on knob is vertical).
6. Click OK to continue the run.



### 9.2 Solid Sample

1. Before introducing a solid sample it should be pre-coated on appropriate sorbent and loaded into a solid sample cartridge.
2. Turn the operation knob to “Load & Separate” (white line on knob is horizontal) for the duration of the run.
3. Align the cartridge cap with the top of the sample cartridge and push them together. The O-ring or Teflon seal should completely seal the top of the cartridge. Turn the cap to secure it.
4. Place the prepared solid sample cartridge in the injection port.
5. Click OK to continue the run.



#### *10. Post-Injection Operation*

1. As the run proceeds, you can monitor the progress on the PeakTrak Main window.
2. Gradient parameters (such as gradient, tube advance, isocratic holds, and run length) may be modified during the run.
3. When the run is complete, the system will automatically purge the column with air. Properly dispose of the column, remove the rack, and return the operation knob to the vertical position for the next user.