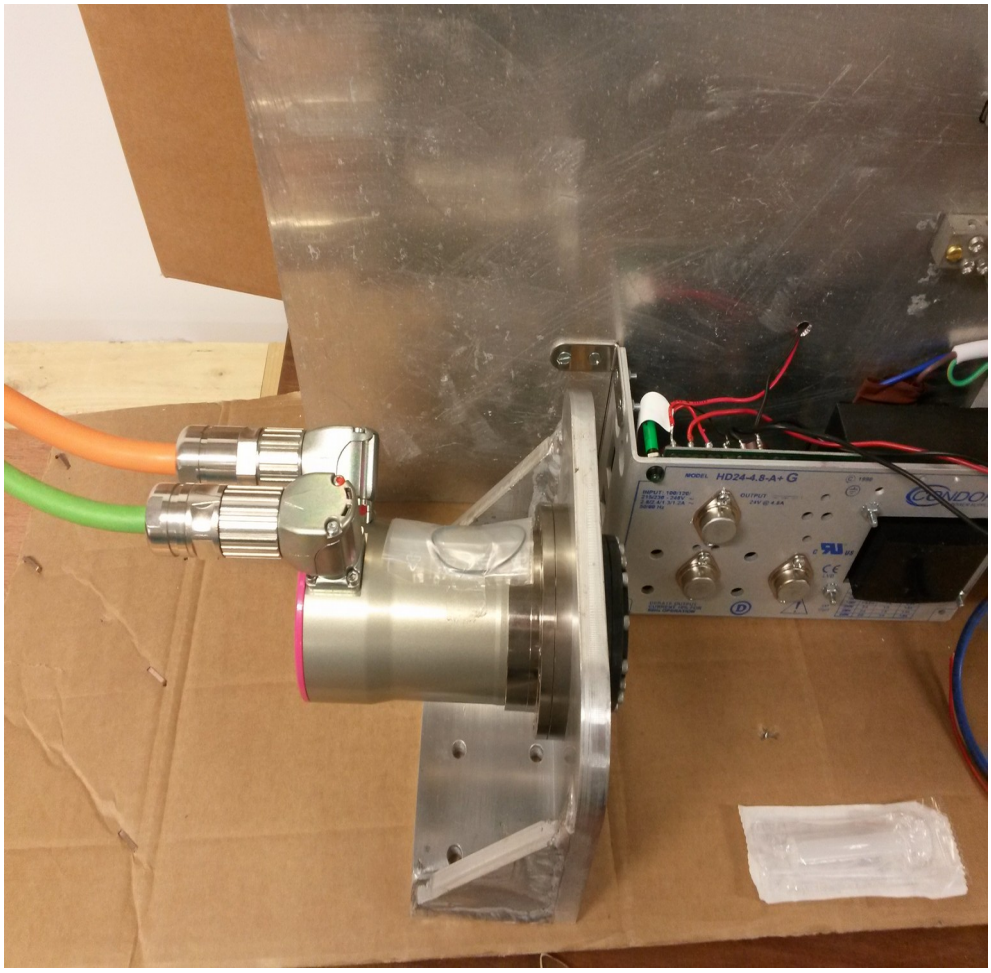
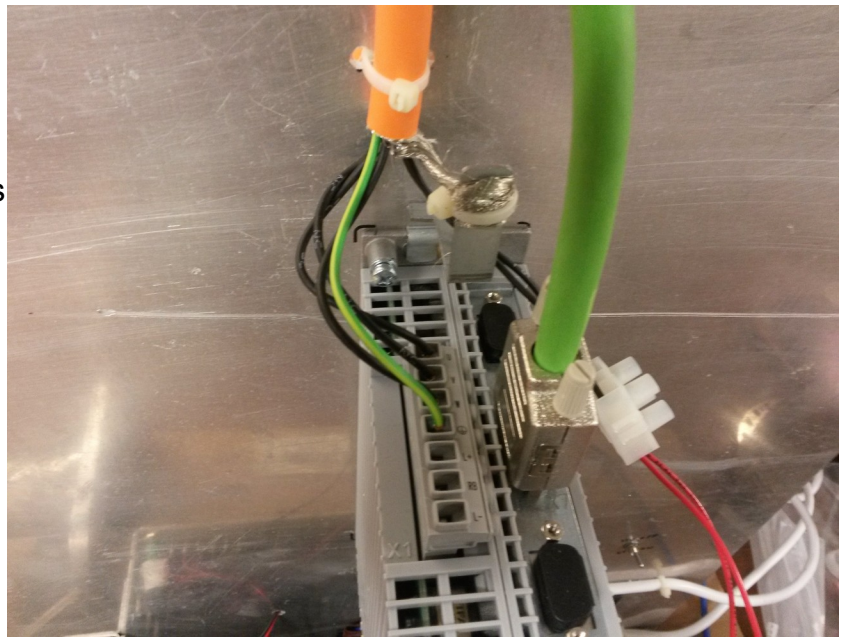
# Drive Configuration

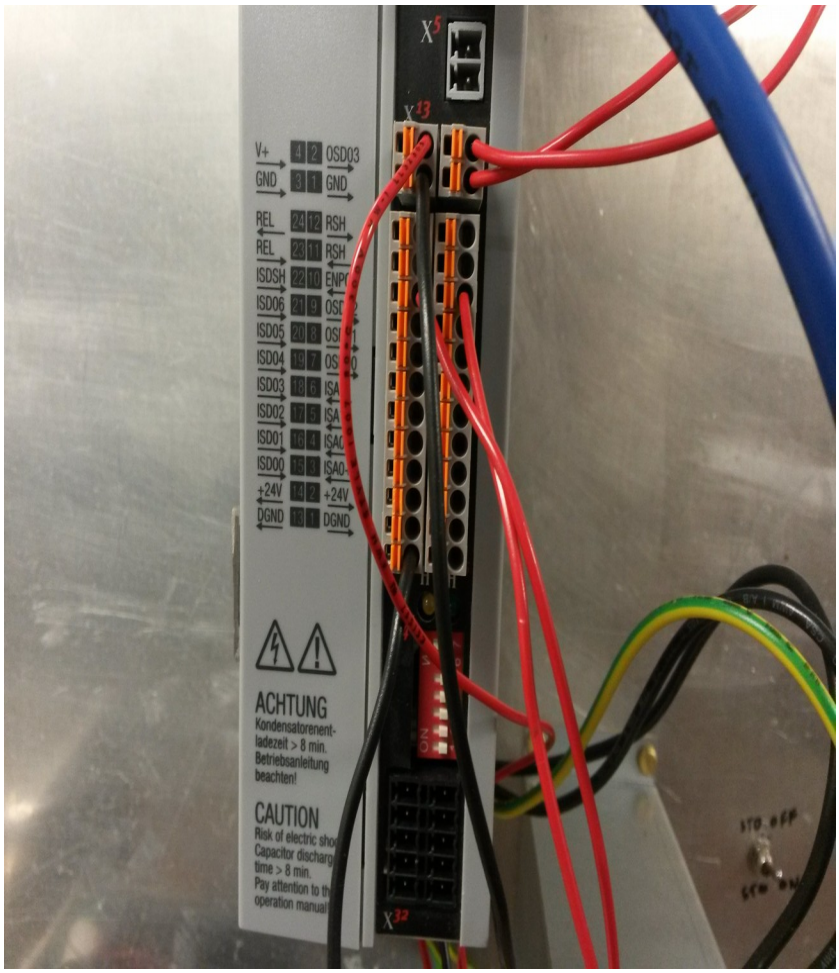


# 1 Wiring

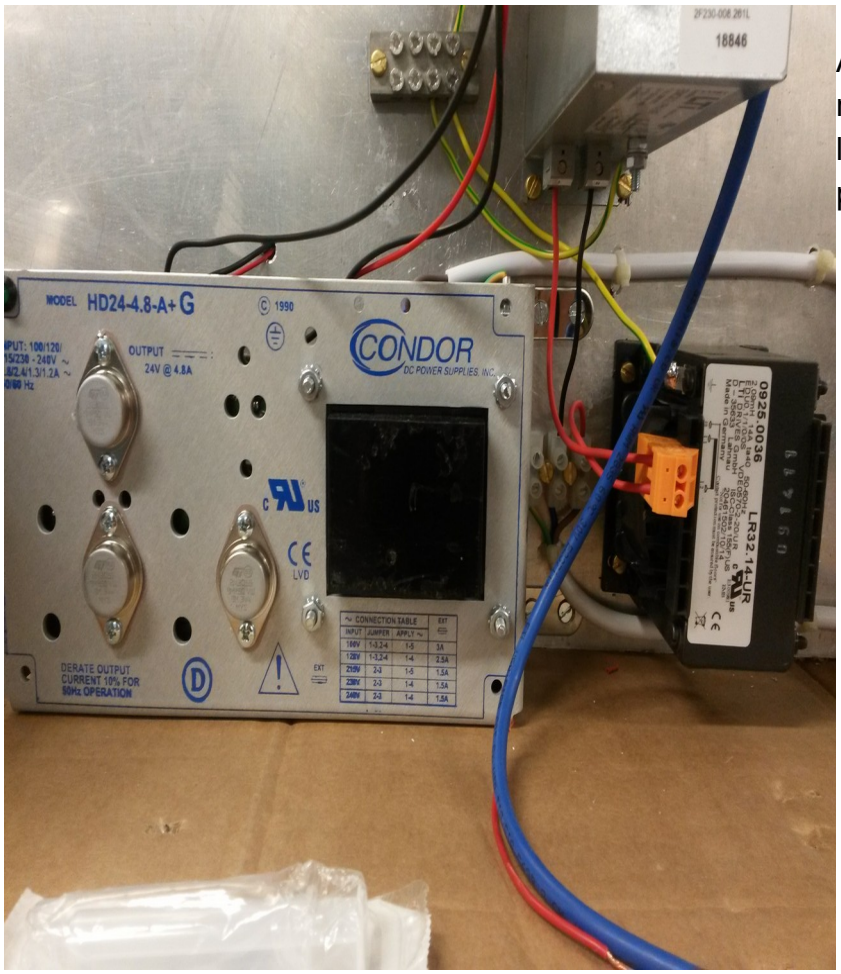
The motor needs to be plugged on top of the drive, except for the brake (red cables on the right) which is plugged at the front. Large green wire is plugged to X7, orange is plugged according to the labelling.



A 24V power supply is plugged to 4, 3, 22 and 10 to disable brake and STO. A switch can be used. Pins 2 and 1 are plugged to the brake coming out of large orange cable.

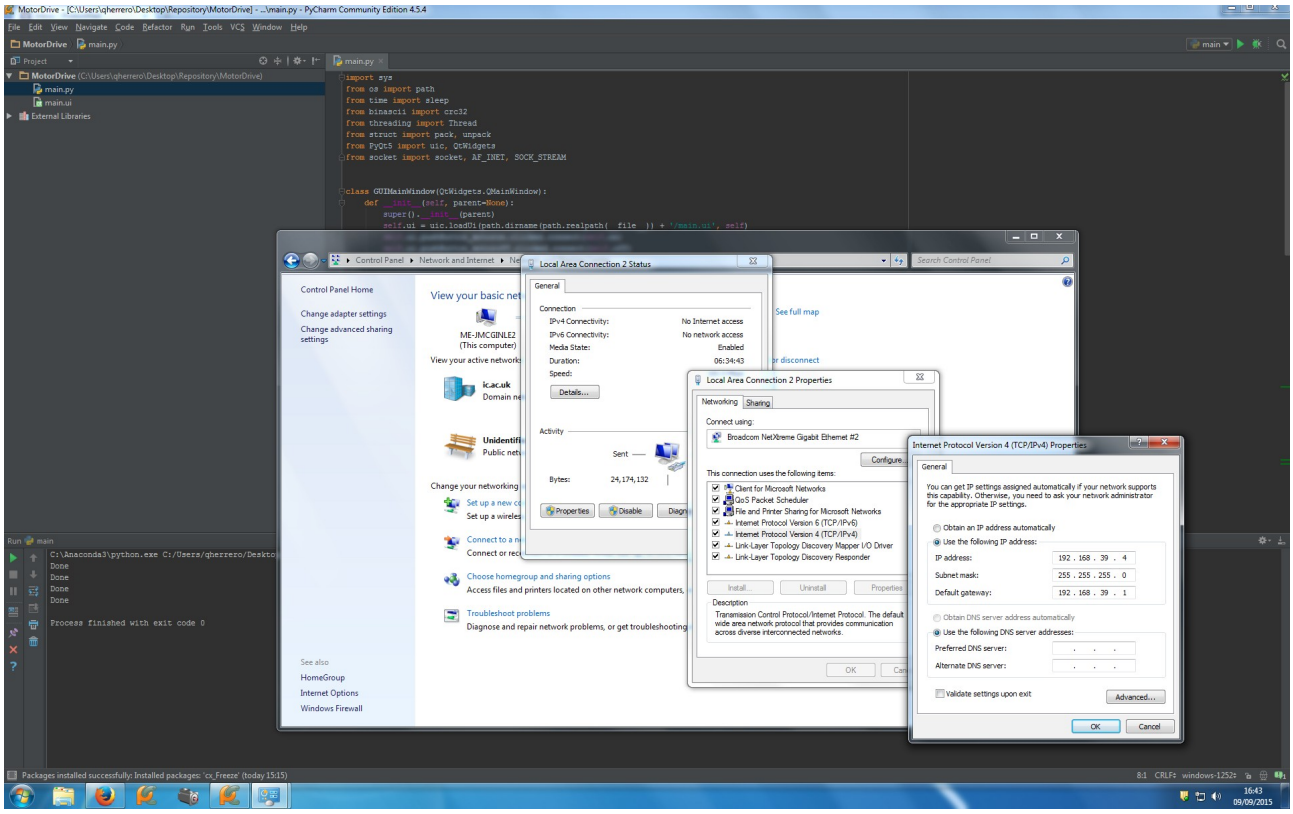


24V and 230V power supplies are plugged at the bottom of the drive.




A line reactor and a main filter are necessary between the mains lead and the drive. They are provided by Lti.

# 2 Network configuration



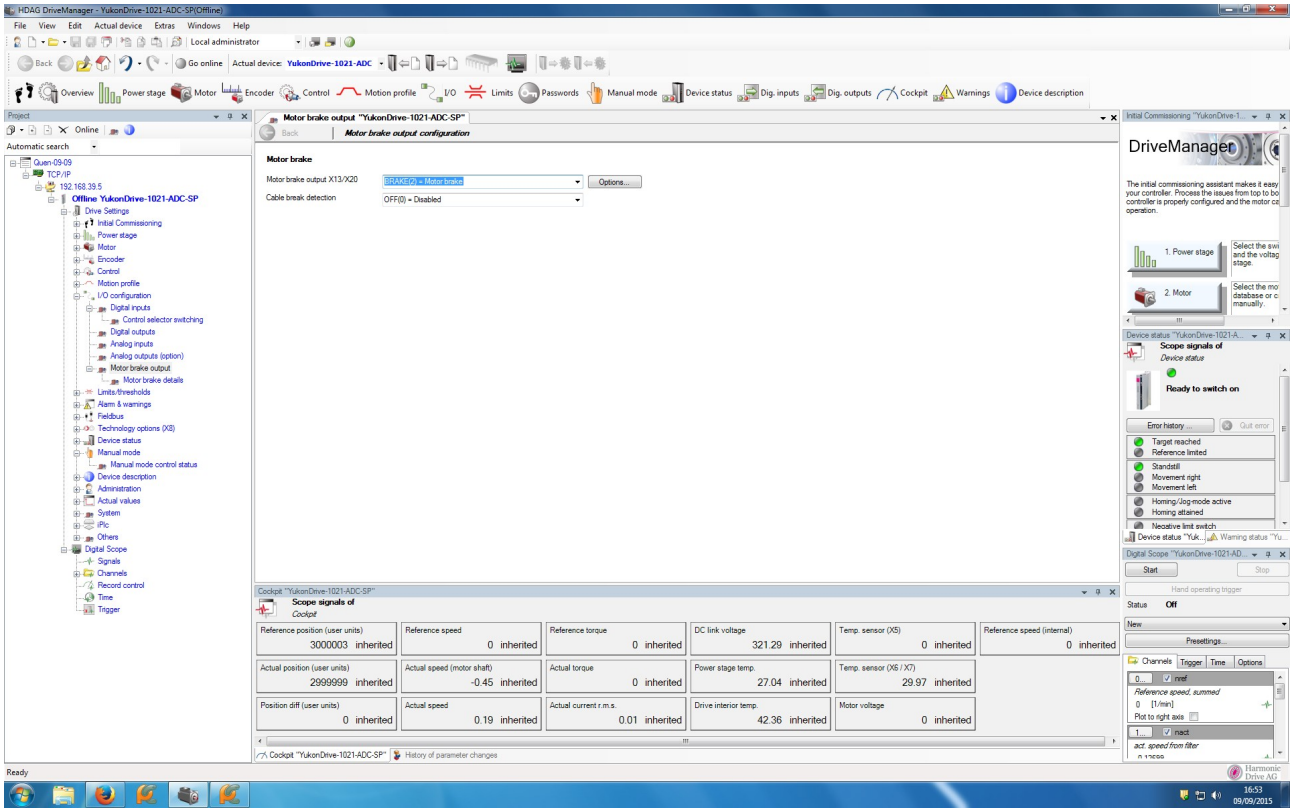

The network card needs to be configured to use the correct IP address when connected to the drive through Ethernet.

IP address: 192.168.39.4

Subnet mask: 255.255.255.0

Default gateway: 192.168.39.1

# 3 Release the brake



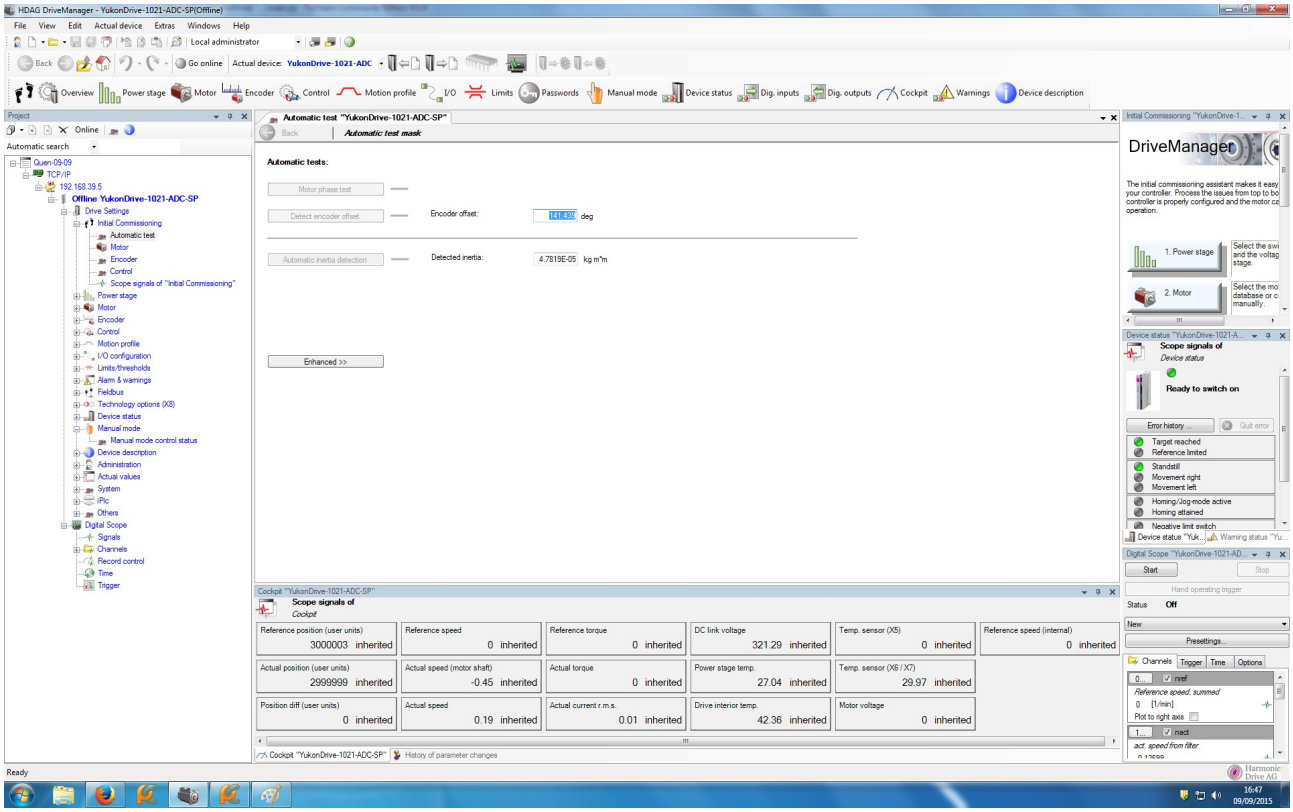

In DriveManager, it is needed to explicitly ask for the drive to release the brake using:

**Drive Settings / I/O configuration / Motor brake output**

“Motor brake output X13/X20” needs to be changed to “BRAKE(2) = Motor brake”.

If brake cables are correctly connected to a 24V supply, brake should be off by now. If the voltage supply is shut down, the brake will be activated again.

# 4 Automatic test

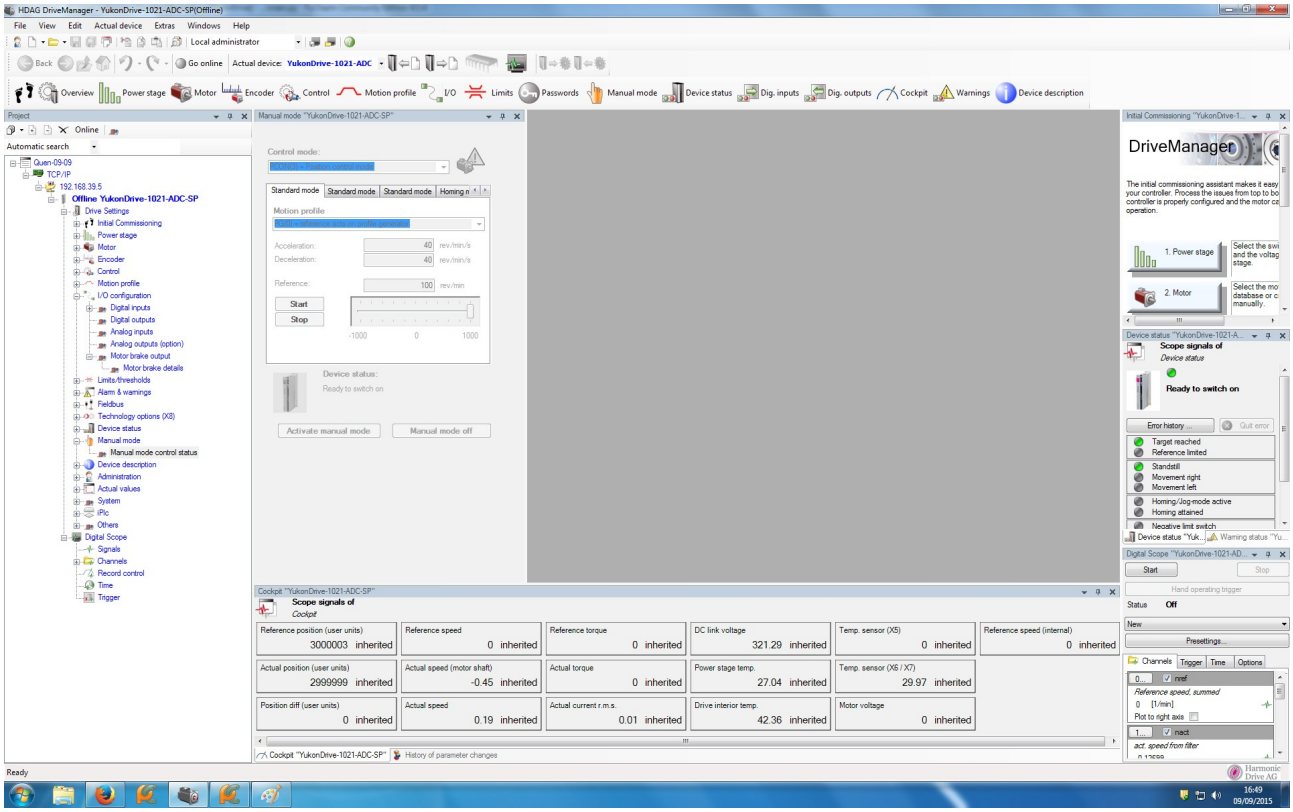



If those tests are not performed, we obtain a “maximum speed difference” or “maximum position difference”. It is probably because the initial factory settings are not adapted to this motor. We need to go to:

**Drive Settings / Initial Commissioning / Automatic test**

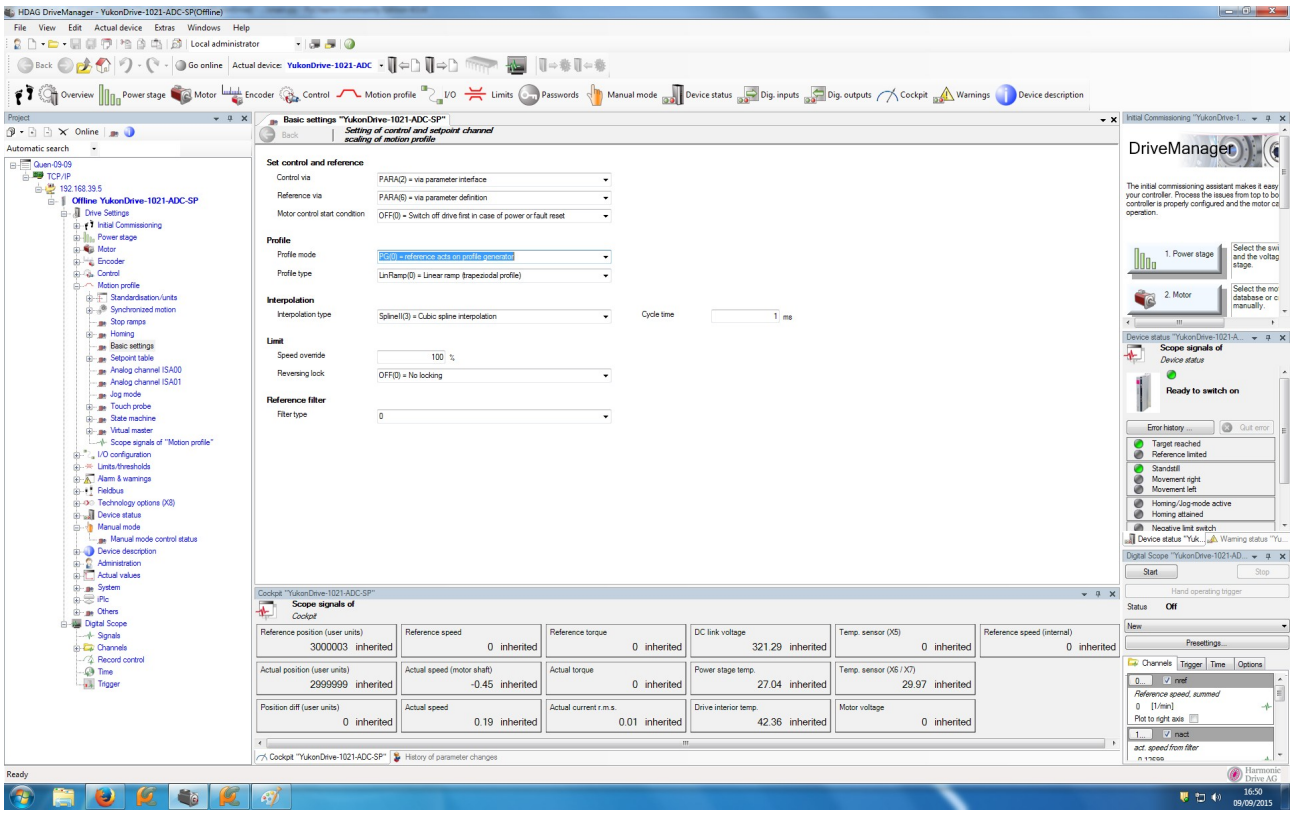
We need to perform a “Motor phase test”, a “Detect encoder offset” and an “Automatic inertia detection”.

# 5 Try the manual mode




Now we should be able to play with the manual mode. It should be noticed that the motor profile has to be set as “PG(0) = reference acts on profile generator”. The other option, without ramps, triggers an error. Torque, position and speed mode are supposed to work.

# 6 Set control via

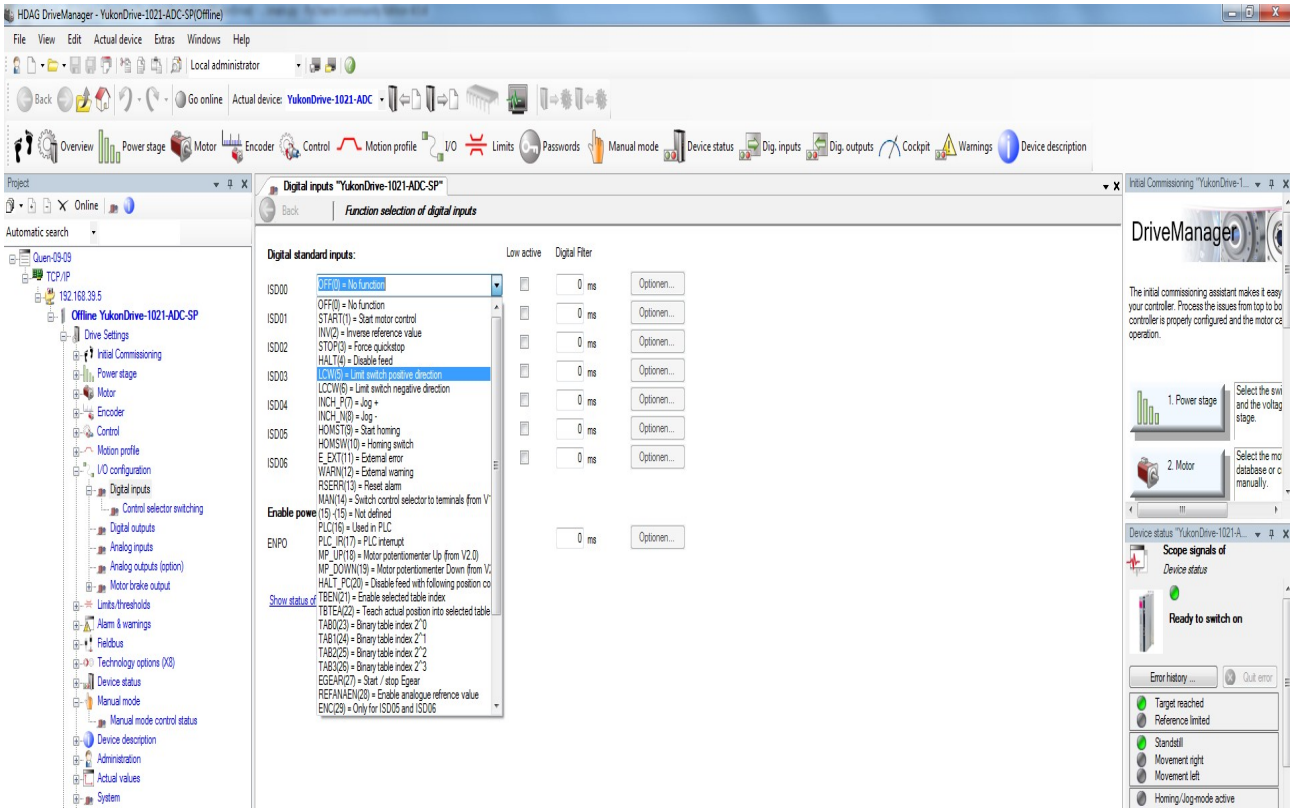



If we want to use the MotorDrive program, this is the last step:

**Drive Settings / Motion profile / Basic settings**

“Control via” needs to be changed to “PARA(2) = via parameter interface” and “Reference via” to “PARA(6) = via parameter definition”. Those parameters are critical and it seems than it is automatically switching to “TERM(1) = via terminals” when a cable is plugged into the front panel X13. It may be a problem if we are trying to use limit switch through the drive.

# 7 Limit switch (optional)

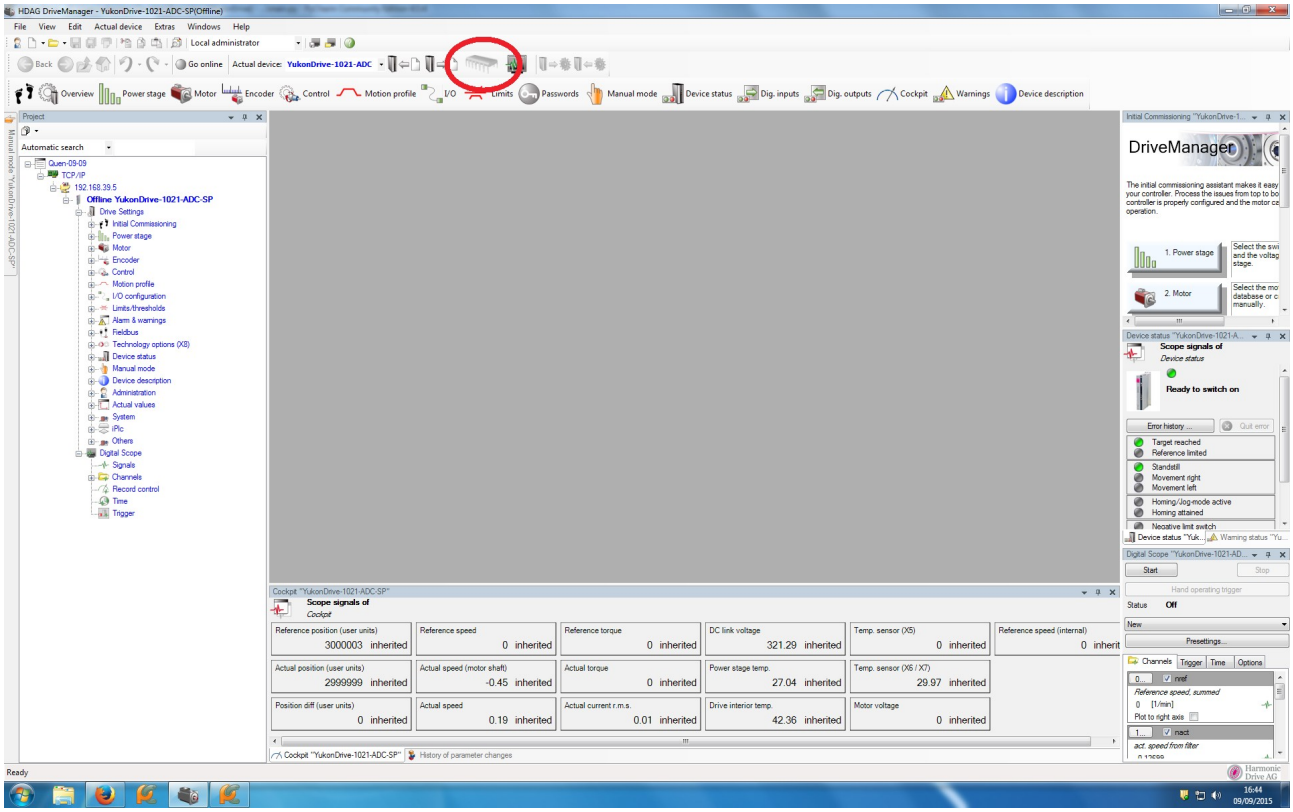



Not tested yet but some options exist in:

**Drive Settings / I/O configuration / Digital inputs**

We could force a quick stop or use the “limit switch positive/negative direction”.

# 8 Load parameters to device




We need to click on the big chip picture to save non volatile setting to the device (in case of reboot, it will remember all the previous changes). Without this step, all the procedure needs to be repeated each time the motor is rebooting.

# 9 Start the motor

When all steps have been finished, we can now start the motor. The steps are:

-Turn on the 24V drive first, wait for the S1 indicator (front panel)

-Turn on the 230V, wait for S2 indicator

-Turn STO on with the switch on the aluminium plate (on the right) to go to the 3 indicator

-Run main.py file in motor-drive, and click on the button to turn the motor on, indicator should show 5 by now

-Change the position/speed/… and click on go button

-To swap between motors, click on the Drive icon