



INNOVATE

TROUBLESHOOTING GUIDE

STAGE 1 TROUBLESHOOTING

Issue: Installation Driver window appears asking for Activation Code

Resolution: This happens because the software was likely initiated before the instrument was turned on. The instrument **MUST** be turned on before the software to establish proper communication.

Shut down the Innovate instrument and the associated computer. Once both are powered off, turn on the Innovate instrument. Once the instrument is on, then turn on the computer and open the Innovate software.

Issue: Injector volume check comes below spec (95-105%)

Resolution: This could be due to a clog in the filter or the injectors.

Step 1: Run each injector line with a full PP vial of microwash and repeat the injector volume check. If this doesn't resolve the issue, proceed to step 2

Step 2: Run a Monthly Maintenance and Cleaning Kit. This kit provides the injector lines with a more intensive wash to clean out any residue or reagent buildup that may be present. If this doesn't work, proceed to step 3

Step 3: If both the microwash and MMC kit fail to resolve the injector volume issue, you should open the injector tips and replace the filter unit

Issue: Instrument is not connecting to computer/software or LED on the front of the instrument is glowing orange.

Resolution:

If the activation window pop up appears indicating a lack of communication, refer to the resolution steps for “Installation Driver window appears asking for Activation Code” above.

If the LED light on the front of the Innovate system is **orange**, follow the instructions listed below to reestablish communication

Step 1: Make sure the Innovate.im software is closed

Step 2: Navigate to C:\ProgramData\InnovateV5\CellScan and select the Service.exe software

Step 3: With the Service.exe software open, select the ‘Scan Comports’ button and document which COM port is recognized

Step 4: Close the Service.exe software and navigate to ‘Device Manager’ in the computer’s control panel

Step 5: Find the ‘Ports (COM&LPT)’ dropdown menu and confirm the COM port related to the Innovate system is the same as referenced in the service software

Step 6: Close out device manager and login to the Innovate.im software. At this point the LED light on the front of the Innovate system should have changed to **green**. With this **green** light, the communication has been reestablished.

STAGE 2 TROUBLESHOOTING

Issue: Daily controls are failing

Resolution: This could be due to a failing instrument blank, failing reagent blank, or failing ATP positive control.

Failing Instrument Blank: The purpose of the instrument blank is to confirm that the internal components of the instrument (PMT, electrical boards, CPU tower) are working properly. If the instrument blank is failing (>50 RLU) the following steps should be taken:

- Confirm the lab temperature and humidity are within spec (15-30 degrees C, <85% humidity) to confirm static is not an issue
- Check for crosstalk (step-by-step instructions found in **Innovate Customer Guide p.13**)
- Check for spraying (step-by-step instructions found in **Innovate Customer Guide p.13**)

Failing Reagent Blank: The purpose of the reagent blank is to confirm the reagents used during that day of testing are not contaminated and are viable for use. If the reagent blank is failing (>70 RLU) the following steps should be taken:

Step 1: Dispose of current reagents loaded onto instrument and **wash** the injector lines with a full PP vial of **microwash** (about 50 ml)

Step 2: Once injector lines are washed with microwash, reconstitute and prepare new reagents and re-run the reagent blank control

Step 3: If the control is still (>70 RLU), dispose of reagents loaded onto instrument and perform a **Monthly Maintenance and Cleaning Kit**

Step 4: After the MMC Kit has been run, **wash** the injector lines with **microwash** three (3) times, and reconstitute and prime new reagents

Step 5: Run reagent blank protocol to confirm issue is resolved

Failing ATP Positive Control: The purpose of the ATP Positive Control is to confirm that the reagents used during that day of testing can provide positive results for a known positive sample. If the ATP Positive Control results are $<40,000$ RLU, the following steps should be taken:

Step 1: Confirm the expiration date and storage conditions of both the ATP and reagents are within spec

ATP should be stored in the freezer and reagents should be stored in the refrigerator (2-8 C)

Step 2: Grab another ATP tube from the freezer, thaw it out, and re-run the ATP Control protocol

Step 3: If the control is still failing, prepare new reagents, prime the reagents on the system, and re-run the ATP Control protocol

Step 4: If the control is still failing, double check the injector volume for each injector to confirm the appropriate amount of reagent is being dispensed

Issue: Continuous shaking of samples beyond set time. The user may experience the Innovate shaking beyond the set time (10 min). The user will see the time countdown to negative numbers on the software computer screen.

Resolution: This issue is caused by the interface cable being loose (not disconnected) between the Instrument and PC, resulting in a loss of communication. The result in this case is that the shaking period is not being transmitted to the PC so the instrument continues to count down to negative figures.

Step 1: Switch off the instrument and shut down Innovate.im software

Step 2: Connect cable, ensuring sturdy and tight connection between the Instrument and PC

Step 3: Turn on instrument followed by Innovate.im software

Step 4: Re-run new samples on a fresh plate

Issue: Error Message: “Plate ID Already Exists”

Resolution: The error message “Plate ID File Already Exists. Do you want to reload the file?” appears if the user tries to create a new plate layout with a previously used filename. Answering ‘yes’ to the above filename will load the previous plate layout with the used positions grayed out. Answering ‘no’ will open the plate layout window with the previously used filename loaded in the PlateID field.

The window should be closed and a new plate layout created with a NEW filename should be generated. If the user attempts to create a plate layout with the previously used filename, the software will display the error message, “Plate ID file already exists. Do you want to replace the file?”

The correct response to this message is ‘NO’. If the user responds ‘yes’ the write protected PlateID will be loaded. Pressing the ‘Start’ button will generate the following error message “File is write protected. Save operation not possible using this filename.”

Issue: Liquid injected outside of wells

Resolution: During normal operation of the Instrument, the plate carrier transport lock screw must be in the released position. If the lock screw is in the locked down position, it will prevent full range of movement of the plate carrier during an assay. If the lock is in the locked down position, the far-right side of the plate (columns 11-12) will be out of alignment, causing liquid to be injected between wells. To correct this, follow the steps listed below:

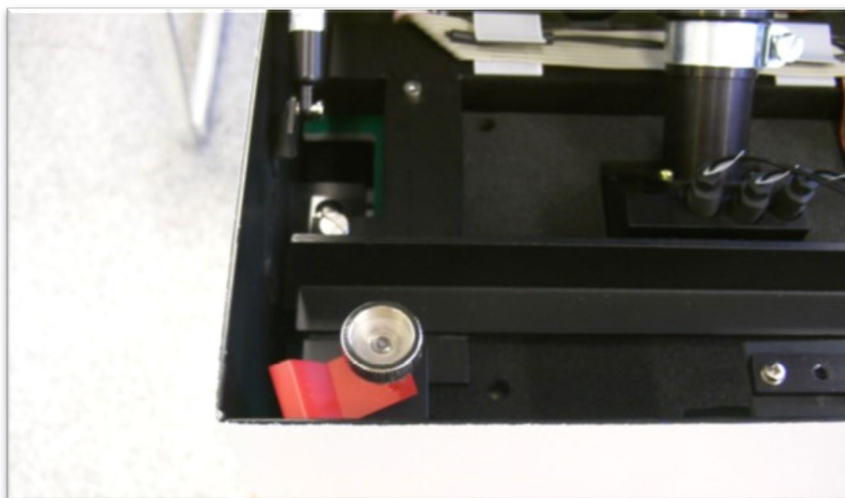
Step 1: Close Innovate.im software and turn instrument off

Step 2: Open lid and release transport lock by turning screw illustrated below. Transport lock is a spring-loaded screw and will spring up when unlocked. Close lid.

Step 3: Turn instrument on and start Innovate.im

Step 4: Perform a volume check to ensure that the liquid is being injected correctly.

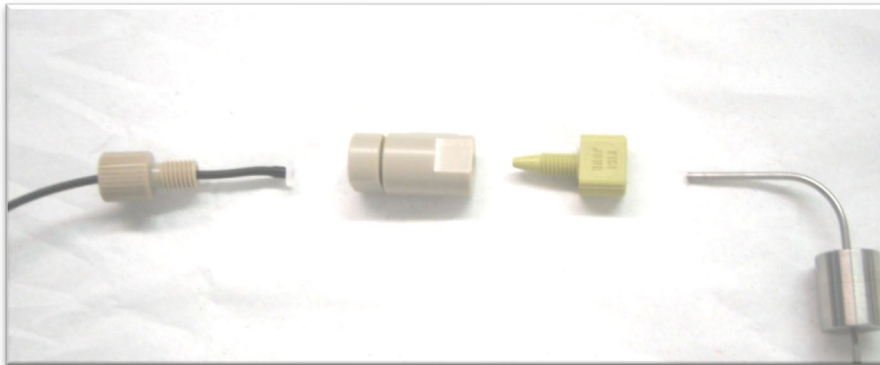
Step 5: Perform a few **wash** cycles to confirm alignment



Issue: Clogged In-Line Filters

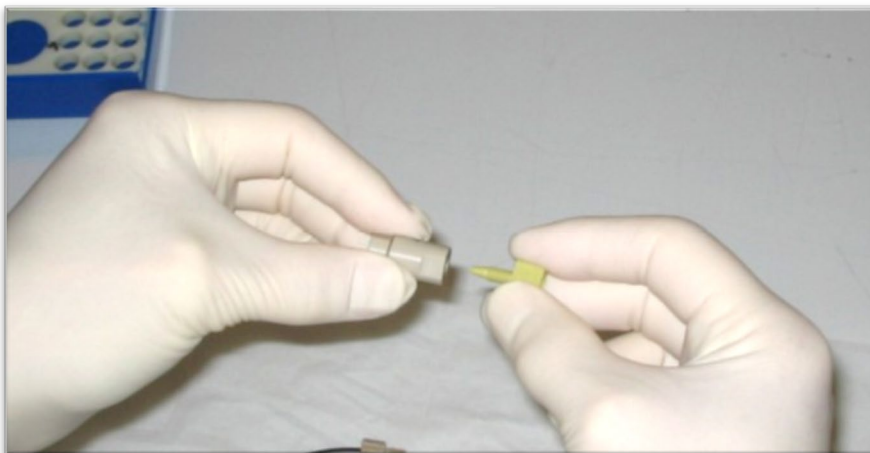
Resolution: To check and/or change the in-line filters on the Innovate, perform the following steps:

Step 1: Unscrew the filter assembly

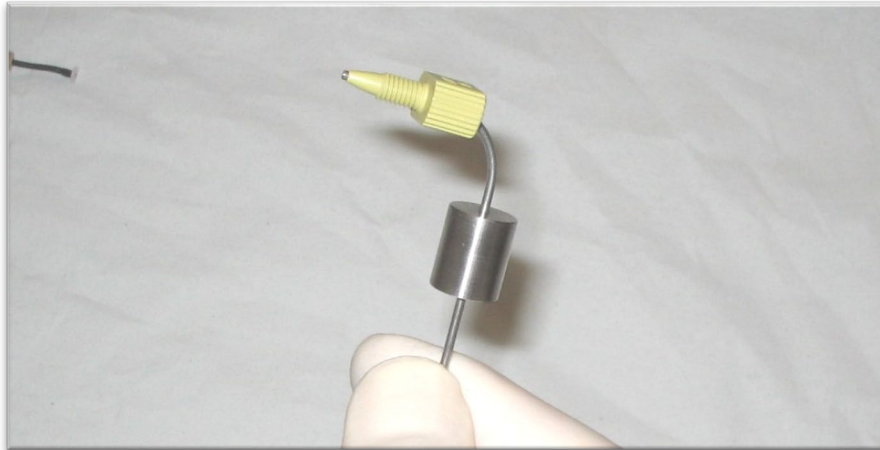


Step 2: Check the filter by holding it up to the light. In a clean, unclogged filter, the mesh grid of the filter will be visible.

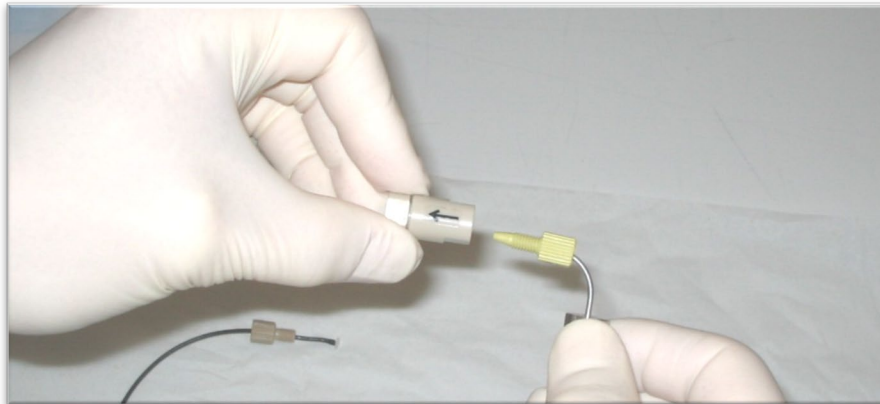
Step 3: Screw the colored steel connector into the new, unclogged in-line filter **until finger tight**



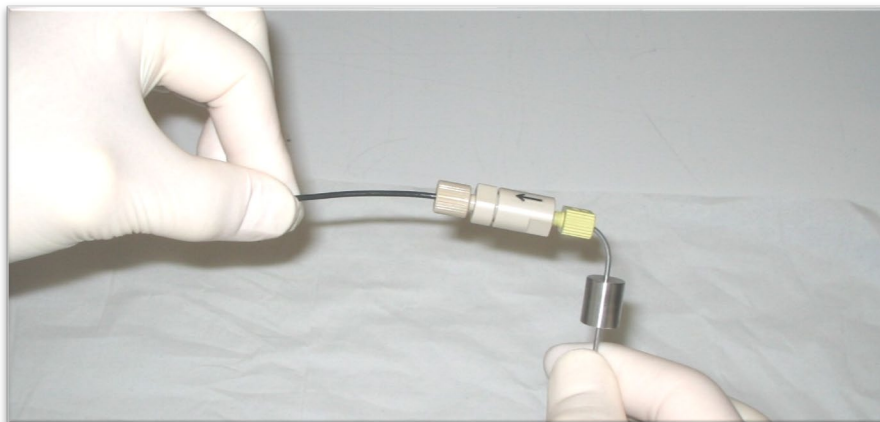
Step 4: Unscrew colored steel connector from in-line filter and place on the steel end as shown. Connector must stay fixed on the steel end



Step 5: Screw the new in-line filter onto the colored steel connector by holding the steel connection stationary, while turning the in-line filter until tight.



Step 6: Place tubing end into filter end. Screw tubing connector into in-line filter



Step 7: Upon completion, perform injector volume checks for all three injectors. If injector volume check is outside of specification, there may be a bad connection. Repeat procedure above to ensure that all connections are tight.



Find support documents, instructional videos, and more at www.hygiena.com

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