

4 Installing and Configuring the JX30WB

Installation

Installation of the JX30WB system board depends on the type of case you have. Consult the computer user manual when installing the JX30WB, or contact your dealer's Technical Support department. Before installing the JX30WB, make sure you have a clear work space available and adhere to all anti-static precautions.

Tools Required

Micronics recommends using the following tools to install the JX30WB:

- Small Philips screwdriver
- Tweezers or a pair of needle-nose pliers
- Tray to hold loose screws

Equipment Required

Micronics recommends using the following equipment with the JX30WB:

- Chassis with standard hardware
- Standard power supply capable of providing continuous power within a 5 volt range, plus or minus 5% (e.g., 4.75 to 5.25). A power filter may be added for areas with noisy transmission.
- Hard disk and floppy disk drives (360K, 720K, 1.2M, 1.44M, or 2.88M)
- Eight ohm speaker
- Video card (monochrome, EGA, or VGA)
- Standard video monitor
- AT-compatible keyboard (84 or 101 keyboard)
- Flat ribbon cables between the hard/floppy drive controller
- Heat-sink for the CPU (if needed)

Configuration

After all components have been installed and extras added, your system is ready to be configured. Before power-up, make sure all cables are correctly connected. You may want to keep the system open, so if you encounter any problems, you can easily address them.

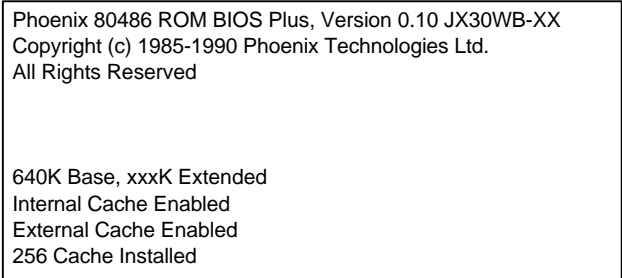
Initial Boot Up

Boot-up the JX30WB. If after power-up the system doesn't properly boot, check all connections and peripherals. You may also get beep codes or other messages. If this occurs, consult Appendices A and/or B for a guide to possible problems.

After the system properly boots, it is ready to be configured. The following pages discuss the proper procedures for BIOS configuration.

Setup

The Setup procedure is already built into the system. Setup begins after the completed system is powered up. Once the system is powered up and goes through a memory test, the following screen appears on your monitor:



```
Phoenix 80486 ROM BIOS Plus, Version 0.10 JX30WB-XX
Copyright (c) 1985-1990 Phoenix Technologies Ltd.
All Rights Reserved
```

```
640K Base, xxxK Extended
Internal Cache Enabled
External Cache Enabled
256 Cache Installed
```

Figure 4-1. Power-Up Screen

If the systems detects a configuration error, it displays an error message. After the error message, another message displays indicating the choice to press <F1> to continue (boot up), or <F2> to run the Setup procedure. Normally, you will press <F2> to begin the Setup procedure.

Running The Setup Procedure

Upon pressing <F2>, the CMOS Main Screen (Figure 4-2) should appear and the prompt should be on the time line. If the Power-Up Screen does not appear but a DOS prompt does (i.e., A:\ or C:\), press the <CTRL>, <ALT>, and <ESC> keys simultaneously to begin the Setup procedure.

The JX30WB system board has two CMOS configuration screens: the Main Screen (Figure 4-2) and the Extended Screen (Figure 4-3). To toggle between the screens, press the **PgUp/PgDn** keys.

Phoenix SETUP Utility (Version 1.00)						
(c) Phoenix Technologies Ltd. 1985, 1993 All Rights Reserved						
					Page 1 of 2	
System Time:		22:06:45		System Date: Jan 06, 1990		
Diskette Drive A:	3.5", 1.44 MB					
Diskette Drive B:	Not Installed		Cyl	Hd	Pre	LZ Sec Size
Hard-Disk Drive 1:	Auto Config		978	14	0	0 35 233
Hard-Disk Drive 2:	Not Installed					
Hard-Disk Drive 3:	Not Installed					
Hard-Disk Drive 4:	Not Installed					
Board Memory:	640 KB					
Extended Memory:	15360 KB					
Video Card:	VGA/EGA					
System Speed:	Normal					
Cache:	Both					
Ext. Cache Mode:	Write-Back					
CPU Type:	DX-33 / DX2-66					
ESC	F1	F2	↓↑	+/-	PgUp/	
Menu	Help	Sys Info	Field	Value	PgDn	

Figure 4-2. CMOS Main Screen

Running the Setup Procedure (Cont'd.)

Phoenix SETUP Utility (Version 1.00)					
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					Page 2 of 2
System BIOS:		Shadowed & Cached			
Video BIOS:		Shadowed & Cached			
On Board Floppy:		Enabled	Keyboard:	Installed	
Primary IDE:		Enabled	System Password:	Disabled	
Master Speed:		Normal	Setup Password:	Disabled	
Slave Speed:		Normal			
Secondary IDE:		Enabled			
Serial Port 1:		COM1 / IRQ4 (3F8h)			
Serial Port 2:		COM2 / IRQ3 (2F8h)			
Parallel Port:		LPT1 (378h)			
Parallel Port Mode:		AT			
Standby Break Event IRQ:		Disabled			
Energy Saving Timer:		Disabled			
Non-Cacheable Area:		Undefined 0000000h			
ESC	F1	F2	↓↑	+/-	PgUp/
Menu	Help	Sys Info	Field	Value	PgDn

Figure 4-3. CMOS Extended Screen

Now, configure the parameters to match your specific requirements. See the following pages for procedures on how to set the computer's parameters.

To return to the CMOS configuration screens at any time to change or view any of these parameters, press **<CTRL>**, **<ALT>**, and **<ESC>** simultaneously.

Setting the CMOS Main Screen

System Time and Date

To set the time, use the minus <-> key to decrease the number and the plus <+> key to increase the number. To move the prompt forward, use the right arrow <→> key; to move the prompt backward, use the left arrow <←> key. Follow the same procedure for the date.

Diskette A or B

This allows you to configure a diskette drive added or removed from your computer.

Hard Disk 1, 2, 3, or 4

This selection allows you to configure a hard disk installed in your system. Use the <+/-> keys to toggle between the options. See Appendix C for a complete listing of all possible hard drive types.

To install most SCSI hard drives, select NOT INSTALLED. To manually configure the hard drive, select USER CONFIG. Press the right arrow <→> key and type in the appropriate parameters. To automatically configure an IDE hard drive, select AUTO CONFIG. Drives that can be Auto-Configured report parameters to the BIOS.

Base Memory and Extended Memory

Both of these memory settings are automatically configured.

Setting the CMOS Main Screen (Cont'd.)

Video Card

This sets the type of monitor required for your computer. The display peripheral supports VGA/EGA, Monochrome (MONO), or no monitor at all.

System Speed

The CPU speed determines whether the turbo switch on the front of the computer is enabled or disabled. The selections for the system speed are NORMAL and SLOW. When set to SLOW, the system runs at “cache off” speed.

CPU Type

This option selects the CPU installed and has auto detection with corresponding jumper settings on board. You must choose the correct CPU selection with the corresponding CPU. This selection is for user-upgradeable CPUs.

Cache State

The JX30WB has the option of activating or deactivating the internal 8K- or 16K-byte cache of the 486 microprocessor, and the external cache on the system board. Choose INTERNAL to activate or DISABLED to deactivate the internal cache, if no external cache is present. If external cache is present, choose BOTH to activate and DISABLED to deactivate.

Setting the CMOS Main Screen (Cont'd.)

External Cache Mode

This option selects the type of level 2 cache installed in the system. The choices are WRITE-BACK or WRITE-THROUGH.

Setting the CMOS Extended Screen

System BIOS

The system BIOS allows you to “shadow” the BIOS on the system board. Choosing SHADOWED & CACHED copies the system BIOS into RAM for faster execution and makes the memory region cacheable. This allows you to take advantage of the high-speed 32-bit bus and the 70 nanosecond RAM. Choosing SHADOWED copies the system BIOS into RAM, but does not cache any memory region. You can also select DISABLED.

Video BIOS

The video BIOS allows you to “Shadow” the BIOS on the video card. Choosing SHADOWED & CACHED copies the video BIOS into RAM for faster execution and makes the memory region cacheable. Choosing SHADOWED copies the video into RAM, but does not cache any memory region. You can also select DISABLED. Some video cards cannot be shadowed, so this selection must be set to DISABLED.

Setting the CMOS Extended Screen (Cont'd.)

On-Board Floppy

This selection allows you to disable or enable the on-board floppy. Use the <+/-> keys to toggle between the options.

Primary IDE

This selection allows you to disable or enable the on-board primary IDE controller. VESA local bus IDE provides faster performance. The selections are ENABLED and DISABLED.

Master Speed

This selection is for the master (first) drive connected to the on-board primary IDE controller, and customizes the speed of the drive. The selections are NORMAL, MEDIUM, and FAST. Select MEDIUM for Mode 2 and FAST for Mode 3. This is for higher performance drives that support Mode 3 (180ns cycle time). Select NORMAL for drives that do not support Mode 3.

Slave Speed

This selection is for the slave (second) drive connected to the on-board primary IDE controller and customizes the speed of the drive. The selections are NORMAL, MEDIUM, and FAST. Select MEDIUM for Mode 2 and FAST for Mode 3. This is for higher performance drives that support Mode 3 (180ns cycle time). Select NORMAL for drives that do not support Mode 3.

Setting the CMOS Extended Screen (Cont'd.)

Secondary IDE

This selection allows you to enable or disable the on-board secondary IDE controller. The secondary IDE is a standard ISA connector suitable for slower IDE devices, such as tape backups and CD ROM drives. No BIOS options exist for drive speed because both master and slave drives connected to the secondary ISA IDE controller have only one speed.

Serial Port 1 (Com 1)

The serial port 1 can be selected as COM1/IRQ4, COM3/IRQ4, or DISABLED. Be sure this setting does not conflict with any add-on peripherals. This port can also be set to DISABLED if the on-board port is not used.

Serial Port 2 (Com 2)

The serial port 2 can be selected as COM2/IRQ3, COM4/IRQ3, or DISABLED. Be sure this setting does not conflict with any add-on peripherals. This port can also be set to DISABLED if the on-board port is not used.

Parallel Port (LPT)

The parallel port selection can be selected as LPT1 or LPT2. Be sure this setting does not conflict with any add-on peripherals. The parallel port can also be set to DISABLED if the on-board port is not used.

Setting the CMOS Extended Screen (Cont'd.)

Parallel Port Mode

The parallel port mode selects either bi-directional mode or output mode for the parallel port. Output mode is selected when this is set to AT. Bi-directional mode is selected when this is set to PS/2.

Standby Break Event IRQ

Disable this option if no network is present. If a network card is present, set it to the IRQ setting of the network card (e.g., IRQs 2, 3, 4, 5, 9, 10, 11, or 12). Novell netware sends dummy IRQs to all machines on the network at intervals of five seconds. These dummy IRQs cause the system to be active at all times, and does not allow it to go into the sleep mode. Setting the IRQ to match the network card eliminates this problem.

Energy Saving Timer

This section allows you to conserve energy while maintaining optimum performance. If no key strokes are performed on the keyboard, the following occurs:

- CPU reduces its speed to 8MHz
- IDE drive spins down
- DPMS graphics are disabled

These selections **will not** recognize any mouse movement, only activity involving the keyboard.

Setting the CMOS Extended Screen (Cont'd.)

Energy Saving Timer (Cont'd)

This selection can be set to one minute or in increments of fifteen minutes (up to 120 minutes). After the allotted time, the above functions time out. To return the functions to full speed, press any key. The Scroll Lock light flashes to indicate reduced speed.

Non-Cacheable Area

This selection allows a block of 32-bit memory to be set as NON-CACHEABLE. The size and address can be selected. To set the memory as non-cacheable, use the < +/-> keys to change the first three zeroes to the appropriate address (only these zeroes can be changed). The selections include a range from 0000000h to 3FF0000h (64MB). The default settings for both selections are UNDEFINED.

Keyboard

The keyboard function is set to INSTALLED for keyboard error reporting. To turn off keyboard error reporting, use the left/right arrow keys to toggle the keyboard NOT INSTALLED.

Setting the CMOS Extended Screen (Cont'd.)

System Password

The password you select must be typed at boot up when this selection is ENABLED. The system will not boot up without the correct password. After entering the correct password, the system asks: "Do you want to change your password (Y/N)?" Press <Y> to change the password and <N> to keep it.

If no password has been entered or the CMOS memory has been cleared, the following message appears at boot up: "Password values are invalid. Do you want a password (Y/N)?"

Setup Password

If ENABLED, a password is required to enter Setup. If the password is lost or forgotten, the CMOS must be cleared.

Re-Configuring Your Computer

Press the <ESC> key to reach the Exit Pop-Up Screen.
Now select <F4> to save and initialize the new Setup.

Phoenix SETUP Utility (Version 1.00)					
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System Time: 22:06:45			Page 1 of 2		
			System Date: Jan 06, 1990		
Diskette Drive A:	3.5", 1.44 MB				
Diskette Drive B:	Not Installed				
Hard-Disk Drive 1:	Auto Config	Cyl	Hd	Pre	LZ Sec Size
Hard-Disk Drive 2:	Not Installed	978	14	0	0 35 233
Hard-Disk Drive 3:	Not Installed				
Hard-Disk Drive 4:	Not Installed				
Board Memory:	640 KB				
Extended Memory:	15360 KB				
Video Card:	VGA/EGA				
System Speed:	Normal				
Cache:	Both				
Ext. Cache Mode:	Write-Back				
CPU Type:	DX-33 / DX2-66				
<div><div>ESC</div>Continue With Setup</div> <div><div>F4</div>Save Values, Exit SETUP and Reboot</div> <div><div>F5</div>Load Default Values For All Pages</div> <div><div>F6</div>Abort SETUP Without Saving Values</div>					
ESC	F1	F2	↓↑	+/-	PgUp/
Menu	Help	Sys Info	Field	Value	PgDn

Figure 4-4. Exit Pop-up Screen

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