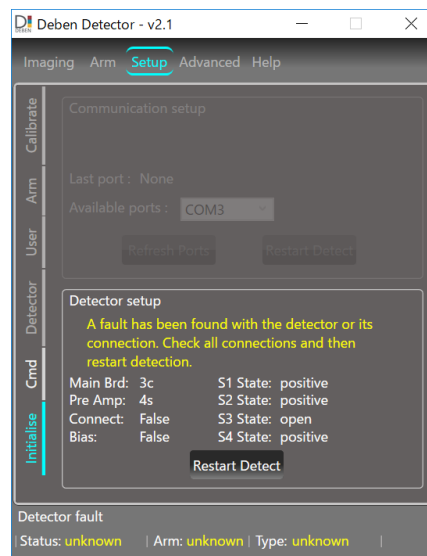


Gen5 Software Troubleshooting Guide

Detector Detection Failed

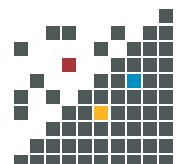
There are several reasons why you could be seeing this error message:

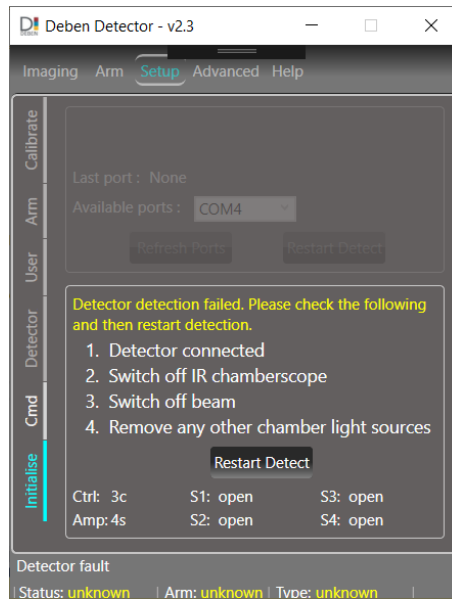


When the software is first run it looks for the type of diode installed and checks that all segments are working correctly. The PN detector diode is sensitive to a wide spectrum of light as well as electrons. Visible and IR light will be detected by the diodes, if the level of this light is too high the pre-amplifier will saturate and a fail signal will be reported as shown above for segment 4 (open). To prevent this happening please check the following causes.

1. Switch off any IR chamberscope when running the Gen5 software, a chamberscope may be used for checking diode alignment but it must be switched off during operation.
2. Ensure there are no other sources of light in the chamber.
3. Switch off the Electron beam when initiating the software.
4. Check that the diode is fully inserted into the arm connector.
5. Check that all cables are correctly connected.

The latest version of software V2.3 provides this information when detection fails, as shown below.



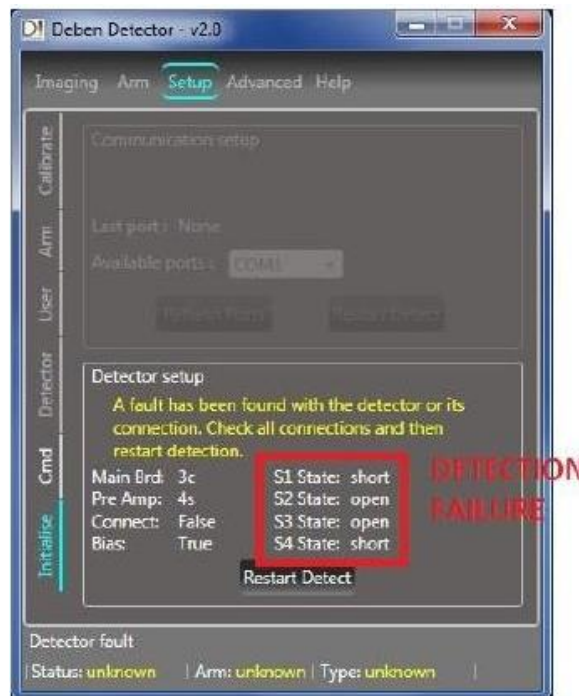


Changing diode setup parameter

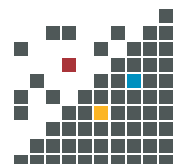
Another reason for Detection Fail could be an incorrect diode setup parameter.

- A setup parameter is available as part of the diode detection operation. This value is factory set and does not normally require user adjustment.
- The setup value can differ between different detector types.
- The setup value can be changed if diode detection produces unexpected results.

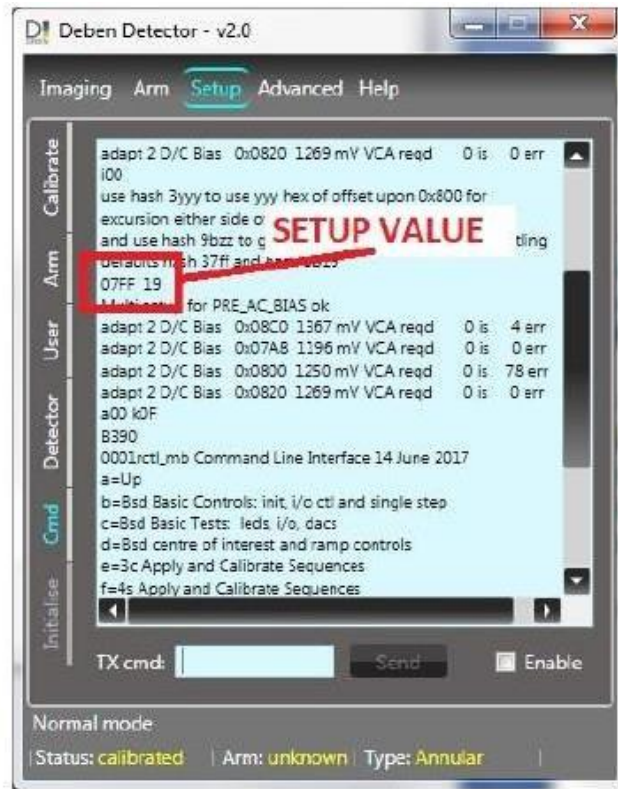
If the diode has failed detection, the user interface will display the window shown below.



First check for possible causes listed on page 1.

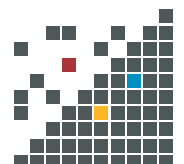
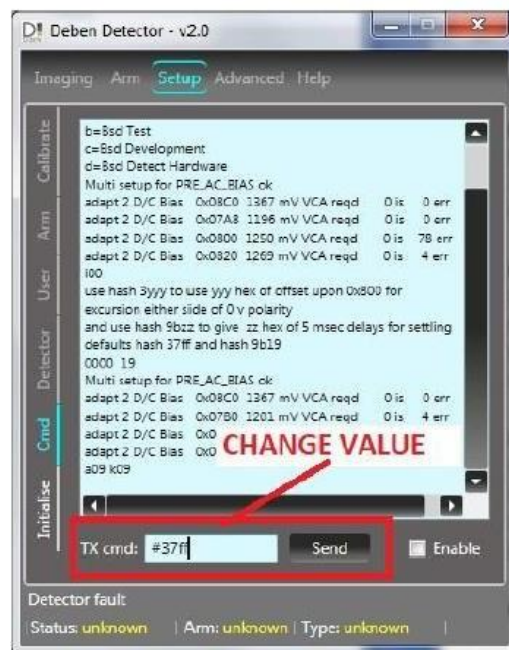


Next, before making any changes record the current setup value. Select the Setup, Cmd tab on the user interface to display the screen shown below.



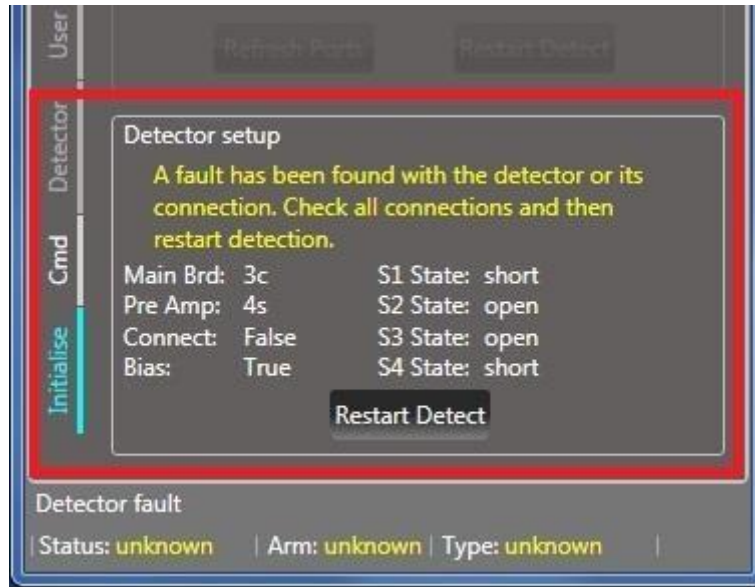
Change the setup value; try the following sequence of setup values in turn until the system passes the detection phase.

#37FF, #3600, #3400, #3200



Enter the value as shown and press the Send button.

Restart detection: Go back to the Initialise screen and click the Restart Detect button. This will run the detection sequence again and if successful the system will complete its configuration as normal. The setup value is stored and will not be lost when the system is power cycled.



If the detection still fails, try the next setup value and repeat the steps above.

After each test, record the state for S1 through S4. This may be useful if the setup procedure is unsuccessful.

