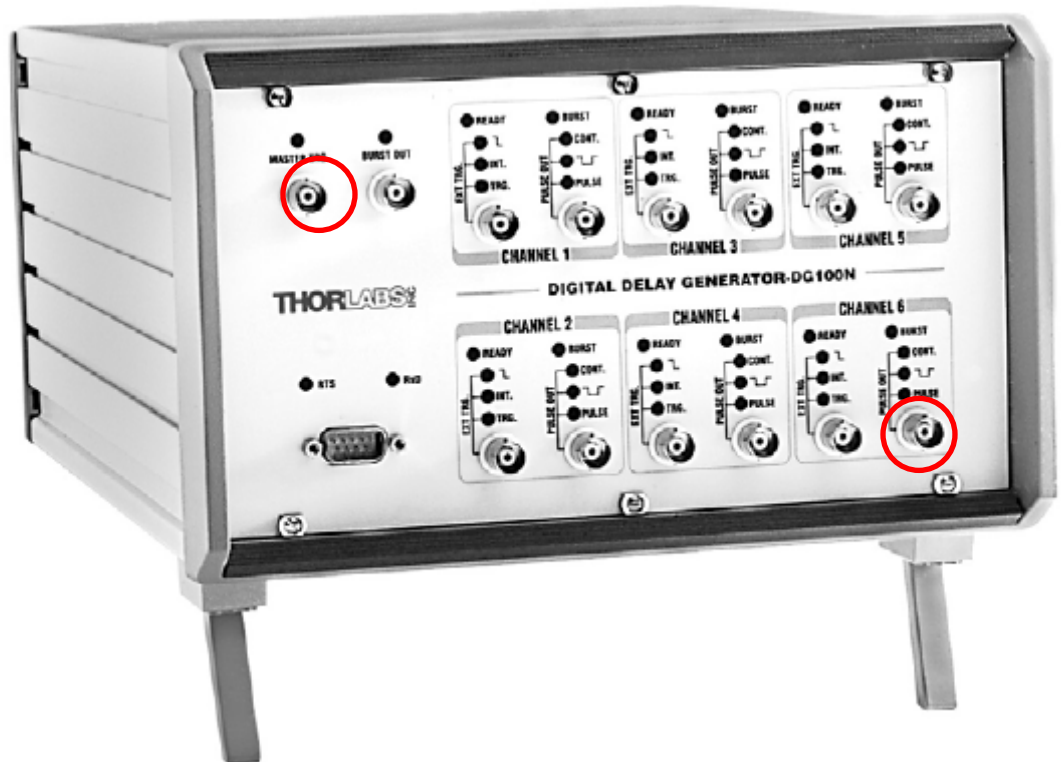


## AO bench setup and checkout

### Pre-LGS

1. Lock the loops on the HOWFS
  - a. Start up chopper  
([http://www.oir.caltech.edu/twiki\\_oir/pub/Palomar/PalmLGS/CassCage/Copper\\_Setup.doc](http://www.oir.caltech.edu/twiki_oir/pub/Palomar/PalmLGS/CassCage/Copper_Setup.doc))
  - b. Acquire white light on HOWFS
  - c. Close the TT loop and offset with the SSMs if needed
  - d. Register the DM
  - e. Close TT and DM and make a new flat map (in IDL, `ao_make_dm_flat_map`, filename)
2. Setup chopper
  - a. Turn on the delay generator in the Coude lab
  - b. If there is no pulse coming from the laser, on the delay generator, detach the laser trigger cable attached to the Master Input and connect the internal 500Hz signal to the the Master Input.



- c. From a PC, open up a VNC viewer
  - i. Enter 198.202.125.138 The username is aousr and the password is on a sticky above Harbor.
    1. If the connection doesn't work, verify that the Windows PC in the Coude room is powered up and that the Tight VNC server is running.
  - ii. Startup DG100 from the desktop.

- iii. The most recent settings are listed in:  
[http://www.oir.caltech.edu/twiki\\_oir/pub/Palomar/PalmLGS/AOOperationalProcedures/lgs\\_delay\\_generator.xls](http://www.oir.caltech.edu/twiki_oir/pub/Palomar/PalmLGS/AOOperationalProcedures/lgs_delay_generator.xls)
- iv. Click “Update Settings” in the upper right-hand corner
- d. Have the BTO operator verify the 500Hz signal (or laser trigger signal)
- e. Open up the “chopper.ht” hyperterminal program on the WFS PC.
  - i. Set the chopper to run off an external trigger (type, r and x. Type e to verify it works)
- 3. Verify the laser trigger in the Cass cage is connected to the HOWFS trigger input
  - a. Check if HOWFS will trigger off delay generator signal by setting the HOWFS rate=1
- 4. Put the laser trigger cable back into the master input on the delay generator