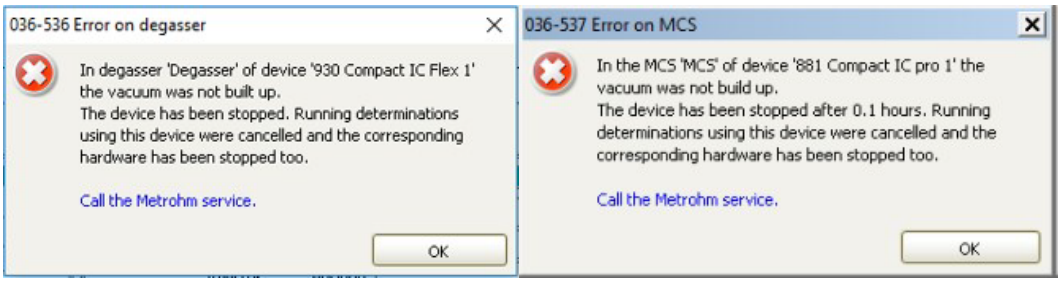
MCS & Degasser Vacuum Error

036-536 Error on Degasser & 036-537 Error on MCS

Technology: Ion Chromatography

How do you know you have this problem?

This document details how to fix the issue of no vacuum buildup. Magic Net will create an MCS and/or degasser error when the vacuum hasn't been created in 60 seconds.

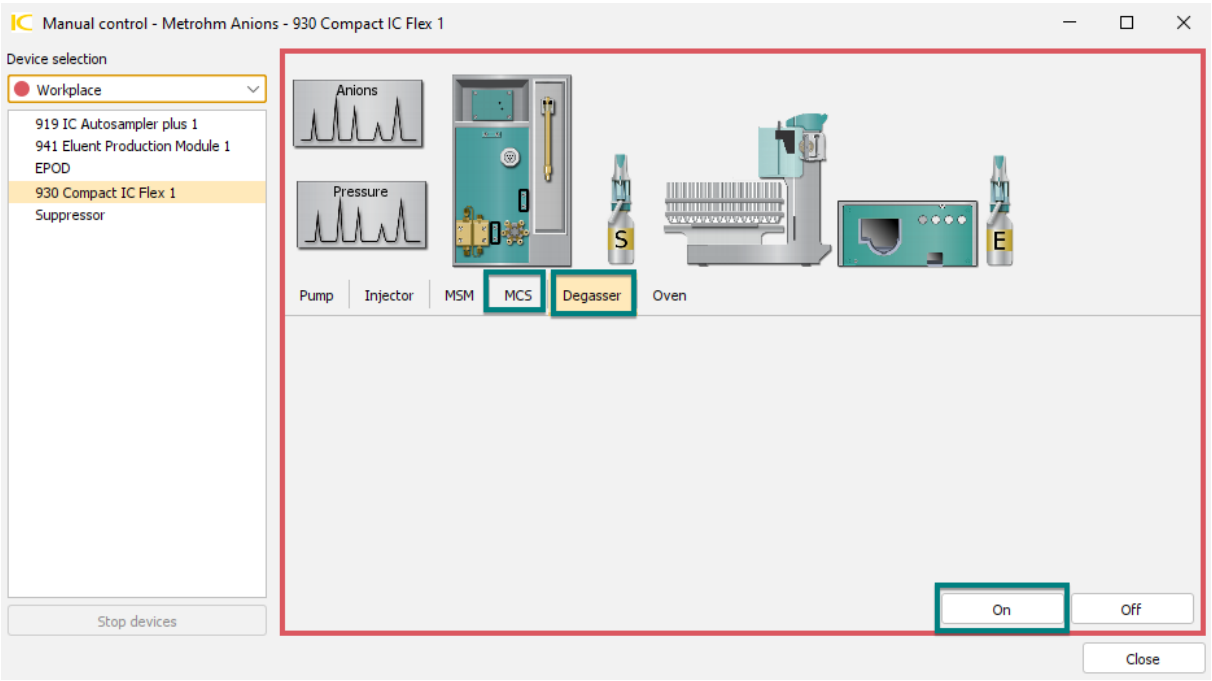


This error can occasionally arise after a quick shutdown and then startup of the instrument and is often due to a pressure buildup in the MCS or degasser vacuum pump that needs to be released.

Magic Net will most likely produce the MCS error if you hear a high-pitched, continuous-tone whine when starting up the instrument instead of the usual "musical" ramp-up of the vacuum pump. Go ahead and perform the below procedure.

Procedure

1. Go to **the Manual window found on the bottom right corner of the MagIC Net software, select the IC,** and go to the **MCS or degasser** tab, dependent on the error. A screenshot is shown at the end of the Procedure.
2. Select Off. Allow a moment and turn it back on. If this does not resolve the issue, continue with the below troubleshooting.

3. With either the MCS or degasser turned off in Manual Control, loosen but do not remove the white plug on the Vacuum port on the back of the IC.
4. Inspect the port labeled "Exhaust" for any liquid. If liquid is present, contact Tech Support.
5. Turn it back on within the same Manual Control window and allow it to run for ~30 seconds with the Vacuum port open. This releases the pressure build-up.
6. With the MCS or degasser still running, re-tighten the plug on the Vacuum port till it is snug to minor finger pressure (no tools).
7. The IC should now run without another vacuum error.
8. If an error returns, contact Tech Support. If the 036-536 degasser error is received, please review the troubleshooting information below to turn the degasser off.
9. 

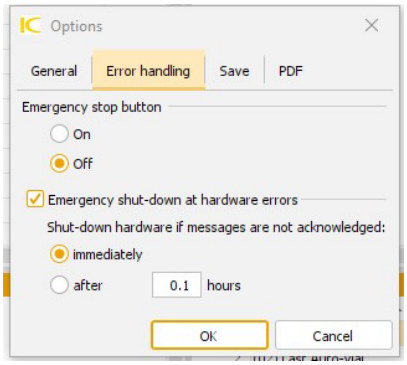
Prevention

1. When you need to stop flow on the IC high pressure [HP] pump or the peristaltic pump [purging air bubbles from HP pump], instead of **Stop HW**:
    a. Click on the **Manual** button.
    b. Click on the IC icon to make the device tabs available.
    c. Click on the module or unit to stop (e.g., HP pump) and click the **Stop** or **Off** button.
2. For longer-term shutdown of the instrument (more than ten min. shutdown), use the Stop HW function in the **Equilibration** window of the **Workplace**

Error Handling & Turning off Degasser in MagIC Net

Error Handling:

1. Magic Net will only stop the IC if the Error Handling has been defined.
2. Configuration tab –> Tools –> Options –> Error handling has been defined. See the example screenshot below.



Deactivating Degasser in the Method

1. Navigate to the Method tab > File > Open > Select the method of interest.
2. Click the Degasser tab > and deselect the Active box, as shown in the screenshot below.
3. Save the method as "Anions - No Degasser," for example.
4. If the water used to make the eluent is not degassed, the following procedures should be implemented to prevent air from building up in the system and high-pressure pump.
   a. The simplest method is to boil the water for a few minutes and then cool in a closed container with little head space. Add concentrate or salts after degassing/cooling the water.
   b. Sonication or stirring under a vacuum also works.
      Be careful not to contaminate the water.