



User Setup For Anilam Networking

Upon receiving your Fryer machine, networking will be setup for TCP/IP protocol. We only support this method of networking. If you need to use a different protocol, like Novell, the system will need to be reconfigured.

The main parameters that have to be set up for the Mill machine and the networked machine are : IP Address, SubNetMask, Name, Username(for the mill only), and Workgroup.
All networked Mills, ship with the following default parameters:

IP Address : 100.100.100.2
SubNetMask: 255.255.255.0
Name : Machine
Workgroup : CNC
Username : Machine

Before shipping, the mill was tested using a crossover Ethernet cable with a laptop using Windows XP (Service Pack 2) with the following configuration:

IP Address : 100.100.100.1
SubNetMask: 255.255.255.0
Name : Shop
Workgroup : CNC

With regards to the mill, all the parameters specified above can be changed by editing either the Protocol.ini file (for SubNetMask and IP Address) and the System.ini file (for Computer Name, Username, and Workgroup). These files reside in the NET directory under the root C drive. Instructions on how to edit these files and an example of these files are at the end of this document.

Instructions on modifying Network parameters on a PC

1. Hook up the PC to the machine using an Ethernet Network cable. If the testing is done PC to PC make sure it's a "Crossover" cable and not a straight-through one normally used with routers. If you are hooking up to a Hub, then use the straight-through Ethernet cable. You need to change the Workgroup of your PC to "CNC" and its name to "SHOP". If the name cannot be SHOP (the mill configuration expects a computer with that name), there are additional instructions described below to be done on the mill side. The IP address can be any belonging to the same network. Changing it to 100.100.100.1, using a SubNetMask of 255.255.255.0 satisfies that requirement.
If your computer uses Windows XP (windows 2000 and windows 98 have very similar procedures), the easiest way to accomplish the above is to do the following:
 - a. Right click on the MyComputer icon on the desktop and choose the last option "properties"
 - b. Click the tabbed button "Computer Name" that appears on the top of the System Properties window that pops up.
 - c. You will see entries for Computer description, Computer name, and Workgroup. In order to change the last two, click on the "change" button.
Enter your new values and hit Ok.
 - d. In order to change the IP address of your PC, double click on the "My Network Places" icon on the desktop. Proceed to click on "Network Connections" on the left panel of the screen that comes up. Right-click on the device that corresponds to your Ethernet Lan on the right and click "properties". Scroll down the display window and click ONCE on the entry that says "Internet Protocol (TCP/IP)". Click on the "properties" button and make sure the radio button "Use the Following IP address" is selected. Fill in 100.100.100.1 for the IP Address and

255.255.255.0 for the SubNet Mask. You can leave the Default Gateway entry blank. You will need to reboot your computer after this is done.

2. With Windows 98 you should be all set and able to see the mill as part of the network in "Network Neighborhood".

With Windows XP, the "Network Places" GUI (Graphic User Interface) will not allow explorer to access a DOS shared drive. The workaround is done by using the command prompt (under start-programs-accessories-command prompt) type:

"net use (drive letter): \\ (computer name) \ (share name) " then enter.

Example: net use M: \\MACHINE\MACHINE. The first "MACHINE" is the Mill computer name and the second is the Mill username, both defined in the System.ini file. Make sure you have a space between the colon and the double slashes. Also make sure to use a drive letter that is not currently used in your system. DOS may take some time to map, sometimes up to 10 minutes, so be patient. Once you get a success message, you should have a network entry for that drive under "Network Places". The new "M" directory is now mapped to the User directory in the Mill.

Microsoft 2003 server requires all machines on the network to have digital signing. Microsoft DOS client 3.0 does not allow for digital signatures. In order for the CNC to function with this, the digital signing must be turned off, which would cause a security issue. In order to work around this problem the machine can be mapped to an intermediary PC that has an XP operating system. Follow the same procedure described above with the Windows XP PC.

3. In order for the Mill to be able to view your PC's harddrive, you need to make it a shared harddrive. The procedure to do that is simple. Bring up Windows Explorer, and right click on the "C:/" drive and proceed to click on the "Sharing and Security..." entry. Click the tabbed button "Sharing" that appears on the top of the Properties window that pops up and then proceed to click on the warning sign "If you understand the risk.....click here". A new window pops. In the "Network Sharing and Security" block, click on "Share this folder on the Network". Enter "C" as the shared name. Reboot your computer.

You now should be completed with the installation. Verify that you can see the machine on your PC (under Network connections, drive M) and make sure that you have drive G listed in your Mill when you are in Program and log (use the shift key).

Instructions for modifying the Network name of the PC in the Mill

The default network setup for a mill expects the name of the PC (networked computer) to be "SHOP". If this name needs to be changed, proceed as described above to change the IP addresses and to match the Workgroup of the mill and PC. Also make sure the C drive of the PC is shareable as described above in Step 3. Make sure that the PC and the mill are connected with a Crossover Ethernet cable. Connect a normal PC keyboard to the back of the Front Console in an Anilam 3000 control or in the keyboard jack located in the lower part of the Anilam 6000 control inside the electrical cabinet. You will need a keyboard extension cable for the latter case in order to reach and visualize the Front Console. At the Software Options screen, press the Esc key on the keyboard and go ahead and enter "Z48" as the password and press Enter. You will now be in a DOS screen under the User directory.

Proceed with the following steps:

1. Type "cd..NET" ↵ (Enter) to get into the NET directory under the C drive.
2. Type "net.↵" This will bring up a blue window, instructions on how to maneuver the cursor are on the bottom of the screen. Sometimes you will not see where the cursor is, so just keep using the tab button until you can change the value you desire.
3. There should be a path already set in "Current Connection" with the SHOP name in it. If this is so, tab until you get to "Disconnect" and press Enter. The entry in "Current Connection" should disappear.
4. Set the DRIVE entry to G: .
5. Tab into PATH and type in \\NEWNAME\C , where NEWNAME is the name of your PC.
6. Make sure the box for reconnect on startup is "X" ed. Press the space bar to toggle the "X" on and off.
7. The last step is to TAB to "Connect" and press Enter. If you don't get any error message you should be Ok. Press the Escape key, take out the keyboard and reboot the machine.

Instructions for modifying Protocol.ini and System.ini files in the Mill

You will only need to edit two files to configure to your network. The protocol.ini and system.ini files are located in the c:\net directory. At the end of this document are examples of these files.

You will first boot up your machine and get to the control software menu. Connect a normal PC keyboard to the back of the Front Console in an Anilam 3000 control or in the keyboard jack located in the lower part of the Anilam 6000 control inside the electrical cabinet. You will need a keyboard extension cable for the latter case in order to reach and visualize the Front Console. At the Software Options screen, press the Esc key on the keyboard and go ahead and enter "Z48" as the password and press Enter. You will now be in a DOS screen under the User directory. Type "cd.." and press Enter. To edit the files you can use the XTG utility that is installed in your machine. At the c:\> prompt, type XTG and then press enter. This will get you into the XTG DOS utility. To use this software, the cursor keys will move the highlighted box. The enter key will access the highlighted box which must be a directory. Once you are in the proper directory select the file you wish to edit and press the letter "E" then enter to edit the file. Once you finished editing press the "ESC" key and then select "save file and quit".

Example Protocol.ini file

Protocol.ini - in the C:\net directory

```
[network.setup]
version=0x3110
netcard=smc9000,1,SMC9000,1
transport=tcpip,TCPIP
lana0=smc9000,1,tcpip
[TCPIP]
NBSessions=6
SubNetMask0=255 255 255 0 _____ defined by the network tech.
IPAddress0=100 100 100 2 _____ defined by the network tech.
DisableDHCP=1
DriverName=TCPIP$
BINDINGS=SMC9000
LANABASE=0
[protman]
DriverName=PROTMAN$
PRIORITY=MS$NDISHLP
[SMC9000]
DriverName=SMC9X$
Interrupt=9
IOBase=0x300
MaxTransmits=1
```

Example System.ini file

System.ini - in the C:\net directory

```
[network]
sizeworkbuf=1498
filesharing=yes
printsharing=yes
autologon=yes
computername=MACHINE _____ defined by network tech.
lanroot=C:\NET
username=MACHINE _____ defined by network tech.
workgroup=CNC _____ defined by network tech.
reconnect=yes
dospophotkey=N
lmlogon=1
logondomain=CNC _____ defined by network tech.
preferredredir=full
autostart=full
maxconnections=8
```