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Technical Note

Running a Tune Solution with the *ASXPRESS PLUS*

One of the biggest concerns that customers have when setting up and running the *ASXPRESS PLUS* is how they run a tune solution. The standard operating loop won't be big enough to tune with and changing out the loop for a larger capacity one isn't desireable.

The simplest method to run a tune solution with the *ASXPRESS PLUS* is to have a secondary line or probe that you connect in place of the line to the carrier/rinse bottle. This other line will then be connected to the ICP peripump and can flow through the valve to the ICP as seen below.
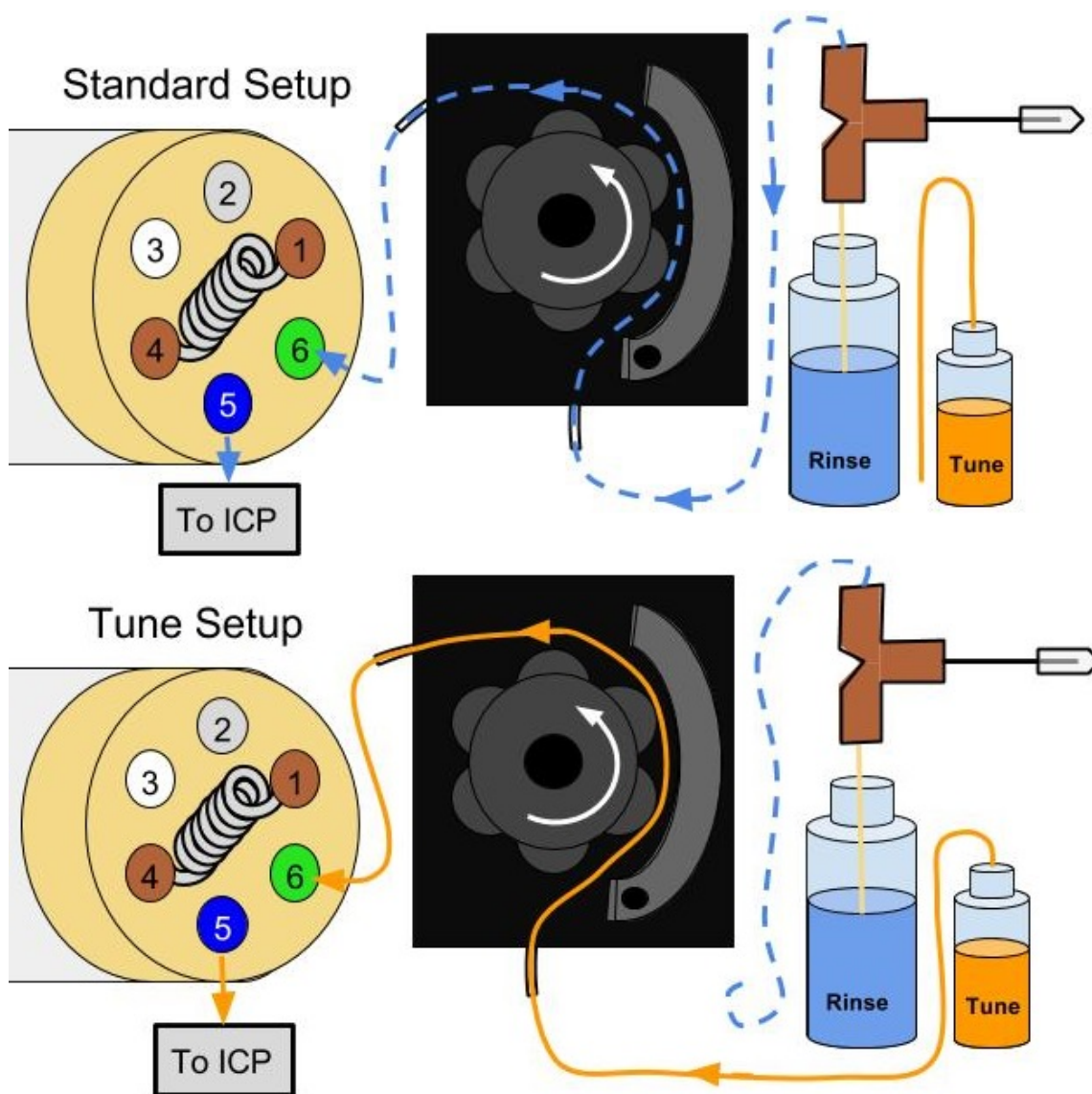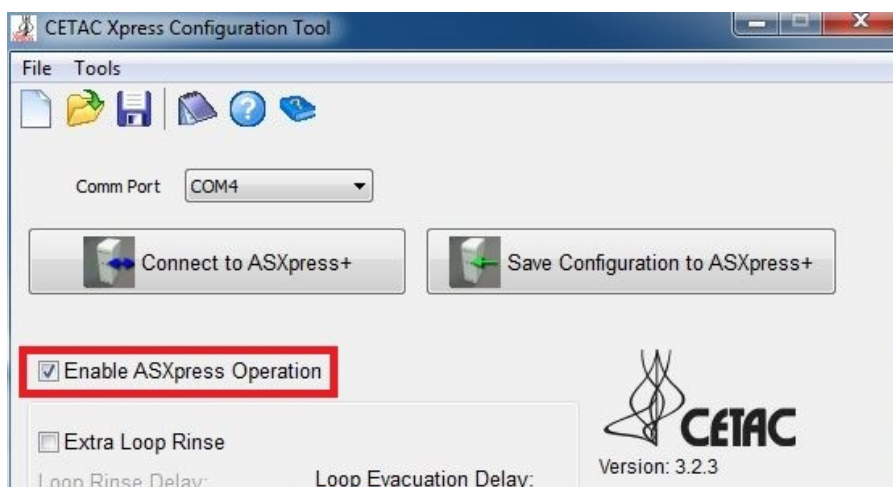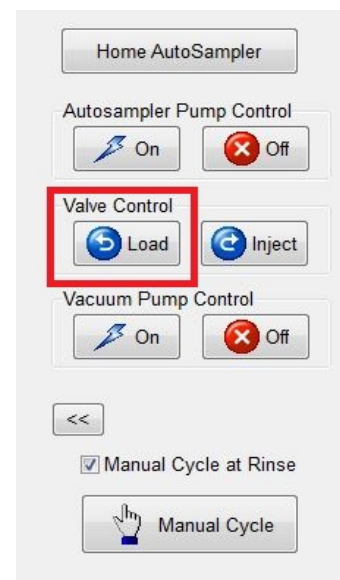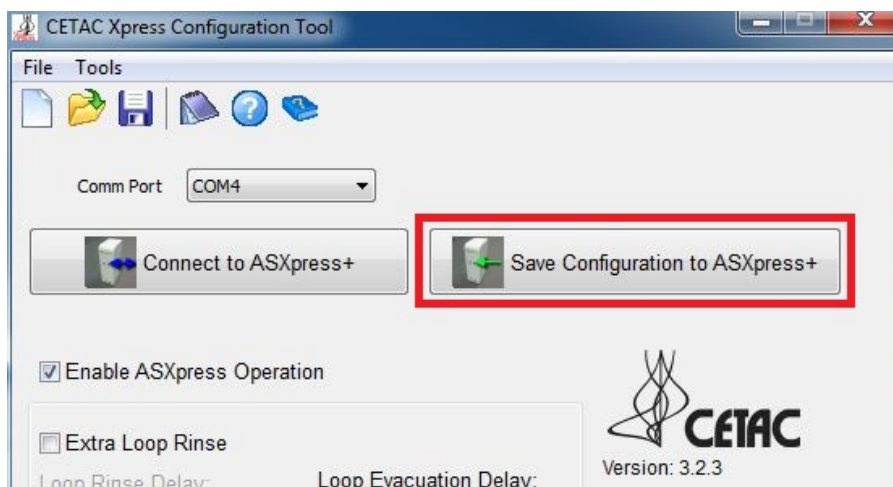

Figure 1. Standard operating setup and tune setup are shown for comparison. Note that changing a single connection will change what solution reaches the ICP.

Once you have the plumbing arranged you may need to make a couple other adjustments depending on your software and how it handles tuning solutions. For some systems all you do is initiate the tune, no autosampler movement required. These systems are the simplest as all you have to do is connect up your tune solution and then give a little time to flow to the neb before starting your tune. It is recommended to use the Xpress config commands (seen at right) to put the valve into load position before tuning as this will remove the loop from the tune flow path, thereby decreasing the time and amount of solution needed.

Some software packages are designed to automate the tuning process by sending a command to the autosampler so it moves to position to begin aspirating the tune solution. While this is meant to simplify things it actually adds a bit more work when using the *ASXPRESS PLUS*. If a command is sent to go to position the *ASXPRESS PLUS* will accept that command and begin the macro, which is not desirable as it includes switching the valve and several other operations. To avoid this you will need to disable the *ASXPRESS PLUS* operation when tuning.

Ensure that the box is unchecked for tuning.

Remember to save using the highlighted button, saving via the floppy disc at top will not save changes to the *ASXPRESS PLUS* , but rather to the PC.

Open the Xpress Config program and connect to the *ASXPRESS PLUS*. Once you have connected, locate the enable ASXpress operation check box in the software and deselect it.

After you uncheck the box remember to save your new configuration to the *ASXPRESS PLUS* electronics module by using the large button indicated in image 3.

After saving your changes you may begin to tune the ICP. The autosampler may still move to position, but as the vacuum pump will not turn on the probe will not aspirate anything. Though you may wish to change the tune position in your ICP software for convenience.

After tuning is complete simply re-check the box to enable *ASXPRESS PLUS* operation and save. Then reconnect your rinse tubing as before. Once you've saved the change and reconnected the rinse tubing you should be able to resume normal operation.

Contact Teledyne CETAC support if you have further questions or concerns.
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