

Advanced trouble shooting for Mango lengthangle servo system.

1. Home the servos.
2. Exit the Mango tech software, go to the EXIT tab and select OPERATING SYSTEM enter password (default =210569) make sure the E-Stop under the screen is pushed in.
3. On the desktop start the NMC Test or Servo Test Program, if there is no icon on the desktop refer to Mango Tech document “What to do if the servo system reports failures” to locate this program.
4. Press the SET button. (Fig 1)

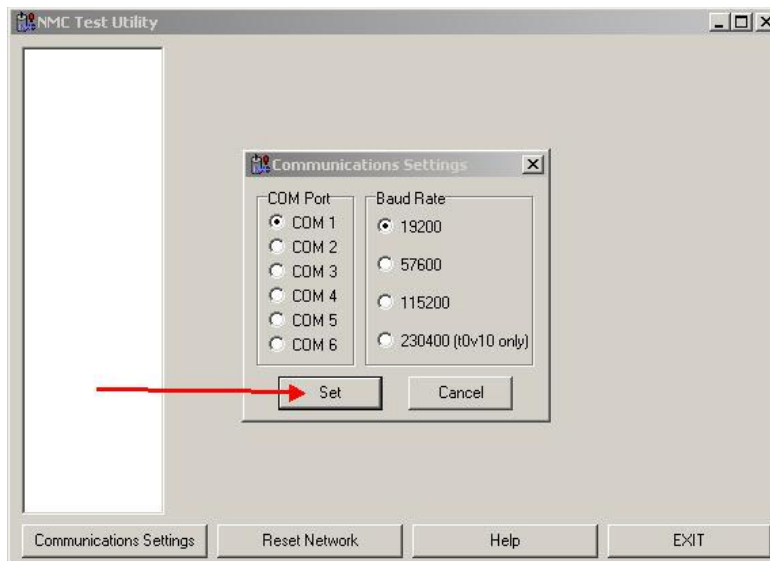


Fig 1.

5. You are now expecting to see 3 modules found (Fig 2), if not then refer to Mango Tech document “What to do if the servo system reports failures”.

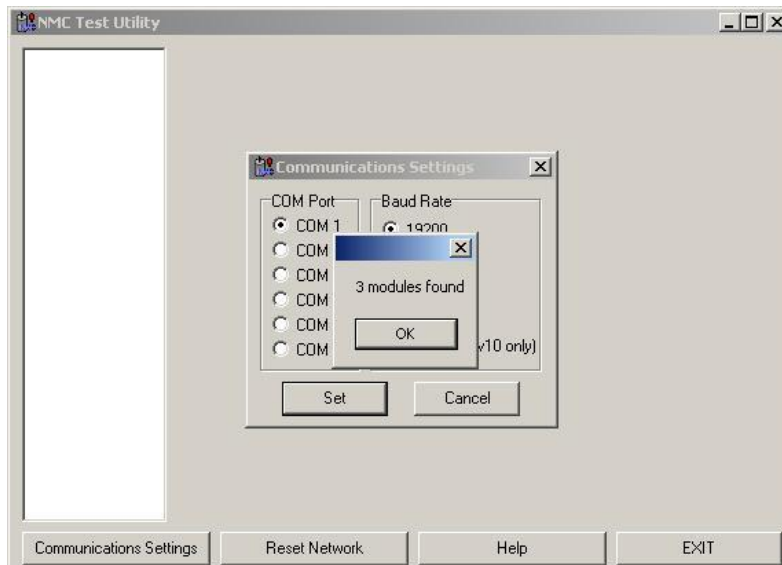


Fig 2.

6. Press OK you will see fig 3.

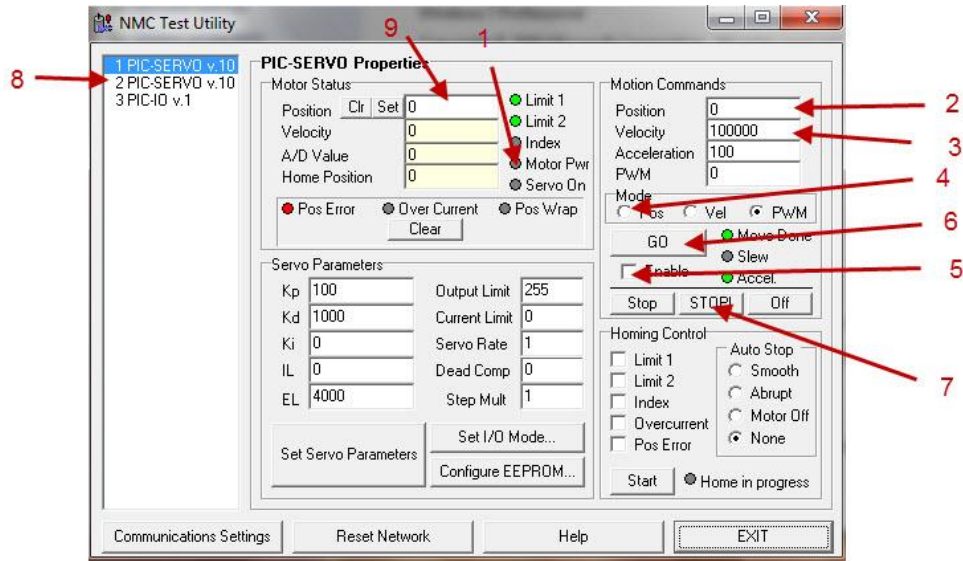


Fig 3.

Now the axes are to be driven using this program.

Release the emergency stop button and the Motor Pwr indicator (1) should turn green.

Enter -1,000 into the Position (2) under the motor commands.

Click the Pos (4) and check the Enable box (5)

Press the GO button (6) and the length should move a small distance indicated in Motor Status Position (9)

Change the Velocity (3) to 1000000, enter -100000 in the Motor Commands Position (2) and press GO (6) the length should then drive to 100,000. Enter 0 in Motor Command Position (2) and the length should drive back to its original position. If required the STOP button (7) can be used to stop the axes from moving.

Repeat this process 10-20 times if there is no errors (Fig 4) then select servo 2 (8) and repeat the above process this time driving the angle instead of the length.

**you may need to use a positive number in the position (2) to drive the angle in the normal direction of rotation*

If an error occurs move to 7.

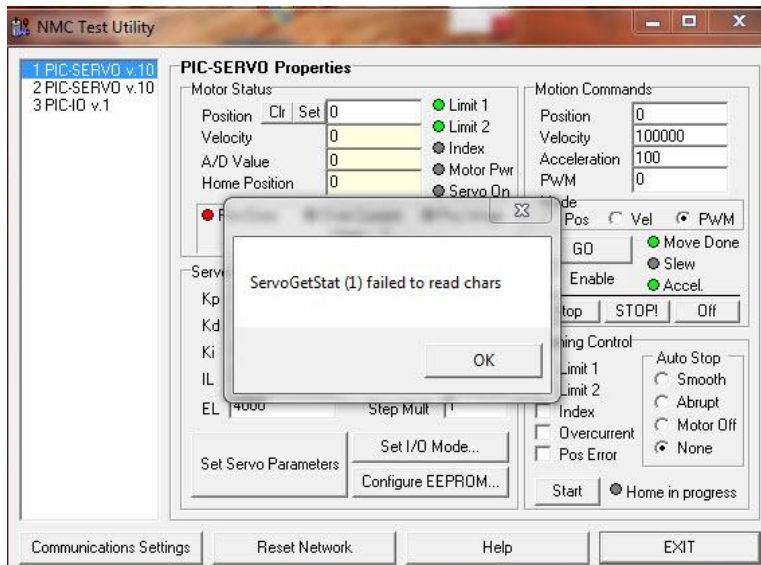


Fig 4.

7. There are several different errors which may occur while testing including the one shown above. When this occurs keep pressing OK to clear errors then press Reset Network.
8. The servo drive cards and cabling now need to be checked one card at a time. Push the Emergency stop button in then connect just one of the drive cards to the communication card via the ribbon cable (fig 5) make sure the 3 jumpers are on the card you are testing and that 12V is connected to at least one of the cards.

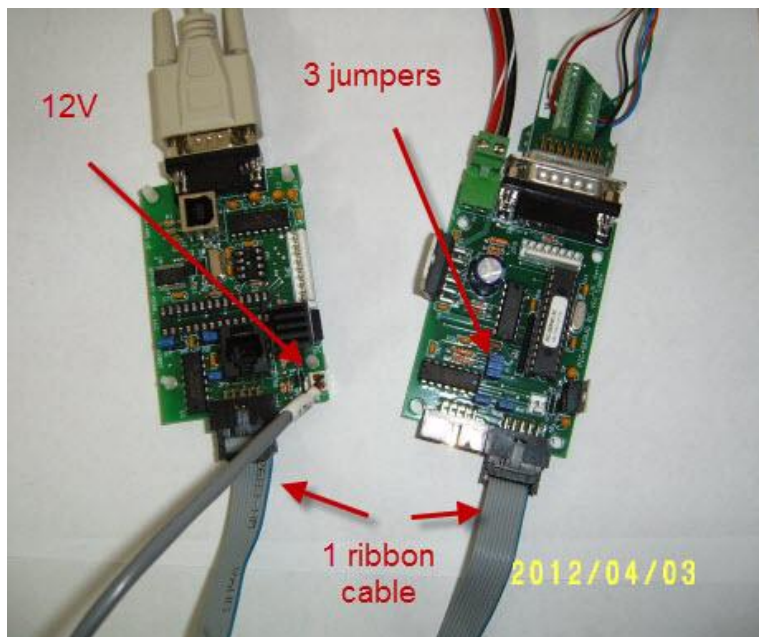


Fig 5.

9. Press SET (Fig1) this time you should see 1 module found (Fig 6)

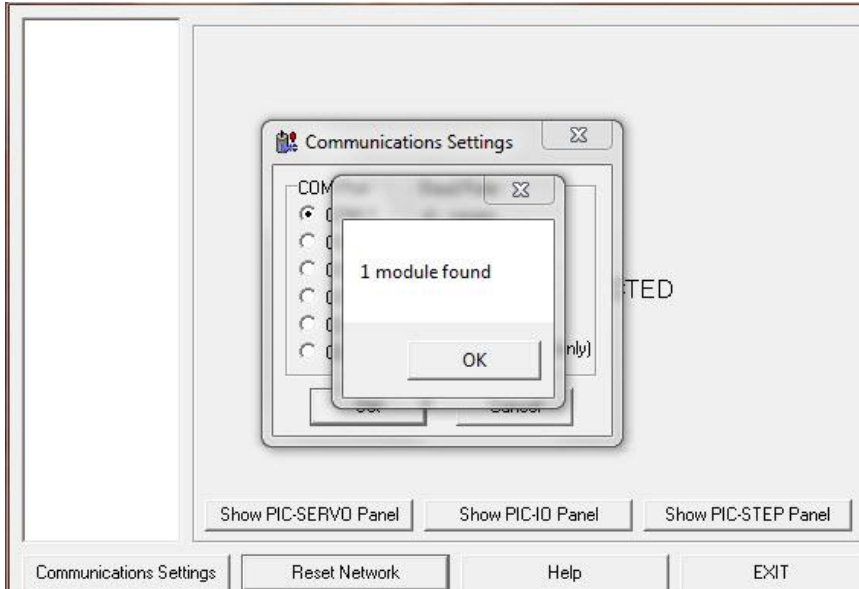


Fig 6.

10. Press OK then drive the attached axes using the procedure in step 6.
11. If there are no errors press Reset Network, press the emergency stop button in and connect the second servo drive card as per Fig 5 and repeat steps 9 and 10.
12. If an error occurs then clear all errors by pressing OK then press Reset Network. Press the emergency stop button and switch the 15 pin connector on the current drive card with the card currently not being tested, by doing this you will be driving the opposite axes, repeat steps 9 through 10.

If the Error does not repeat then the fault is somewhere in the original wiring harness connected to the 15 pin plug that was plugged in when the error first occurred.

