



CNC 8x.00

Demo Kit

Installation and Setup



Copyright

Translation of the original instructions, Copyright © 2015 SIEB & MEYER AG

All rights reserved.

This manual or extracts thereof may only be copied with the explicit authorization of SIEB & MEYER AG.

Trademarks

All product, font and company names mentioned in this manual may be trademarks or registered trademarks of their respective companies.

SIEB & MEYER worldwide

For questions regarding our products and technical problems please contact us.

SIEB & MEYER AG
Auf dem Schmaarkamp 21
21339 Lüneburg
Germany

Phone: +49 4131 203 0
Fax: +49 4131 203 2000
support@sieb-meyer.de
<http://www.sieb-meyer.de>

SIEB & MEYER Asia Co. Ltd.
4 Fl, No. 532, Sec. 1
Min-Sheng N. Road
Kwei-Shan Hsiang
333 Tao-Yuan Hsien
Taiwan

Phone: +886 3 311 5560
Fax: +886 3 322 1224
sasia@ms42.hinet.net
<http://www.sieb-meyer.com>

SIEB & MEYER Shenzhen Trading Co. Ltd.
Room 306, 3rd Floor, Building A1,
Dongjiaotou Industrial Area, Houhai Dadao,
Shekou, Nanshan District,
Shenzhen City, 518067
China

Phone: +86 755 2681 1417 / +86 755 2681 2487
Fax: +86 755 2681 2967
sm.china.support@gmail.com
<http://www.sieb-meyer.cn>

SIEB & MEYER USA
3975 Port Union Road
Fairfield, OH 45014
USA

Phone: +1 513 563 0860
Fax: +1 513 563 7576
info@sieb-meyerusa.com
<http://www.sieb-meyer.com>



1	Introduction	5
1.1	Function	5
1.2	Components	5
1.2.1	Hardware	5
1.2.2	Software	5
1.2.3	Files	6
2	Installation and Setup	7
2.1	Configuring a 2nd Network Card	7
2.1.1	Setting the IP Address for the 2nd Network Card	7
2.1.1.1	Notes for Windows 7	8
2.2	Connection of the Hardware	9
2.2.1	Connection Example A	9
2.2.2	Connection Example B	10
2.3	Install Software, Calibrate, Load Program	11
3	Troubleshooting	17
3.1	Network error	17
3.2	Tool Measurement Error	18



1 Introduction

1

The CNC 8x.00 Demo Kit includes hardware and software components for production planning on a separate work place.



This manual describes the Demo Kit for the CNC 84.00. You can apply the described instructions to the CNC 82.00. Then, use the operating software of the CNC 82.00 with the motion controller MC82.

1.1 Function

Compared with the operation of the CNC on a machine the Demo Kit offers only limited functionalities. The motion controller is provided with a special dongle that does not support normal operation of the motion controller on a machine.

After installation and setup of the CNC 8x.00 Demo Kit has been finished the CNC works in the simulation mode.

1.2 Components

1.2.1 Hardware

The CNC 84.00 Demo Kit contains the following hardware components:

- ▶ Motion Controller MC84 in housing
- ▶ Ethernet cable X11 (Cross Over, Cat 5e)
- ▶ external power supply unit (input: 100 to 240 V_{AC} / ~1.6 A / 50 to 60 Hz / output: 24 V_{AC} / 2.5 A) with connection cable X10



When delivered in countries where other mains plug standards apply than in Germany, the external power supply unit is not part of delivery. In this case, consider connection example B ([p. 10](#)). Otherwise, consider connection example A ([p. 9](#)).



For PCs equipped with one network card, only, you need an USB > Ethernet adapter which is not part of delivery

You can for example use the USB 2.0 > LAN 10/100 Mb/s adapter by Delock (article number of Delock: 61147).

1.2.2 Software

The following software is required for the CNC 84.00 Demo Kit:

- ▶ Operating software of the CNC 84.00
Contact the SIEB & MEYER service department to get the installation file (cnc-service@sieb-meyer.de).

1.2.3 Files

1

The following files are provided with the Demo Kit:

- ▶ DEMO-KIT.PAR: test parameters for the setup
- ▶ STARTUP.TXT: text file with CNC commands for setup
- ▶ SIEB-MEYER-Format-5000.SM5: part program for the simulated execution

2 Installation and Setup

2.1 Configuring a 2nd Network Card

2

To operate the CNCs of the series CNC 8x.00 via a network, you must install a 2nd network card into your PC. Then, you can connect the CNC via X11 with the network connection of the 2nd network card in your PC.

Alternatively, you can use a standard USB > Ethernet adapter, e.g. USB 2.0 > LAN 10/100 Mb/s adapter by Delock, article no. 61147 (commercially available).

This chapter describes how to configure a 2nd network card.



Consider the documentation of the PC manufacturer when installing the 2nd network card in your PC.

2.1.1 Setting the IP Address for the 2nd Network Card

Procedure

This section describes the procedure with the example of Windows XP.

- ▶ Start the PC.
- ▶ Select "Start → Settings → Control Panel → Network connections" .
- ▶ Double click on the symbol for the second network card.
The window "Local Area Connection Status" appears.

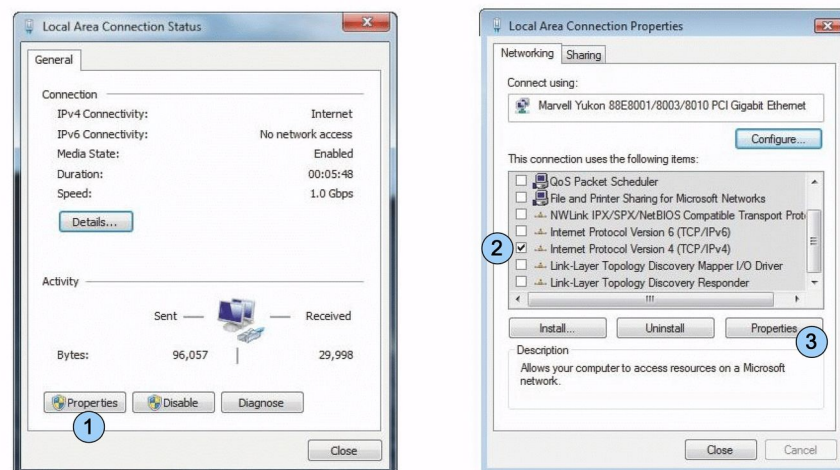


Fig. 1: Connection status and properties of the second network card

- 1 Click on the button <Properties>.
The window "Local Area Connection Properties "appears.
- 2 Activate the option "Internet protocol (TCP/IPv4)" via the corresponding check box. All other option are deactivated.
Ensure that only the option "Internet protocol version 4 (TCP/IPv4)" has been activated, "Internet protocol version 6 (TCP/IPv6)" must not be activated!
- 3 Click on the button <Properties>.

The window "Internet Protocol (TCP/IP) Properties" appears. Enter the IP address of the 2nd network card into this window. You must ensure that both network cards have different IP addresses.

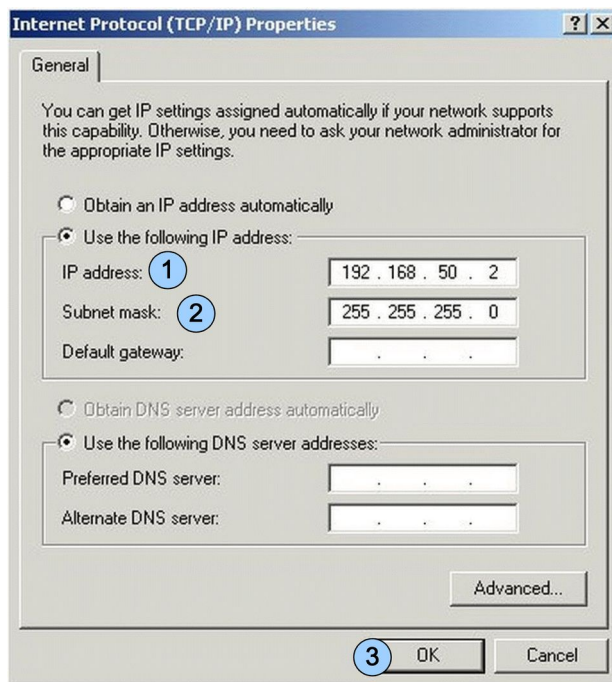


Fig. 2: Enter IP address

- 1 **IP address (PC)** 192.168.50.2 (default)
- 2 **Subnet mask:** 255.255.255.0 (default)
- 3 Click on the button <Properties> to apply your entries.



The default IP address of the network card in the Motion Controller is:
192.168.50.1.

2.1.1.1 Notes for Windows 7

Starting from Windows 7 the TCP/IP stack of Windows has changed. This means that Windows requires a quite long period (about 1min.) to re-establish a network connection that was cut before (for example after a reset of the CPU card).

You can reduce the waiting time by binding the MAC address to its IP address.

Proceed as described in the following:

- ▶ Enter "*show mac*" in the buggy terminal.
The MAC address appears, e.g. "mac: 00:01:84:01:0C:2F".
- ▶ Start the prompt as administrator and enter the following text:
"*arp -s <IP address of the card> <MAC address of the card>*" bzw. mit o.g. Adressen "*arp -s 192.168.50.1 00-01-84-01-0c-2f*"

2.2 Connection of the Hardware

2.2.1 Connection Example A

This connection example shows the connection of the motion controller, if delivered with external power supply unit and network cable.

1. Connect the power cable to the external power supply unit and connect it to mains.
2. Connect the power supply cable with X10 of the motion controller.
3. Connect the provided Ethernet cable with connector X11 of the motion controller and with the network connection of the 2nd. network card of the PC or with the LAN connector of the USB > Ethernet adapter.

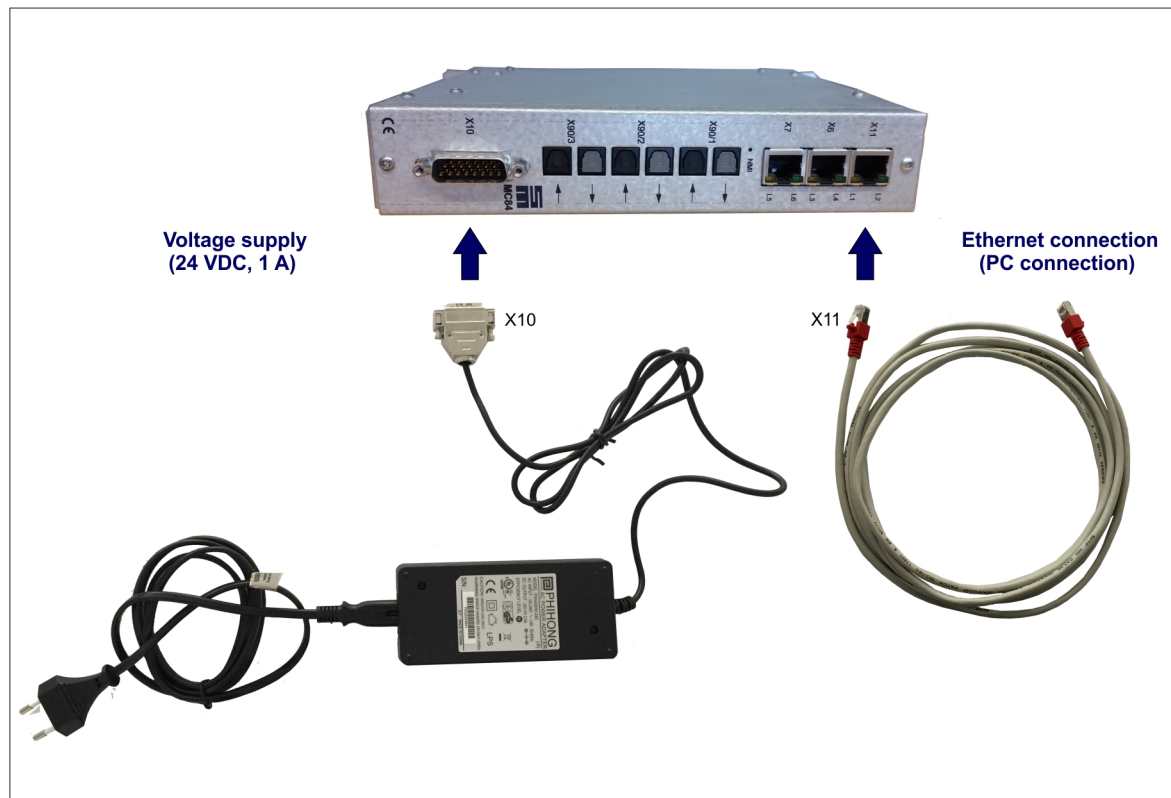


Fig. 3: Connection of the Demo Kit hardware: connection example A

2.2.2 Connection Example B

This connection example shows the connection of the motion controller, if delivered with external power supply unit and network cable.

1. Mount a cable for the connection of the voltage supply to X10 according to the pin assignment in the figure.
2. Connect the power supply cable with X10 of the motion controller and the adapter to the mains socket.
3. Mount a cable for the connection of the PC according to the pin assignment in the figure (Cross Over, Cat 5e).
4. Connect the provided Ethernet cable with connector X11 of the motion controller and with the network connection of the 2nd. network card of the PC or with the LAN connector of the USB > Ethernet adapter.

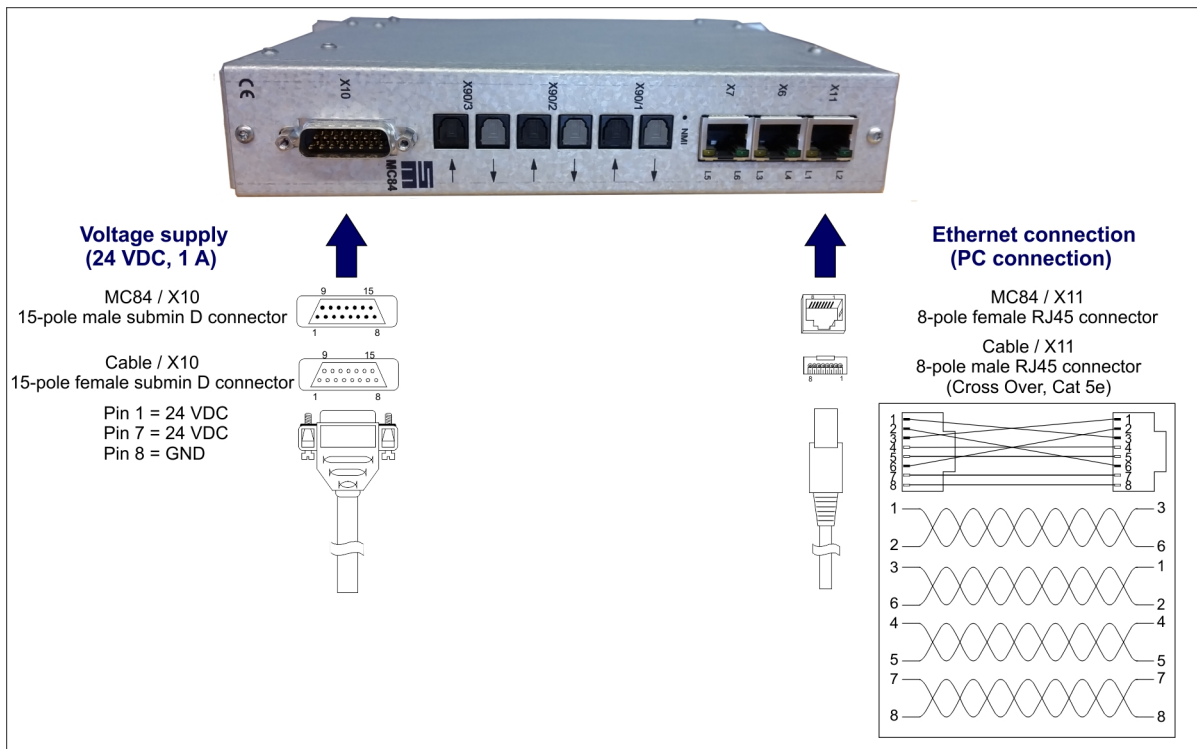


Fig. 4: Connection of the Demo Kit hardware: connection example B

2.3 Install Software, Calibrate, Load Program

1. Operating software of the CNC 84.00
Contact the SIEB & MEYER service department to get the installation file (cnc-service@sieb-meyer.de).
The installation file is named for example "setup CNC84 11.12.007.exe".
2. Install the software. Double click on the installation file and follow the instructions of the InstallShield Wizard.
During installation activate the check box for a desktop link.
☒ Desktop
For detailed information on installation of the operating software refer to the manual "CNC 8x.00 – Installation".
3. During software installation the following directories are created on the hard disk of your PC.
 - C:\CNC84
 - C:\SM_WCNC
 - C:\SMWDATA
4. Copy the provided files into the following directories:
 - DEMOKIT.PAR → C:\SM_WCNC\SOFTC1\SM_MOT
 - STARTUP.TXT → C:\SMWDATA
 - SIEB&MEYER-Format.SM5 → C:\SMWDATA
5. Click on the desktop icon "CNC 84" to start the operating software.



6. After software start you are prompted to log on. Enter the user name "SERVICE" and the password "WORKER".



Fig. 5: Enter user name

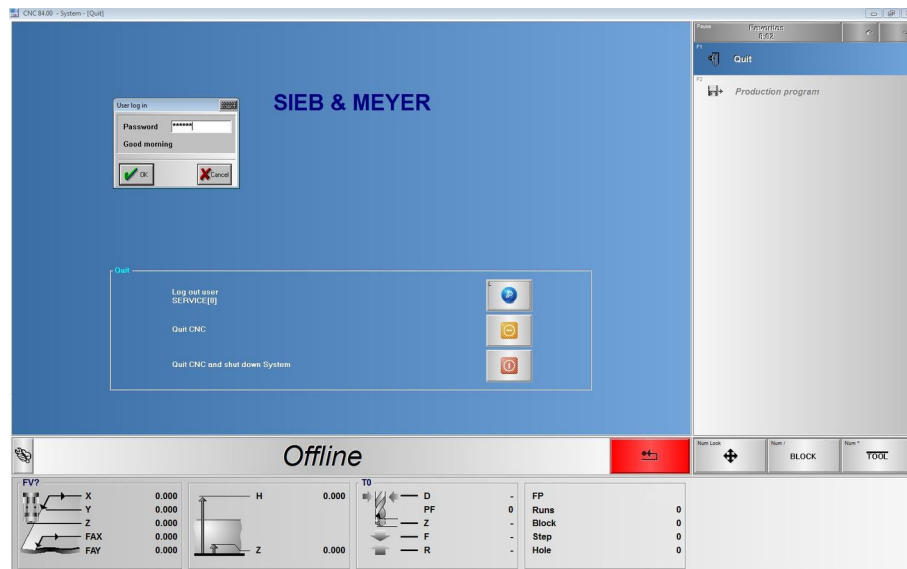


Fig. 6: Enter password

7. If a test mode prompt appears during login, click on "No"

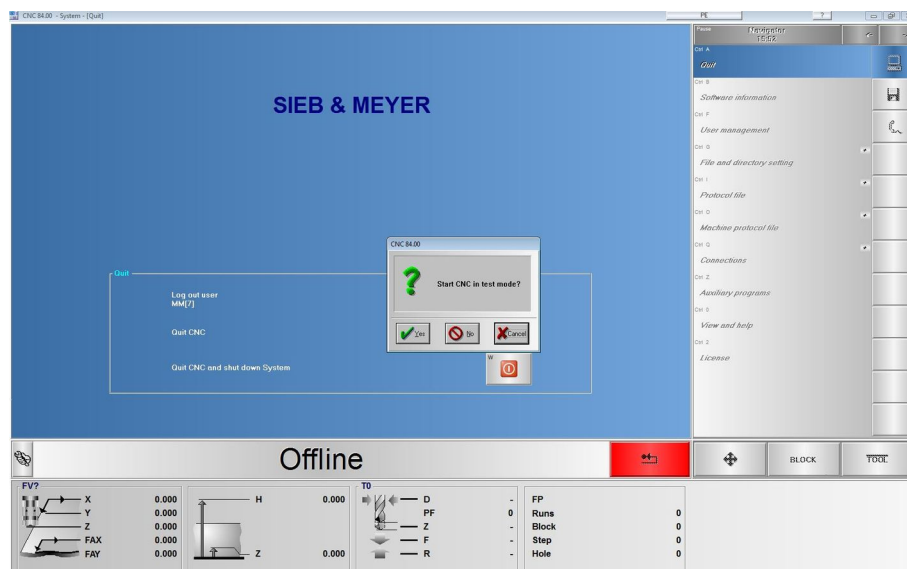


Fig. 7: Do not start CNC in the test mode

8. Load the parameters from the provided parameter file "DEMOKIT.PAR".

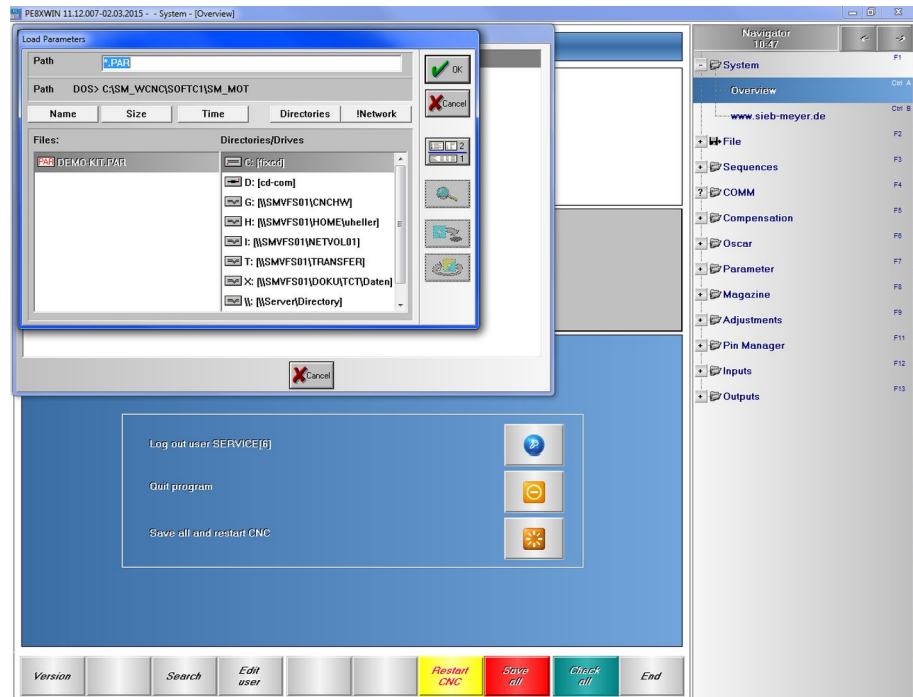


Fig. 8: Parameter file

9. Click on "System → File and directory setting → Info and startup files". The following window opens:

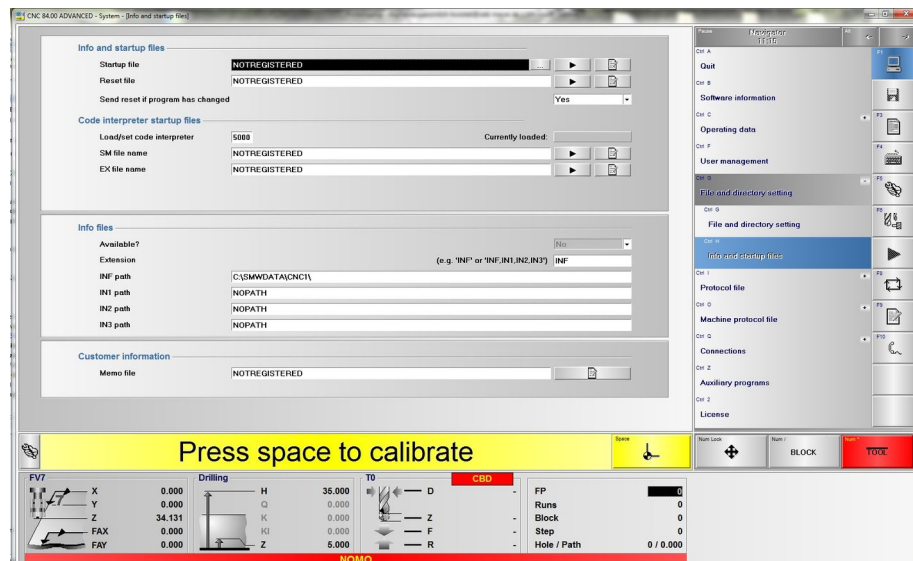
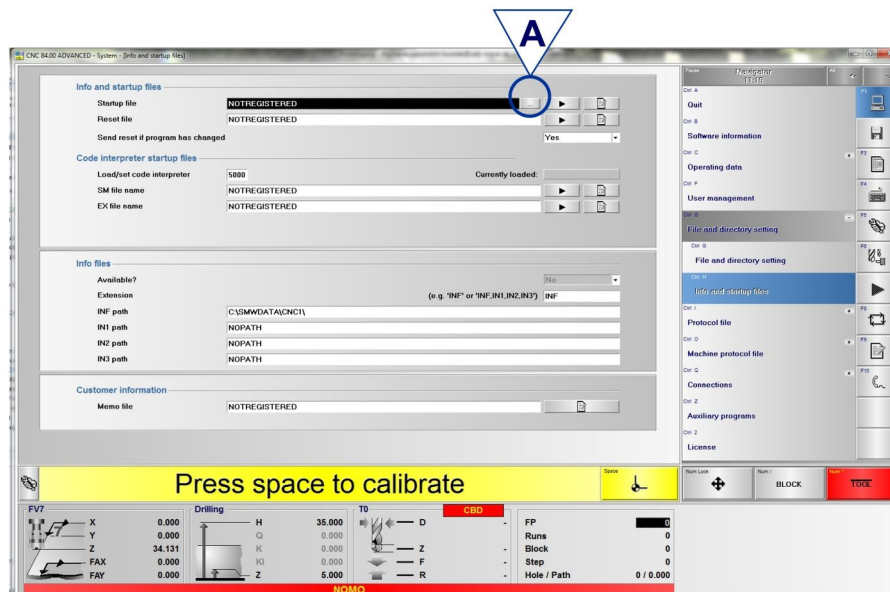


Fig. 9: Select startup file

10. Click on the button on the right to the field "Startup file" [A]. The file browser of the operating software opens. Select the provided file "STARTUP.TXT". After you have selected the file appears in the field "Startup file".



11. Press the space bar of the PC keyboard to start calibration. After calibration you are prompted to load a program.

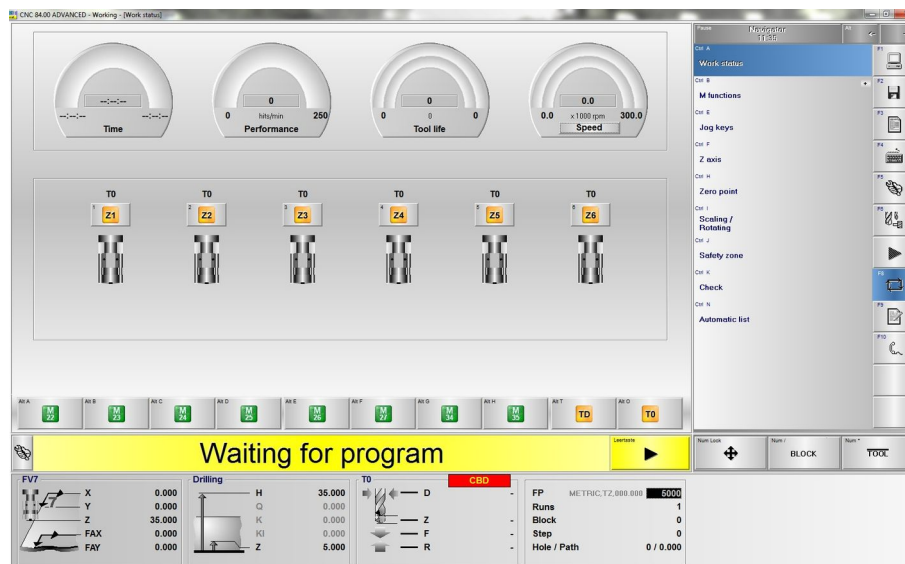


Fig. 10: Calibration finished. Load production program.

12. Load the provided part program "SIEB&MEYER-Format.SM5" into the operating software. Press <F2> on the PC keyboard or click on the button with the floppy disk symbol [A]. The file browser of the operating software opens.

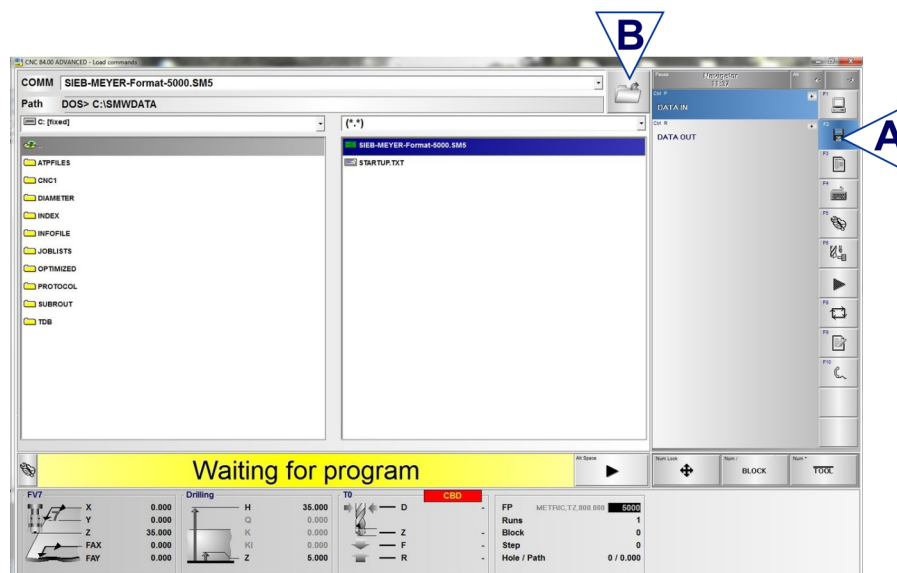


Fig. 11: Load production program

13. Select the part program "SIEB&MEYER-Format.SM5". Double click on the file name or click on the button on right to the file and path name **[B]**. The programm is loaded into the main storage of the CNC.
14. Press the space bar on the PC keyboard to start the simulated execution of the part program. The software generates the graphic of the part program.

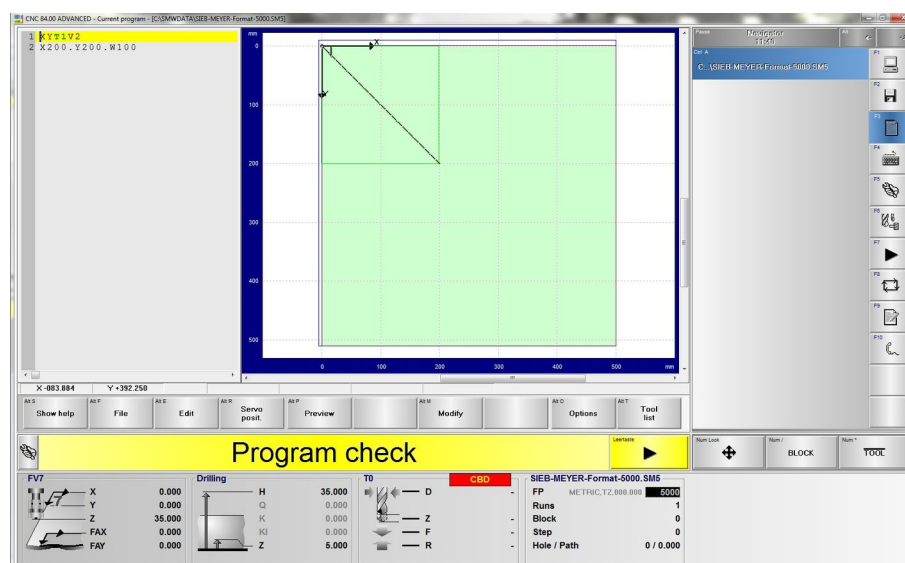


Fig. 12: Graphic of the part program

15. Press the space bar on the PC keyboard twice. The CNC works in the simulation mode.

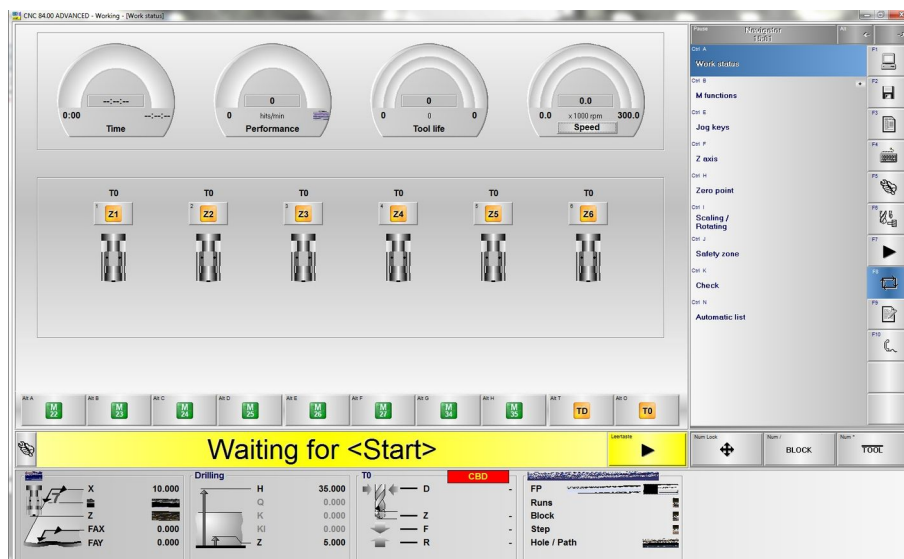


Fig. 13: Simulation mode

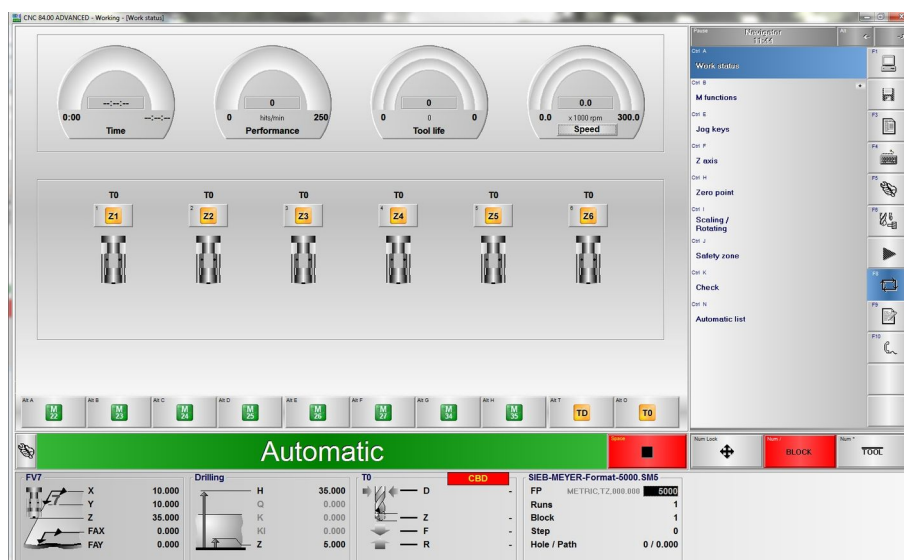


Fig. 14: Simulation mode

3 Troubleshooting

During setup of the CNC 8x.00 Demo Kit errors might occur.

3.1 Network error

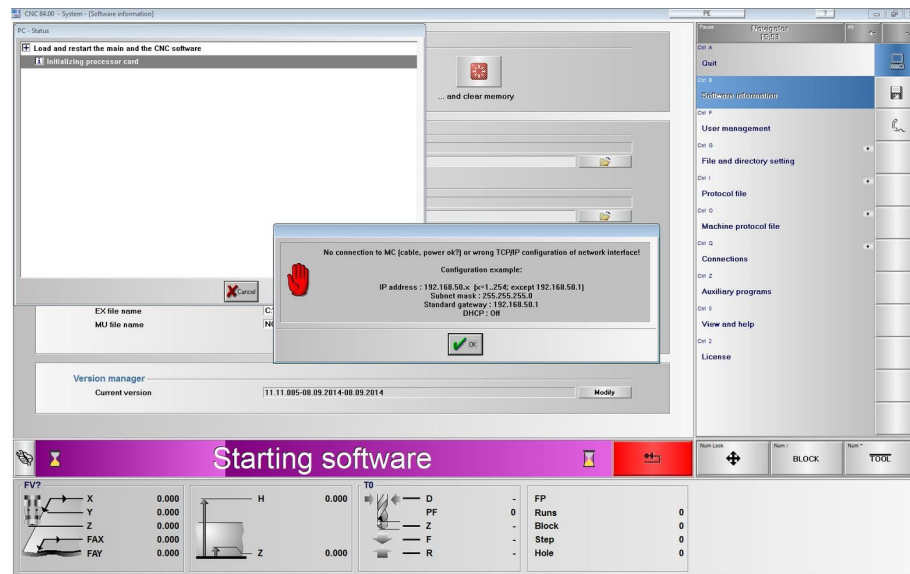


Fig. 15: Network error

Remedy

- ▶ Check the cable connections of the motion controller: Check the mains connection and the Ethernet connection.
- ▶ Open the settings of the used network card and enter the IP address as shown in the message (see [section 2.1.1 "Setting the IP Address for the 2nd Network Card", p. 7](#)).

3.2 Tool Measurement Error

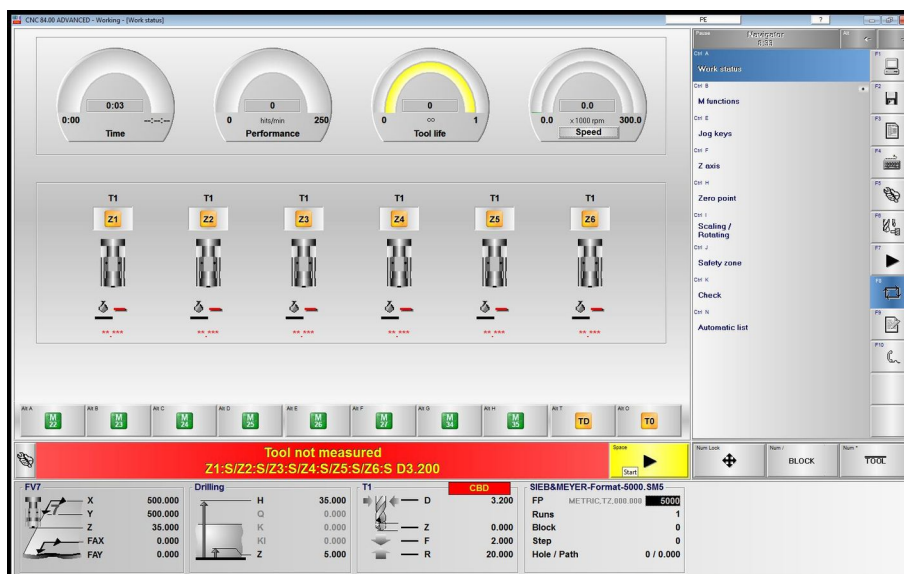


Fig. 16: Error during tool measurement

Remedy

- ▶ The tool measurement simulation could not be finished correctly.
- ▶ Check, whether the startup file has been selected correctly. Click on "System → File and directory setting → Info and startup files". The following window opens:

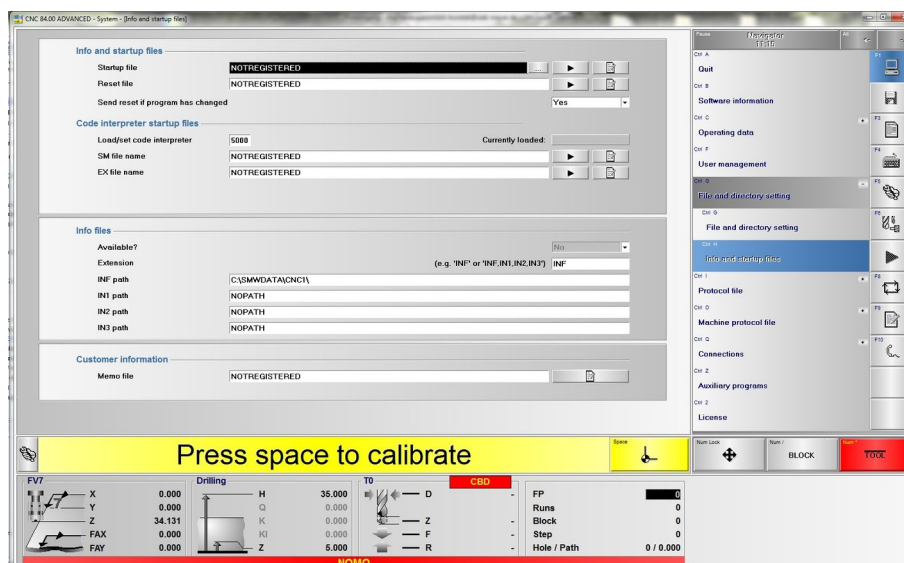


Fig. 17: Select startup file