

ST-6500 Setup Guide for Windows

TOSHIBA TEC CORPORATION

1. Introduction

This setup guide describes the procedure and notes for installing the drivers on the ST-6500/ST-6500-C7.

The procedure outline to set up the OS for the ST-6500/ST-6500-C7 is described below. Some drivers supported by some OS will be automatically installed, when the OS is installed.

Procedure outline to set up the ST-6500/ST-6500-C7 on Windows

- 1) Setting up BIOS
- 2) Installing Windows
- 3) Installing the 810E2 chipset software
- 4) Installing the SM712 graphic driver (for the ST-6500-C7)
- 5) Installing the PnP touch panel driver
- 6) Changing the serial port setting

2. Setup on Windows 98/Windows 98SE

1) Setting up BIOS

By pressing the F2 key on the keyboard, when the machine starts up, the BIOS Setup Menu is selected. Select the following item for BIOS setup.

[Exit]-> Load Setup Defaults (Win98/Me)

2) Installing Windows

Install Windows 98 or Windows 98SE.

3) Installing the 810E2 Chipset Software

◆ Installing the Intel Chipset Installation Utility

Execute Chipset¥Chipset¥Disk1¥Setup.exe contained in the driver kit, and install “Intel Chipset Installation Utility.”

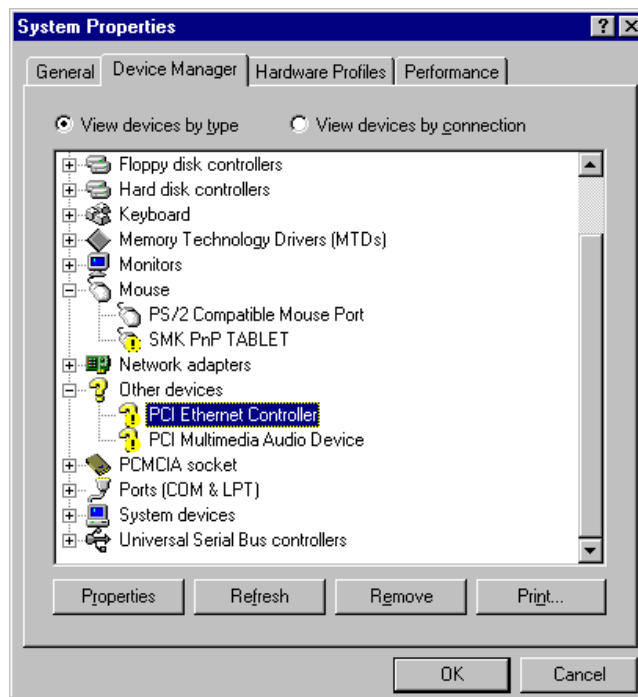
◆ Installing the Intel 810/815 Chipset Family Graphics Driver

To enable the CRT display, this driver must be installed.

Execute Chipset¥Graphics¥Win9x¥Graphics¥Setup.exe contained in the driver kit, and install “Intel 810/815 Chipset Family Graphics Driver.”

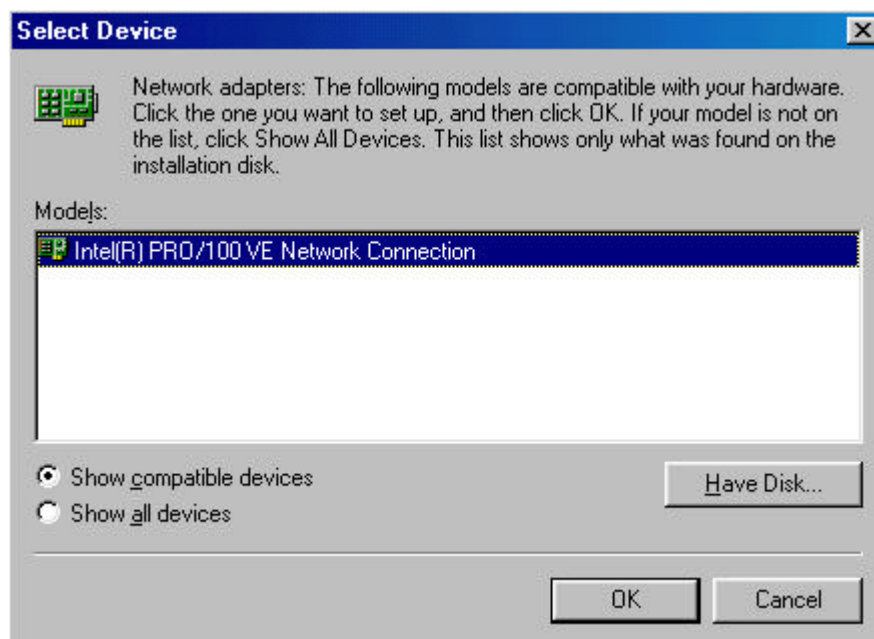
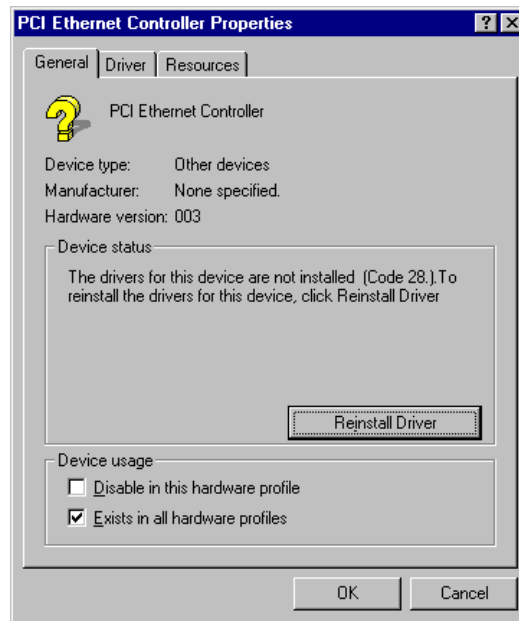
◆ Installing the Intel® PRO/100 VE Network Connection Driver

Execute Chipset¥LAN¥100pdisk.exe contained in the driver kit, to extract the files onto the hard disk. Select [PCI Ethernet Controller] in the Device Manager and click on the “Properties” button.



The following screen appears. Select “Reinstall Driver” to install the driver.

Select the folder to extract 100pdisk.exe to, as the folder containing the driver to be installed. Select “Intel® PRO/100 VE Network Connection” to install the driver.



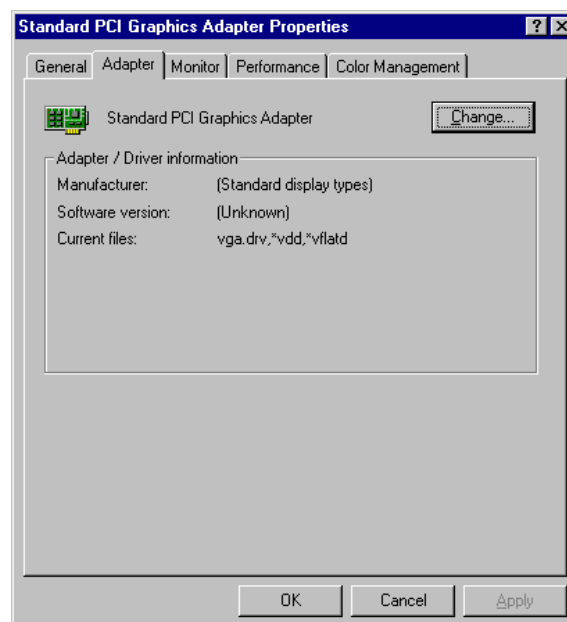
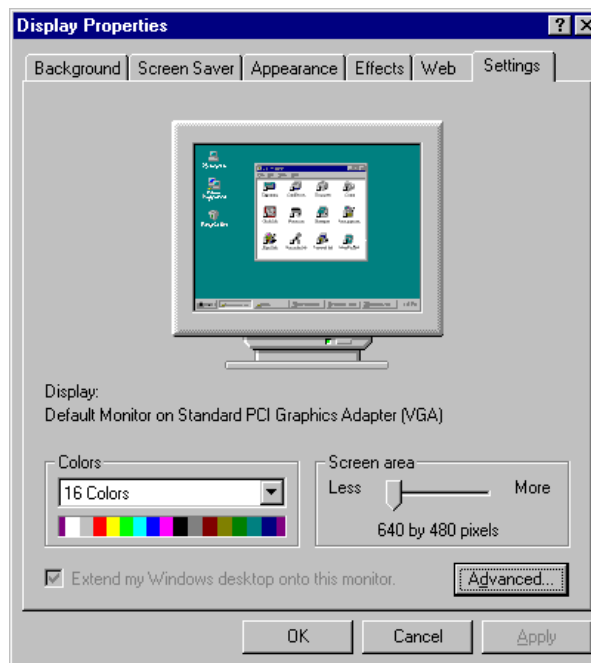
For detailed installation procedure, refer to Intel's documents and online help.

4) Installing the SM712 Graphic Driver

Select [Display] on the Control Panel and display the “Display Properties” screen. On this screen, select [Settings] – [Advanced] to display the “Standard PCI Graphics Adapter Properties” screen. Select [Adapter] – [Change] on this screen. Select “Display¥SM712¥Win98” in the driver kit to install “Silicon Motion LynxEM+.”

5) Installing the CHIPS Graphic Driver

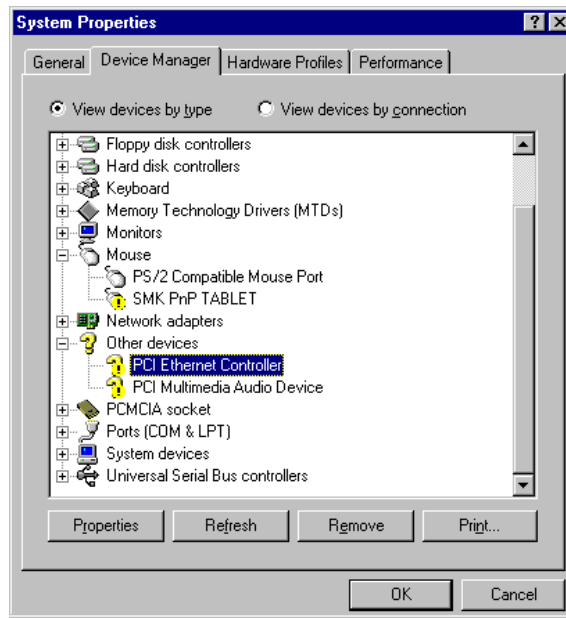
Select [Display] on the Control Panel and display the “Display Properties” screen. On this screen, select [Settings] – [Advanced] to display the “Standard PCI Graphics Adapter Properties” screen. Select [Adapter] – [Change] on this screen. Select “Display¥Chips¥Win98” in the driver kit to install “Chips And Technologies, Accelerator.”



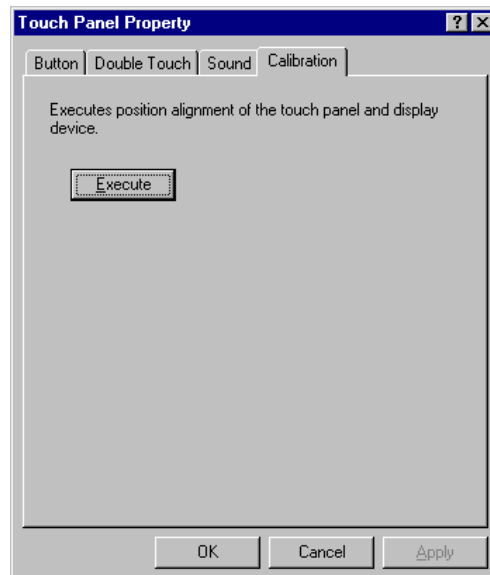
6) Installing the PnP Touch Panel Driver

Select “SMK PnP TABLET” in the Device Manager, and click on the “Properties” button. On the “SMK PnP TABLET properties” screen, select [General] – [Reinstall Driver] to install the driver.

Select “Tablet¥PnPTablet¥Win9x” in the driver kit to install “SMK PnP Tablet Driver.”



Reboot the machine. Select [Touch Panel] on the Control Panel to display the “Touch Panel Property” screen. On this screen, select [Calibration] – [Execute] to set up calibration.



IMPORTANT:

- * Unless any of the PS/2 mouse, the serial mouse, or the USB mouse is used, the touch panel is not detected. When installing the driver, connect any of the mice and let the machine detect the touch panel.
- * Do not check the “Beep when touched” checkbox on the Sound tab page. This function is not available on Windows 98. (Windows 98 cannot keep the sound constant.)

7) Changing the Serial Port Setting

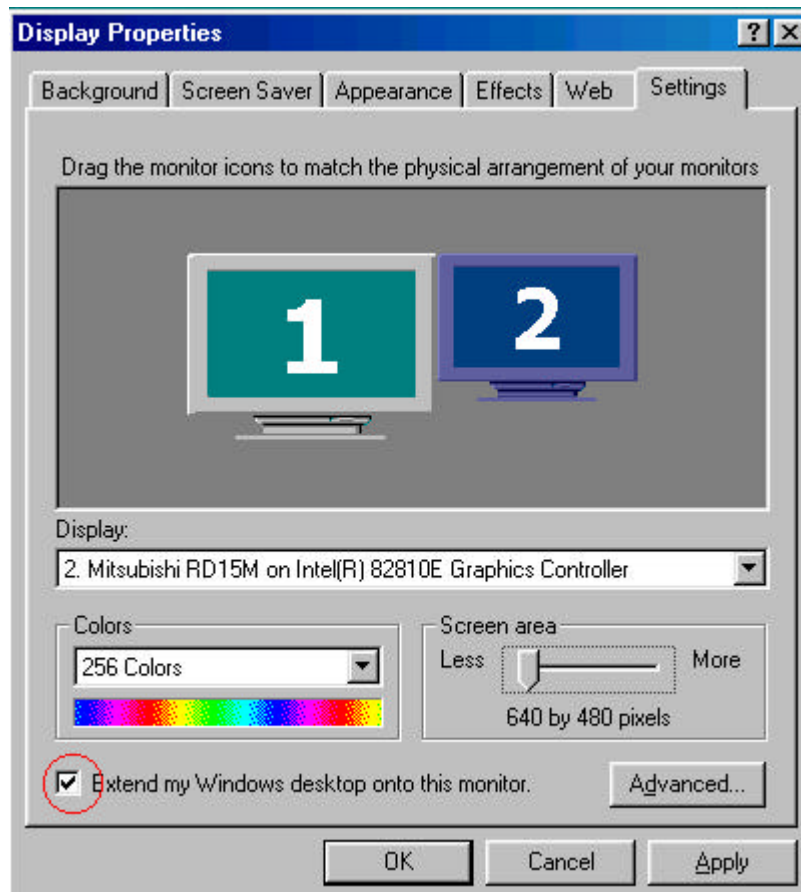
IRQ for COM4 has been set incorrectly. Change the IRQ to “11.” No additional operation for the SIO1 port is required, since it cannot be actually used due to hardware configuration.

8) Setting up the Dual Display

To enable the dual display, carry out this setup.

The ST-6500-C7 enables the dual display using the Dual Display functions supported by Windows.

Select [Display] on the Control Panel to display the “Display Properties” screen. On this screen, select [Settings] – [Display]. Select the on-board VGA (Intel810E2)-equipped display. Check the “Extend my Windows desktop onto this monitor” checkbox at the lower left, then click on the “Apply” button. The on-board VGA will be enabled. Select proper “Colors” and “Screen area”.



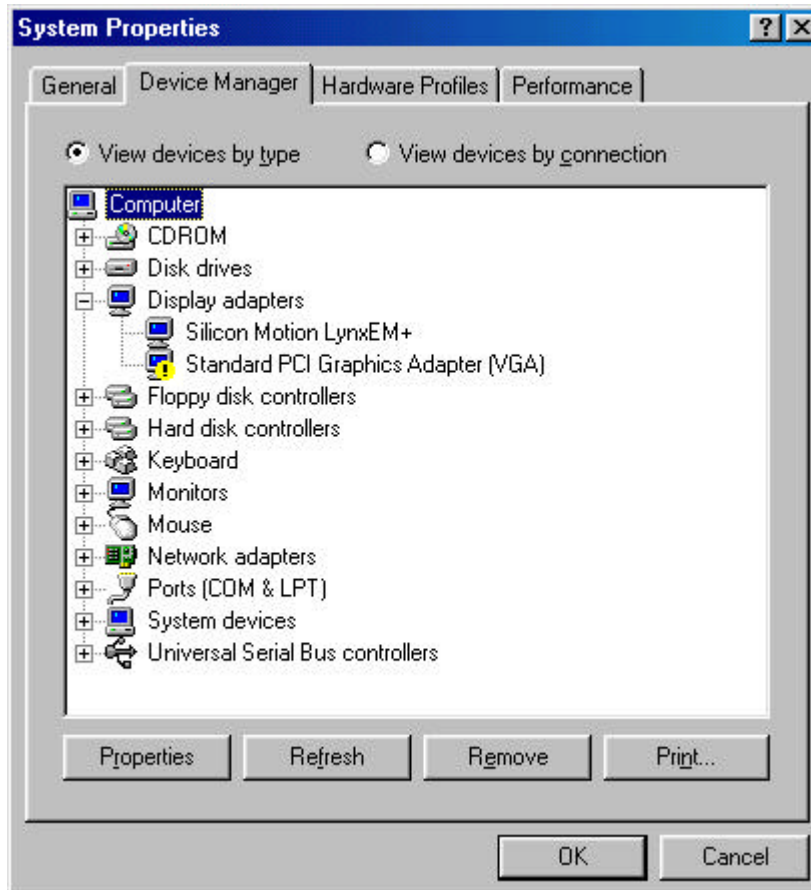
IMPORTANT:

- * Windows 98/98SE/2000/XP can use the Dual Display functions supported by the OS. However, Windows NT cannot use the Dual Display functions, since Windows NT does not support them.

IMPORTANT:

- * If the SM712 VGA board (SMI) has been inserted on the machine, when Windows 98 is installed, the on-board VGA (Intel810E2) cannot be used after Windows 98 has been installed. On the “Device Manager” tab of the “System Properties” screen, the on-board VGA (Intel810E2) is marked with “!”, which indicates the device is disabled. (See the screen below.)

To solve this problem, remove the SM712 VGA board from the machine, then start up the PC. It will make the on-board VGA (Intel810E2) enabled.



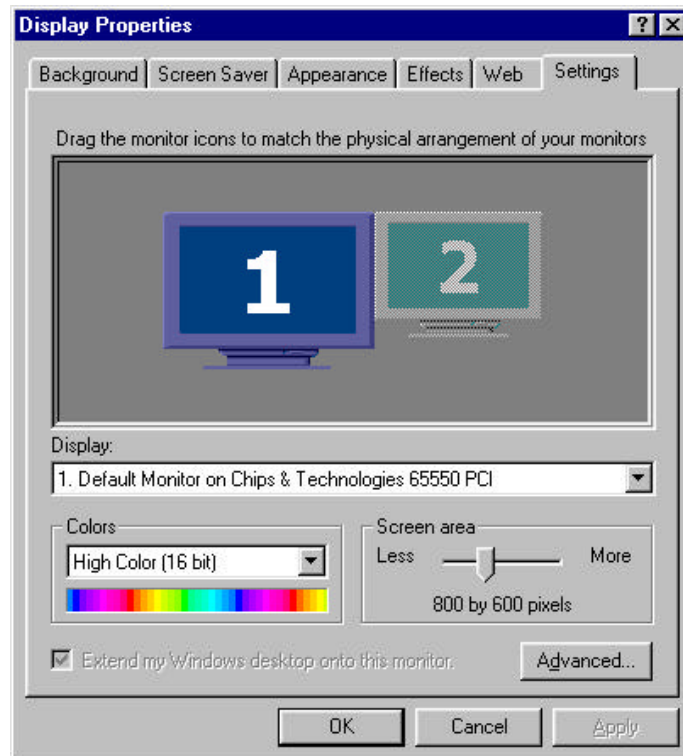
9) Cautions of dual-screen use by Windows98 and Windows98SE.

If a dual-screen is set up by Windows 98 and Windows 98SE, an error may occur. In order to set up a dual-screen without generating an error, please set up the follows;

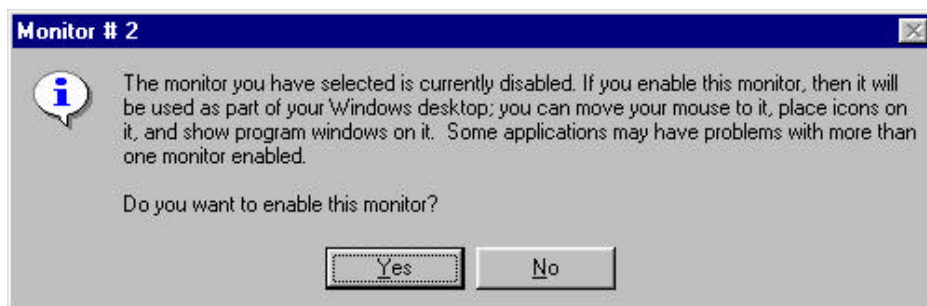
Settings tab of Display Properties Control Panel.

When screen is in the state of disable, as shown in a figure, it is displayed faintly.

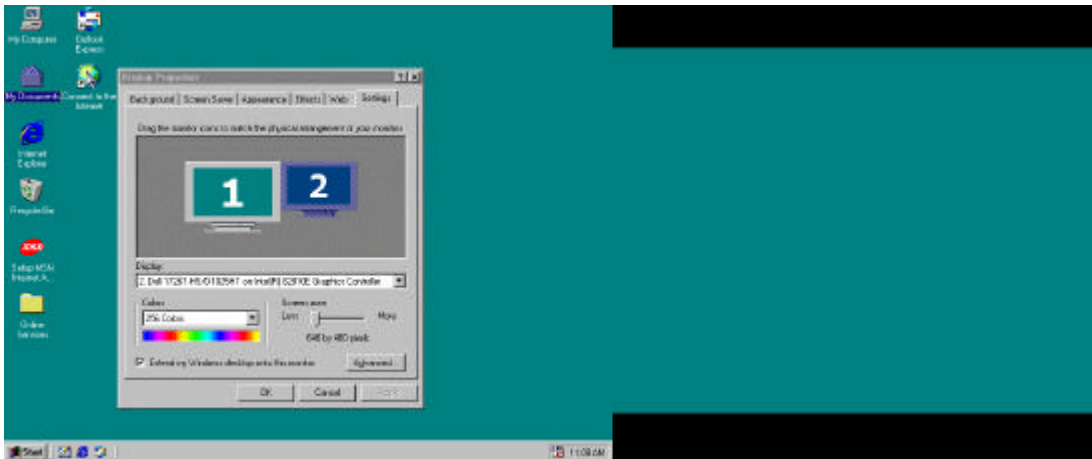
A second screen can be enabled by clicking the second display of a figure.



And then the following message boxes are displayed, choose Yes.



Apply button is clicked.



Please perform PC re-starting or PC shutdown in the state having opened the control panel.
Please do not click OK button or Cancel button of a display properties control panel.
(If "OK" button or "Cancel" button are clicked, error may occur.)

3. Setup on Windows NT 4.0

1) Setting up BIOS

By pressing the F2 key on the keyboard when the machine starts up, the BIOS Setup Menu is selected. Select the following item for BIOS setup.

[Exit]-> Load Setup Defaults (DOS/WinNT/Other)

2) Installing Windows

Connect the PS/2 mouse and install Windows NT 4.0.

IMPORTANT:

* **When Windows NT is installed without connecting the PS/2 mouse, the touch panel driver cannot be installed. Be sure to connect the PS/2 mouse before installing Windows NT.**

3) Installing the Service Pack (SP)

Some drivers require a new version service pack. Install the required service pack.

4) Installing the 810E2 Chipset Software

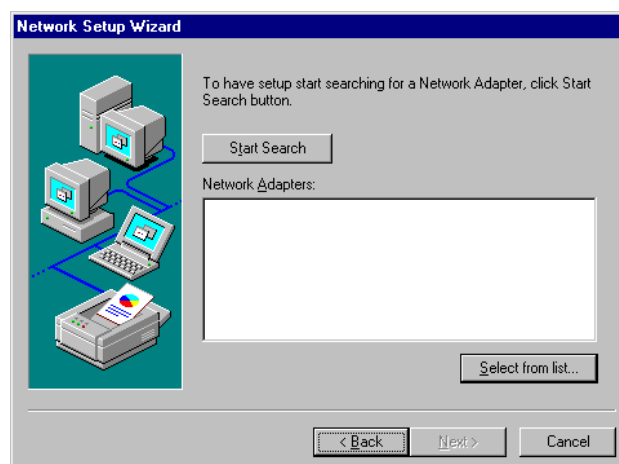
◆ Installing the Intel 810/815 Chipset Family Graphics Driver

To enable the CRT display, this driver must be installed.

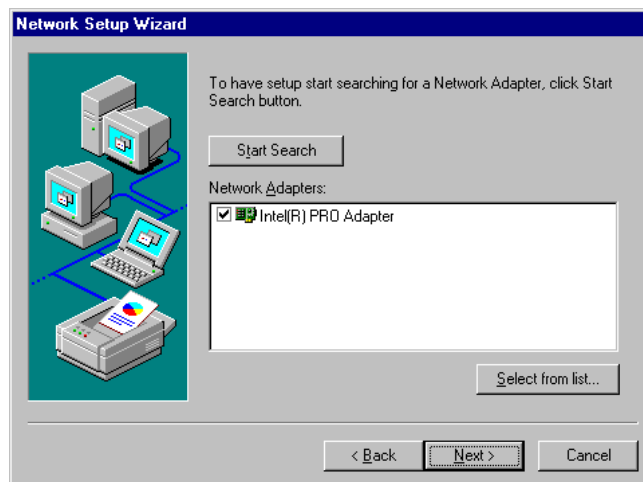
Execute Chipset¥Graphics¥Win9x¥Graphics¥Setup.exe contained in the driver kit, and install "Intel 810/815 Chipset Family Graphics Driver."

◆ Installing the Intel® PRO/100 VE Network Connection Driver

Execute Chipset¥LAN¥100pdisk.exe contained in the driver kit and extract the files onto the hard disk. Select [Network] on the Control Panel and execute "Network Setup Wizard."



Click on the “Select from list” button, and select the extracted folder to install the driver.



For the detailed installation procedure, refer to Intel’s documents or online help.

IMPORTANT:

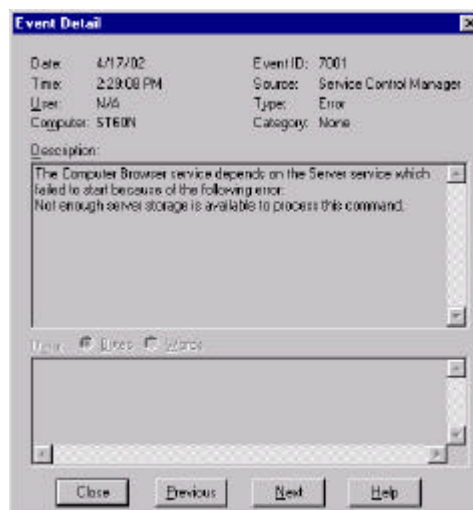
- * If a LAN-related component is installed and the machine is rebooted after the service pack is installed, the message indicating the service is not functioning is displayed. The following event error is recorded in the event log.

Even ID: 7001

Source: Service control manager

Type: Error

**Explanation: The Computer Browser service depends on the Server service which failed to start because of the following error:
Not enough server storage is available to process this command.**



To clear this error, install the service pack again.

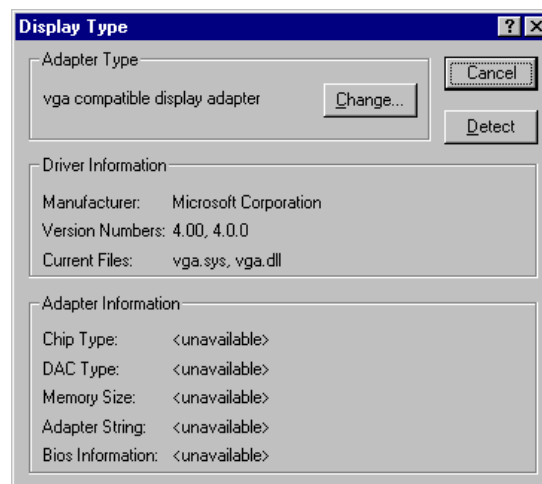
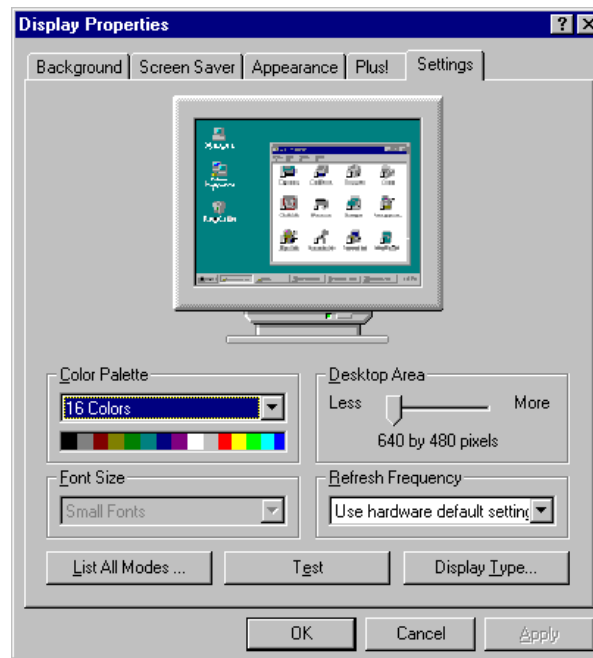
5) Installing the SM712 Graphic Driver

To use the SM712 VGA board (SMI), install this driver.

Select [Display] on the Control Panel to display the “Display Properties” screen. On this screen, select [Settings] – [Display Type]. Select “Display¥SM712¥WinNT” in the driver kit, to install “Silicon Motion LynxEM+.”

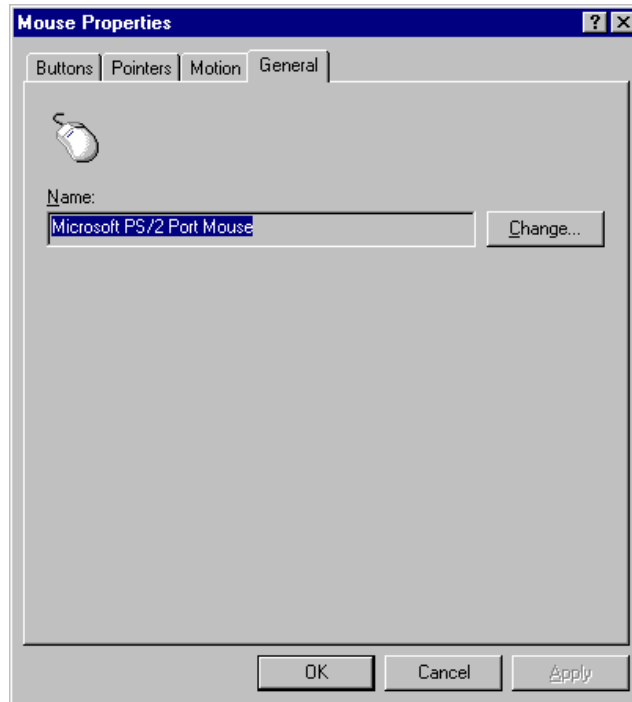
6) Installing the CHIPS Graphic Driver

Select [Display] on the Control Panel and display the “Display Properties” screen. On this screen, select [Settings] – [Advanced] to display the “Standard PCI Graphics Adapter Properties” screen. Select [Adapter] – [Change] on this screen. Select “Display¥Chips¥WinNT” in the driver kit to install “Chips And Technologies, Accelerator.”



7) Installing the PnP Touch Panel Driver

Select [Mouse] on the Control Panel to display the “Mouse Properties” screen. Select [General] – [Change]. Select the “PnPTabletWinNT” folder in the driver kit to install “SMK PnP Tablet Driver.”



After rebooting the machine, select [Start] – [Run] and run “tabcalNT.exe” to set up calibration.

8) Setting up the Dual Display

Since Windows NT does not support the Dual Display functions, the Dual Display functions cannot be used.

4. Setup on Windows 2000

1) Setting up BIOS

By pressing the F2 key on the keyboard, when the machine starts up, the BIOS Setup Menu is selected. Select the following item for BIOS setup.

[Exit]-> Load Setup Defaults (Win2000/XP)

2) Installing Windows

Install Windows 2000.

3) Installing the 810E2 Chipset Software and the PnP Touch Panel Driver

◆ Installing the Intel Chipset Installation Utility

Execute Chipset\Chipset\Disk1\Setup.exe contained in the driver kit and install “Intel Chipset Installation Utility.”

The following message is displayed after the machine is rebooted. Install the touch panel driver.



On the “Found New Hardware Wizard” screen, select “Search for suitable driver for my device” and click on [Next].



Then, select “Specify a location” and designate the “Tablet¥PnPTablet¥Win2K” folder in the driver kit to install the driver.



◆ Installing the Intel 810/815 Chipset Family Graphics

To enable the CRT display, install this driver.

Execute “Chipset¥Graphics¥Win2K_XP¥Graphics¥Setup.exe” contained in the driver kit, and install the “Intel 810/815 Chipset Family Graphics Driver.”

Reboot the machine. Select [Touch Panel] on the Control Panel to display the “Touch Panel Property” screen. On this screen, select [Calibration] – [Execute] to set up calibration.

IMPORTANT:

* Unless any of the PS/2 mouse, the serial mouse or the USB mouse has been connected, the touch panel driver cannot be loaded properly, disabling the calibration setup. Connect any of the mice to let the machine recognize it.

4) Installing Other PCI Device Drivers

Execute “Chipset¥LAN¥100pdisk.exe” contained in the driver kit, and extract the files onto the hard disk.

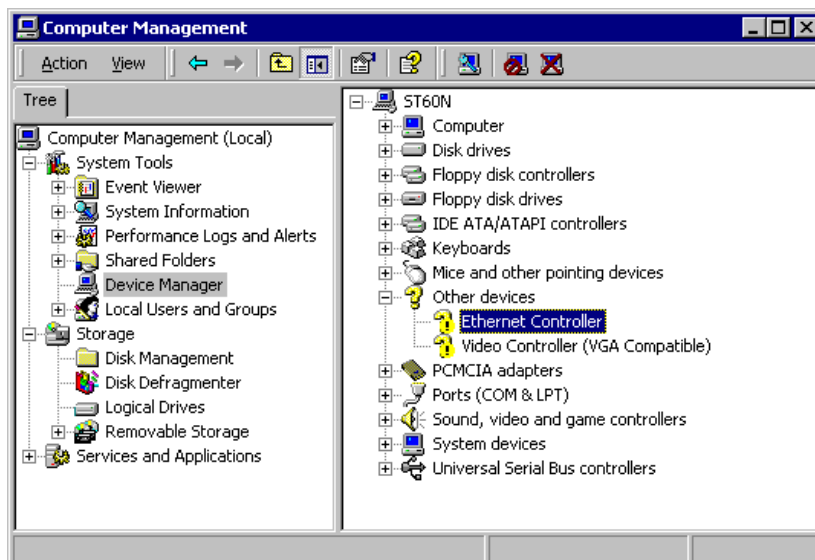
The Windows 2000 Device Manager indicates that “Ethernet Controller” and “Video Controller” are not properly installed.

Open the properties screen for the device with the “?” mark and click on “Reinstall Driver.” Install these controllers in the same manner as the PnP Tablet Driver.

Designate the following folders:

Ethernet Controller: Folder that 100pdisk.exe was extracted to

Video Controller: “Display¥SM712¥Win2K” in the driver kit



5) Changing the Serial Port Setting

On Windows 2000, COM4 is recognized as if there are two. Therefore, either of them must be changed from COM4 to COM5 (SIO1).

IMPORTANT:

*** No additional operation for the SIO1 port is required, since it cannot be actually used due to hardware configuration. However, since COM4 is recognized as if there are two, either of them must be changed from COM4 to COM5 (SIO1). The port addresses and IRQs for COM4 and COM5 should be set as below:**

- **COM4**

Port address: 270-277

IRQ: IRQ11

- **COM5 (SIO1)**

Port address: 2E8-2EF

IRQ: IRQ15

6) Updating the Driver

The driver kit contains drivers newer than those supported by Windows. Update the drivers, as required.

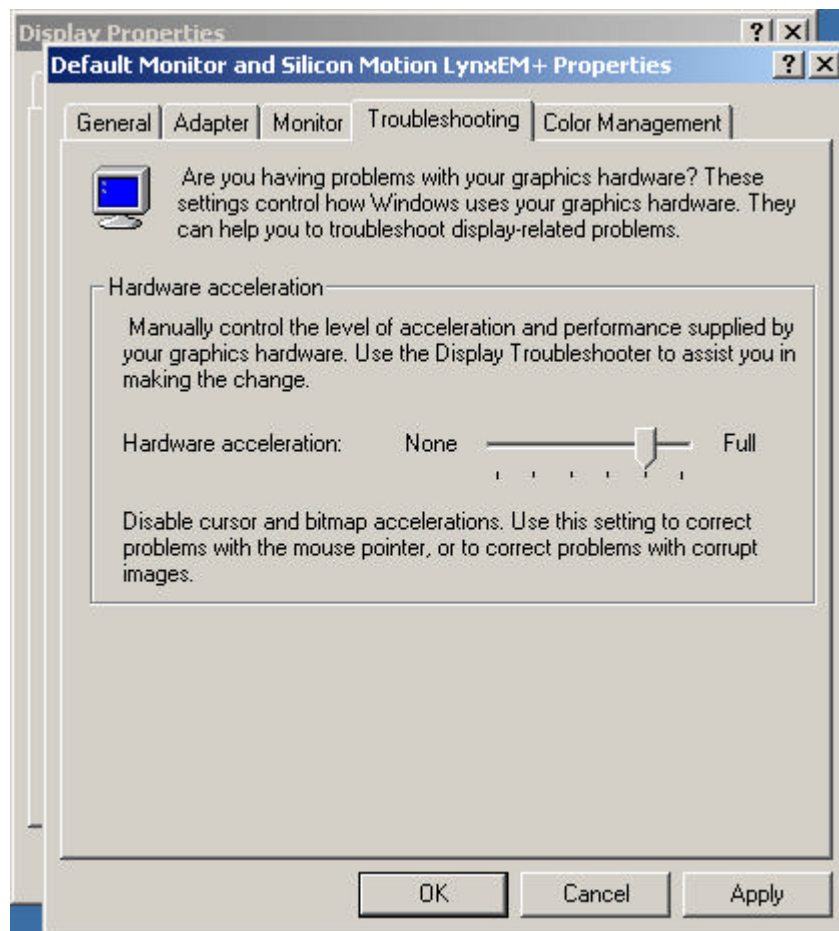
7) Setting up the Dual Display

Refer to 8) Setting up the Dual Display of Section 2. Setup on Windows 98/Windows 98SE.

IMPORTANT:

- * On Windows 2000/XP, when the mouse pointer is moved on the screen of MPEG data on the CRT monitor in the dual display, another mouse pointer may appear on the TFT monitor.

To prevent this phenomenon from occurring, perform the following procedure: Display the “Display Properties” screen. Select [Settings] – [Advanced] – [Troubleshooting]. On the displayed screen, set the “Hardware acceleration” level to any level other than “FULL”. This phenomenon will not occur.



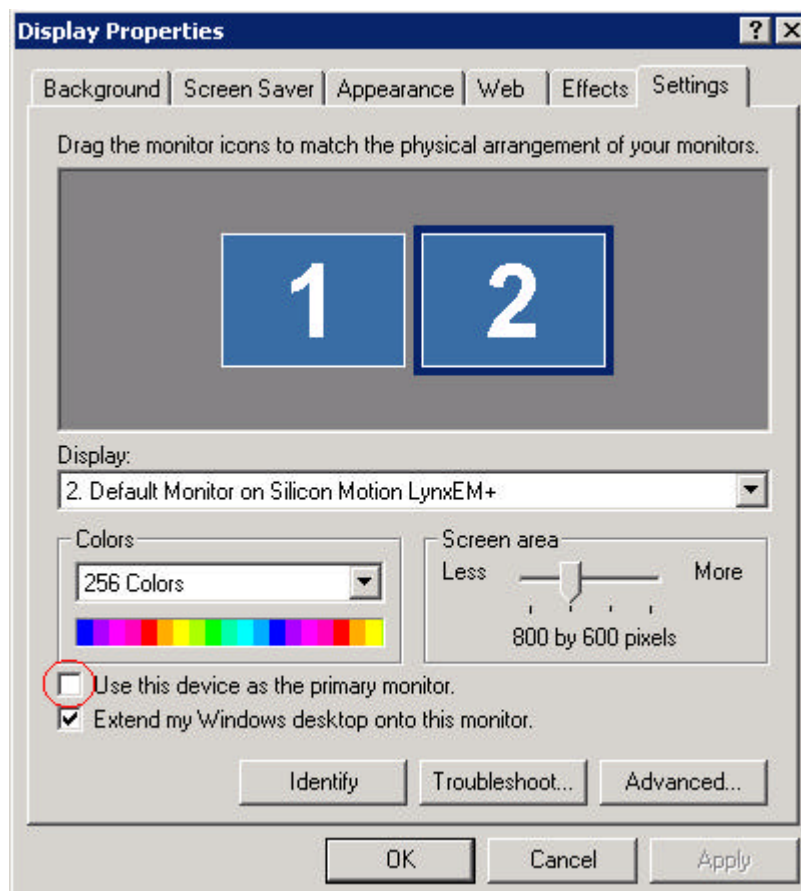
IMPORTANT:

- * On Windows 2000, the on-board VGA (Intel810E2) is set as primary monitor. After Windows 2000 is installed, the on-board VGA is used for the screen display.

To perform the dual display, after installing the SM712 VGA board (SMI) driver, the TFT and the CRT monitors should be set as primary and secondary monitors, respectively.

To set the TFT monitor as primary monitor, select [Display] on the Control Panel to display the "Display Properties" screen. On this screen, select [Settings] – [Display]. Select "Silicon Motion LynxEM+." Check the "Use this device as the primary monitor" checkbox at the lower left, then click on the "Apply" button. The TFT monitor is set as primary monitor.

To use only the TFT monitor, set the TFT monitor as primary monitor, then disable the on-board VGA (Intel810E2).



5. Setup on Windows XP

1) Setting up BIOS

By pressing the F2 key on the keyboard when the machine starts up, the BIOS Setup Menu is selected. Select the following item for BIOS setup.

[Exit]-> Load Setup Defaults (Win2000/XP)

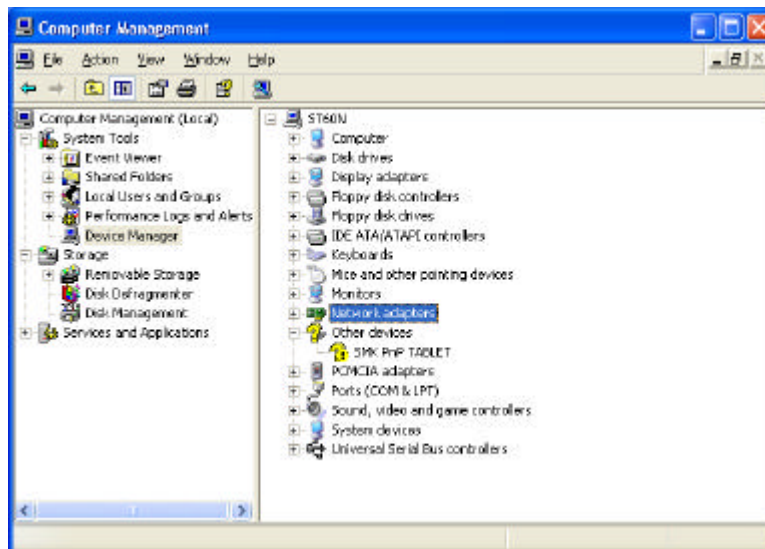
2) Installing Windows

Install Windows XP.

3) Installing the PnP Touch Panel Driver

The Windows XP Device Manager indicates that “SMK PnP Tablet” is not properly installed.

Open the properties screen and click on “Reinstall Driver” to install the PnP Tablet Driver.



On the “Found New Hardware Wizard” screen, select “Install from list or specific location” and click on [Next].



Select “Include this location in the search” and designate the “PnPTablet\WIN2K” folder in the driver kit to install the driver.



Reboot the machine. Select [Control Panel] – [Touch Panel] to display the “Touch Panel Property” screen. On this screen, select [Calibration] – [Execute] to set up calibration.

IMPORTANT:

*** Unless any of the PS/2 mouse, the serial mouse or the USB mouse has been connected, the touch panel driver cannot be loaded properly, disabling the calibration setup. Connect any of the mice to let the machine recognize it.**

4) Installing Other PCI Device Drivers

Designate the following folder to install the driver:

Video Controller: “Display¥SM712¥WinXP” in the driver kit

5) Changing the Serial Port Setting

On Windows XP, COM4 is recognized as if there are two. Therefore, either of them must be changed from COM4 to COM5 (SIO1).

IMPORTANT:

*** No additional operation for the SIO1 port is required, since it cannot be actually used due to hardware configuration. However, since COM4 is recognized as if there are two, either of them must be changed from COM4 to COM5 (SIO1). The port addresses and IRQs for COM4 and COM5 should be set as below:**

- **COM4**
Port address: 270-277
IRQ: IRQ11
- **COM5 (SIO1)**
Port address: 2E8-2EF
IRQ: IRQ15

6) Updating the Driver

The driver kit contains drivers newer than those supported by Windows. Update the drivers as required.

7) Setting up the Dual Display

Refer to 8) Setting up the Dual Display of Section 2. Setup on Windows 98/Windows 98SE.

IMPORTANT:

- * On Windows 2000/XP, when the mouse pointer is moved on the screen of MPEG data on the CRT monitor in the dual display, another mouse pointer may appear on the TFT monitor.

To prevent this phenomenon from occurring, perform the following procedure: Display the “Display Properties” screen. Select [Settings] – [Advanced] – [Troubleshooting]. On the displayed screen, set the “Hardware acceleration” level to any level other than “FULL”. This phenomenon will not occur.

