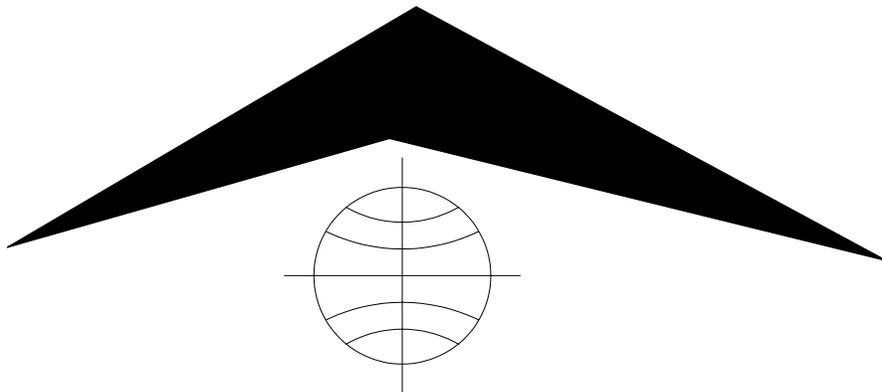


# MLog

## Installation Instructions



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## General Information

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### Overview

MSLog is available from two, different sized, sources the factory CD release and the web page download. Be sure to read and understand all of the following before you begin the installation.

MSLog installation is straightforward and follows standard Windows installation procedures. However, if you are replacing a previous version of MSLog, first run your existing MSLog and select each of your calibrated tools and, with MCHnum, make note of the calibrations. Now uninstall the earlier version using the Windows Control Panel, Add/Remove Programs.

### Specifications

MSLog Version 7.0.x and above

#### Minimum System Requirements:

**Operating System:** Windows 95, Windows 98 (both commonly known as Win9x), Windows NT v4.0 SP3, Windows 2000, Windows XP.

#### Warning:

**Windows NT 4, Windows 2000 or Windows XP are highly recommended for operating high data rate tools such as the FAC40, ABI40 or OBI40.** You may experience higher error rates and slower logging speeds with older, Win9x operating systems.

**Either Windows 2000 or Windows XP are required for the SAA-1000, SAA(F)-1000, and SAF-1000.** This is because Windows 9x does not have accurate enough timing to properly detect, in all cases, the long data records sent by these tools. For instance with a three-receiver tool operation is okay at 512 bits for each receiver but if one of the receivers is changed to a longer record length then data errors start to occur. This is a Windows 9x, timing problem. This problem does not occur with Windows 2000 or XP.

Under Win9x, Wellcad import of the large data files can cause the operator to have to break large data files into smaller chunks, this is not a problem with Windows 2000 or XP (or NT-4).

**Networking:** Dial-up Networking or other Network adapter with TCP/IP services installed.

**Processor:** Pentium, 200mhz, or equivalent.

**Memory:** 32mb ram.

**Communications port:** One, RS-232 DB-9 Serial port.

**Display:** VGA, 256 color display.

### Version Warning

**If you are currently operating MSLog version 5.2 then you will need to upgrade the firmware, chip set, in your MGX II before installing any newer version of MSLog. This is true for most MSLog distributions before May 2000. Contact Mount Sopris for more information.**

### MGXII system requirements

MGX II loggers are shipped with one of two different Master Processor crystal frequencies. A specific processor chip set, corresponding to the Master Processor Clock Frequency, needs to be installed in the MGX II.

A 22.1184 MHz Master crystal frequency is required for an auxiliary modem(s) to operate the FAC 40, OBI 40, 2SAA-1000 Full Wave-form acoustic, probe and DX series probes. These auxiliary modems may only be installed in the 5MCA-1000 as there is not enough room to put them in the 5MGB-1000, side-by-side logger. Auxiliary modems can only be installed at the factory.

For systems with a 22.1184 MHz, master crystal frequency:

This is usually the case in newer 5MCA-1000. Some older 5MCA-1000, have been field upgraded to Logshell v2.21 or later and may have a 24mhz crystal in them. The only way to tell is

to look at the crystal (X1) next to the Master Processor (U1).

This crystal frequency requires MGXII firmware versions:

Master, part number: 8114-0099 or newer (main board U1)  
Slave, part number: 8108-0104 or newer (main board U2)  
Depth slave, part number: 8110-0081 or newer (depth board U9)

For systems with a 24 MHz, master crystal frequency:

This is usually the case in 5MGB-1000 and some older 5MCA-1000. Some 5MGB-1000 have 22.1184 MHz crystals in them. The only way to tell is to look at the crystal (X1) next to the Master Processor (U1).

This crystal frequency requires MGXII firmware versions:

Master, part number: 8114-0080 or newer (main board U1)  
Slave, part number: 8108-0104 or newer (main board U2)  
Depth slave, part number: 8110-0081 or newer (depth board U9)

**See the appendix: Identifying the MGX II crystal frequency.**

## **Installation**

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### **Installing MSLog from the CD-Rom**

For Windows 95, 98, MSLog requires that some version of networking utilizing Windows Sockets (Winsock) be installed and operating for the processor and browsers to work properly. You should also bind TCP/IP to your networking or Dial up networking adapter. For Windows NT4, 2000, XP, networking with Named Pipes should be used instead of Winsock (socket). In the case browsers cannot be connected using Named Pipes, Sockets can be used instead.

Dial-up Networking is the best network adapter to install on a PC not connected to a LAN style network. See the Dial-up Networking section at page 1-2 or refer to your Microsoft instructions for information on setting up Dial-up Networking.

### **Windows NT/2000**

Windows NT, Windows 2000 have a superior method for communicating across a network called Named Pipes. To use it you need to pay particular attention to the Networking setup.

### **System Computer Name**

The System Computer Name should be LOGGER, to match the default MSLog Server Name of LOGGER. If the PC's System Computer Name needs to be different, use MSLConfig, Advanced Settings dialog to change the MSLog Server Name to match.

### **Pipe Method**

The default Pipe Method setup by the installation is Socket. If you want to take advantage of Named Pipes when operating Windows NT or Windows 2000, you need to use MSLConfig Advanced Settings dialog to change the Pipe Method to NamedPipe.

Named Pipe only works with a WinNT. AutoDetect might also work but it may set the PipeMethod to Socket if there is TCP/IP bound to the network. If the network is not properly setup connection by means of NamedPipe may fail. The detection scheme will not use Socket as an alternative, you have to change the Pipe Method with MSLConfig. NamedPipe is the superior method but again only available with Windows NT/ 2000.

For Windows NT, as an alternative to setting up a standard network, you can use the MS Loopback Adapter Driver. See the Microsoft Knowledge Base article ID: Q106208 How to Demonstrate Windows P/N 70000165J

NT Network Features w/o a Network. It is available on Microsoft's Technical Support web site.

Windows 2000 uses a wizard to setup networking. The wizard makes it a little harder to manually configure the network adapters.

### Updating Tool driver files.

#### UPDATING TOOL DRIVER FILES ON A SYSTEM WITH MSLOG ALREADY INSTALLED

Tool driver files (Tol extension) are updated occasionally to reflect changes in operation, fix mistakes, and make improvements. If you have received a diskette with a directory containing .tol files you should do the following:

1. Make note of the calibrations in the current tol files as the old, calibrated files will be replaced in the following procedure.
2. Run MSLConfig.
3. Press Install/Change Tool Selection.
4. Remove all of the installed tools.
5. Press Select Folder and navigate to the source of the new .tol files, press OK.
6. Add all the tools that you had previously installed.
7. Press OK.
8. At the top level dialog Press Ok. When the program asks you if it should replace files press Yes.

If you are upgrading a previous version of MSLog go to Start, Settings, Control Panel, Add/Remove Programs and scroll down the list to MSLog and click the Add/Remove button to remove the previous installation.

1. Run the Setup.exe found on the CD. It can be identified as the Setup Icon consisting of a Computer with boxes in front of it. Setup.exe will copy all the pertinent executables and create the folder (directory) structure. Make sure you use only the folder (directory) named \MSLog as the installation folder (directory). The drive letter can be any that you choose, C:\MSLog, d:\MSLog etc..

After installation the directory structure will be: (assuming c: is the drive, otherwise your selected drive).

```
C:\MSLog\  
  Tol\  
    Current\  
      Scripts\  
        Mch\  
        Headers\  
        SAA1000\  
        Saf1000\  
        Fac40\  
        Obi40\  
        Docs\  
        Docs\PDF\  
        Utils\
```

See the appendix for folder (directory) contents.

2. MSLConfig will run near the end of the Setup program.  
Even though the Winch Type displayed in the main screen may agree with your MGXII winch, to get the correct encoder settings you must select the Winch Type button, and choose your Winch Type again from the list. Click OK and you will note that the encoder settings may have changed.

Advanced Settings allows you to change the RS-232 Communications (Com) port that MSLog searches for the connection to the MGX II logger. Some PC, serial devices may respond before the MGX II and give an erroneous response in which case you will get a 'No hardware detected' message. Use Advanced Settings to select the exact port on which the MGX II is connected. See MSLConfig Help.

3. Make any other changes to the setup of the system such as installing tool drivers from the supplied

floppy disk, Cable Type, Cable Length Measuring system etc. Now exit with OK, to finish the configuration.

Note: Some of the changes take effect the first time you run MSLog.exe in which case you will be prompted to accept either the Logger or Computer settings. Generally you should accept the Computer settings.

4. If you want, drag and drop a copy of the c:\MSLog\MSLog.exe file to the desktop to create a short cut to the executable.

**WARNING: Do not** copy files into the \tol or tol\current directory manually. Use MSLConfig instead. MSLog maintains the proper discriminator settings in the tool driver files when they are added to the Tool Drivers Currently available to MSLog list. Additionally some tool driver files require a script file for proper operation. MSLConfig will install the file automatically assuming it is in the tool source folder.

5. Run \MSLog\Utils\MSLConfig.exe at least once.  
You must run MSLConfig.exe at least once to properly setup the software.

If your computer was setup at the factory all of this should already be done.

Press the Help button in the MSLConfig main dialog for further information on that program.

6. For version 3.0.12.24 and later of MchCurve.exe, printing is controlled by the settings of the Windows default printer. Go to the windows Start button and select Settings, Printers and setup the default printer. See the appendix: Printers.
7. Tool Specific operating procedures and tool specifications are available in the PDF file MgxIITool Instructions.pdf. Acrobat reader version 4 or later is required to read the file. A copy of the installation file for Acrobat reader is provided on the CD in the directory named: ADOBE\_ACROBAT5\_READER.

## Running the Program

1. Make sure the MGX II Logger AC power switch is turned OFF.
2. Connect the serial cable between the Logger and the PC serial port. If this is a 5MCA-1000 Logger, Connect the ten pin cable between the Logger and Winch.
3. Boot the PC.
4. After the PC has completed booting, turn the Logger AC power switch ON.
  - a. The MGX II, TO PC light should be flashing at regular time intervals. If it is not, turn the Logger Power Switch OFF then ON again.
  - b. If you have to reboot the computer for some reason be sure to turn the MGX II Power switch Off until the computer has finished booting.
5. If any network utilities for shared connections to the Internet are active, deactivate them, they can interfere with the connection between the processor and browsers and the Winsock connection to MSLog. Close all other Windows Programs, they may slow windows system response. Disable all power saver features that may shut down the system or slow disk response or put it in sleep mode.
6. Start MSLog.
  - a. If your MGX II is connected, power is on, and the Logger, 'To PC' light is flashing regularly and you get a 'No hardware detected. Run demo?' message.
    - i. It is possible that there is a problem with the Serial Cable or the PC serial port.
    - ii. Alternately the PC may have a device that is answering MSLog's attempts to detect the MGX II on a serial port. The reply by a device other than the MGX II will be invalid and MSLog will give the message 'No hardware detected. ...'. Change the serial port detection using the Advanced Settings dialog in MSLConfig. Test the serial cable and serial port.
7. Double click on the MSLog icon created on the desktop or the Start menu group. If the logger is not

attached you can run in Demo mode to playback logs.

8. On the Tool Panel, select the tool type from the drop down menu.
9. On the Tool Panel, turn tool power, On.
10. On the Acquisition panel, select the depth direction of logging, Down or Up.
  - a. Note: You should not record data in Time mode unless you are testing at the surface. Time mode recorded logs will not replay to the printer correctly even if the depth is changing. This is because data must be at even, depth sample intervals. In time mode data is not recorded on even depth sample intervals but at the depth corresponding to the time interval. This will also cause problems importing the data into WellCAD.
11. On the Acquisition panel, select Record and enter a file name.
  - a. Note: In the RECORD dialog box you can create directories and then use them for data recording.
12. On the Acquisition panel, select ON button to begin data recording.
13. On the MchCurve Browser panel select the scales and depth scale settings. Press the Printer Icon to begin printing.
14. Operate the winch to the end of the logging interval and on the Acquisition Panel turn Sampling Off. Press the Stop button to stop recording to the data file; this automatically turns printing off and will finish the print job.
15. On the Tool Panel, Turn Tool Power Off.
16. To exit MSLog; right click the mouse on the top bar of the MSLog tool bar. Select Exit and press the left mouse button.

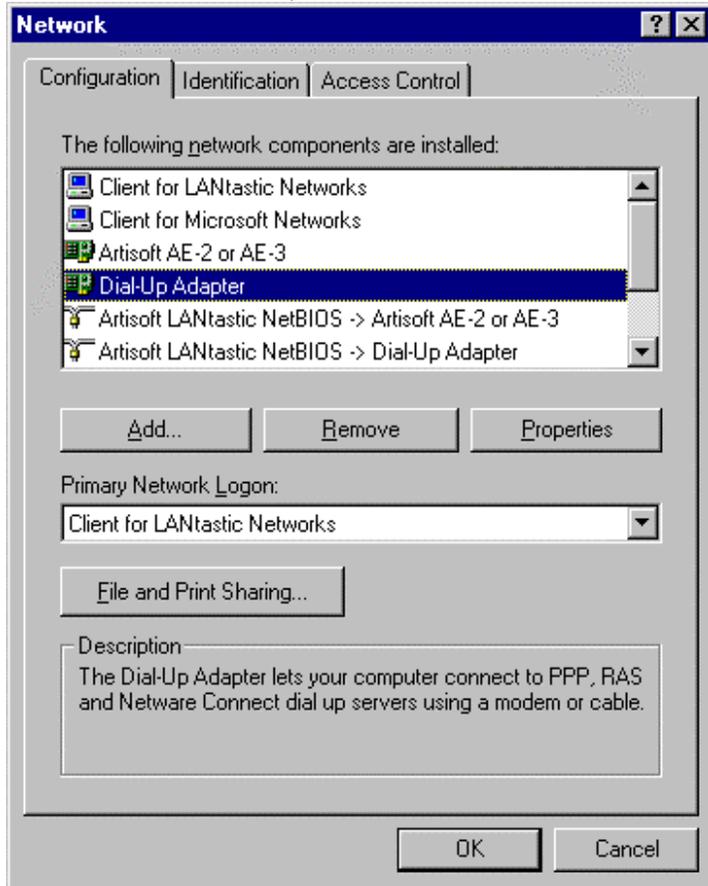
## Dial-Up Networking

Note: You may need the Windows systems disks or CD available to install network components. To install Dial-Up Networking after you run (Windows) Setup.

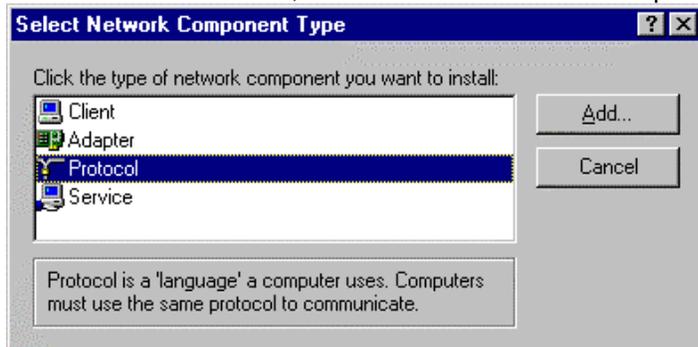
1. In the Add/Remove Programs Option in Control Panel, click the Windows Setup tab.
2. In the Components list, click Communications, and then click the Details button.
3. In the Communications dialog box, click Dial-Up Networking, and then click OK.

Windows 95 automatically binds the default network protocols to the Microsoft Dial-Up adapter when you install Dial-Up Networking. You can install other network protocols, such as TCP/IP, by using the networks option in Control Panel. You should install TCP/IP. See the following procedure for installing TCP/IP after Dial-Up Networking is installed.

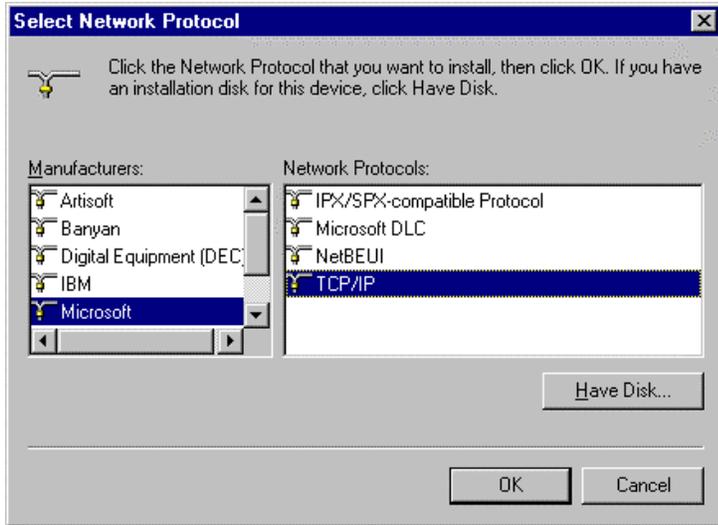
1. In the Control Panel, double click the Network icon and then Click Dial-Up Adapter from the list.



2. Click the Add button, from the Select Network Component Type click Protocol, then click Add.



3. In the Manufacturers list, select Microsoft.



4. From the Network Protocols list select TCP/IP. Click OK.
5. At the Network dialog, click OK.

## Troubleshooting

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### Problems with the Installation

We anticipate that the installation will be relatively trouble free. MSLConfig configuration program for MSLog requires files to be in specific locations and MSLog.ini has path locations for .tol files, browsers, headers and .scp files. As long as the files are in the proper place everything should work well. If you find a real problem please fill out the enclosed bug report and email it to us.

MSLConfig may require some dll files not available on older versions of Windows 95. If you get error messages that specific .dll files cannot be found at the end of install, please write down the exact message/dll file name and contact us.

### Warning - Networking:

Networking must be installed correctly for MSLog to connect to the browsers and processors. This is normally the case in new Win98, 2000 or newer Windows operating systems. Take time to review and make notes on your current network installation. If you should have to reinstall your operating system you will have to reinstall all network devices for MSLog to work properly.

### Printer/MCHCurve

One printer must be installed for MCHCurve to operate properly. This is true even if you do not print in the field and wish only to view the traces on the screen. MCHcurve needs some printer settings, from the windows default printer to properly initialize.

### No Hardware Detected Message

You will get this message any time you run MSLog without the MGX II attached or if the MGX II is not turned on. You can go into the Demo mode to playback logs. There are additional reasons you might get this message.

When MSLog starts it tries to communicate with the MGX II over a serial port. The serial port may be an individual port such as COM 1 or a range of ports such as COM 1 through COM 4. This can be configured using MSLConfig, Advanced Settings dialog.

If a PC system device such as an Infra red port, a modem, or some other device using COM port numbers answers the query by MSLog, the dialog box message 'No hardware detected. Run demo?' will appear. These devices usually answer before the MGX II has a chance and their response will be invalid (we hope). To solve this problem you will need to change the COM port number to the one you think that the MGX II Logger is attached to. It might be that the physical port you are attached to is not the port number you think it is and you may need to try all of them individually. The default is COM 1.

To help figure out which devices are on which ports, in Windows 98, click Windows Start, Settings, System Properties, Ports. Other operating systems should have some similar information on the Port settings. Click Windows Start, Help.

If you are sure the Port is the correct one, your MGX II is connected, power is on, and the Logger, 'To PC' light is flashing regularly and you get a 'No hardware detected. Run demo?' message. It is possible that there is a problem with the Serial Cable or the PC serial port (both common problems) or even the serial interface in the MGX II, although this is extremely rare.

### **Cannot connect to Server:**

This error message is caused by improper setup of the network. Review the network installation. You do not need to be connected to the MGX II to test this. Running in demo mode is adequate.

## Appendix

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### Directory Structure Contents

MSLog  
    MSLog.exe  
    effect3d.dll  
    knob.dll

MSLog\tol  
    Cable\_Types.MSL  
    Winch\_Types.MSL  
    various .tol files copied or installed with MSLConfig.exe

MSLog\to\current  
    various .tol files installed with MSLConfig that show up in the MSLog tool list box\*

MSLog\to\current\scripts  
    various .scp files needed by certain .tol files to setup and operate the particular tools.

MSLog\mch  
    MSIProc.exe  
    MChCurve.exe  
    LASWriter.exe  
    MChNum.exe  
    MchProc.exe  
    other browsers and processors as needed, the above is the basic configuration.

MSLog\headers  
    default.wch  
    default.wchc  
    OthSvsShort.WCH

Windows  
    MSLog.ini

MSLog\Saa1000  
    SAA1000Img.exe  
    SAA1000Wave.exe

MSLog\SAF1000  
    Saf1000Img.exe  
    Saf1000Proc.exe  
    Saf1000Wave.exe

MSLog\Fac40  
    Fac40cal.exe  
    Fac40Img.exe  
    Fac40Num.exe

MSLog\ABI40  
    Abi40cal.exe  
    Abi40Img.exe  
    Abi40Wave.exe

MSLog\Obi40  
    OBI40Img.exe  
    Obi40Num.exe

MSLog\Doc  
    MGX II Tool Instructions.pdf  
    Bugsmail.txt  
    Readme.txt  
    Printers.txt

MSLog\Doc\PDF  
    Various .pdf files

MSLog\Utils  
    ldrocal.exe  
    MGX2Utils.exe  
    MSLConfig.exe  
    MSLCONFIG.HLP  
    MSLConfig.cnt  
    RDInspector.exe  
    Sonproc.exe  
    Sonproc.hlp  
    Sonproc.cnt

**\*WARNING** Pulse type tools have settings for discriminator levels that have to be updated properly for wireline type. Mslconfig.exe does this automatically after copying the source file from either \tol or a diskette. If you copy files to the \MSLog\To\Current directory manually these settings may not be proper

and your probe may not work correctly. The values for these settings come from the Cable\_Types.MSL file.

## **Printers**

Warning: One printer must be setup as the default windows printer for proper MCHCurve operation.

The following printers have been tested in continuous printing mode and give good results:

Epson LQ550 driver running the Epson LQ-570escP2.

Printrex thermal printer.

Pentax Pocket Jet II thermal using the Pentax Pocket Jet IIb driver in Custom (100 inches maximum) paper mode.

HP DeskJet 1000C in banner mode.

Epson Stylus 640 and Epson Stylus 740 in custom ( 44 inch maximum) page mode.

Veritas V8.5 thermal printer.

Note: Banner mode printers can only print continuously to the length of banner paper they support. Also Windows print spooling waits for a complete page (i.e. the banner length) before sending the page to the printer. Be sure you have plenty of hard drive space for print spooling, lots of memory helps here as well.

The following page mode printers have been tested:

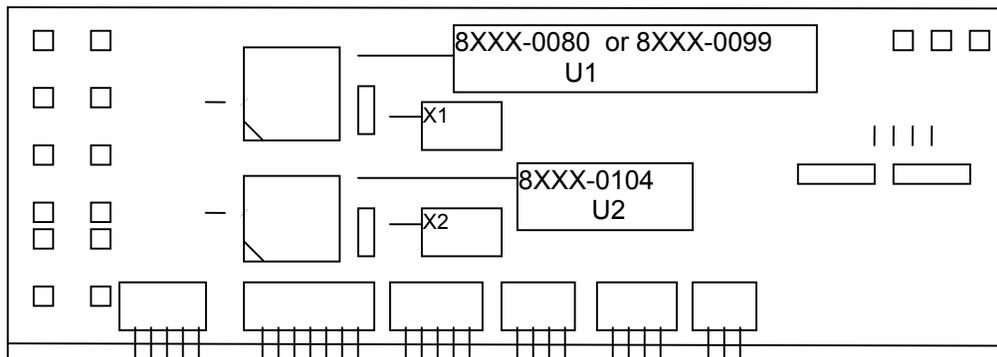
HP LaserJet 6P

Note: Printer drivers are tested with W95/98. WindowsNT v4.0, Windows 2000 uses different printer drivers and the ones suggested above may work differently under WindowsNT v4.0, use these comments as a guideline only. As of this writing we have little experience with Windows 2000 printing.

Wellcad printing operates differently than MSLog printing, so the printing results from Wellcad may differ from field prints with MSLog.

## Identifying the MGX II crystal frequency

By removing the cover of the MGX II you can observe the label on the X1 crystal.



Main board U1 has a crystal (silver oval shaped can) next to it labeled X1. It is critical that the part number of the microprocessor is correct for the crystal frequency labeled on the top of the crystal. **The logger will not work correctly if the microprocessor part number is not the correct one for the crystal.**

Part number 8XXX-0080 is intended for units with crystals labeled like, M2400KE9 or 24.00M09. The critical thing to notice is the 24 in the part number on the crystal. This indicates a 24Mhz crystal. Most but not all 5MGB-1000 side mount electronics MGX II and some older MGX consoles running Logshell v2.20 and lower, have this frequency crystal installed.

Part number 8XXX-0099 is intended for units with crystals labeled like, FS221 or FS221-2

The critical thing to notice is the 221 in the part number on the crystal. This indicates a 22.1Mhz crystal. This crystal frequency is required to operate the modems for probes such as the 2SAA-1000 full waveform sonic, Fac40 televiewer and Obi40 optical televiewer. The installation of these modems is only available at the factory.

# Bug Report Form

This is a template to help you fill out a bug report. Copy this section to your editing session and fill in as much of it as you can. Then send the completed message to [sopris@rmi.net](mailto:sopris@rmi.net).

## BUG REPORT FOR MSLog

Your name :  
Your address :  
Your email address :

### System Configuration

-----

Architecture (example: Intel Pentium) :  
Operating System (example:Windows95 4.00.950a) :  
MGXII model number (example: 5MCA-100) :  
MGXII serial number :  
MSLog version (example: 5.1) :  
Networking settings

Please enter a FULL description of your problem:

-----

Please describe a way to repeat the problem. Please try to provide a concise reproducible example, if at all possible:

-----

If you know how this problem might be fixed, list the solution below:

-----

Attach a copy of a data (.rd and .las)file:

Attach a copy of the .tol file:

=====

The rest of this message is just for fun. You should only fill these questions in if you feel you have the time ;)

Q: What other features would you like to see in the program, processor or browsers:

Q: What other information would you like to find on the web pages at <http://www.mountsopris.com>