


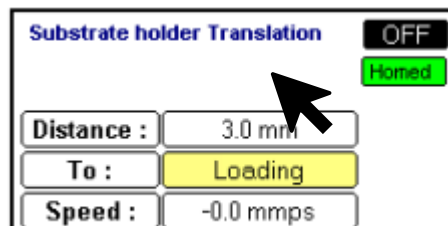
# EVA760 Troubleshooting

## My credentials are not working when I try to connect on the tool

- Your credentials on the EVA760 are not related to your CMi ones. The username is the same as your CMi username. Try your first name as password.
- Try again! The touch screen might be a bit buggy sometimes.
- If you have been trained recently, your credentials are maybe not yet created. The user account cannot be created when a process is running. Please ask responsible staff if you need it asap.

## 1. The message “No Dome Detected” appears when I want to start my recipe

- The detection and the identification of the dome is done by a laser measuring the dome radius. Overtime, with the vibration on the tool, the laser mounting can slightly move which leads to a bad measure.
  1. Acknowledge the “No Dome Detected” message and click on the cancel button to close the recipe selection pop-up window. You should be back to the main screen production.
  2. Open the chamber, remove the dome. Rotate it by 90 degrees and place it back in place. The laser will shoot at another part of the dome.
  3. Close the door
  4. In the synoptic tab  , click on the *Substrate holder Translation* window.



5. Check that the dome is detected in the box *Act Dome Type*. If a dome is detected 450 or 350 or 250 should appear. If not, *No Dome* appears.

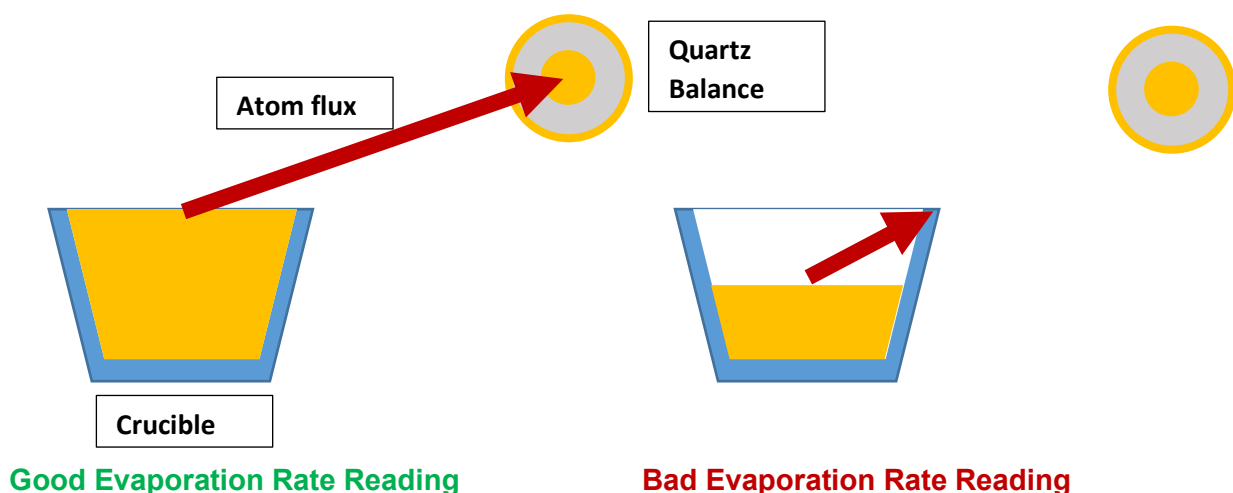
Substrate holder Translation		OFF	Homed
To :	Loading	Distance :	3.0 mm
		Speed :	0.0 mm/s
		Act Dome Type :	NO DOME

6. If no dome is detected, repeat the operation until you have tried the four different possible positions. This operation usually solves the problem. If not, contact the responsible staff.
7. If the dome is detected, run your recipe as usual.

## 2. My recipe has stopped during the evaporation or during the e-gun ramp-up.

### 2.1. During the ramp-up / pre-evaporation:

- In the last part of the power ramp-up, a reading and a fine tuning of the evaporation is performed. This reading is done on the quartz n°4. To be able to “see” the evaporation below the shutter, the quartz has to be on the side of the chamber. Once the shutter opened, the other quartz placed higher in the chamber take the lead.
- The problem can occur when the crucible level is too low. The quartz balance is not “seeing” the atom flux anymore (right part of below image). Reading a too low evaporation rate and thinking the power is not high enough, the e-gun will keep increasing the power to compensate until reaching the safety limit of the recipe.



- The problem can also occur if the thermal contact between the crucible and the carousel is bad or too different. The reading on quartz would be good but the power required would not match the qualified power ramps for the process.
- If the power safety limit is reached, the e-gun will shut down and the process will be **paused**. In the messages window, you will see « Défaut de dépassement de la puissance Min (or Max) ». In the purple process window, the button « resume » will appear.
- **Troubleshoot procedure:**
  1. Click on the resume button. The ramp-up will restart.
  2. If the process is interrupted again, during the support hours, call the staff. We can keep the tool under vacuum and finish your layer(s)
  3. If the process is interrupted again, outside of the support hours, you will need to stop the process and vent the tool to either abort your process or restart it with a recipe without the pre-evaporation reading. A recipe step without pre-evaporation reading is identified with “\_D” which stands for “direct”.

## 2.2. During the evaporation

- During the evaporation, the evaporation rate is read on either the quartz n°1, n°2 or n°3. An interruption due to a power safety limit reached can also occur. The most occurring reasons are the following:
  1. A recipe with a very low rate has been chosen. These recipes tend to be very unstable and can even reach the measurement capability limit of the quartz balance for the lowest one. These recipes are also more sensitive to the crucible level fluctuations with the tool usage. The e-gun might struggle to keep the desired evaporation rate and its power might highly fluctuate until reaching a safety limit.
  2. You are evaporating Aluminum. With Al, it is hard to maintain a stable evaporation rate. The latter tends to fluctuate a lot even with the e-gun shooting with a fixed power. Therefore, to compensate, the power is also fluctuating a lot and sometimes reach the power safety limit.
  3. The crucible level is low. The thermal load, i.e. e-gun power, required to reach a certain evaporation rate, changes with the crucible level. Therefore, when the crucible level is too low, the e-gun power can reach the minimal power safety limit and interrupts the deposition.
- **Troubleshooting procedure:**
  1. Click on the resume button in the purple process window. The e-gun will ramp up again and **continue the recipe where it stopped**. Most of the time, the recipe will continue normally.
  2. If the process is interrupted again, try again the resume button.
  3. If it still not working, call the staff for assistance during the support hours.
  4. If you are working outside the support hours, you will need to stop the process and vent the tool. You can either abort your deposition or try another deposition rate recipe. **Note that the crucible visible will be the last one used, i.e. the one on which the fault appeared, it is good to have a look at it to check if**

there is some contaminations or if the crucible is empty.  
If you notice something strange advise immediately the staff by email and the next users.

### 3. The touch screen is off and is not responding

- The touch screen is activated once you are logged in on the CAE computer. Did you log yourself in?
- If you are actually logged in on the CAE but the touch screen is still not responding, call the staff.

### 4. The touch screen is on and is not responding

- Probably some communications problems. Call the staff.