

# Grating Test Instructions

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## Introduction

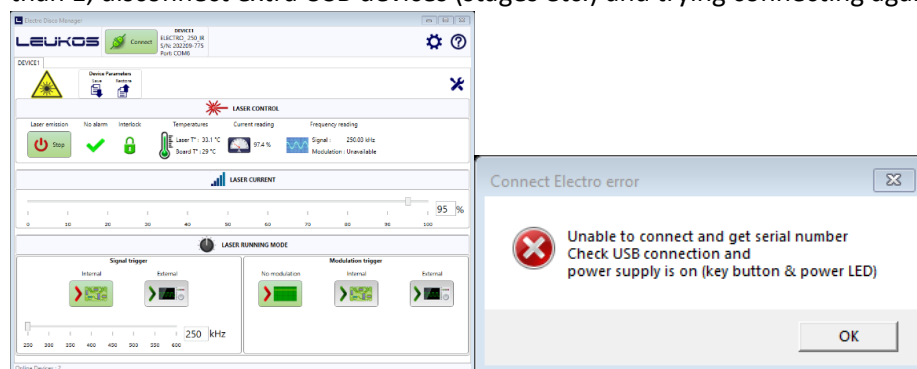
## Component checklist

## Safety instructions

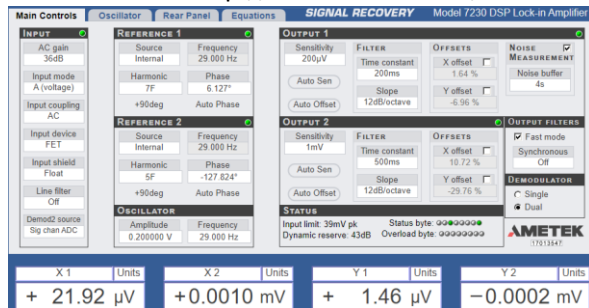
## Setup instructions

### Instructions from fresh restart

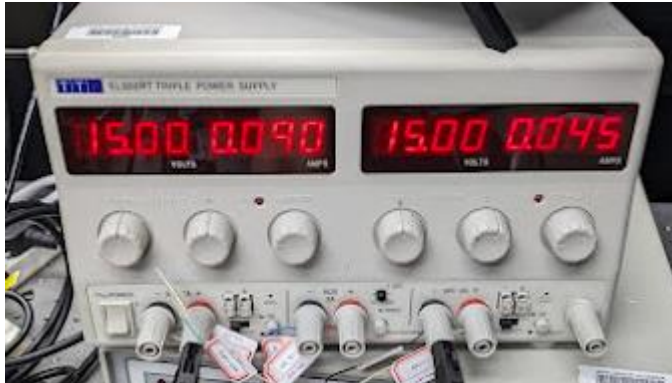
1. Open Anaconda Navigator
2. Select grating environment
3. Launch DataSpell
4. Turn on Monochromator at switch
5. Turn on lock-in amplifier
6. Turn on chopper, and start it with external reference from lock-in at 203Hz
7. Turn on laser with key
  - a. Check laser safety standards are applied, see Section 3
8. Launch "Electro Disco Manager"
9. Click Connect
  - a. If connection error, make sure 'Online Devices' on bottom left of GUI is 1. If more than 1, disconnect extra USB devices (stages etc.) and trying connecting again.



10. Load browser “<http://169.254.150.230/>” to connect to lock-in amplifier.



11. Switch on InGaAs detector



12. Auto-phase LIA Reference 1

13.

## Test procedure

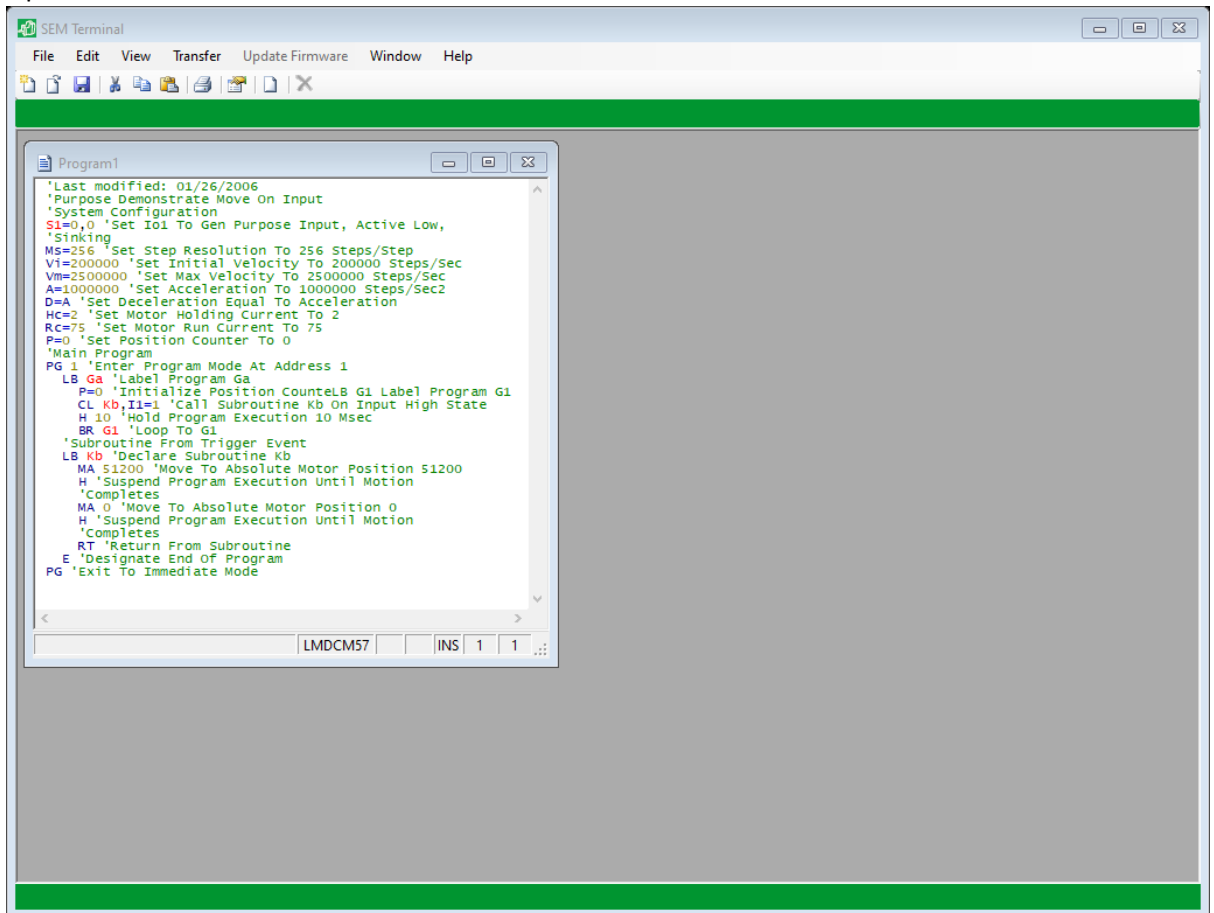
## Results interpretation

## Debugging

### Newmark linear translation stages

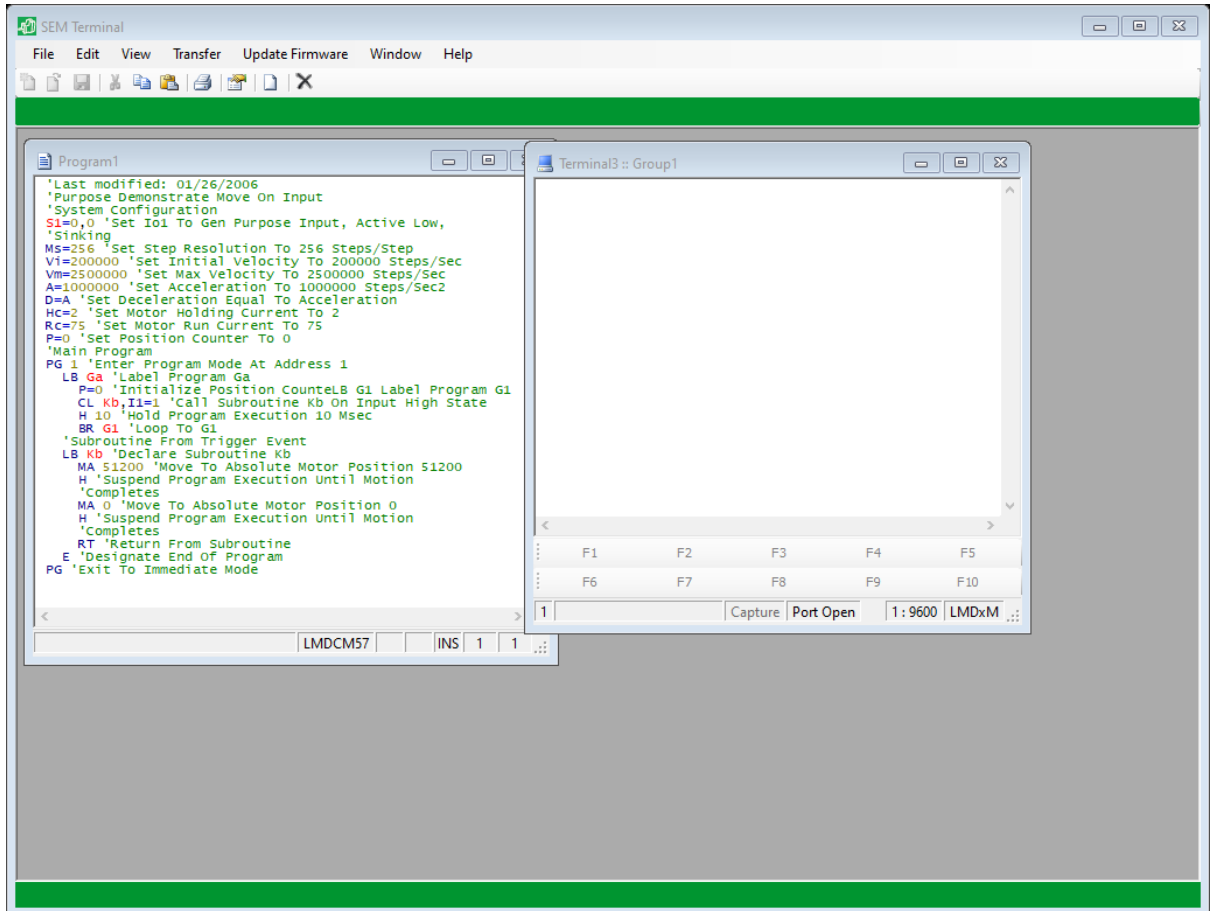
If no motion from the stages, but no obvious errors, the stages might be in ‘party mode’.

1. Open 'SEM Terminal'



2. View > New Terminal
3. Select the relevant COM port (COM4 for X-axis, and COM5 for Y-axis at time of writing)

4. Open Port by double clicking on 'Port Closed' on bottom bar of Terminal.



5. Hit enter and try to type a command. If nothing appears in the Terminal then party mode is active and must be disabled.
6. Send command 'CTRL + J', then '\*PY=0', followed by 'CTRL + J'. This will turn off party mode, now when you hit enter you should see the command prompt. Send 'S' to save.