

Windows Setup Guide for ST-B20
Windows 2000 / XP / Vista / 7 /
WEPOS / POSReady 2009 /POSReady 7

TOSHIBA TEC CORPORATION

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1. Overview

This document describes the procedures and cautions for installing Windows operating system and the drivers on the ST-B20.

ST-B20 has the RAID function (option). To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

The outline of procedures to install Windows operating system and the drivers on the ST-B20 is as follows.

Installation Procedure of Windows operating system and the drivers:

1. Installation for Operating System

2. Installation for Intel Chipset Software

When you use TFTST-56 or LKBST-65 display (connected via PCI card), SMI VGA driver must be installed before the installation of Intel Chipset Software. (Refer to additional setup documents)

3. Installation for Intel Graphic Accelerator Driver

When you use TFTST-56 or LKBST-65 display (connected via PCI card), you do not need to install the Intel Graphic Accelerator driver.

4. Installation for Intel Network Driver

5. Installation for Realtek Audio Driver

6. Setup for Display

There are four additional setup documents that depend on display type.

- TFTST-A20, TFTST-B20: TFTST-A20, TFTST-B20 Setup Guide
- TFTST-76: TFTST-76 Setup Guide
- TFTST-56, LKBST-65 (LVDS Direct): TFTST-56, LKBST-65 (LVDS Direct) Setup Guide
- TFTST-56, LKBST-65 (via PCI Card): TFTST-56, LKBST-65 (PCI Card) Setup Guide

2. Set up for Windows 2000

2.1. Installation for Operating System (Windows 2000)

Windows 2000 operating system must be installed with the Service Pack SP3 or later on the ST-B20.

To install the operating system using a bootable CD, use the one for Windows 2000 SP3 or later.

To install the operating system via network, Service Pack SP3 or later must be applied to Windows 2000 network image before installing.

Note: On basic information, ST-B20 applies an SATA technology for connection to HDD. Windows 2000 SP2 or earlier do not support SATA.

Note: To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

Note: To use the RAID, install the RAID Utility after the setup procedure of this chapter is finished, with reference to Section 6.2 Installation of RAID Utility JMB36X RAID CONFIGURER.

2.1.1. Getting Started

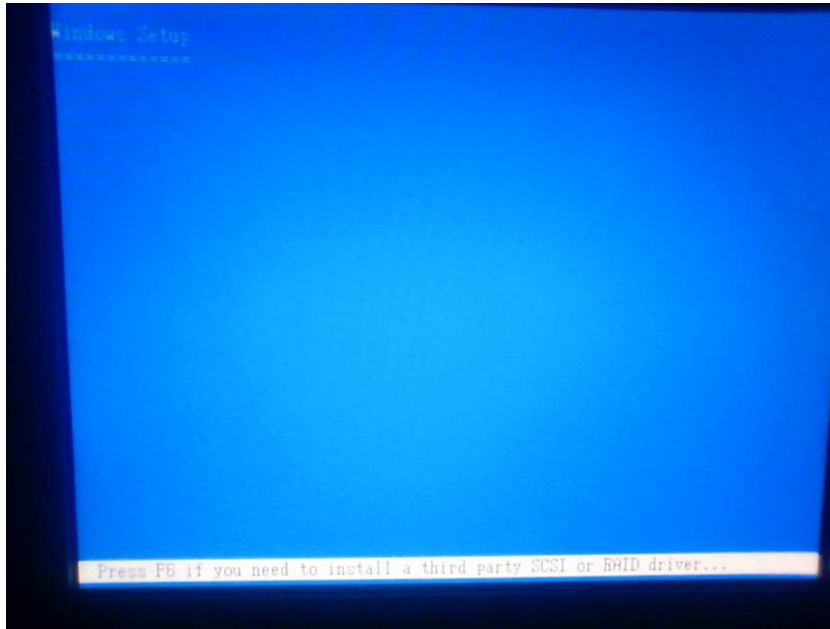
The JMicon RAID driver must be installed from a floppy disk (FD) during an installation of the operating system. For this purpose, connect the floppy disk drive (FDD) and copy the JMicon RAID driver on the FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk]

Copy all files in the "ST-B20\RAID\Floppy32" folder contained in the Driver kit CD to the FD.

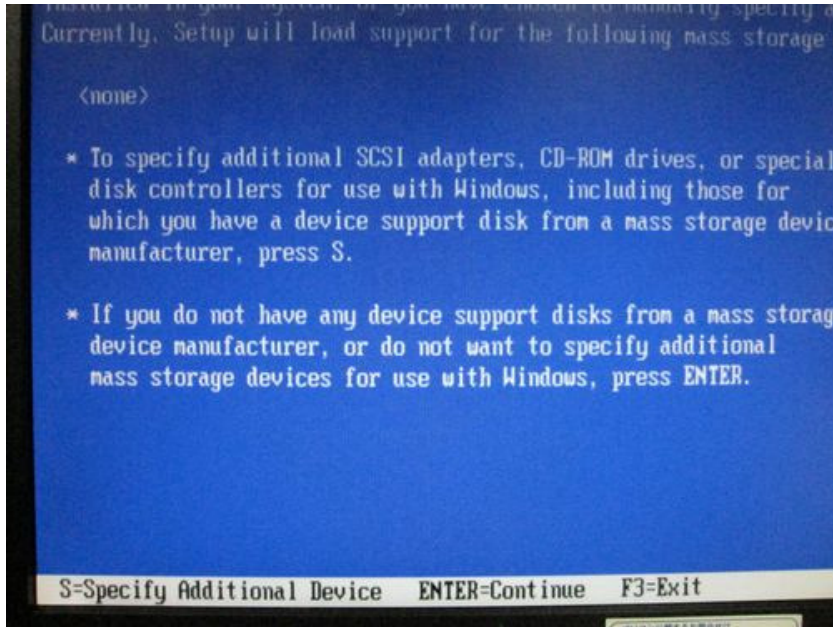
2.1.2. Installation of JMicron RAID Driver

A short time after the installation of the operating system starts, a message “Press F6 if you need to install a third party SCSI or RAID driver...” appears at the bottom of the operating system installation screen as shown below. On this screen, press the “F6” key to give the operation system installer an instruction to start installing the driver.

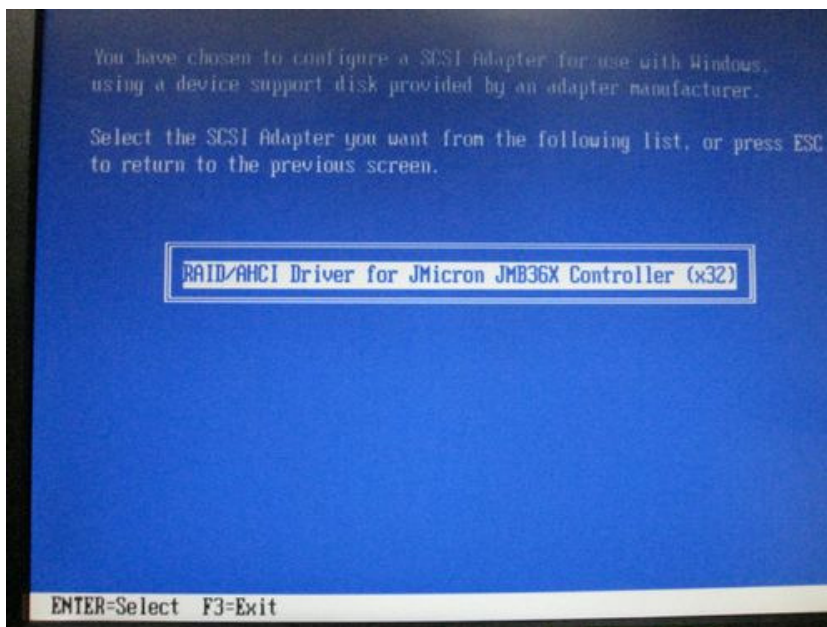


Note: The driver installation screen will not appear as soon as the “F6” key is pressed. It appears after the installation of the operating system proceeds to some extent. If the screen shown below does not appear, it means the instruction of the driver installation has failed. In this case, reboot ST-B20 and start the installation of Windows from the beginning.

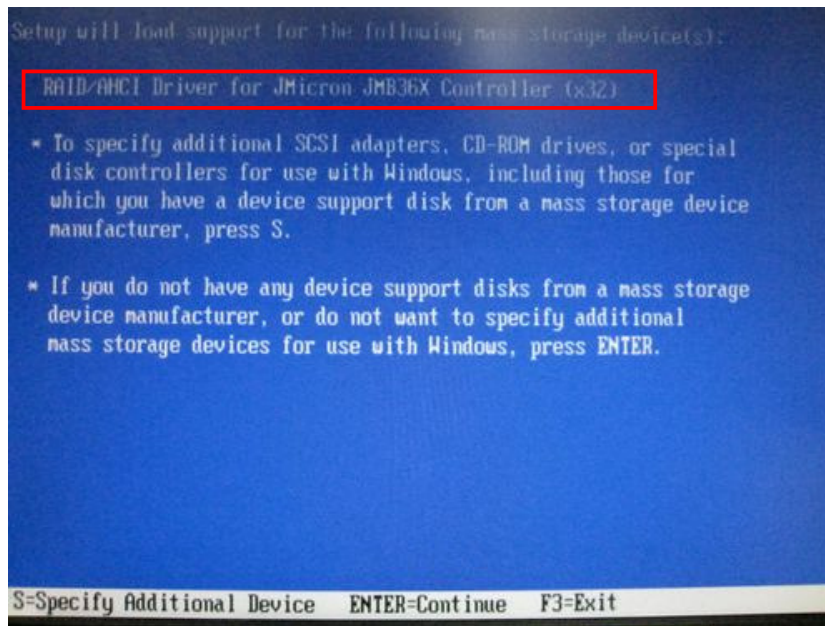
A short time after the instruction to install the driver is given to Windows, the driver installation screen shown below appears. On this screen, press the “S” key, and the screen to select a driver to be installed appears.



On this driver selection screen, you will select a driver to be installed. Among the drivers read from the FD and shown on the screen, select “RAID/AHCI Driver for Jmicron JMB36X Controller(x32)” and press the “ENTER” key. And, the driver installation screen is displayed again.



After selecting the driver to be installed and the driver installation screen appears again, the driver selected is shown on the screen as indicated with the red box in the figure below. If the driver shown is correct, press the “ENTER” key to continue the installation of Windows. If the driver shown is not correct, press the “S” key again and select a correct driver.

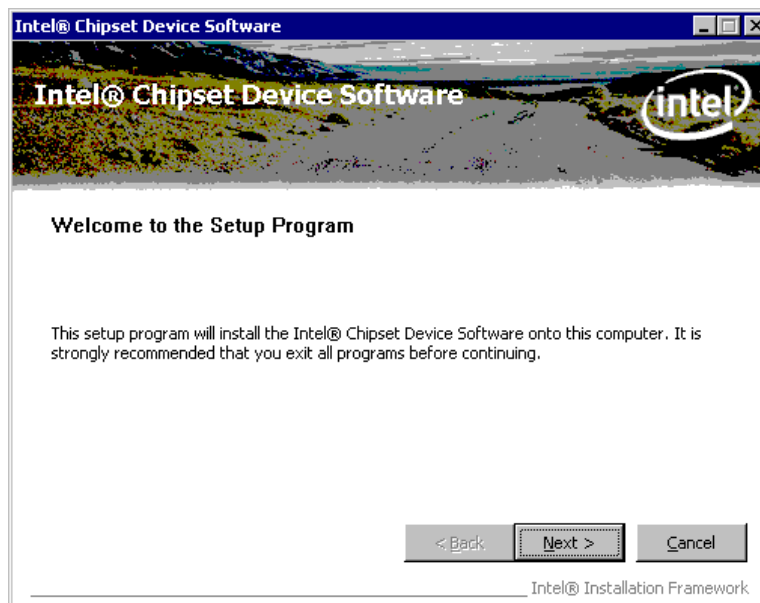


Follow the instructions of the Windows installer to complete the installation.

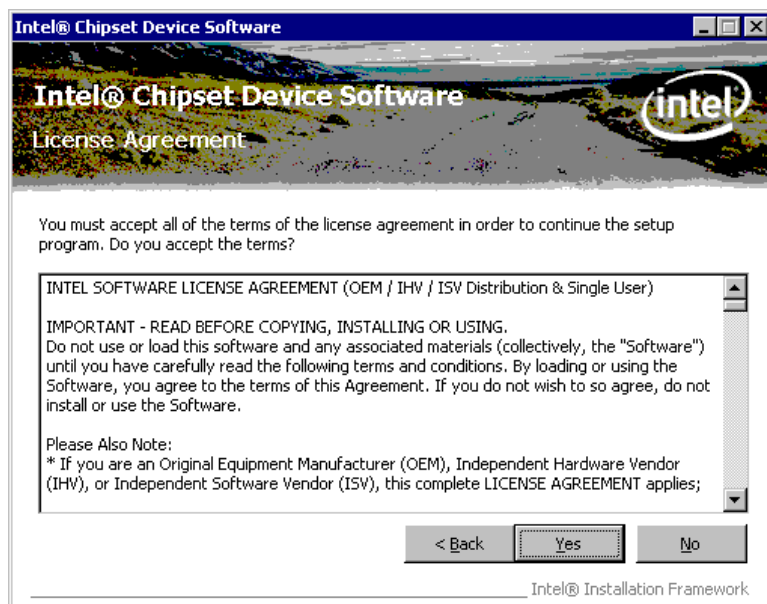
2.2. Installation for Intel Chipset Software

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), SMI VGA driver must be installed before the installation of Intel Chipset Software. (Refer to additional setup documents)

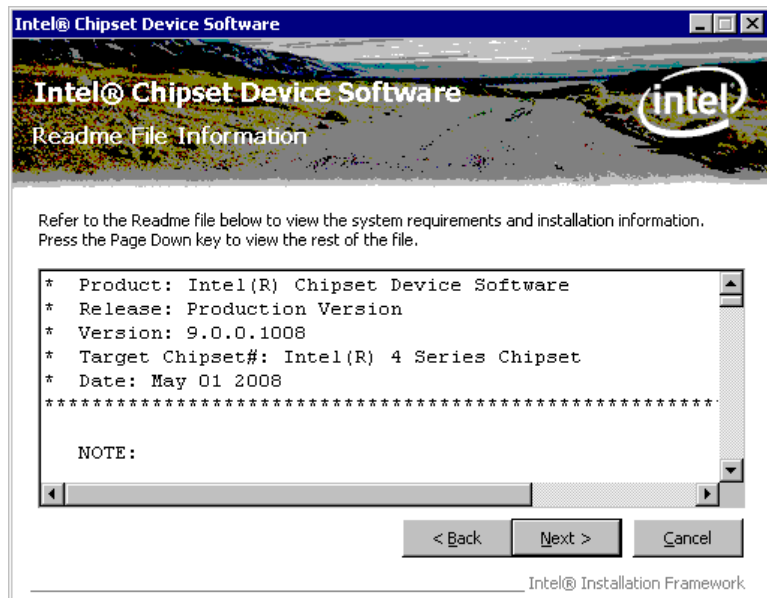
Run "Setup.exe" in the "ST-B20\Intel\Chipset\2K" folder in the Driver kit CD. After a while, the following window appears. Click on the "Next" button.



The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.

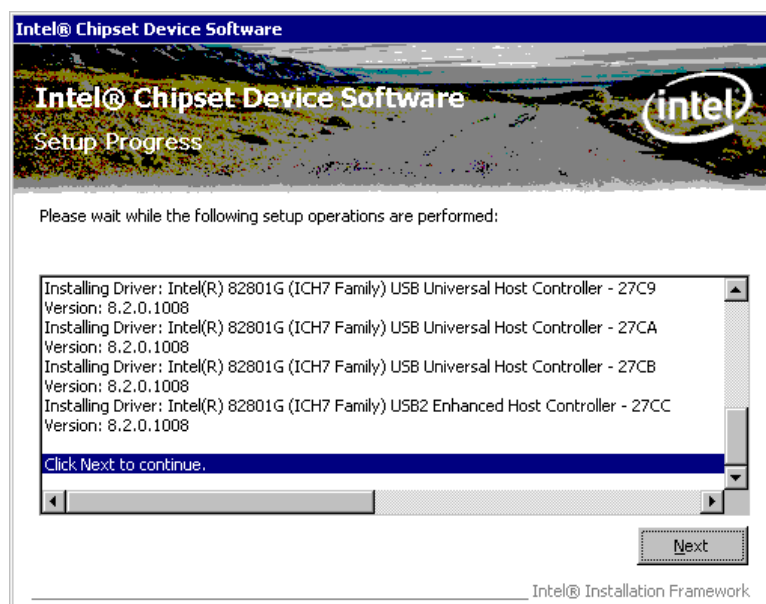


The “Readme File Information” window appears. Click on the “Next” button.

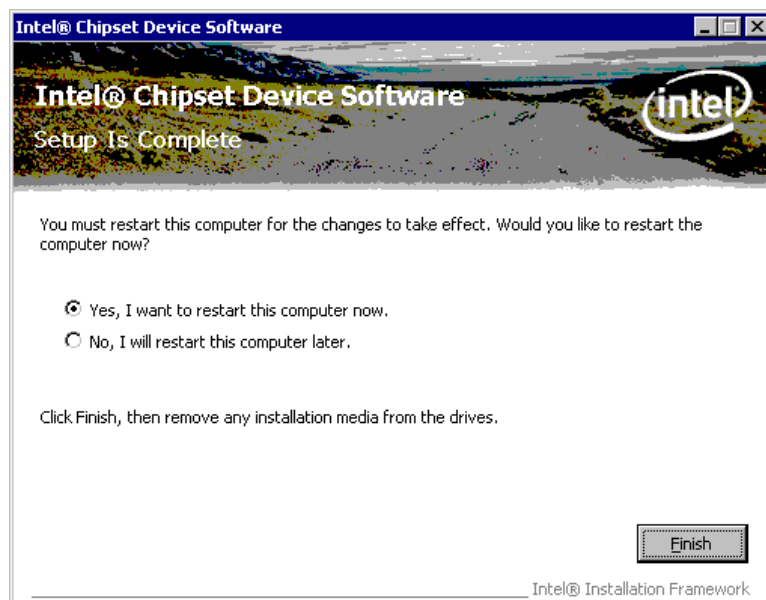


The "Setup Progress" window appears, and starts the installation.

After the "Next" button changes to the status that you can click, click on the button.



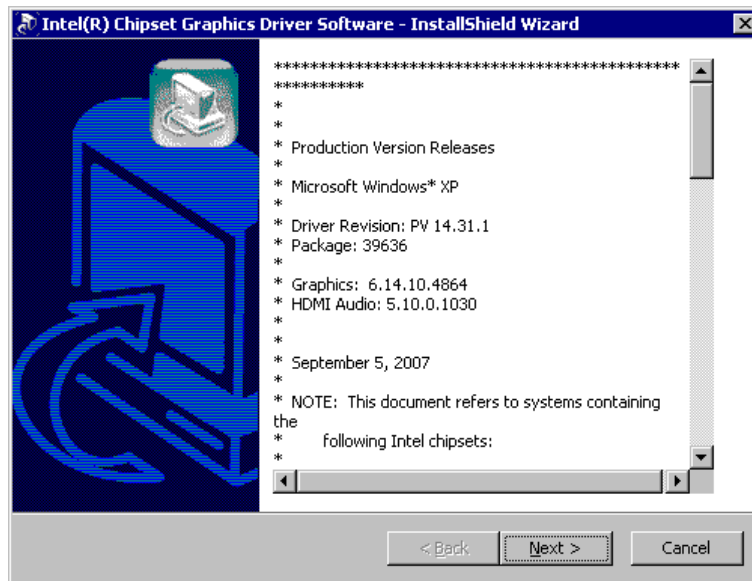
When the installation is completed successfully, the following window appears. Check the "Yes, I want to restart this computer now" radio button, then click on the "Finish" button to reboot your computer.



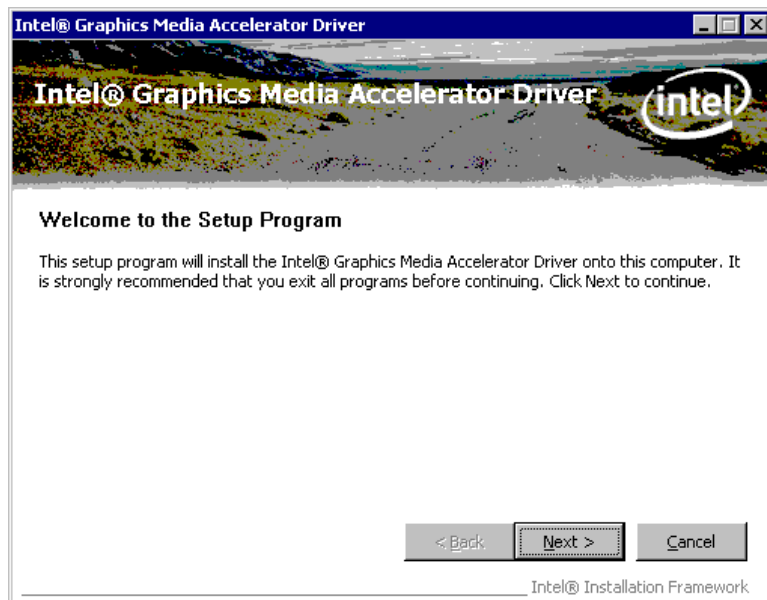
2.3. Installation for Intel Graphic Accelerator Driver

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), you do not need to install the Intel Graphic Accelerator driver.

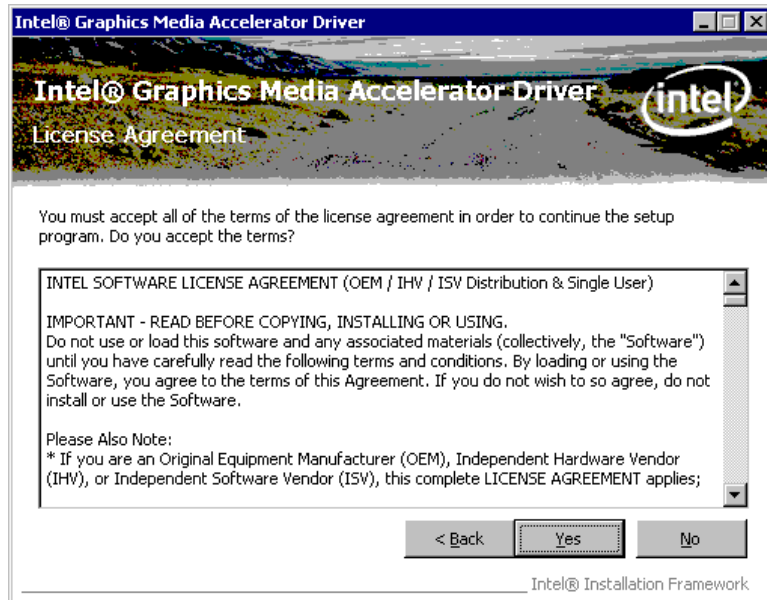
Run “win2k_xp14311.exe” in the “ST-B20\Intel\Graphic\2K_XP_WEPOS_POSReady” folder in the Driver kit CD. The following window appears. Click on the “Next” button.



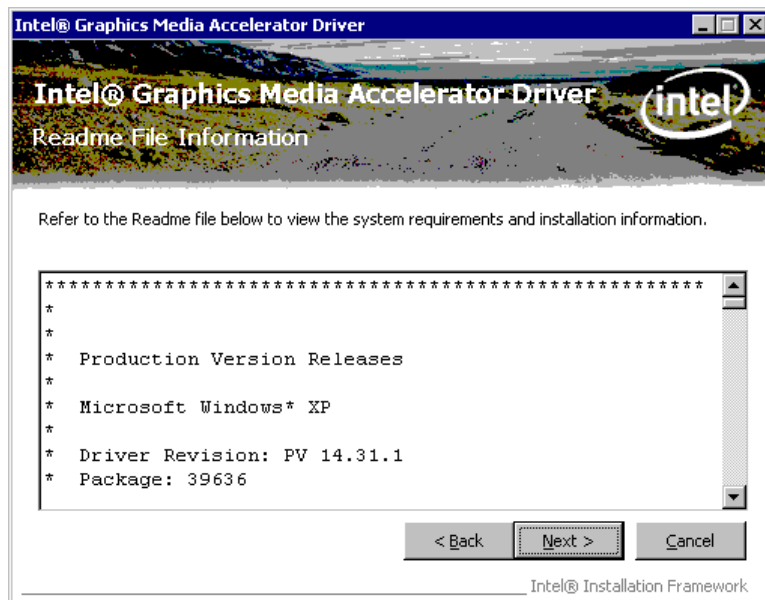
After a while, the following window appears. Click on the “Next” button.



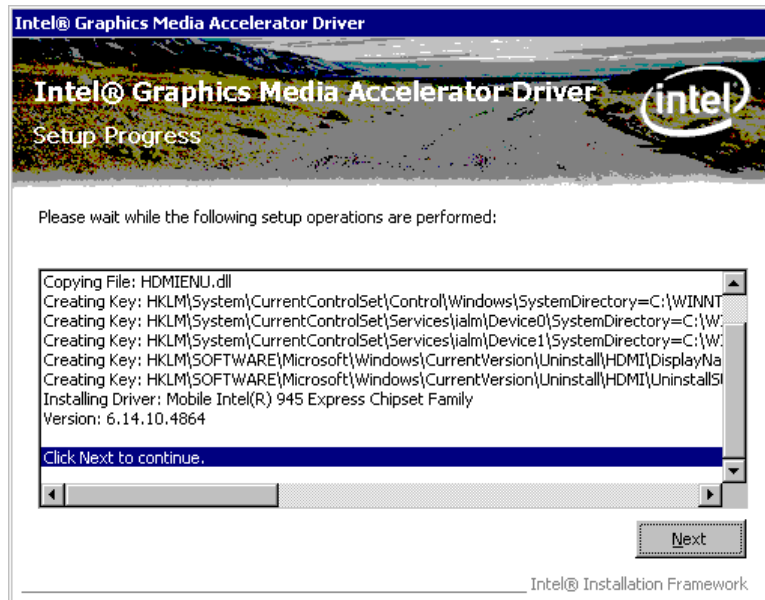
The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.



The “Readme File Information” window appears. Click on the “Next” button.



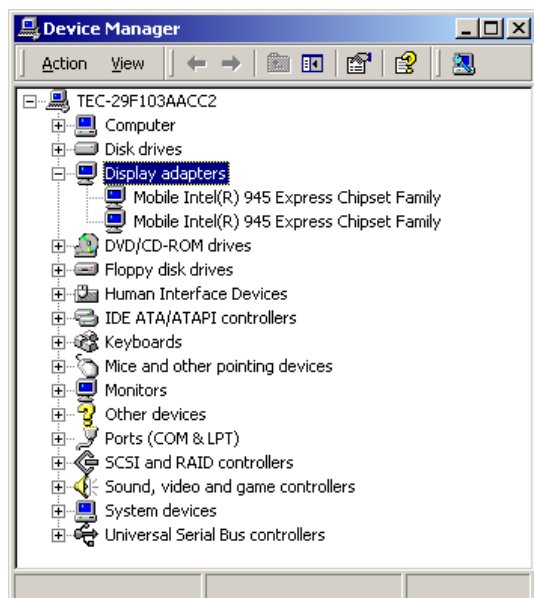
The "Setup Progress" window appears, and starts the installation. After the "Next" button changes to the status that you can click, click on the button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart this computer now” radio button, then click on the “Finish” button to reboot your computer.

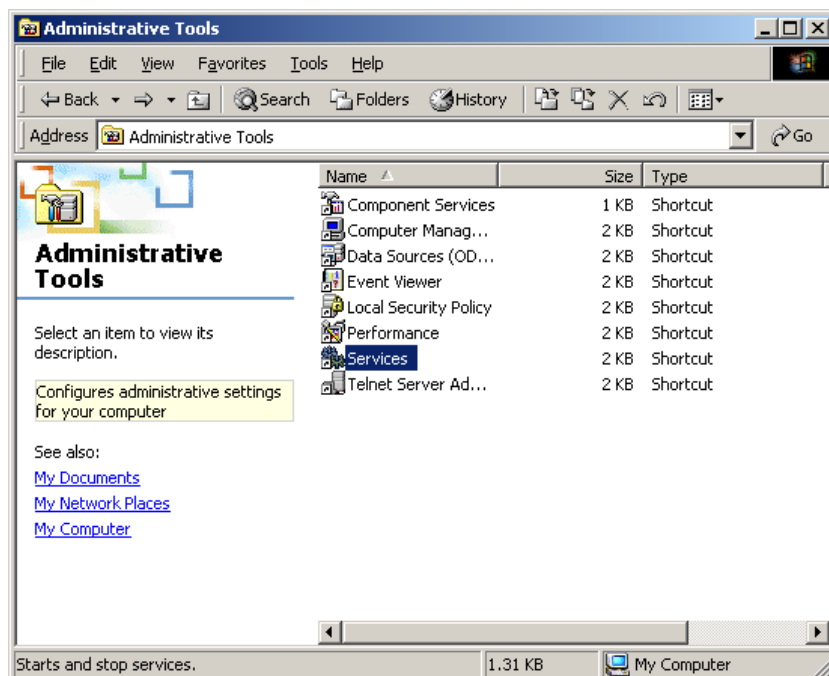


Open Device Manager to confirm the graphic driver has been installed. Make sure that “Mobile Intel(R)945 Express Chipset Family” is registered under the “Display adapters” icon..

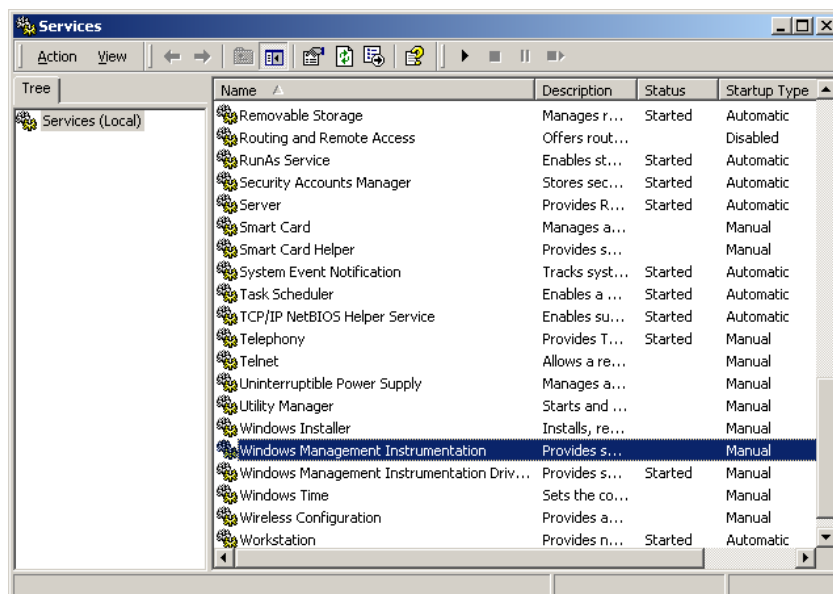


2.4. Installation for Intel Network Driver

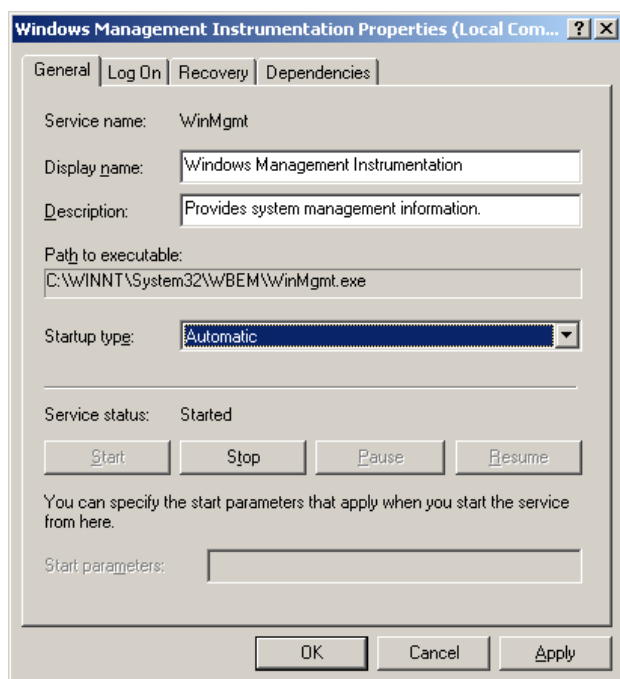
Open the “Administrative Tools” of the Control Panels. Then, open the “Services”.



Next, open the “Windows Management Instrumentation” Service Properties menu.



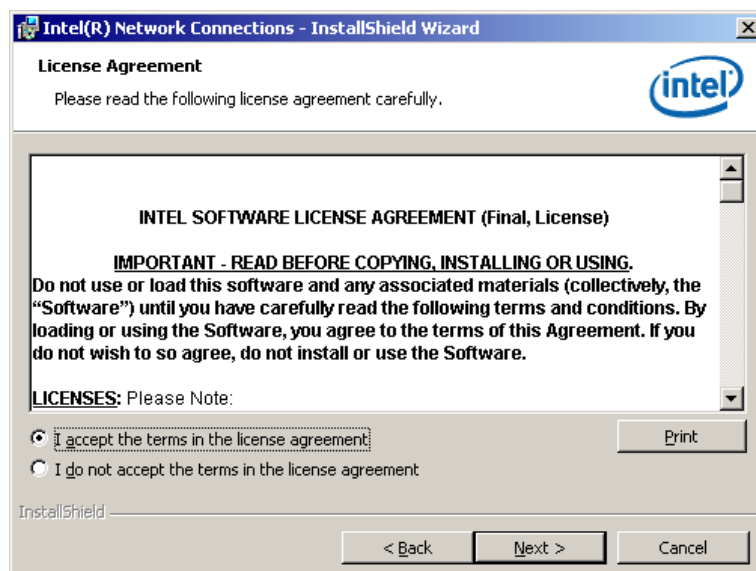
Start this service and change the “Startup type” value to “Automatic”. Then, click on the “OK” button.



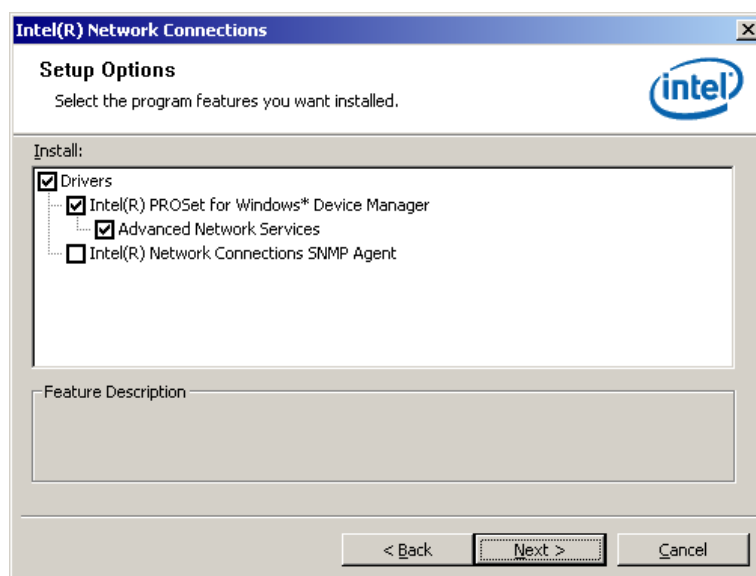
Run “PRO2KXP_v13_4.exe” in the “ST-B20\Intel\LAN(Intel 82574)\2K_XP_WEPOS_POSReady” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



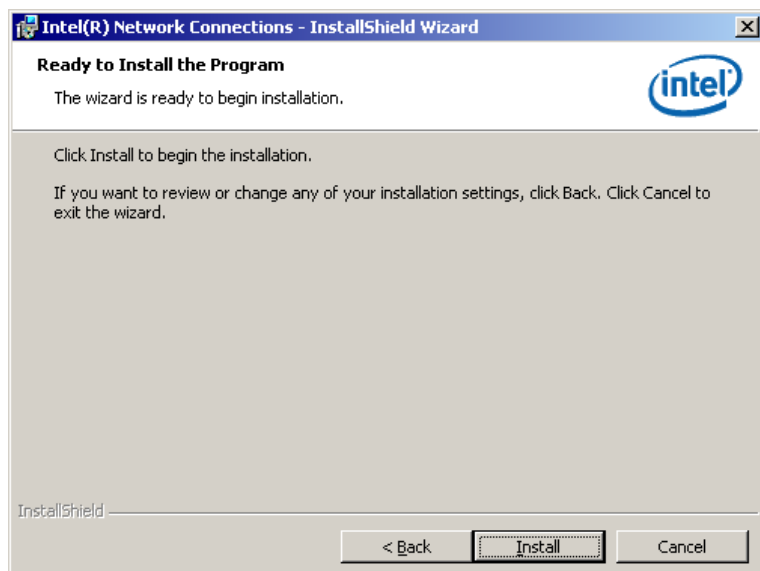
The “License Agreement” window appears. Confirm the contents. If you agree, check the “I accept the terms in the license agreement” radio button and click on the “Next” button.



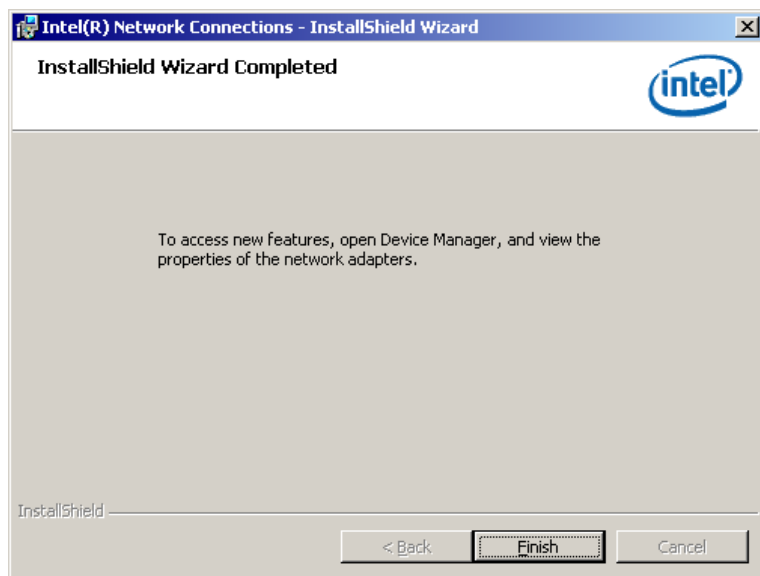
The “Setup Options” window appears. If nothing specially required, click on the “Next” button with default condition.



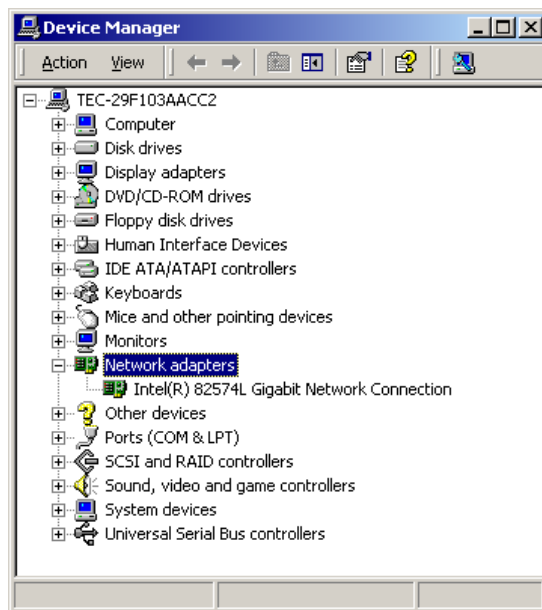
The following window appears. Click on the “Install” button to start the installation.



After completion of the installation, the following window appears. Click on the “Finish” button to complete the installation.

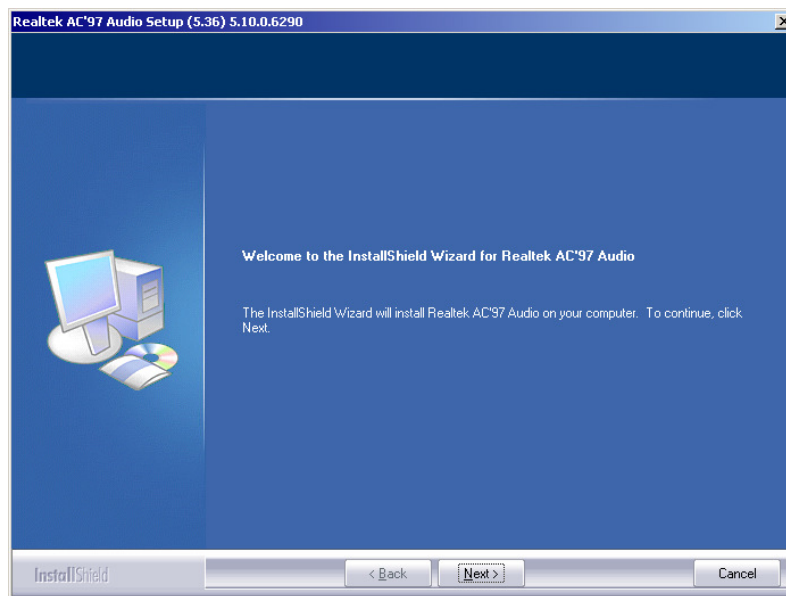


Open Device Manager to confirm the network driver has been installed. Make sure that “Intel(R) 82574L Gigabit Network Connection” is registered under the “Network adapters” icon.



2.5. Installation for Realtek Audio Driver

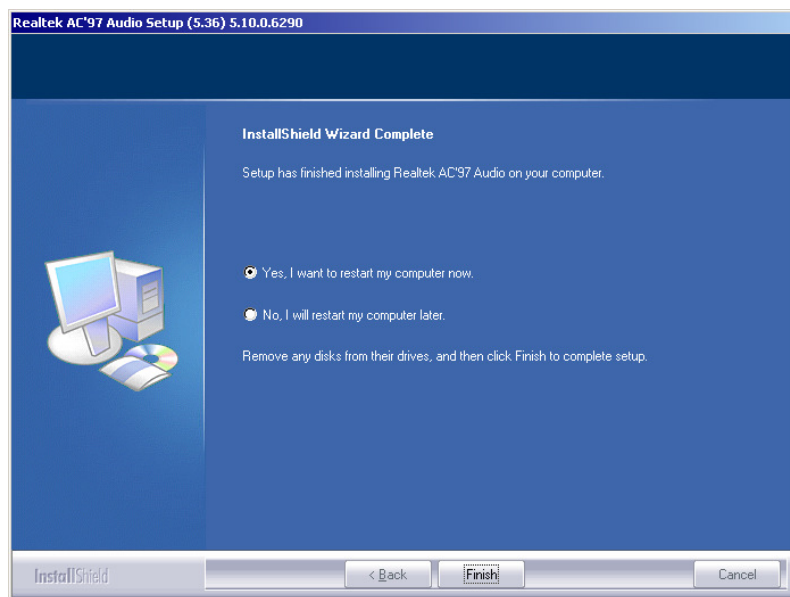
Run “setup.exe” in the “ST-B20\Intel\Audio\2K_XP” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



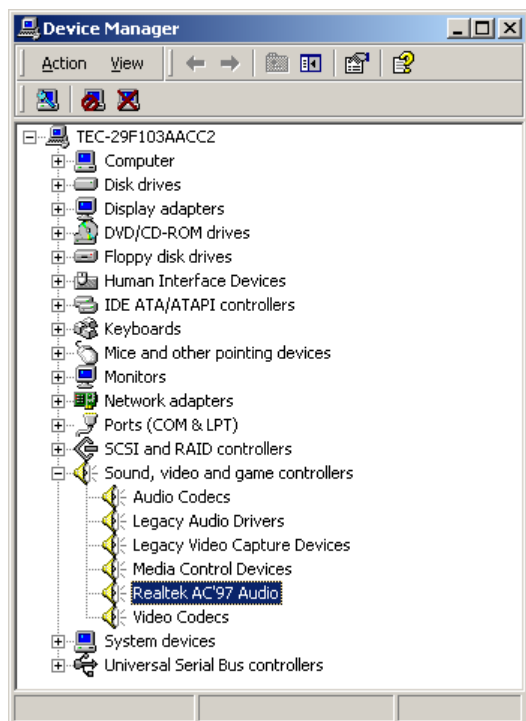
After a while, the following window appears. Click on the “Yes” button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart my computer now” radio button, then click on the “Finish” button to reboot your computer.



Open Device Manager to confirm the audio driver has been installed. Make sure that “Realtek AC'97 Audio” is registered under the “Sound, video and game controllers” icon.



2.6. Setup for Display

There are four additional display setup documents that depend on display type.
When you use dual display function, please confirm the note about 'Dual Display connection combinations list' at the Chapter 6.

About setup procedure of display, please see additional documents as below.

TFTST-A20, TFTST-B20: "TFTST-A20, TFTST-B20 Setup Guide"

- Installation for ELO (Tyco) Touch panel driver
- Installation for the driver of other optional equipment

TFTST-76: "TFTST-76 Setup Guide"

- Installation of Fujitsu Touch panel driver
- Installation for the driver of other optional equipment

TFTST-56, LKBST-65 - LVDS Direct: "TFTST-56, LKBST-65 (LVDS Direct) Setup Guide"

- Installation of Fujitsu Touch panel driver

TFTST-56, LKBST-65 - PCI Card: "TFTST-56, LKBST-65 (PCI Card) Setup Guide"

- Installation of SMI VGA driver of PCI Graphic card
- Installation of SMK Touch panel driver

These display setup guides describe the procedures and cautions for setup the drivers of each display.

3. Set up for Windows XP (or WEPOS, POSReady 2009)

3.1. Installation for Operating System (Windows XP)

Note: To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

Note: To use the RAID, install the RAID Utility after the setup procedure of this chapter is finished, with reference to Section 6.2 Installation of RAID Utility JMB36X RAID CONFIGURER.

3.1.1. Getting Started

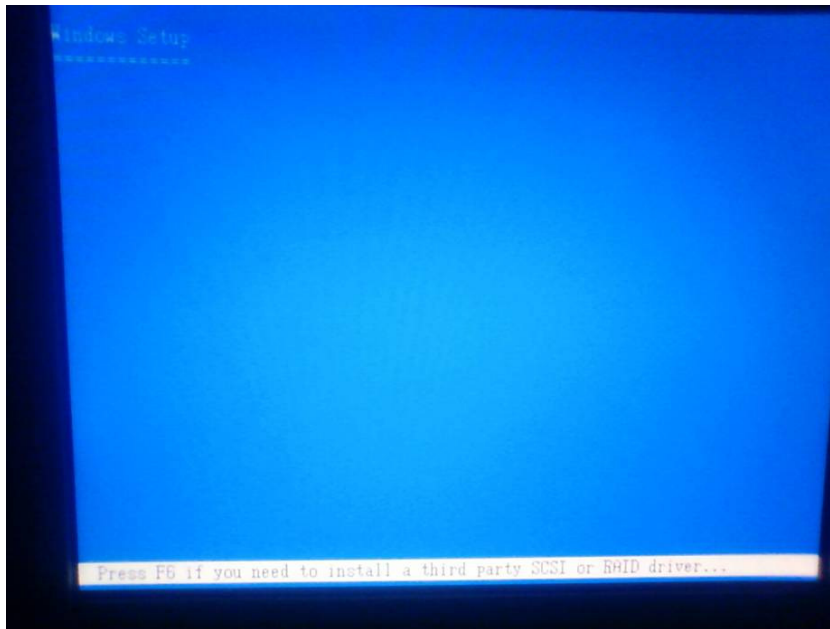
The JMicon RAID driver must be installed from a floppy disk (FD) during an installation of the operating system. For this purpose, connect the floppy disk drive (FDD) and copy the JMicon RAID driver on the FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk]

Copy all files in the "ST-B20\RAID\Floppy32" folder contained in the Driver kit CD to the FD.

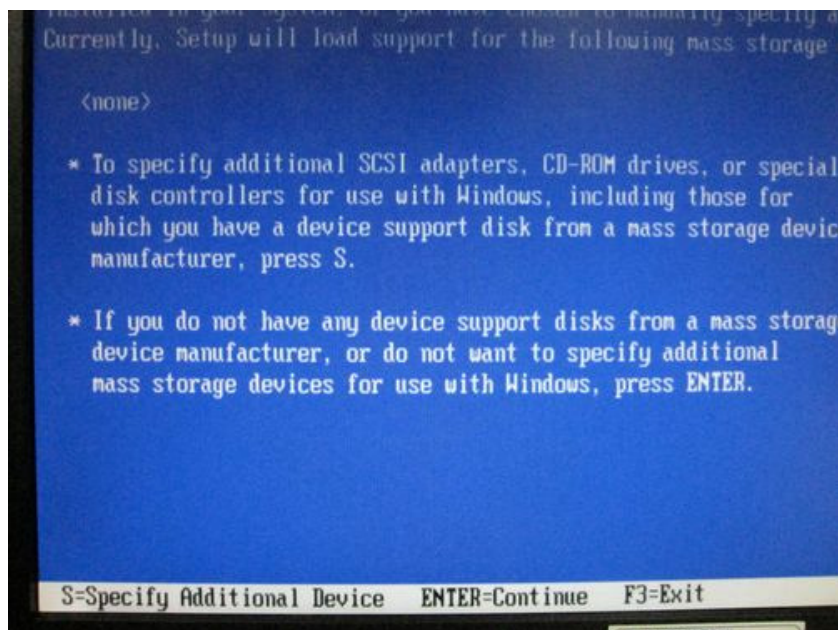
3.1.2. Installation of JMicron RAID Driver

A short time after the installation of the operating system starts, a message “Press F6 if you need to install a third party SCSI or RAID driver...” appears at the bottom of the operating system installation screen as shown below. On this screen, press the “F6” key to give the operation system installer an instruction to start installing the driver.

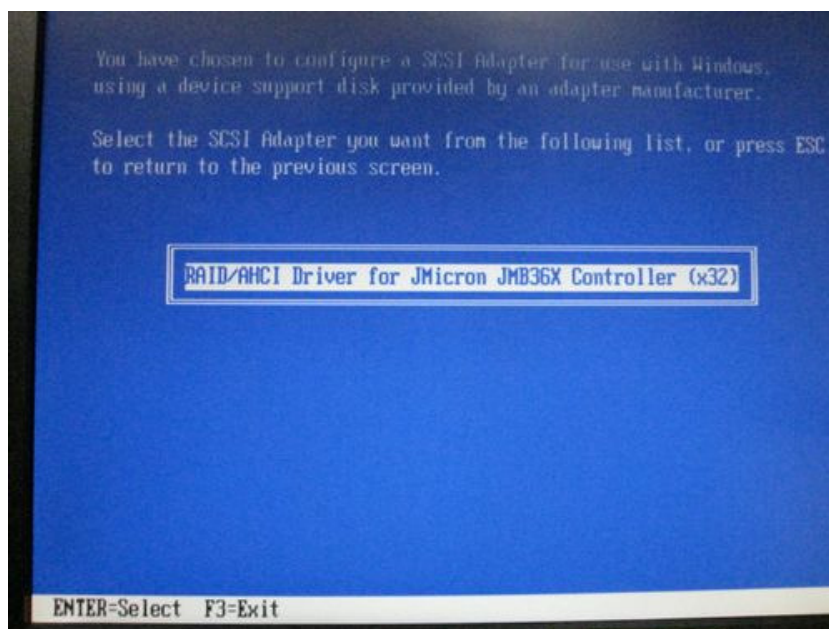


Note: The driver installation screen will not appear as soon as the “F6” key is pressed. It appears after the installation of the operating system proceeds to some extent. If the screen shown below does not appear, it means the instruction of the driver installation has failed. In this case, reboot ST-B20 and start the installation of Windows from the beginning.

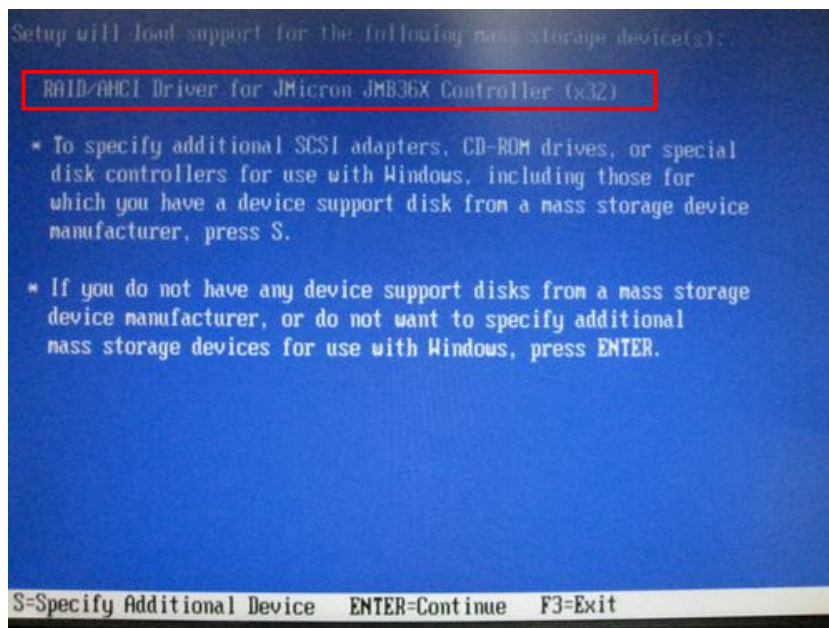
A short time after the instruction to install the driver is given to Windows, the driver installation screen shown below appears. On this screen, press the “S” key, and the screen to select a driver to be installed appears.



On this driver selection screen, you will select a driver to be installed. Among the drivers read from the FD and shown on the screen, select “RAID/AHCI Driver for Jmicron JMB36X Controller(x32)” and press the “ENTER” key. And, the driver installation screen is displayed again.



After selecting the driver to be installed and the driver installation screen appears again, the driver selected is shown on the screen as indicated with the red box in the figure below. If the driver shown is correct, press the “ENTER” key to continue the installation of Windows. If the driver shown is not correct, press the “S” key again and select a correct driver.



Follow the instructions of the Windows installer to complete the installation.

3.2. Installation for Operating System (WEPOS)

Note: To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

Note: To use the RAID, install the RAID Utility after the setup procedure of this chapter is finished, with reference to Section 6.2 Installation of RAID Utility JMB36X RAID CONFIGURER.

3.2.1. Getting Started

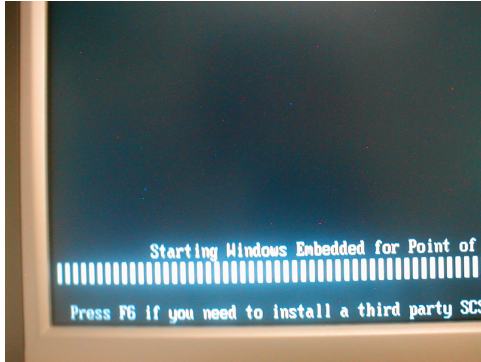
The JMicon RAID driver must be installed from a floppy disk (FD) during an installation of the operating system. For this purpose, connect the floppy disk drive (FDD) and copy the JMicon RAID driver on the FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk]

Copy all files in the "ST-B20\RAID\Floppy32" folder contained in the Driver kit CD to the FD.

3.2.2. Installation of JMicron RAID Driver

The next message is displayed at the bottom left area of the screen as shown below. Do not press the “F6” key. (Note the message is shown only for about 5 seconds)



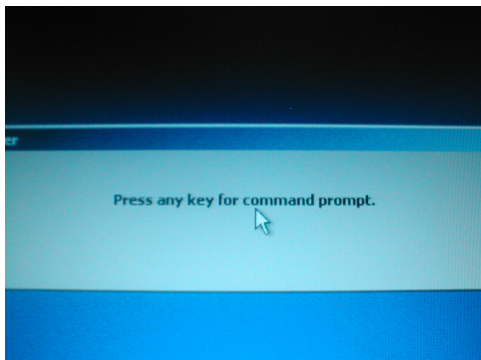
While a wait, the “Windows Flag” screen appears.



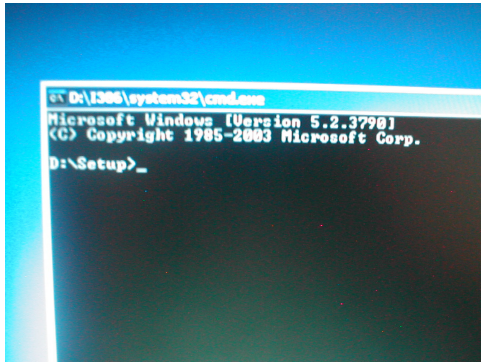
(Important!)

When a message is displayed at the middle area of the screen as shown below, press any key to run command prompt. (Note the message is shown only for about 2 seconds.)

If we failed to press any key when the message appears, the command prompt window will not be displayed instead the “Welcome to Windows Embedded for Point of Service Setup” window will appear. In this case, press the “Esc” key to cancel. We need to do the installation from the start.



Afterward this command prompt will be shown.

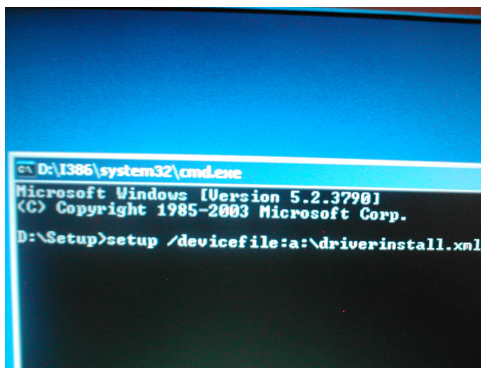


On command prompt, type “**setup /devicefile:a:\driverinstall.xml**” and press the “Enter”, and wait for a while.

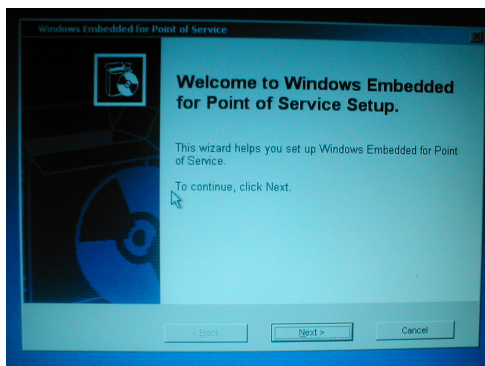
(Note: Do not close the command prompt.)

d:\setup>setup /devicefile:a:\driverinstall.xml[Enter]

(Note: there is only one space between characters “setup” and “/”.)



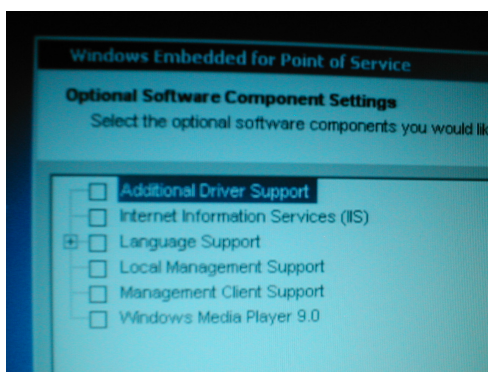
The “Welcome to Windows Embedded for Point of Service Setup” window will appear. Click on the “Next” Button to start the installation.



Follow the instructions to continue installation.

When the “Optional Software Component Settings” window appears, please select the required check box. Click “Next” when finish selecting the option.

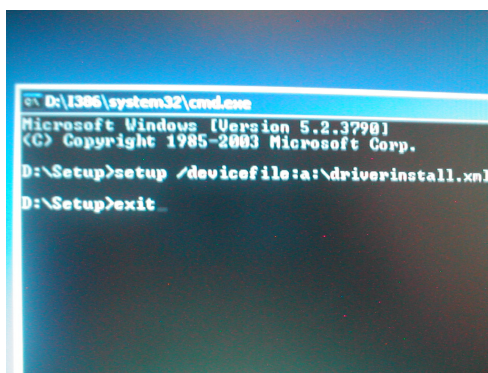
- ☐ Additional Driver Support
- ☐ Internet Information Services (IIS)
- ☐ Language Support
- ☐ Local Management Support
- ☐ Management Client Support
- ☐ Windows Media Player 9.0



Follow the instructions to continue installation.

After the installation complete, the “Command Prompt” window will appear again. Type “**exit**” and press “Enter” key to reboot your computer.

d:\setup>exit[Enter]



If the operating system is installed successfully, the “User name and Password” window will appear.

3.3. Installation for Operating System (POSReady 2009)

Note: To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

Note: To use the RAID, install the RAID Utility after the setup procedure of this chapter is finished, with reference to Section 6.2 Installation of RAID Utility JMB36X RAID CONFIGURER.

3.3.1. Getting Started

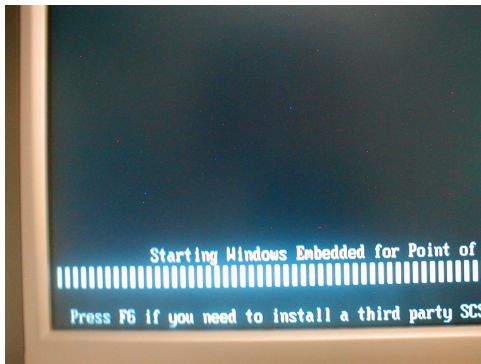
The JMicon RAID driver must be installed from a floppy disk (FD) during an installation of the operating system. For this purpose, connect the floppy disk drive (FDD) and copy the JMicon RAID driver on the FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk]

Copy all files in the "ST-B20\RAID\Floppy32" folder contained in the Driver kit CD to the FD.

3.3.2. Installation of JMicon RAID Driver

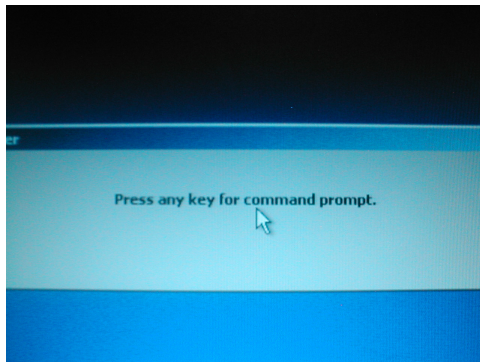
The next message is displayed at the bottom left area of the screen as shown below. Do not press the "F6" key. (Note the message is shown only for about 5 seconds)



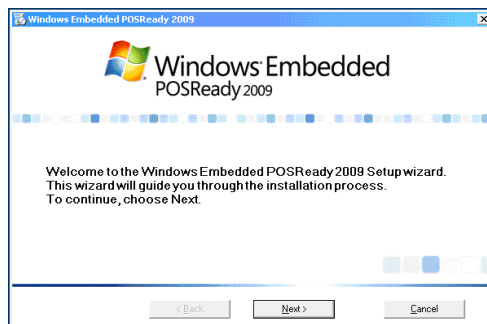
While a wait, the "Windows Flag" screen appears.



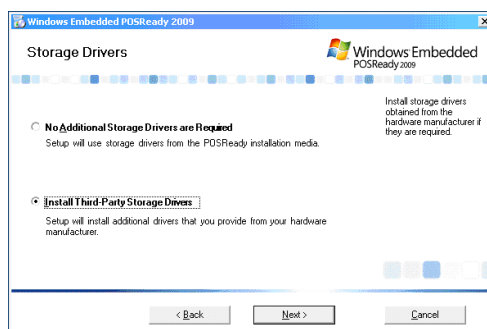
The next message is displayed at the bottom left area of the screen as shown below. Do not press any key. (Note the message is shown only for about 2 seconds)



The windows installer displayed.



Follow the instructions of the Windows installer, then “Storage Drivers” window is displayed. Please select “Install Third-Party Storage Drivers” and click on the “Next” button, though default setting is “No Additional Storage Drivers are Required”.



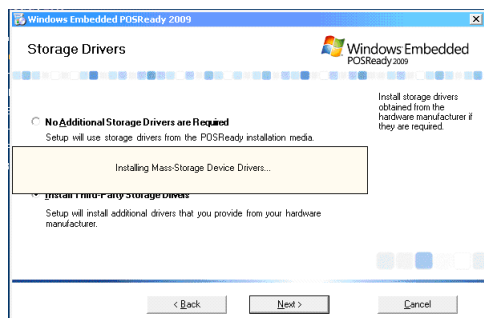
The connected FDD is read automatically, and the RAID driver is installed.

The message “Installing Mass Storage Device Drivers” is displayed.

The message “Please wait while setup loads drive and partition information” is displayed.

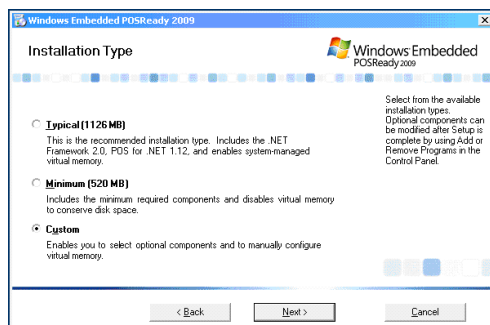
If RAID driver is installed correctly, HDD is detected.

Please continue to install by following the instructions of the Windows installer.



“Installation Type” window is displayed.

Select “Custom” and select necessary option on “Optional Component”. (Refer to Notice 6.1.6)



Follow the instructions of the Windows installer to complete the installation.

3.4. Installation for Intel Chipset Software

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), SMI VGA driver must be installed before the installation of Intel Chipset Software. (Refer to additional setup documents)

Run “infinst_autol.exe” in the “ST-B20\Intel\Chipset\XP_WEPOS_POSReady_Vista” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.



The “Readme File Information” window appears. Click on the “Next” button.



The "Setup Progress" window appears, and starts the installation.

After the "Next" button changes to the status that you can click, click on the button.



When the installation is completed successfully, the following window appears. Check the "Yes, I want to restart this computer now" radio button, then click on the "Finish" button to reboot your computer.



Note: Installation of chipset driver for POSReady 2009

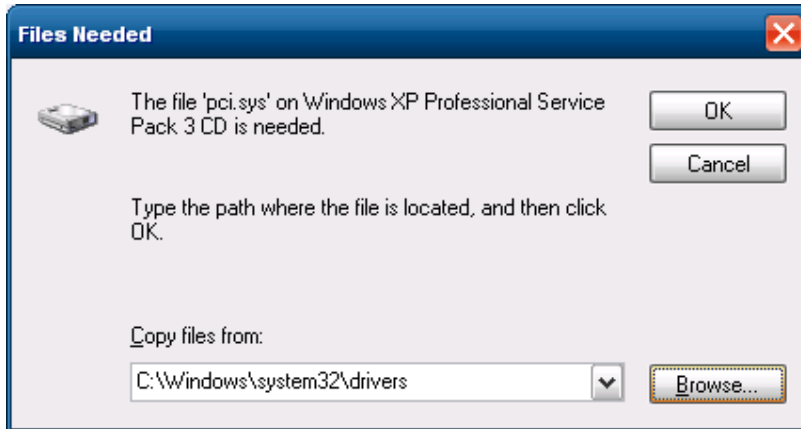
In the case of POSReady 2009, "*.sys" file or "*.dll" file is requested and the screen that request to insert "Windows XP Service Pack 3 CD" is displayed several times.

Please set the path for the location of "*.sys" file or "*.dll" file each time.

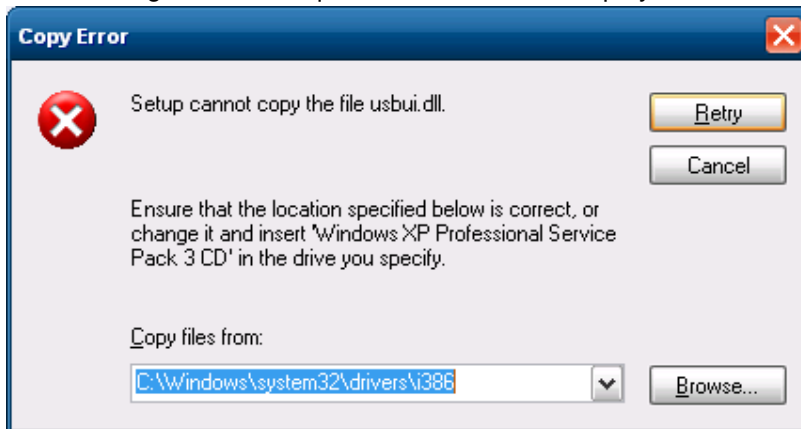
When "*.sys" file is requested -> Set the path to "c:\windows\system32\drivers"

When "*.dll" file is requested -> Set the path to "c:\windows\system32"

The following screen to request "*.sys" file will be displayed several times.



The following screen to request "*.dll" file will be displayed several times.

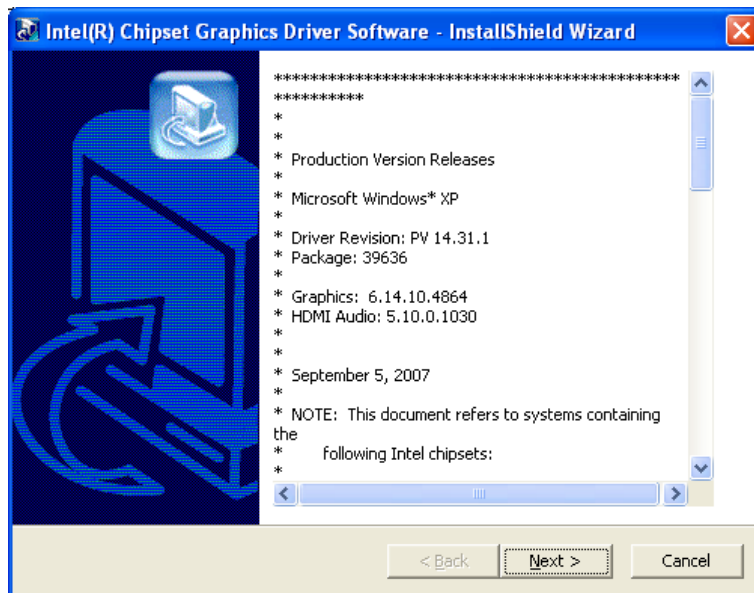


Note: If "Additional Drivers" of "Optional Components" is installed additionally in POSReady 2009 installation, these screen is not displayed. (Refer to Notice 6.1.6)

3.5. Installation for Intel Graphic Accelerator Driver

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), you do not need to install the Intel Graphic Accelerator driver.

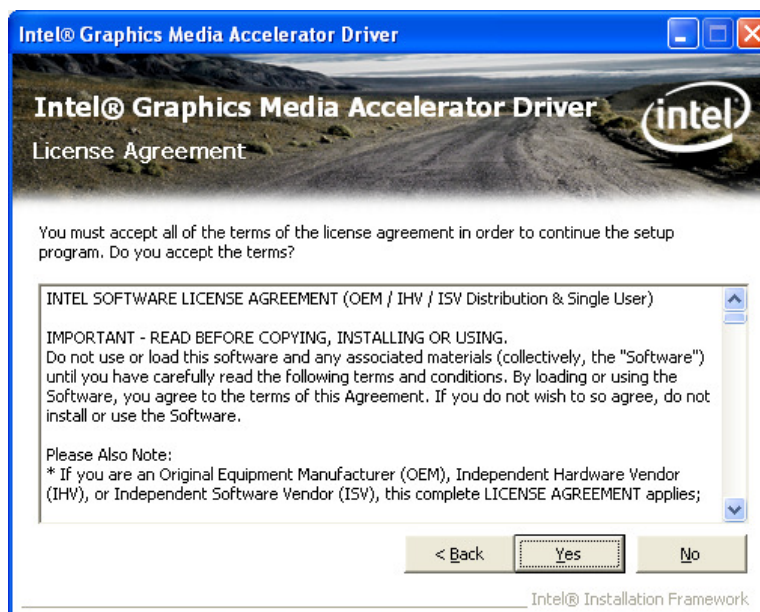
Run “win2k_xp14311.exe” in the “ST-B20\Intel\Graphic\2K_XP_WEPOS_POSReady” folder in the Driver kit CD. The following window appears. Click on the “Next” button.



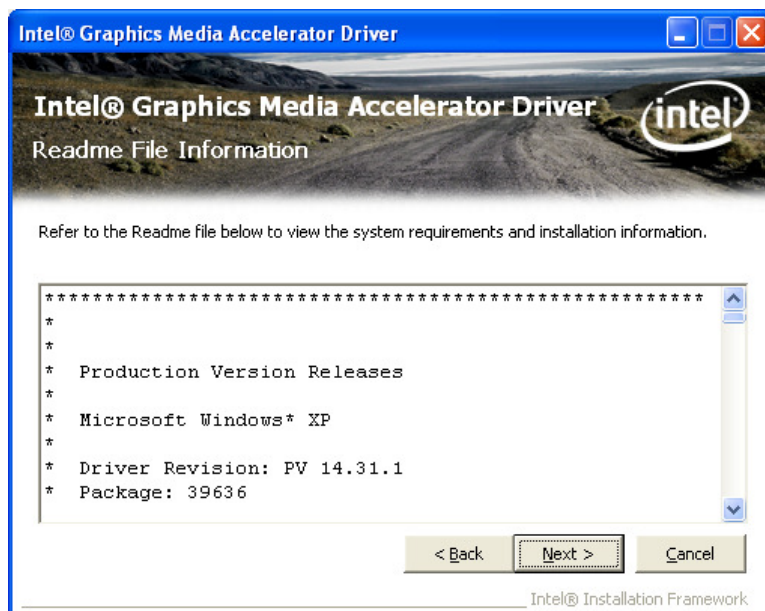
After a while, the following window appears. Click on the “Next” button.



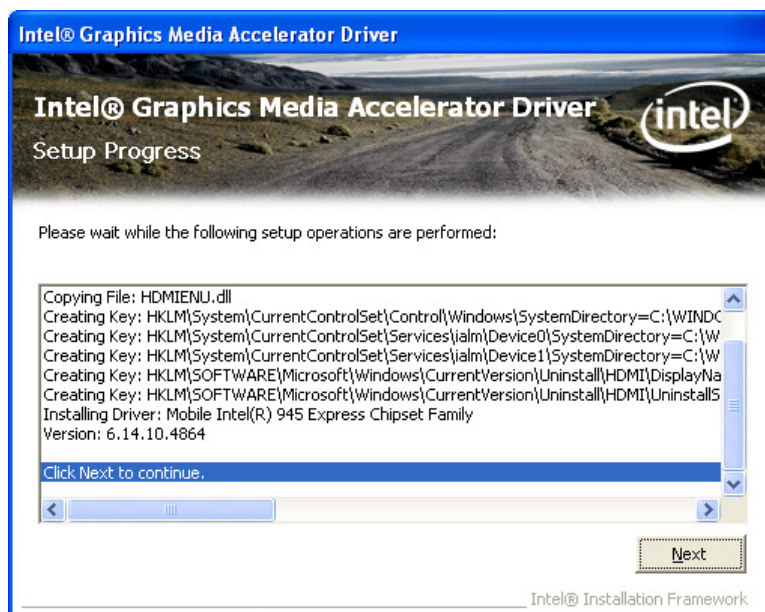
The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.



The “Readme File Information” window appears. Click on the “Next” button.



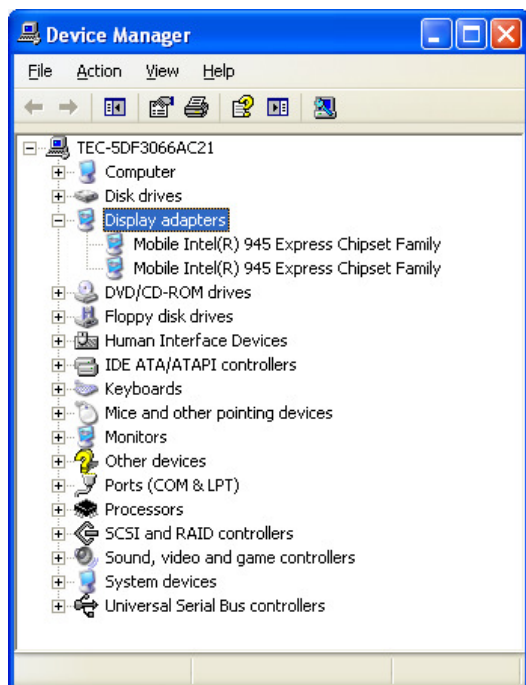
The “Setup Progress” window appears, and starts the installation. After the “Next” button changes to the status that you can click, click on the button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart this computer now” radio button, then click on the “Finish” button to reboot your computer.



Open Device Manager to confirm the graphic driver has been installed. Make sure that “Mobile Intel(R)945 Express Chipset Family” is registered under the “Display adapters” icon.

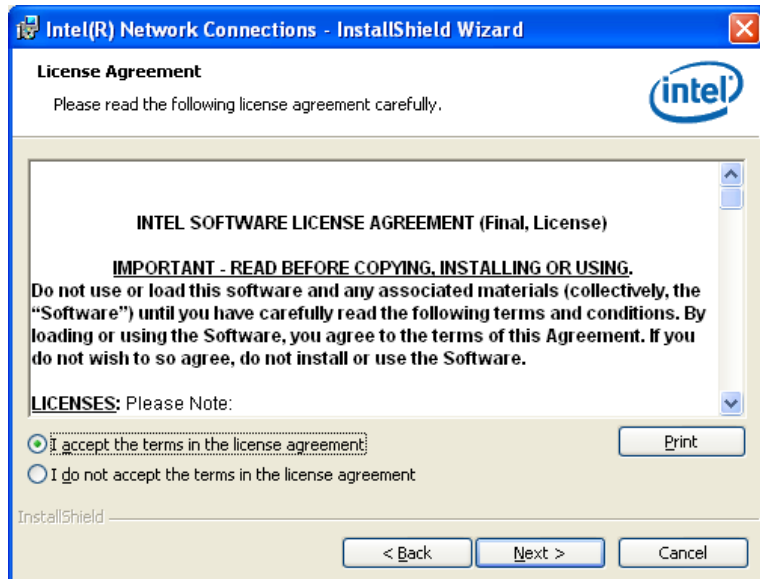


3.6. Installation for Intel Network Driver

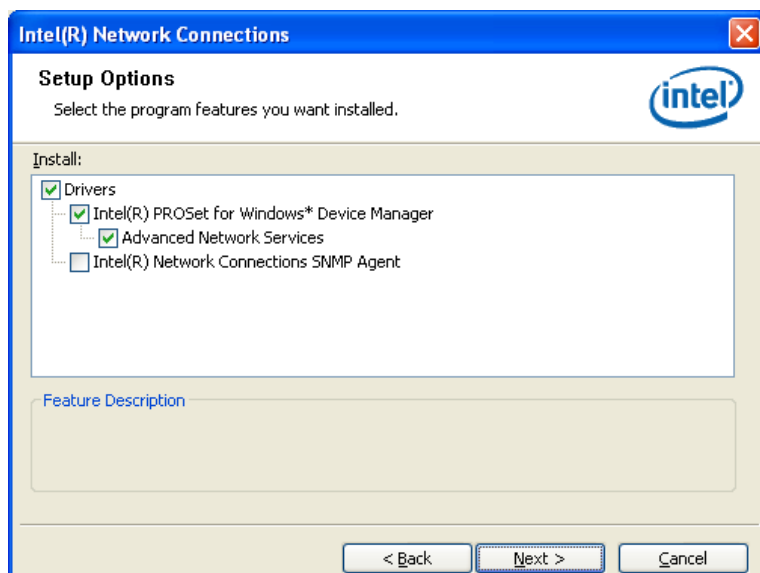
Run “PRO2KXP_v13_4.exe” in the “ST-B20\Intel\LAN(Intel 82574)\2K_XP_WEPOS_POSReady” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



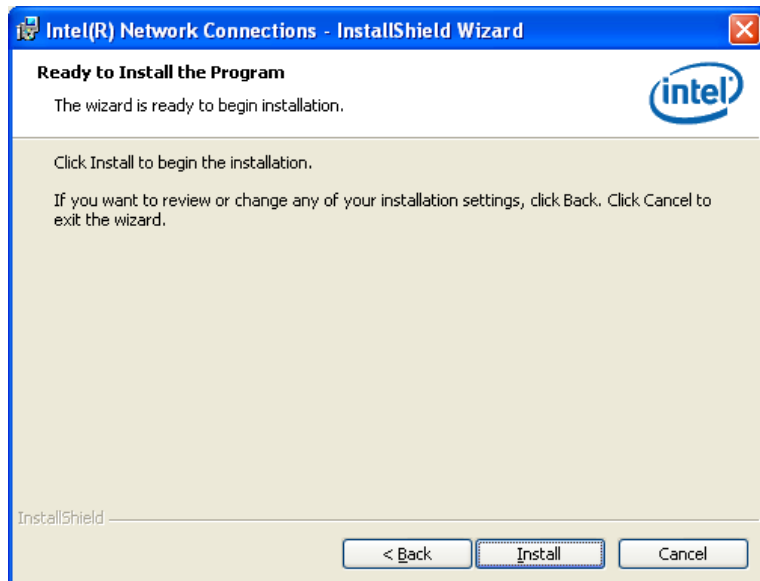
The “License Agreement” window appears. Confirm the contents. If you agree, check the “I accept the terms in the license agreement” radio button and click on the “Next” button.



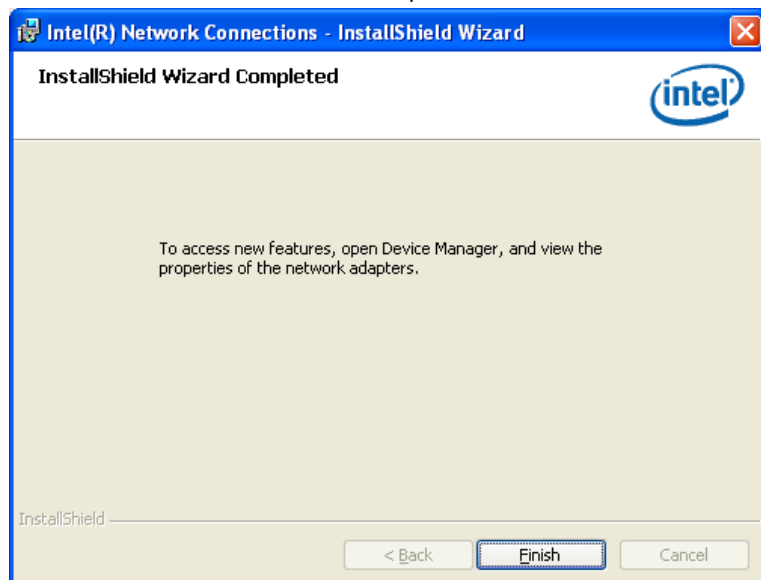
The “Setup Options” window appears. If nothing specially required, click on the “Next” button with default condition.



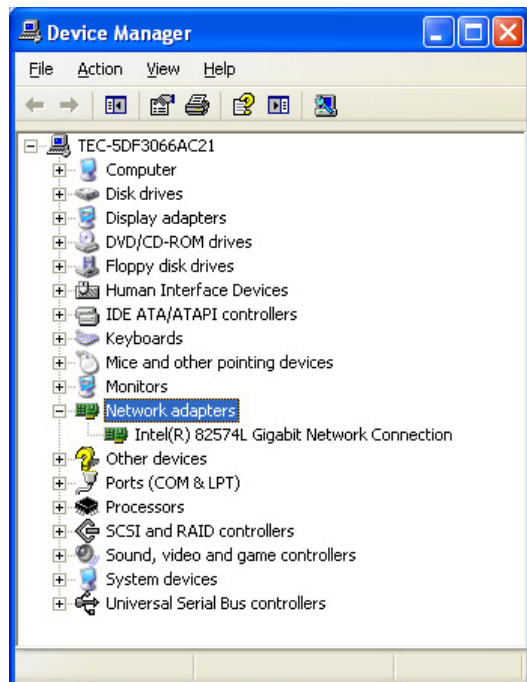
The following window appears. Click on the “Install” button to start the installation.



After completion of the installation, the following window appears.
Click on the “Finish” button to complete the installation.



Open Device Manager to confirm the network driver has been installed. Make sure that “Intel(R) 82574L Gigabit Network Connection” is registered under the “Network adapters” icon.



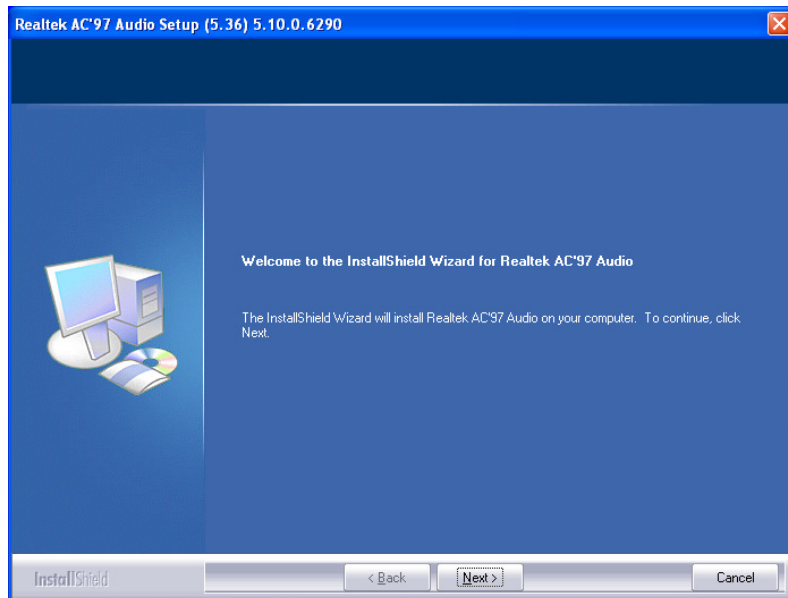
3.7. Installation for Realtek Audio Driver

The version of driver differs between Windows XP and WEPOS/POSReady.

In the case of Windows XP, run “setup.exe” in the “ST-B20\Intel\Audio\2K_XP” folder in the Driver kit CD.

In the case of WEPOS/POSReady, run “setup.exe” in the “ST-B20\Intel\Audio\WEPOS_POSReady” folder in the Driver kit CD.

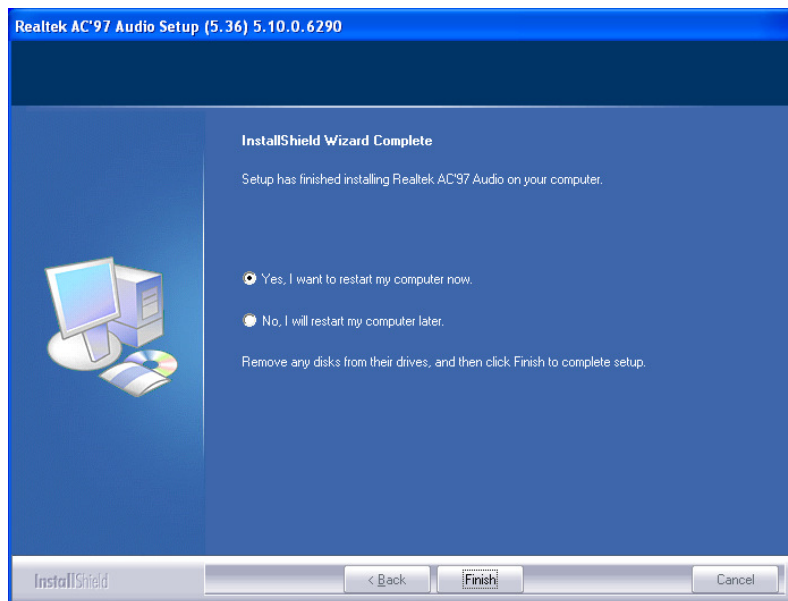
After a while, the following window appears, click on the “Next” button.



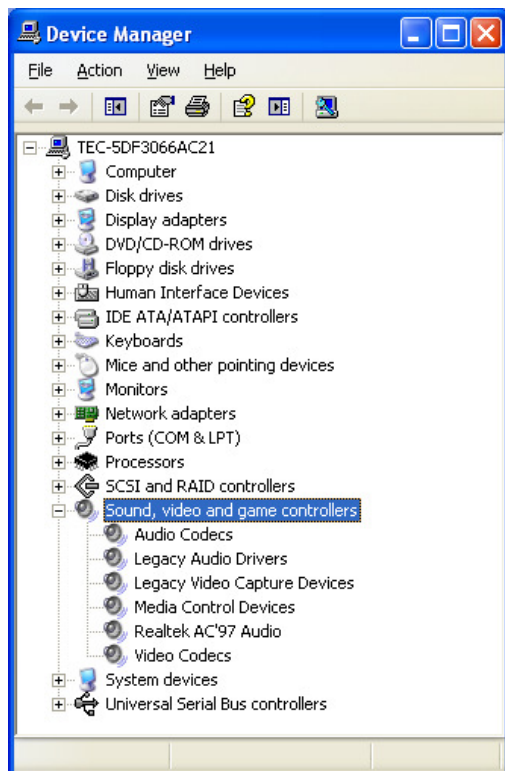
After a while, the following window appears. Click on the “Continue Anyway” button. (In the case of Windows XP)



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart my computer now” radio button, then click on the “Finish” button to reboot your computer.



Open Device Manager to confirm the audio driver has been installed. Make sure that “Realtek AC’97 Audio” is registered under the “Sound, video and game controllers” icon.



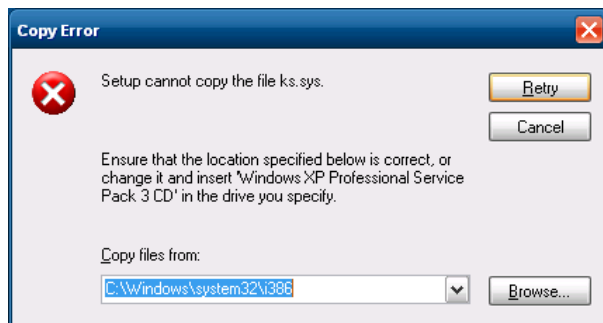
Note: Installation of audio driver for POSReady 2009

In the case of POSReady 2009, "*.sys" file or "*.dll" file is requested and the screen that request to insert "Windows XP Service Pack 3 CD" is displayed several times.
Please set the path for the location of "*.sys" file or "*.dll" file each time.

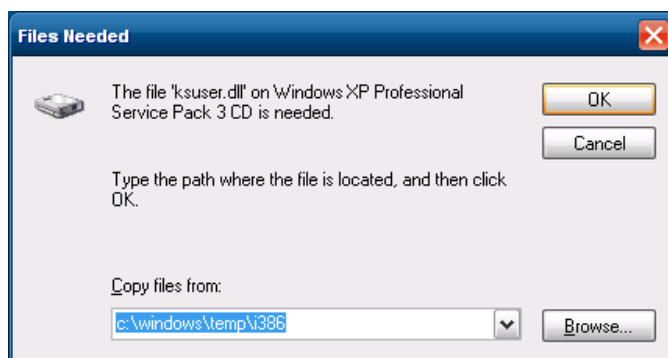
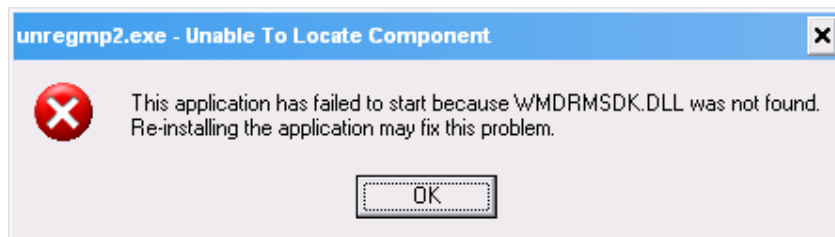
When "*.sys" file is requested -> Set the path to "c:\windows\system32\drivers"

When "*.dll" file is requested -> Set the path to "c:\windows\system32"

The following screen to request "*.sys" file will be displayed several times.



The following screen to request "*.dll" file will be displayed several times.



Note: If "Additional Drivers" of "Optional Components" is installed additionally in POSReady 2009 installation, these screen is not displayed. (Refer to Notice 6.1.6)

3.8. Setup for Display

There are four additional display setup documents that depend on display type.
When you use dual display function, please confirm the note about 'Dual Display connection combinations list' at the Chapter 6.

About setup procedure of display, please see additional documents as below.

TFTST-A20, TFTST-B20: "TFTST-A20, TFTST-B20 Setup Guide"

- Installation for ELO (Tyco) Touch panel driver
- Installation for the driver of other optional equipment

TFTST-76: "TFTST-76 Setup Guide"

- Installation of Fujitsu Touch panel driver
- Installation for the driver of other optional equipment

TFTST-56, LKBST-65 - LVDS Direct: "TFTST-56, LKBST-65 (LVDS Direct) Setup Guide"

- Installation of Fujitsu Touch panel driver

TFTST-56, LKBST-65 - PCI Card: "TFTST-56, LKBST-65 (PCI Card) Setup Guide"

- Installation of SMI VGA driver of PCI Graphic card
- Installation of SMK Touch panel driver

These display setup guides describe the procedures and cautions for setup the drivers of each display.

4. Setup for Windows Vista Business

4.1. Installation for Operating System (Windows Vista Business)

Note: To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

Note: To use the RAID, install the RAID Utility after the setup procedure of this chapter is finished, with reference to Section 6.2 Installation of RAID Utility JMB36X RAID CONFIGURER.

4.1.1. Getting Started

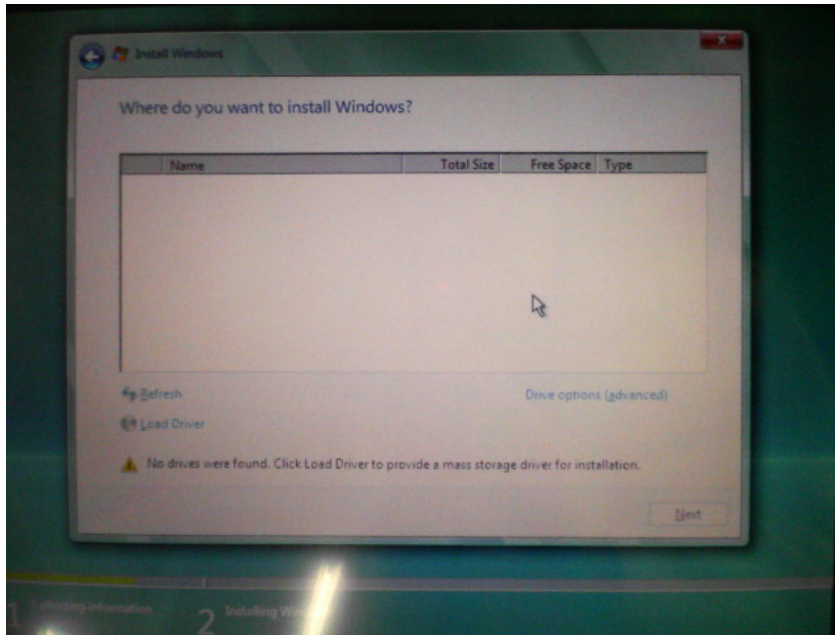
During an installation of the operating system, the JMicron RAID driver must be installed from a FD or an USB flash memory. For this purpose, create the JMicron RAID driver media in the FD or the USB flash memory before installing the operating system.

[How to Create the JMicron RAID Driver Media]

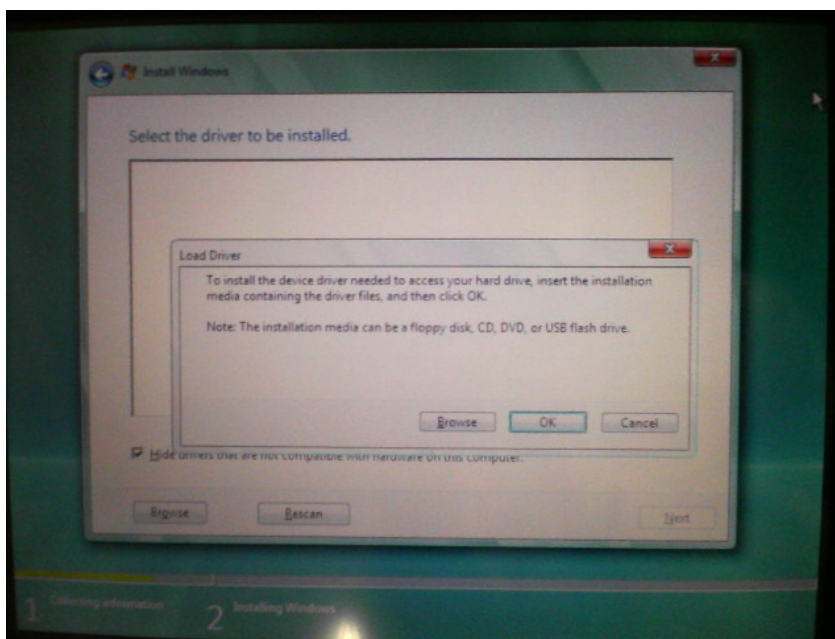
Copy all files in the "ST-B20\RAID\Floppy32" folder contained in the Driver kit CD to the FD or the USB flash memory.

4.1.2. Installation of JMicron RAID Driver

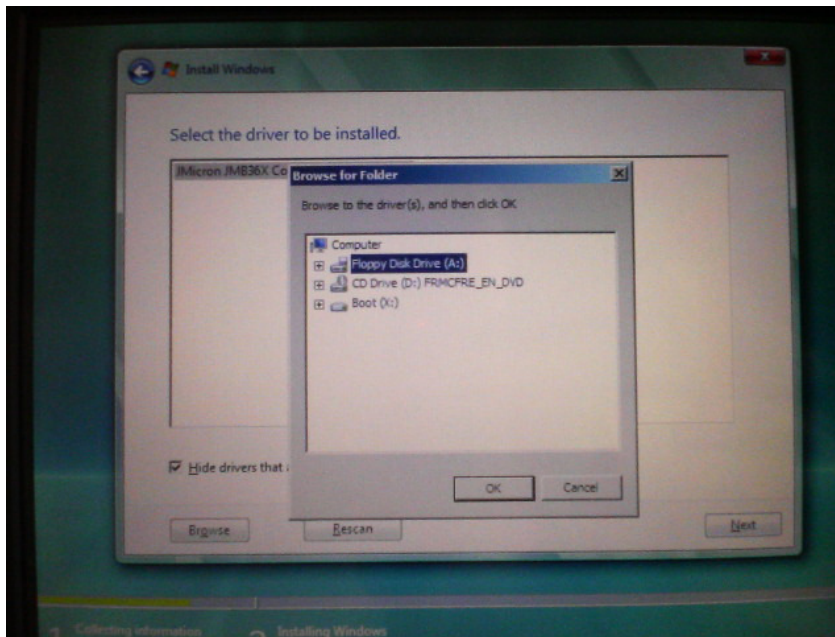
A short time after the installation of the operating system starts, the screen to select a drive, where the operating system is to be installed (OS installation drive selection screen), appears as shown below. (As a default, no drives are shown because the RAID driver has not been installed.) On this screen, click on “Load Driver”.



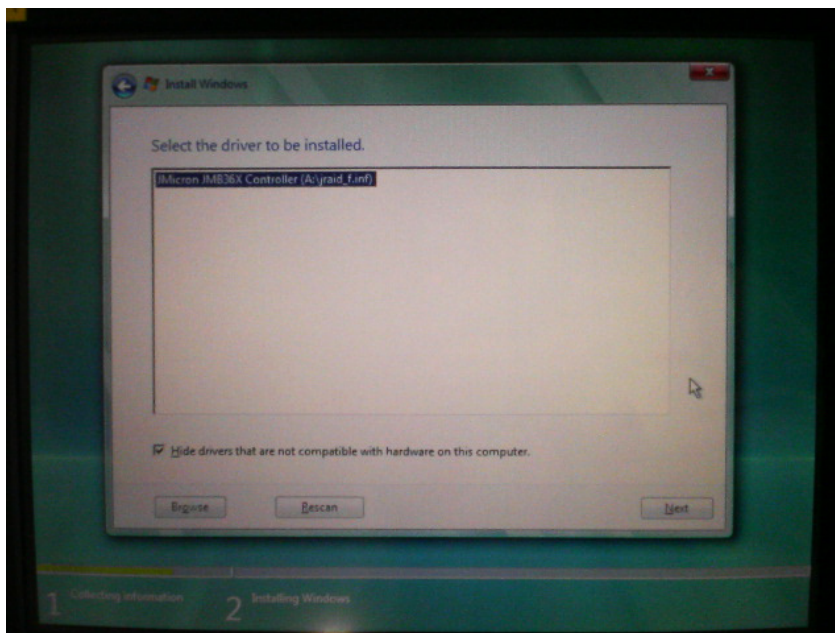
The driver file selection screen as shown below appears. Click on the “Browse” button.



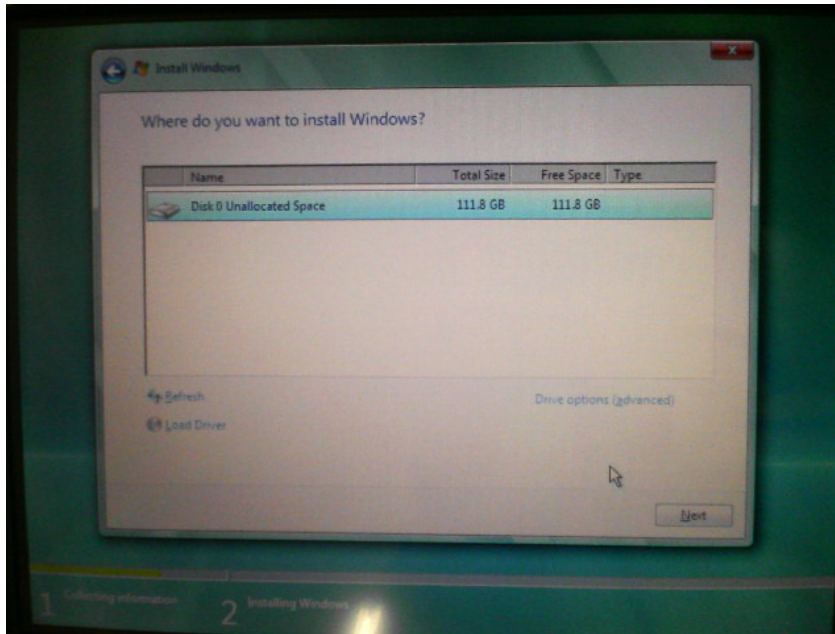
The driver file selection screen as shown below appears. On this screen, select the JMicon RAID driver media which was previously created in the FD or the USB flash memory, and press the “OK” button.



The drivers read from the FD or the USB flash memory are shown on the screen. Select “JMicon JMB36X Controller (A:\jraid_to.inf)”, then click on the “Next” button.



When the OS installation drive selection screen appears again, it shows the HDD connected with the RAID. Select the drive where the operating system is to be installed and click on the "Next" button. The installation of the operating system resumes.



Follow the instructions of the Windows installer to complete the installation.

4.2. Installation for Intel Chipset Software

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), SMI VGA driver must be installed before the installation of Intel Chipset Software. (Refer to additional setup documents)

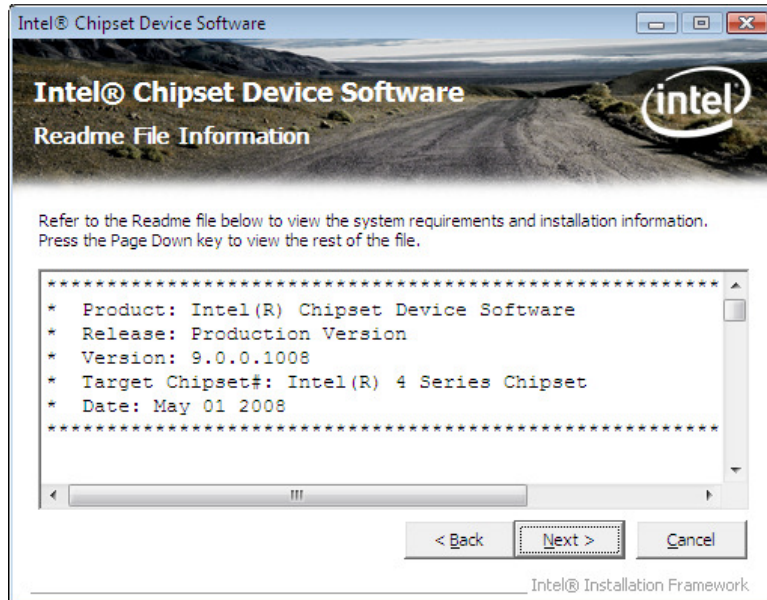
Run “infinst_autol.exe” in the “ST-B20\Intel\Chipset\XP_WEPOS_POSReady_Vista” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.

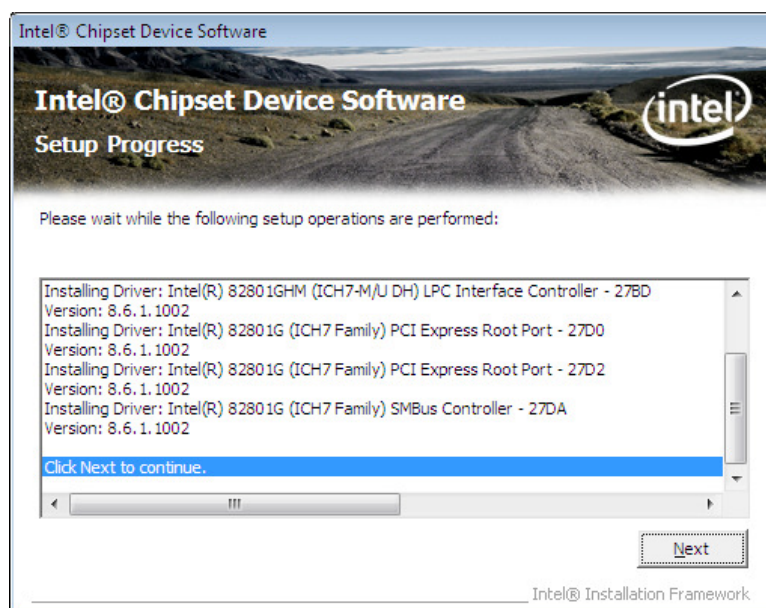


The “Readme File Information” window appears. Click on the “Next” button.



The "Setup Progress" window appears, and starts the installation.

After the "Next" button changes to the status that you can click, click on the button.



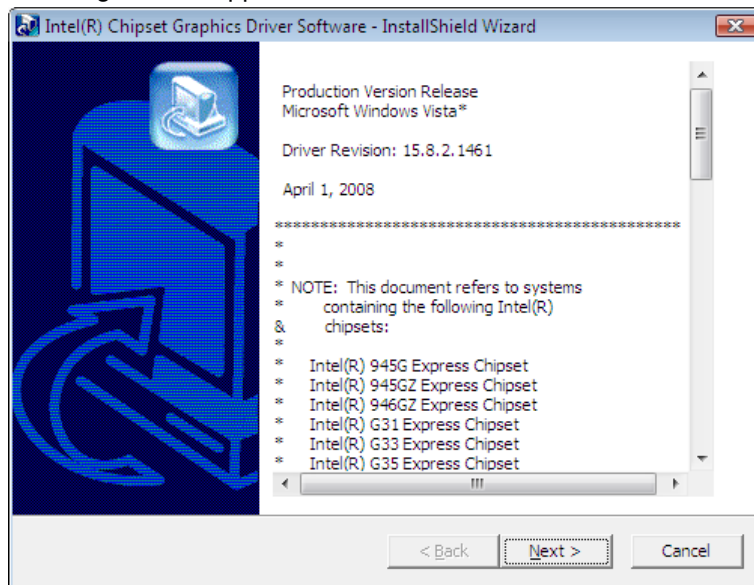
When the installation is completed successfully, the following window appears. Check the "Yes, I want to restart this computer now" radio button, then click on the "Finish" button to reboot your computer.



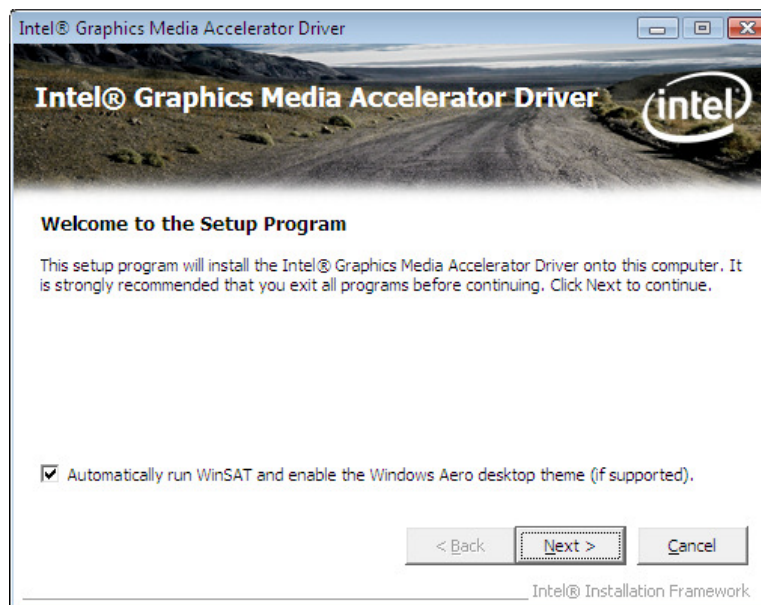
4.3. Installation for Intel Graphic Accelerator Driver

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), you do not need to install the Intel Graphic Accelerator driver.

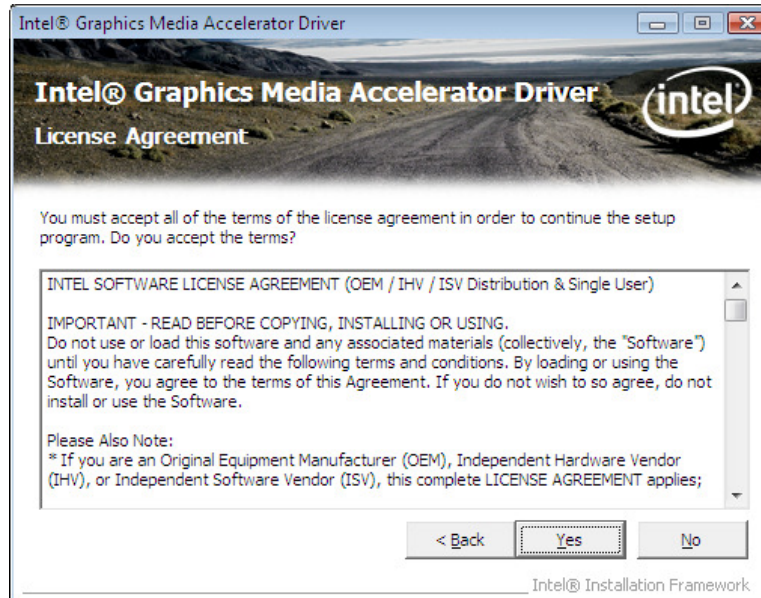
Run "winvista_1582.exe" in the "ST-B20\Intel\Graphic\Vista" folder in the Driver kit CD. The following window appears. Click on the "Next" button.



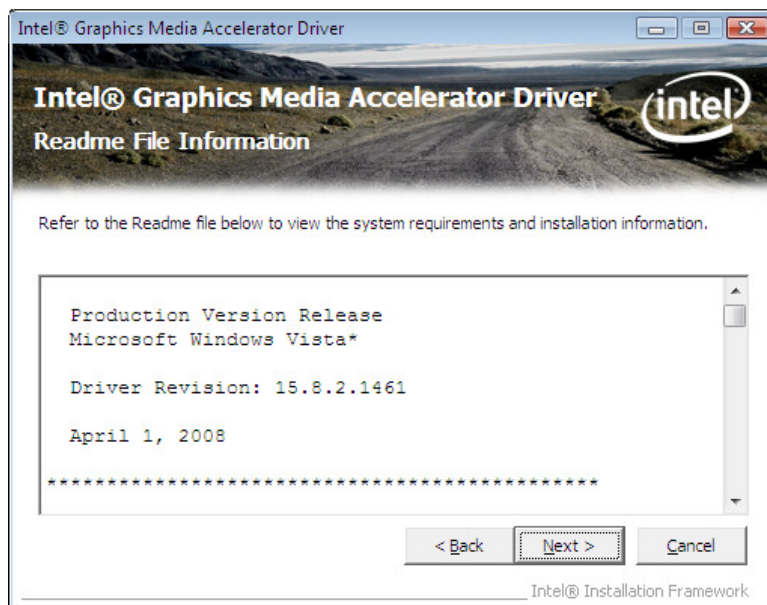
After a while, the following window appears. Click on the “Next” button.



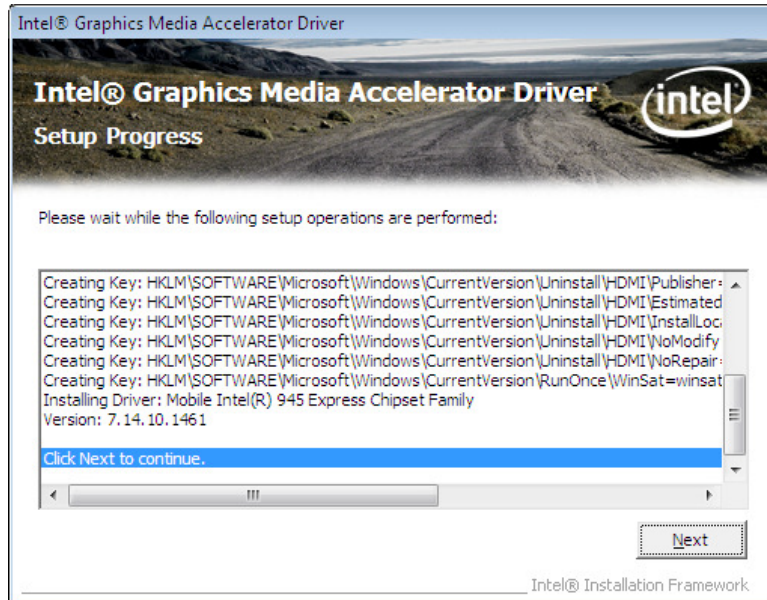
The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.



The “Readme File Information” window appears. Click on the “Next” button.



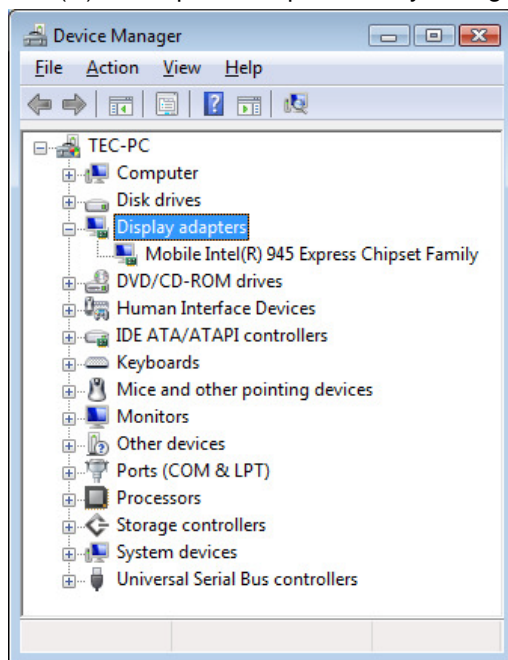
The “Setup Progress” window appears, and starts the installation.
After the “Next” button changes to the status that you can click, click on the button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart this computer now” radio button, then click on the “Finish” button to reboot your computer.

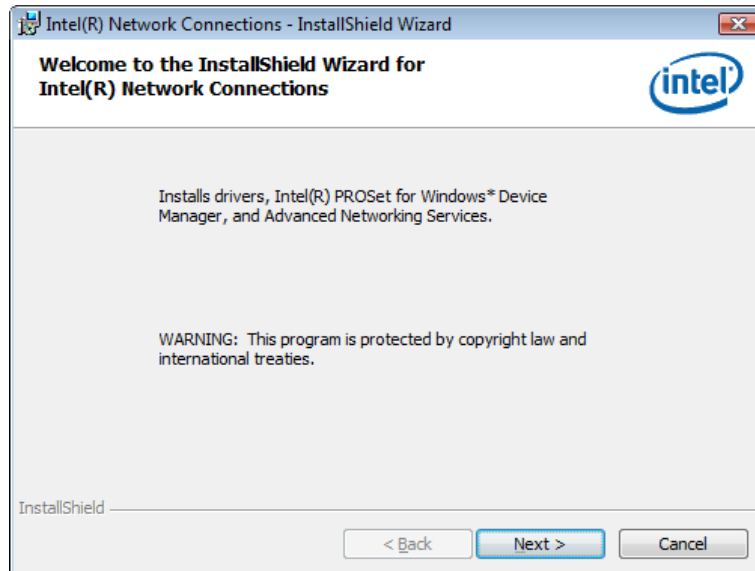


Open Device Manager to confirm the graphic driver has been installed. Make sure that “Mobile Intel(R)945 Express Chipset Family” is registered under the “Display adapters” icon.

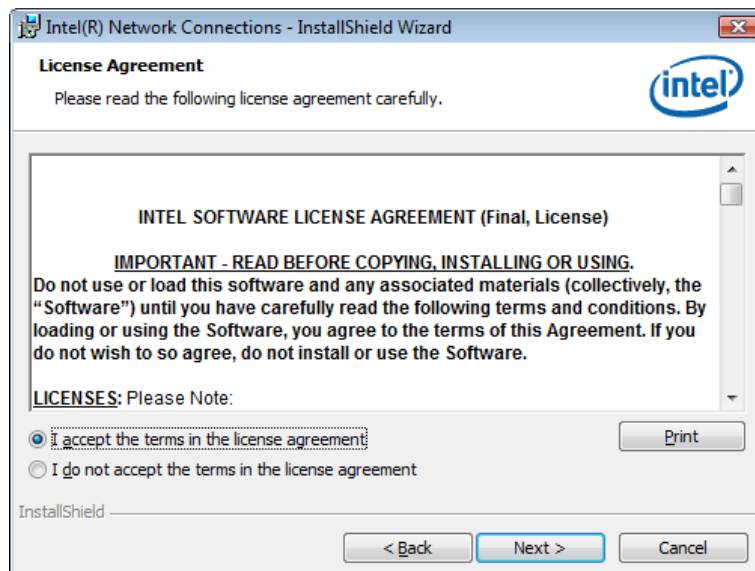


4.4. Installation for Intel Network Driver

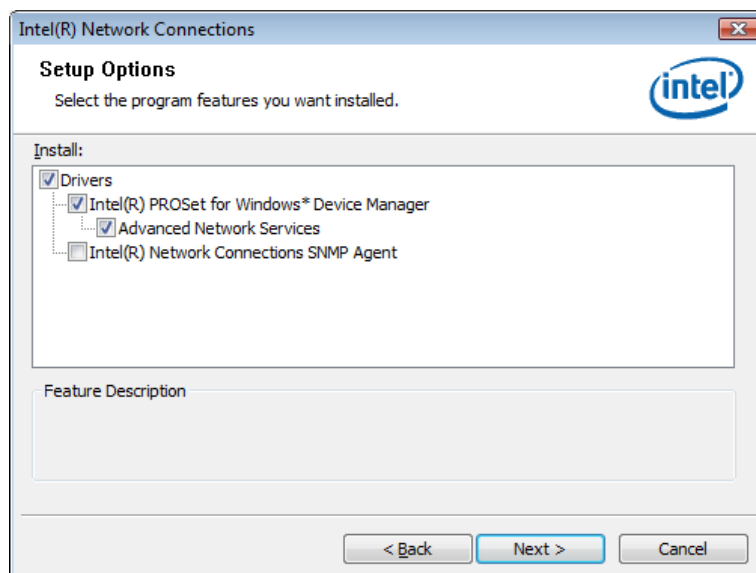
Run “PROVISTA32_V13_4.exe” in the “ST-B20\Intel\LAN(Intel 82574)\Vista” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



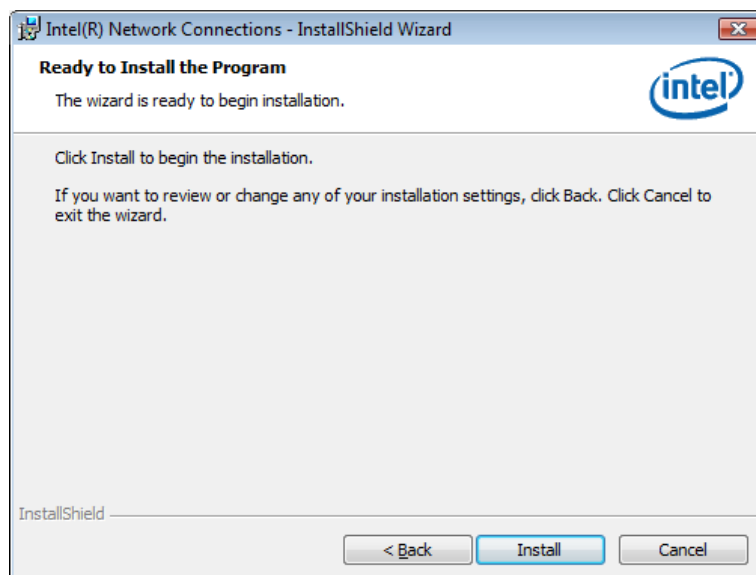
The "License Agreement" window appears. Confirm the contents. If you agree, check the "I accept the terms in the license agreement" radio button and click on the "Next" button.



The “Setup Options” window appears. If nothing specially required, click on the “Next” button with default condition.

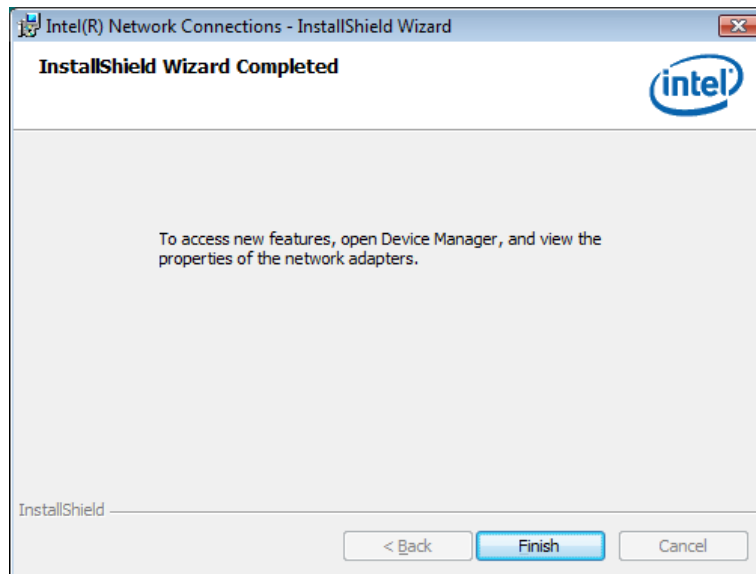


The following window appears. Click on the “Install” button to start the installation.

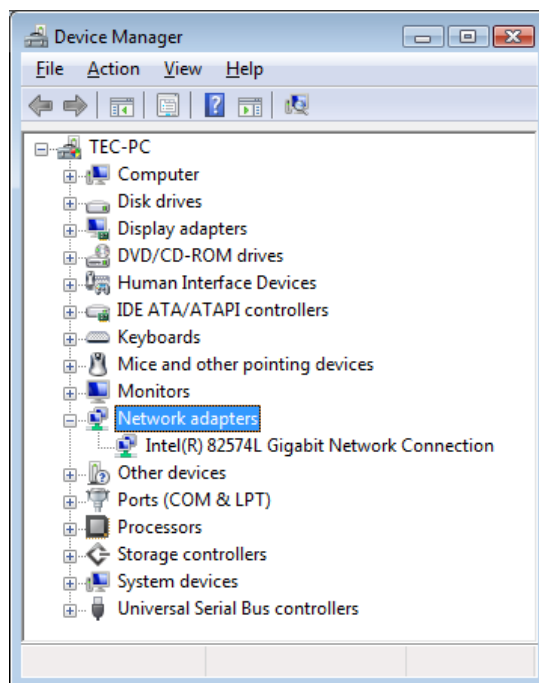


After completion of the installation, the following window appears. Click on the “Finish” button to complete the installation.

Note: Then, reboot the computer.

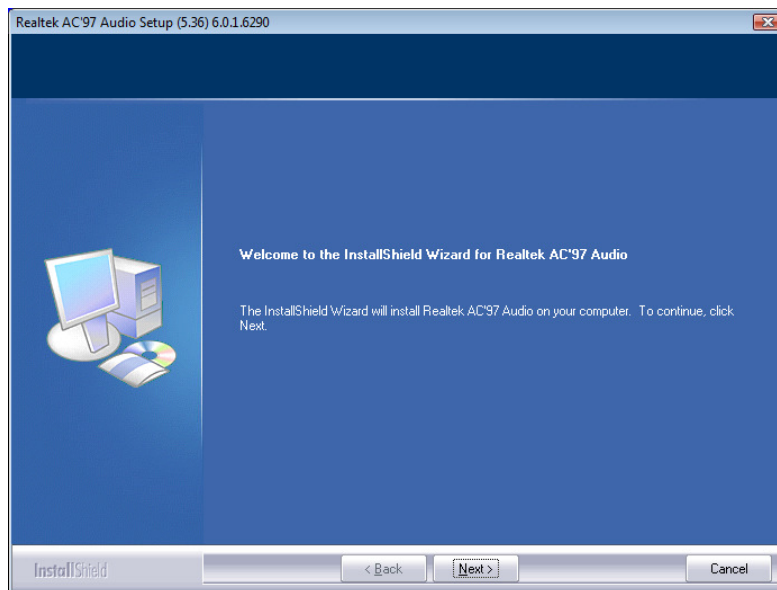


Open Device Manager to confirm the network driver has been installed. Make sure that “Intel(R) 82574L Gigabit Network Connection” is registered under the “Network adapters” icon.

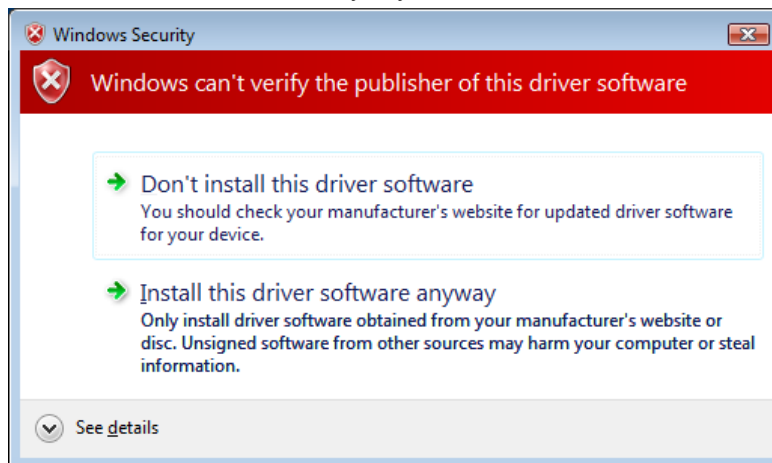


4.5. Installation for Realtek Audio Driver

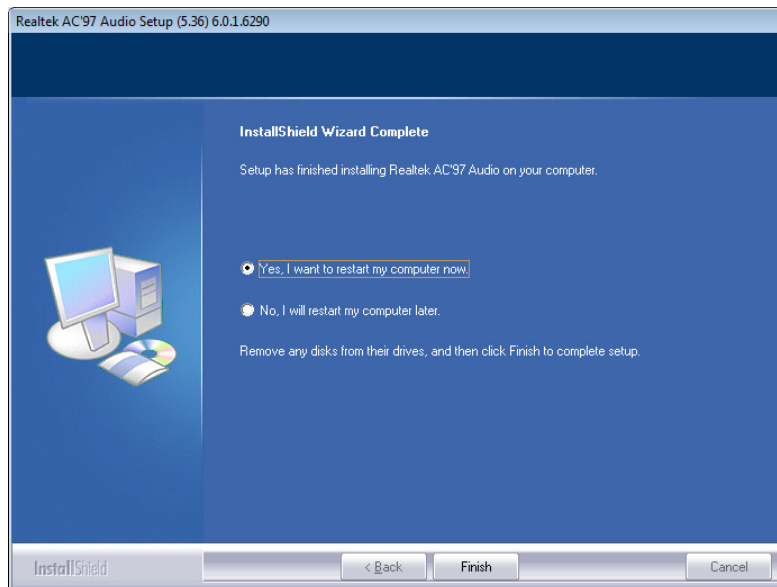
Run “setup.exe” in the “ST-B20\Intel\Audio\Vista” folder in the Driver kit CD. After a while, the following window appears, click on the “Next” button.



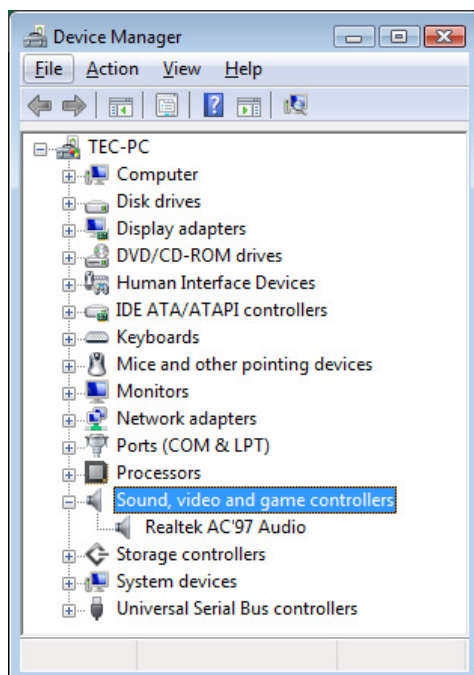
After a while, the following window appears. This is a security notice of Windows. Click on the “Install this driver software anyway” button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart my computer now” radio button, then click on the “Finish” button to reboot your computer.



Open Device Manager to confirm the audio driver has been installed. Make sure that “Realtek AC'97 Audio” is registered under the “Sound, video and game controllers” icon.



4.6. Setup for Display

There are four additional display setup documents that depend on display type.
When you use dual display function, please confirm the note about 'Dual Display connection combinations list' at the Chapter 6.

About setup procedure of display, please see additional documents as below.

TFTST-A20, TFTST-B20: "TFTST-A20, TFTST-B20 Setup Guide"

- Installation for ELO (Tyco) Touch panel driver
- Installation for the driver of other optional equipment

TFTST-76: "TFTST-76 Setup Guide"

- Installation of Fujitsu Touch panel driver
- Installation for the driver of other optional equipment

TFTST-56, LKBST-65 - LVDS Direct: "TFTST-56, LKBST-65 (LVDS Direct) Setup Guide"

- Installation of Fujitsu Touch panel driver

TFTST-56, LKBST-65 - PCI Card: "TFTST-56, LKBST-65 (PCI Card) Setup Guide"

- Installation of SMI VGA driver of PCI Graphic card
- Installation of SMK Touch panel driver

These display setup guides describe the procedures and cautions for setup the drivers of each display.

5. Setup for Windows 7 Professional (or POSReady 7)

5.1. Installation for Operating System (Windows 7 Professional)

Note: To use the RAID, the RAID must be built using the RAID BIOS Utility with reference to Section 6.1 Creation of RAID from RAID BIOS Menu.

Note: To use the RAID, install the RAID Utility after the setup procedure of this chapter is finished, with reference to Section 6.2 Installation of RAID Utility JMB36X RAID CONFIGURER.

5.1.1. Getting Started

During an installation of the operating system, the JMicron RAID driver must be installed from a FD or an USB flash memory. For this purpose, create the JMicron RAID driver media in the FD or the USB flash memory before installing the operating system.

[How to Create the JMicron RAID Driver Media]

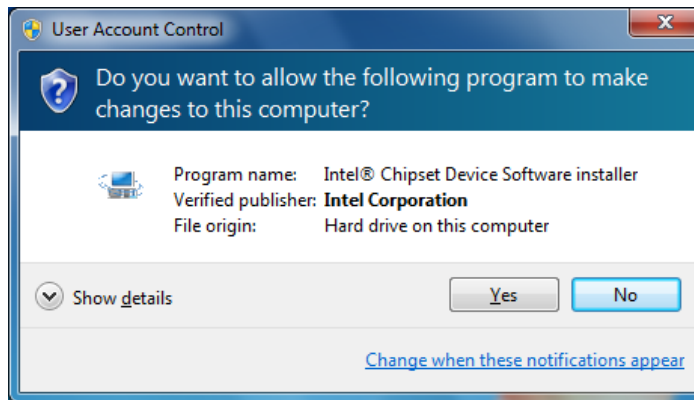
Copy all files in the "ST-B20\RAID\Floppy32" folder contained in the Driver kit CD to the FD or the USB flash memory.

5.1.2. About User Account Control of Operating System (Windows 7 Professional)

Windows 7 is equipped with the security function called User Account Control. (UAC)
When installing any software to the POS, use administrator account for installation.

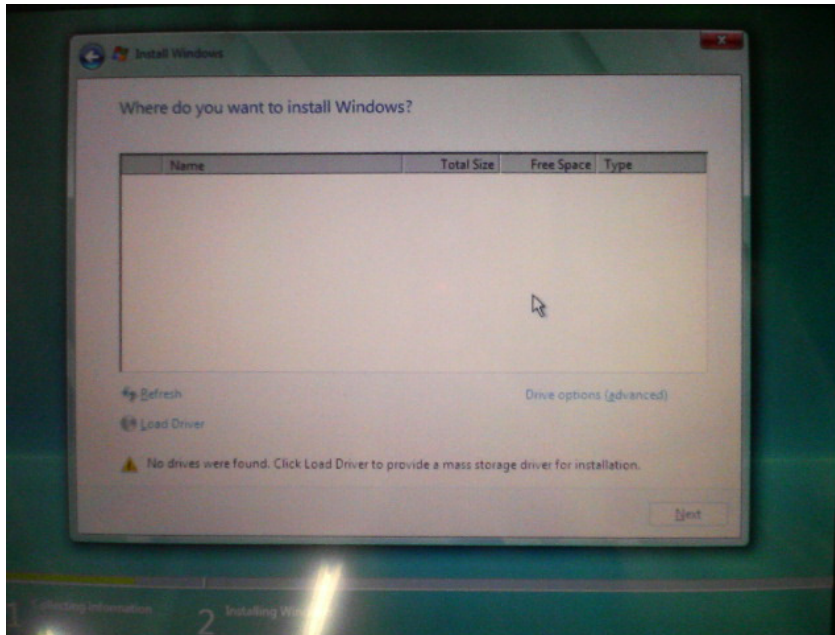
Note)

When the following UAC dialog appeared, push the "Yes" button and continue installation.

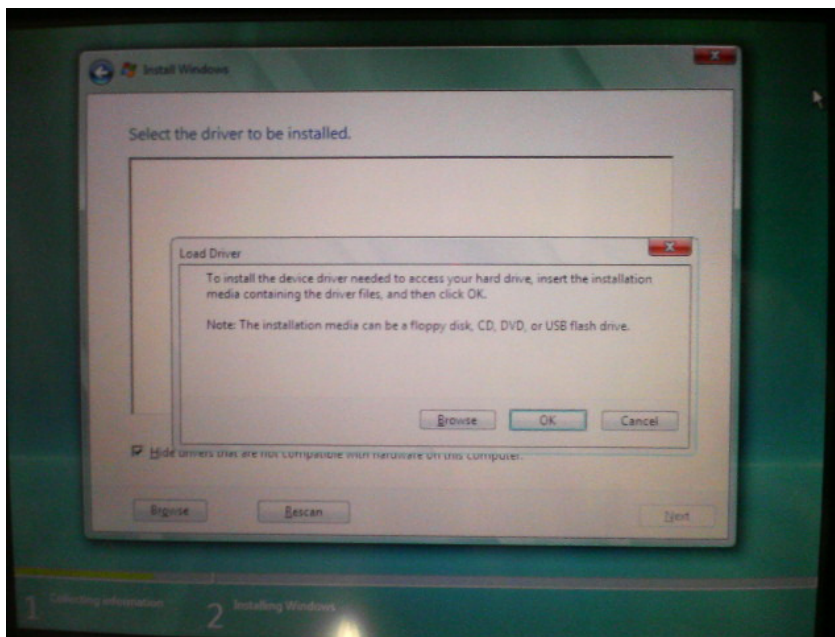


5.1.3. Installation of JMicron RAID Driver

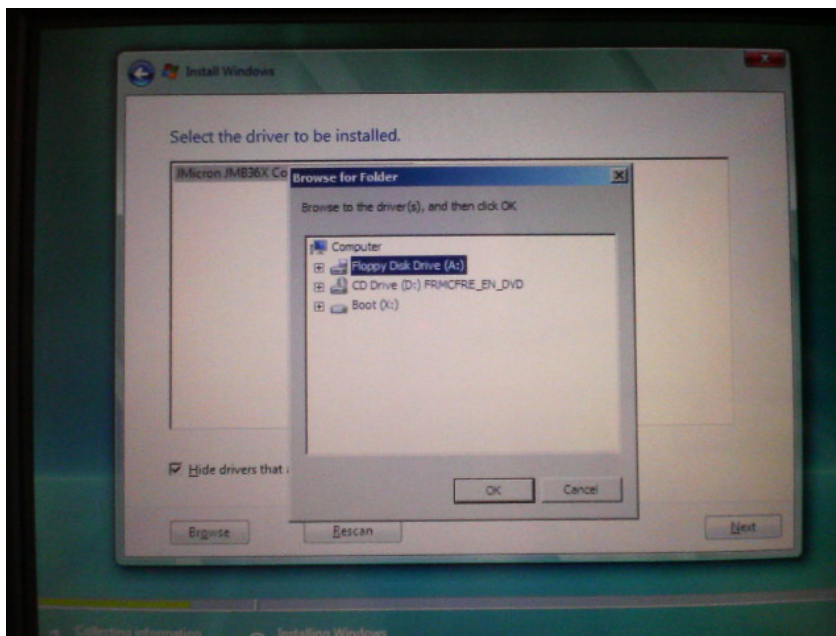
A short time after the installation of the operating system starts, the screen to select a drive, where the operating system is to be installed (OS installation drive selection screen), appears as shown below. (As a default, no drives are shown because the RAID driver has not been installed.) On this screen, click on “Load Driver”.



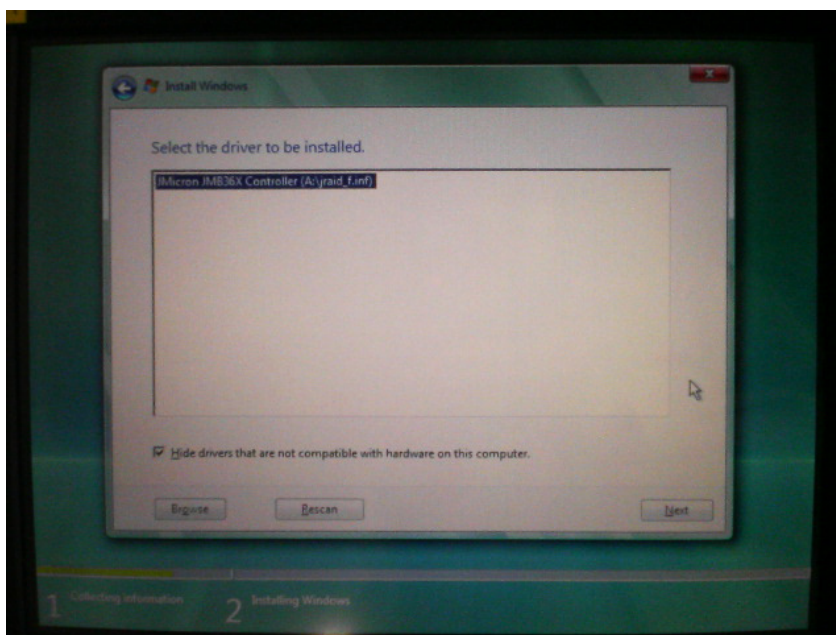
The driver file selection screen as shown below appears. Click on the “Browse” button.



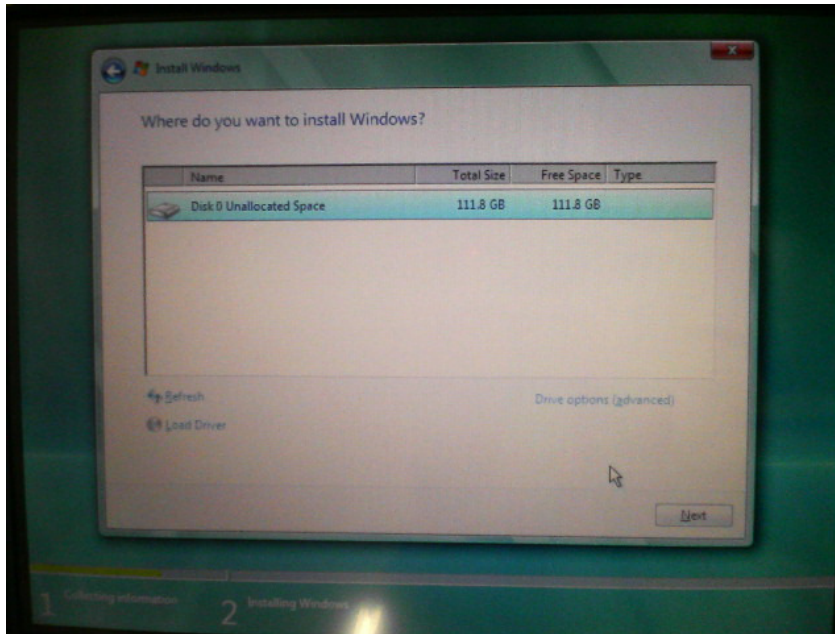
The driver file selection screen as shown below appears. On this screen, select the JMicon RAID driver media which was previously created in the FD or the USB flash memory, and press the “OK” button.



The drivers read from the FD or the USB flash memory are shown on the screen. Select “JMicon JMB36X Controller (A:\jraid_to.inf)”, then click on the “Next” button.



When the OS installation drive selection screen appears again, it shows the HDD connected with the RAID. Select the drive where the operating system is to be installed and click on the "Next" button. The installation of the operating system resumes.



Follow the instructions of the Windows installer to complete the installation.

5.2. Installation for Intel Chipset Software

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), SMI VGA driver must be installed before the installation of Intel Chipset Software. (Refer to additional setup documents)

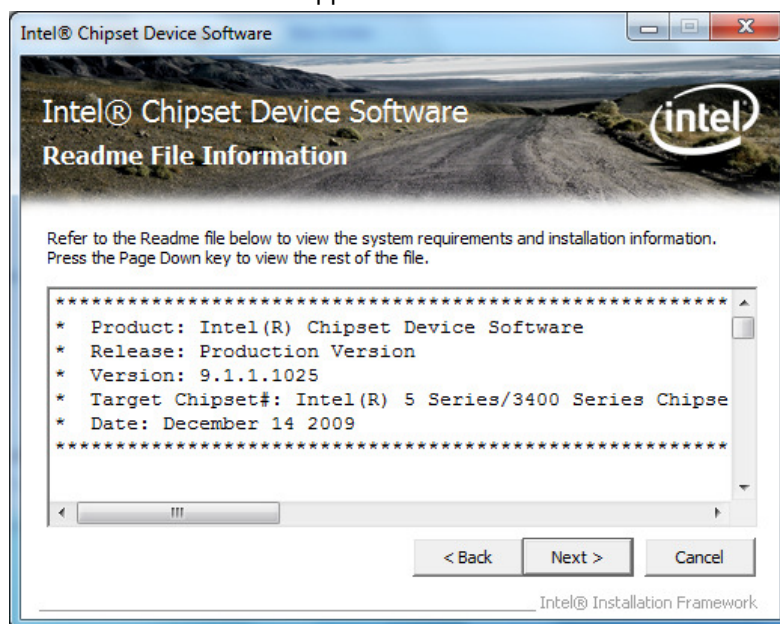
Run “infinst911autol.exe” in the “ST-B20\Intel\Chipset\7” folder in the Driver kit CD. After a while, the following window appears. Click on the “Next” button.



The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.



The “Readme File Information” window appears. Click on the “Next” button.



The "Setup Progress" window appears, and starts the installation.

After the "Next" button changes to the status that you can click, click on the button.



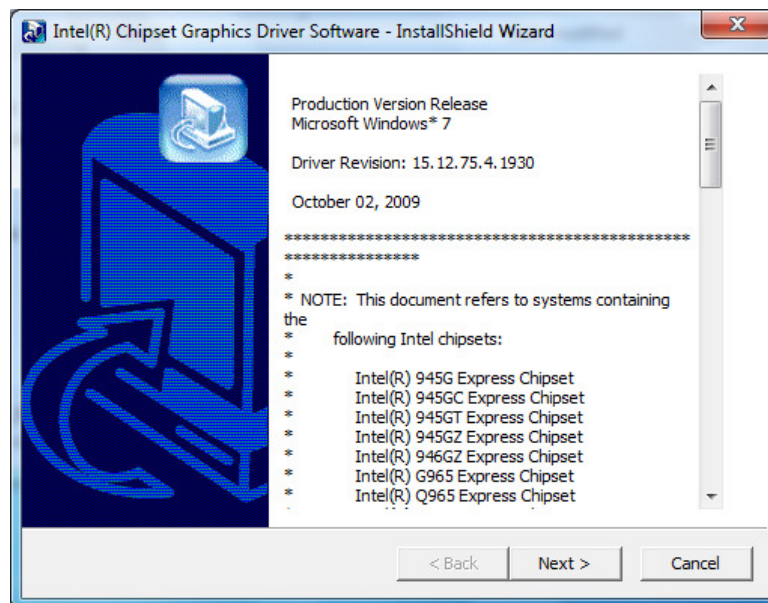
When the installation is completed successfully, the following window appears. Check the "Yes, I want to restart this computer now" radio button, then click on the "Finish" button to reboot your computer.



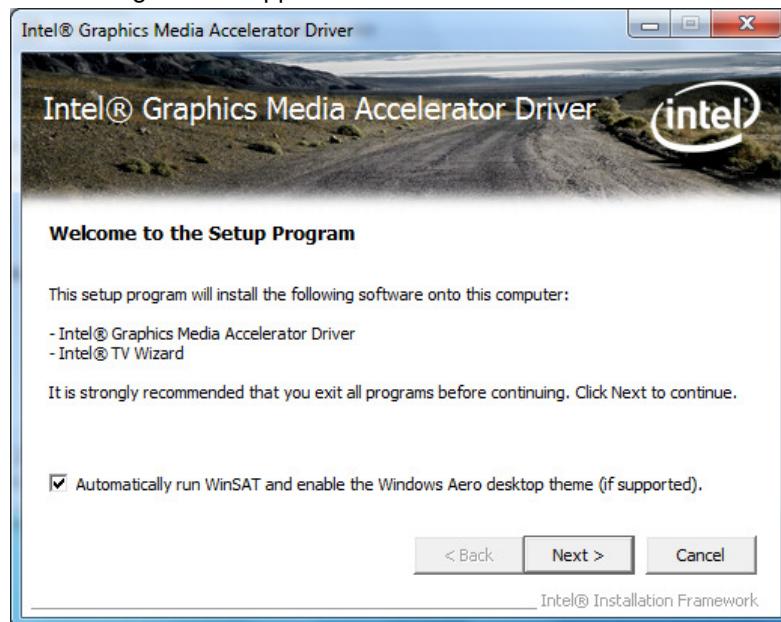
5.3. Installation for Intel Graphic Accelerator Driver

Note: When you use TFTST-56 or LKBST-65 display (connected via PCI card), you do not need to install the Intel Graphic Accelerator driver.

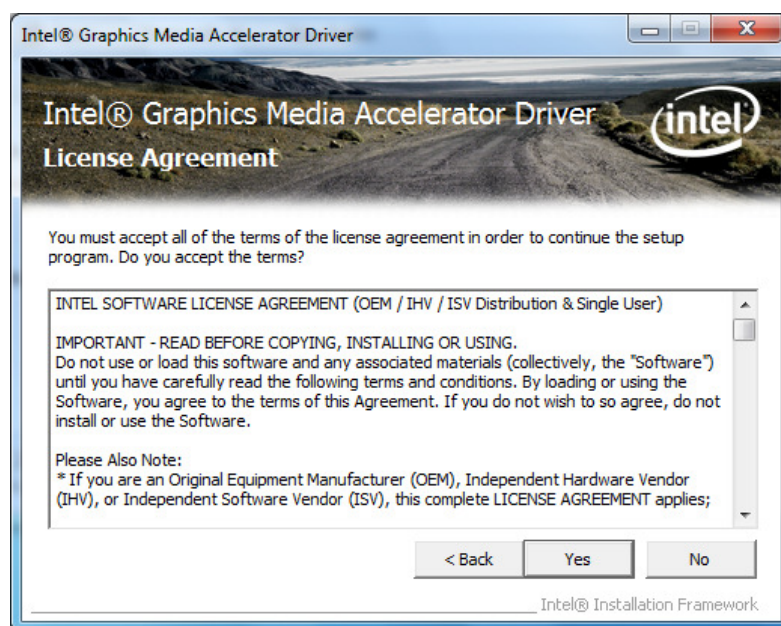
Run "win7_1512754.exe" in the "ST-B20\Intel\Graphic\7" folder in the Driver kit CD. The following window appears. Click on the "Next" button.



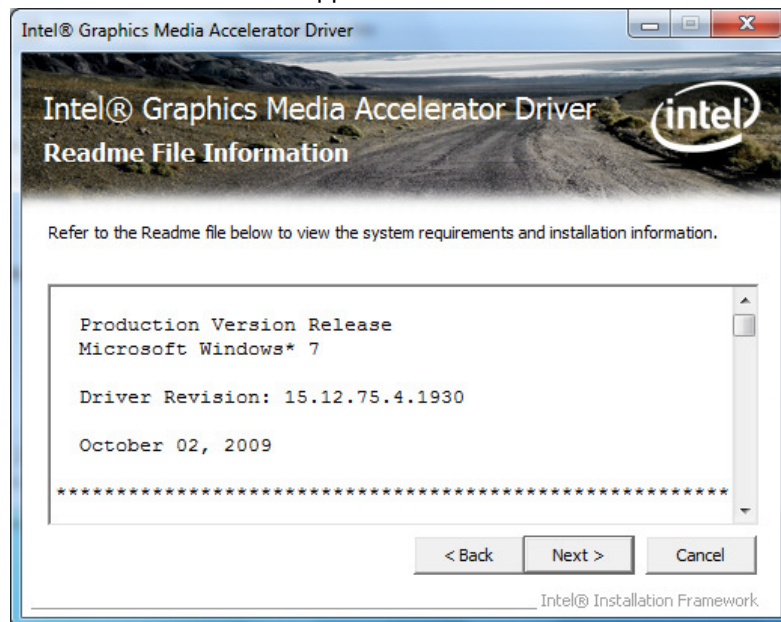
After a while, the following window appears. Click on the “Next” button.



The “License Agreement” window appears. Confirm the contents. If you agree, click on the “Yes” button.

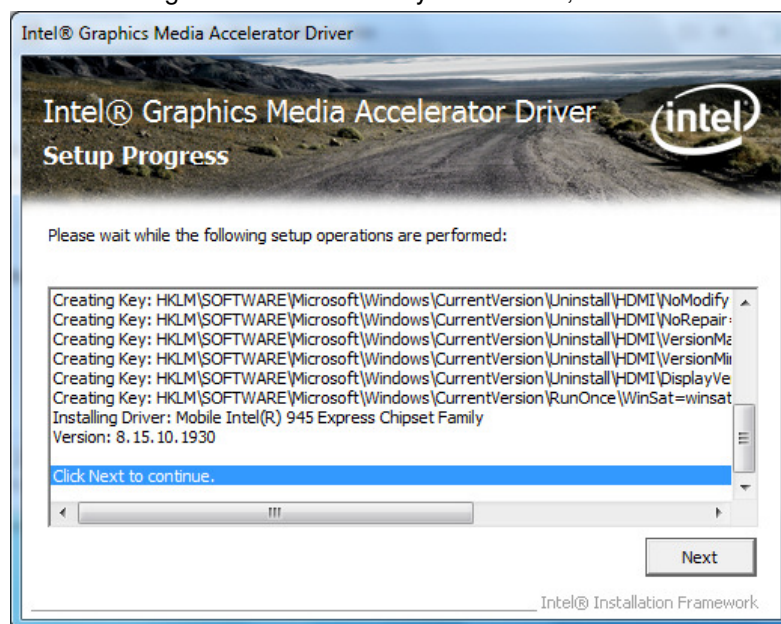


The “Readme File Information” window appears. Click on the “Next” button.

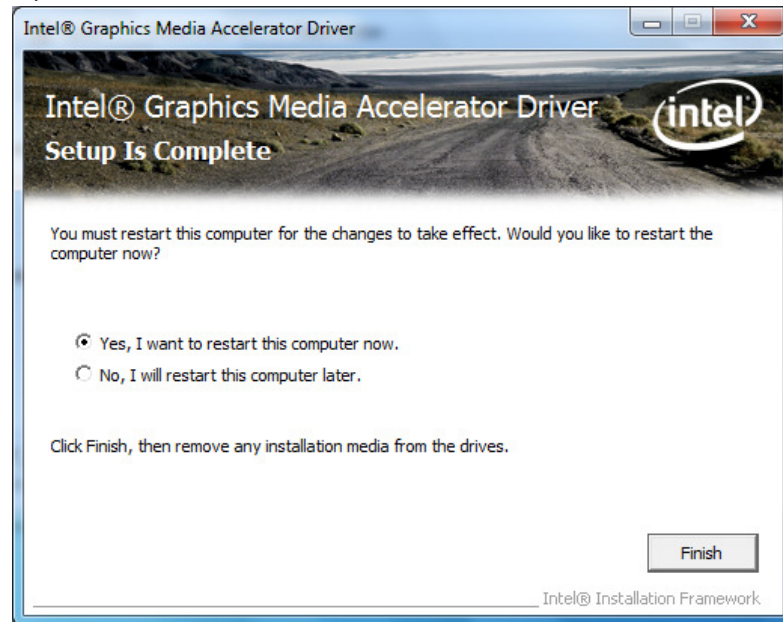


The “Setup Progress” window appears, and starts the installation.

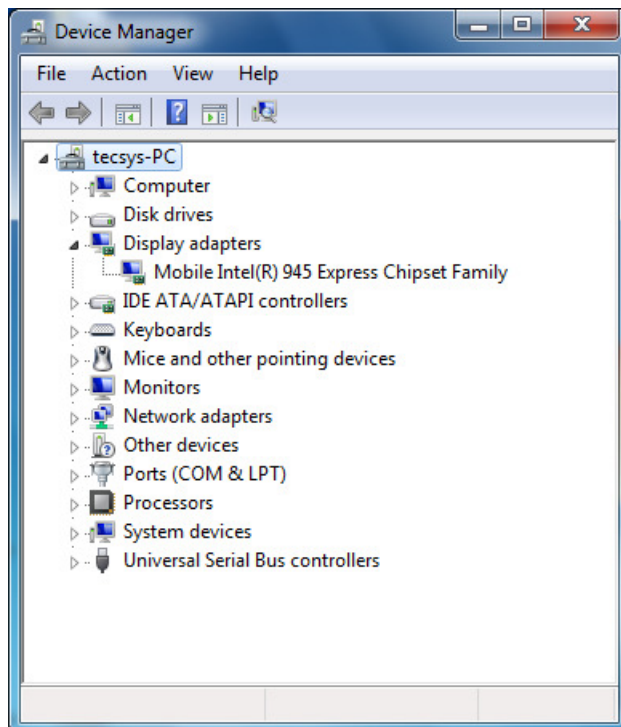
After the “Next” button changes to the status that you can click, click on the button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart this computer now” radio button, then click on the “Finish” button to reboot your computer.

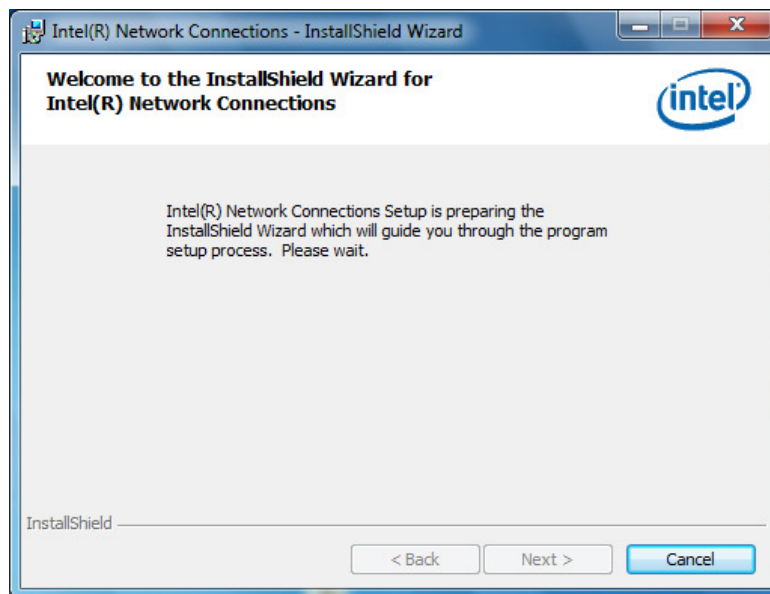


Open Device Manager to confirm the graphic driver has been installed. Make sure that “Mobile Intel(R)945 Express Chipset Family” is registered under the “Display adapters” icon.

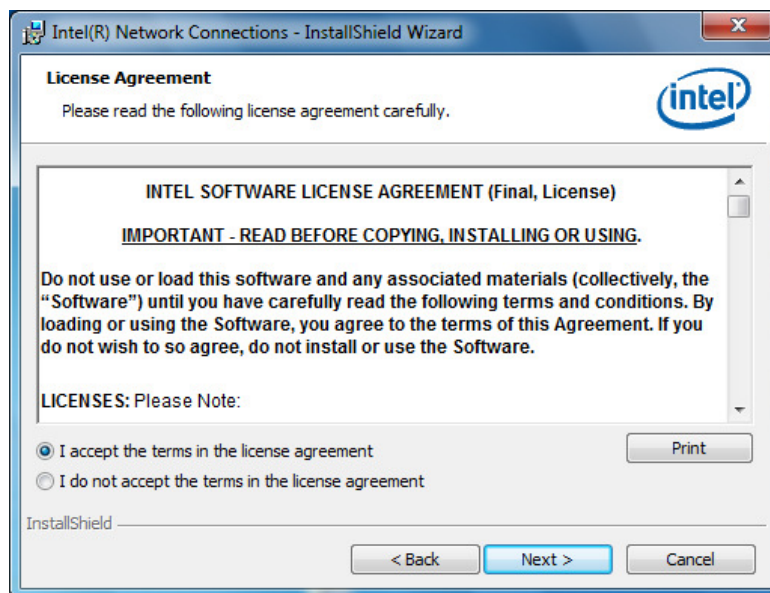


5.4. Installation for Intel Network Driver (64 Bit does not support Wake-On-LAN)

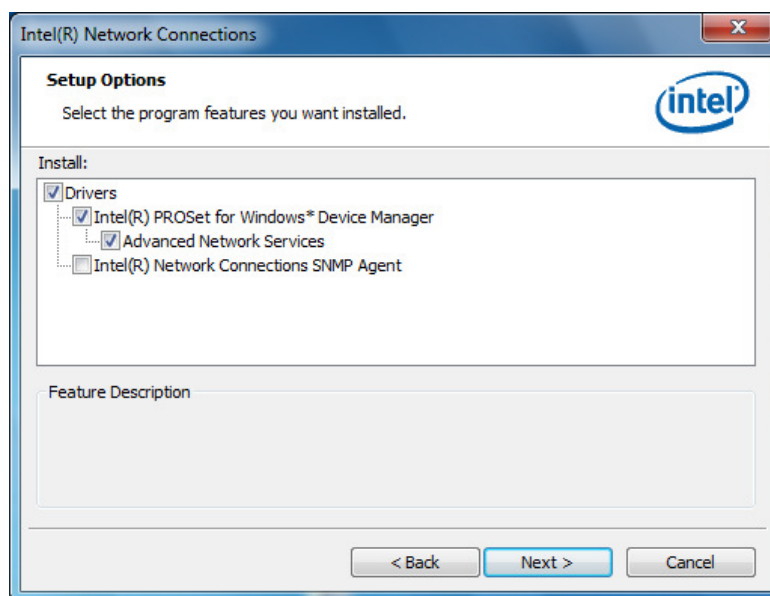
Run "PROWin32.exe" in the "ST-B20\Intel\LAN\7" folder in the Driver kit CD. After a while, the following window appears. Click on the "Next" button.



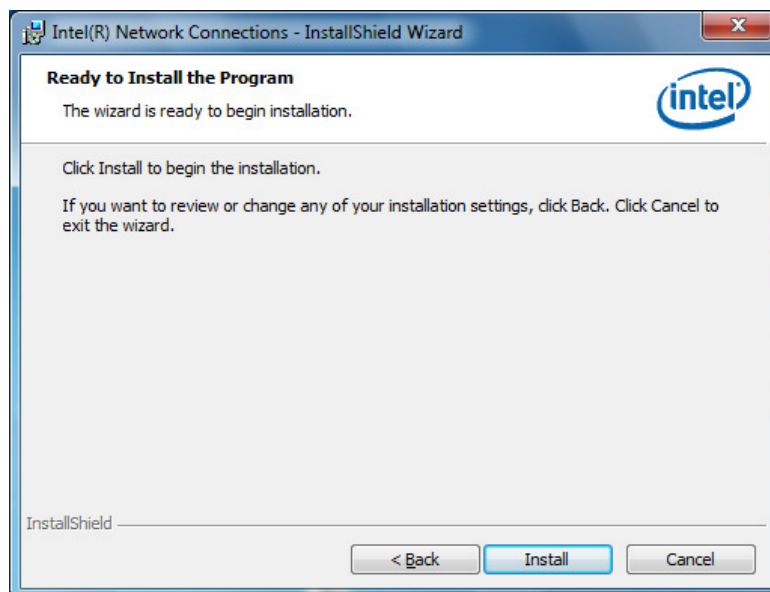
The "License Agreement" window appears. Confirm the contents. If you agree, check the "I accept the terms in the license agreement" radio button and click on the "Next" button.



The “Setup Options” window appears. If nothing specially required, click on the “Next” button with default condition.

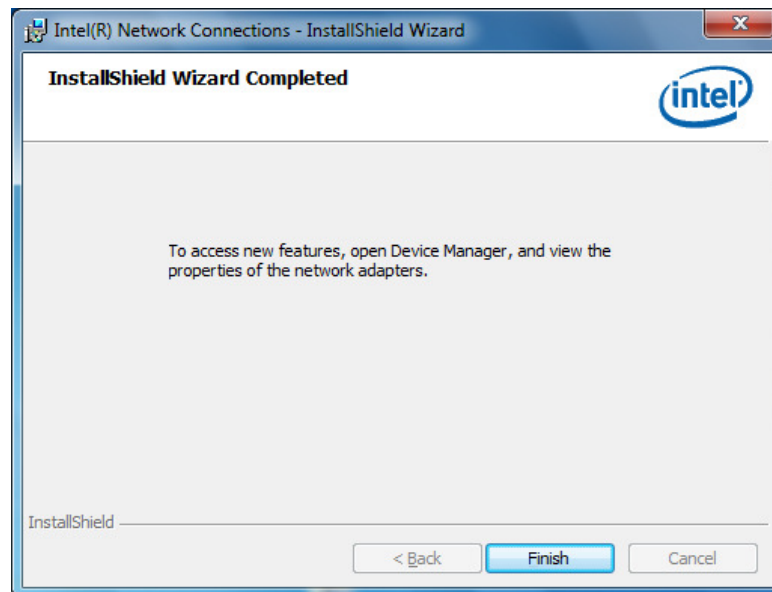


The following window appears. Click on the “Install” button to start the installation.

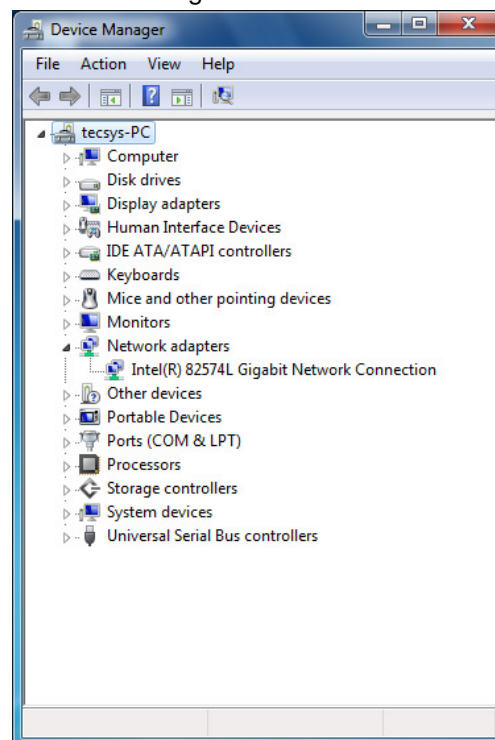


After completion of the installation, the following window appears. Click on the “Finish” button to complete the installation.

Note: Then, reboot the computer.

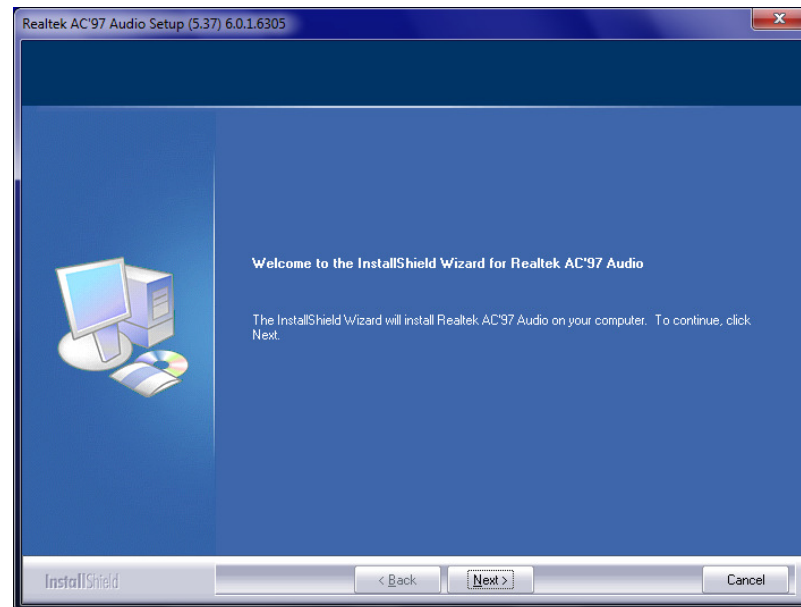


Open Device Manager to confirm the network driver has been installed. Make sure that “Intel(R) 82574L Gigabit Network Connection” is registered under the “Network adapters” icon.

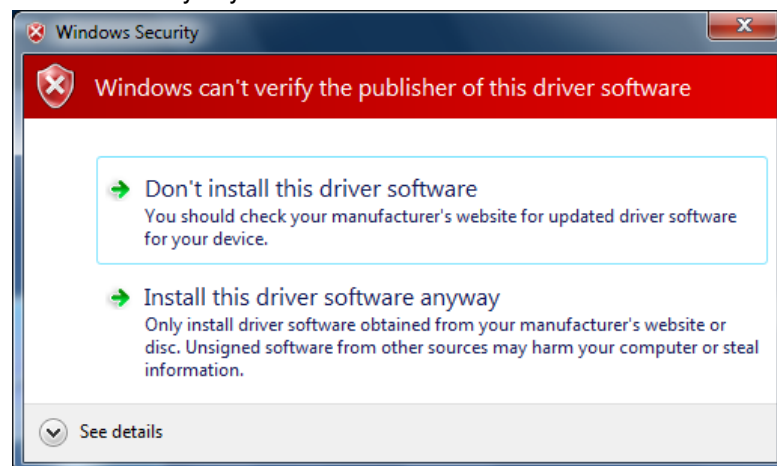


5.5. Installation for Realtek Audio Driver

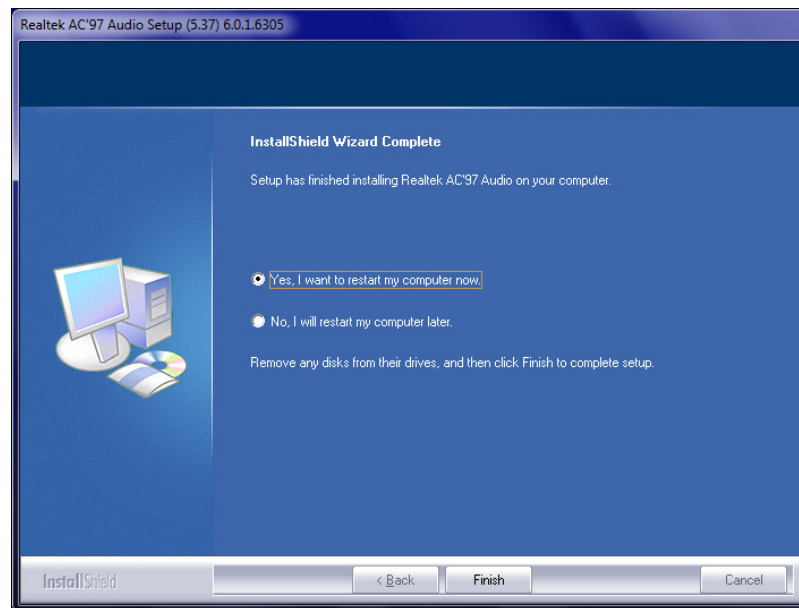
Run “setup.exe” in the “ST-B20\Intel\Audio\7” folder in the Driver kit CD. After a while, the following window appears, click on the “Next” button.



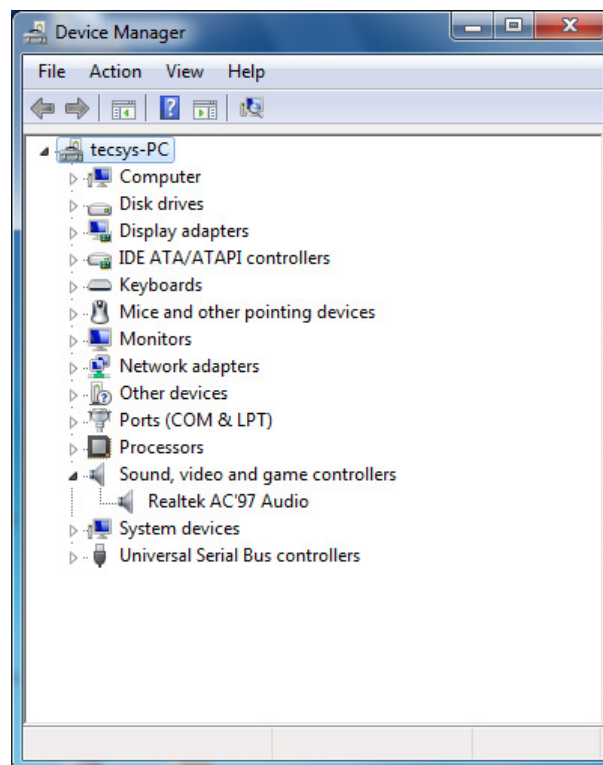
After a while, the following window appears. This is a security notice of Windows. Click on the “Install this driver software anyway” button.



When the installation is completed successfully, the following window appears. Check the “Yes, I want to restart my computer now” radio button, then click on the “Finish” button to reboot your computer.



Open Device Manager to confirm the audio driver has been installed. Make sure that “Realtek AC'97 Audio” is registered under the “Sound, video and game controllers” icon.



5.6. Setup for Display

There are four additional display setup documents that depend on display type.
When you use dual display function, please confirm the note about 'Dual Display connection combinations list' at the Chapter 6.

About setup procedure of display, please see additional documents as below.

TFTST-A20, TFTST-B20: "TFTST-A20, TFTST-B20 Setup Guide"

- Installation for ELO (Tyco) Touch panel driver
- Installation for the driver of other optional equipment

TFTST-76: "TFTST-76 Setup Guide"

- Installation of Fujitsu Touch panel driver
- Installation for the driver of other optional equipment

TFTST-56, LKBST-65 - LVDS Direct: "TFTST-56, LKBST-65 (LVDS Direct) Setup Guide"

- Installation of Fujitsu Touch panel driver

TFTST-56, LKBST-65 - PCI Card: "TFTST-56, LKBST-65 (PCI Card) Setup Guide"

- Installation of SMI VGA driver of PCI Graphic card
- Installation of SMK Touch panel driver

These display setup guides describe the procedures and cautions for setup the drivers of each display.

6. Creation of RAID

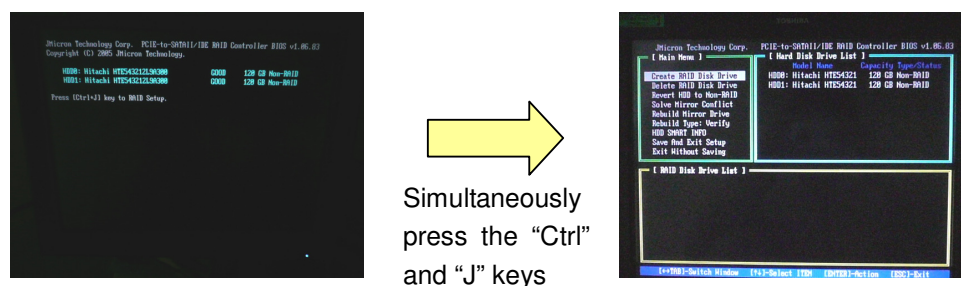
6.1. Creation of RAID from RAID BIOS Menu

6.1.1. Getting Started

Make sure the power is not turned on. Connect two SATA HDDs on which no RAID has been created. And create a RAID from the RAID BIOS menu.

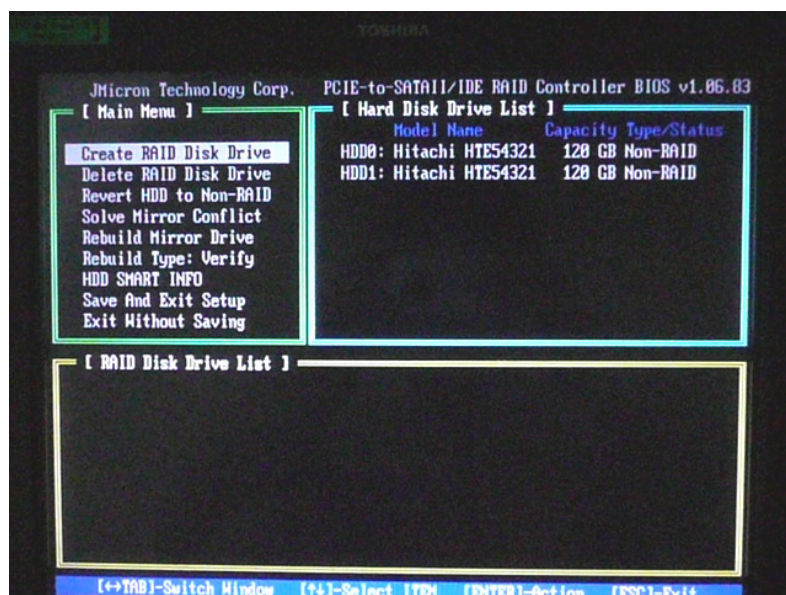
6.1.2. Startup of RAID BIOS Menu

After checking the HDDs are connected to the RAID controller, turn the power on and wait for the RAID BIOS screen to appear. On the RAID BIOS screen, simultaneously press the “Ctrl” and “J” keys to start the RAID BIOS menu.



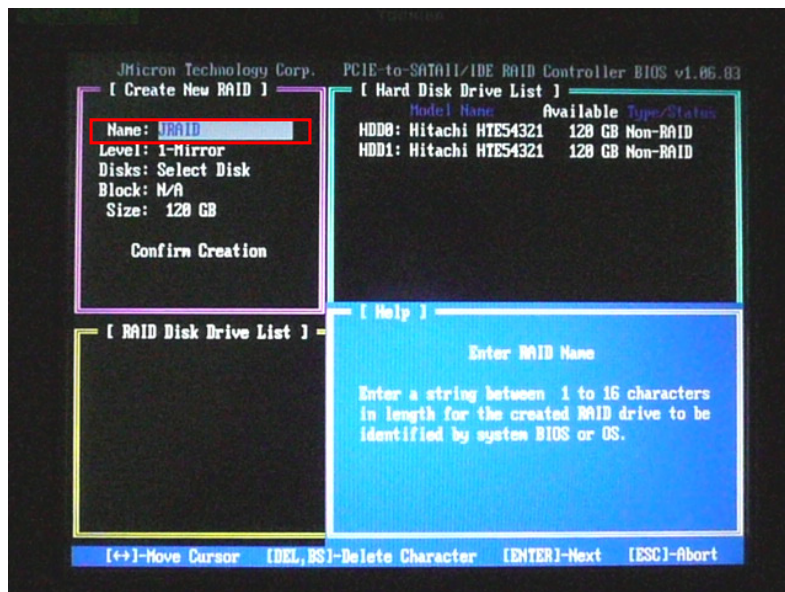
6.1.3. Creation of RAID

To create a RAID, select “Create RAID Disk Drive” on the main RAID BIOS menu and set up the two items: Name and Size.



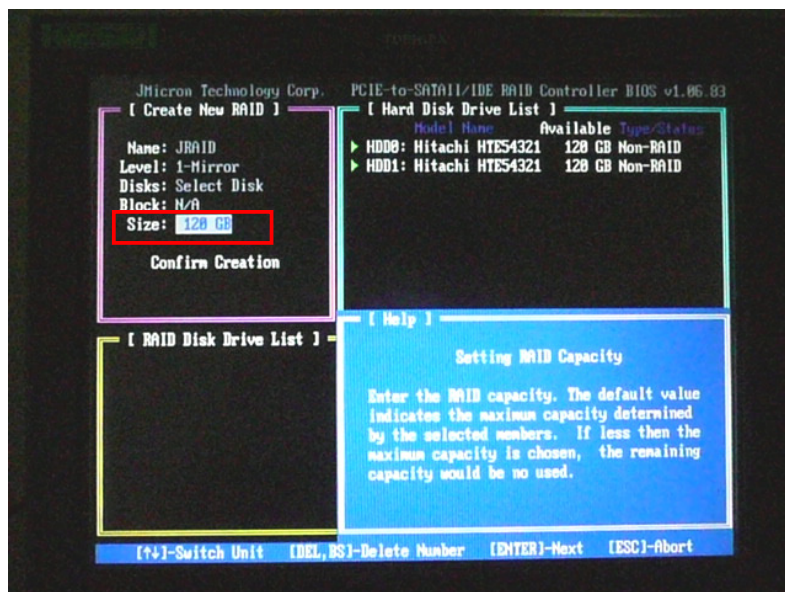
6.1.4. Setup of RAID Name

With the cursor on “Name”, where you can specify a RAID name, enter the RAID name from the keyboard, and press the “ENTER” key. Then, move the cursor to “Size”.



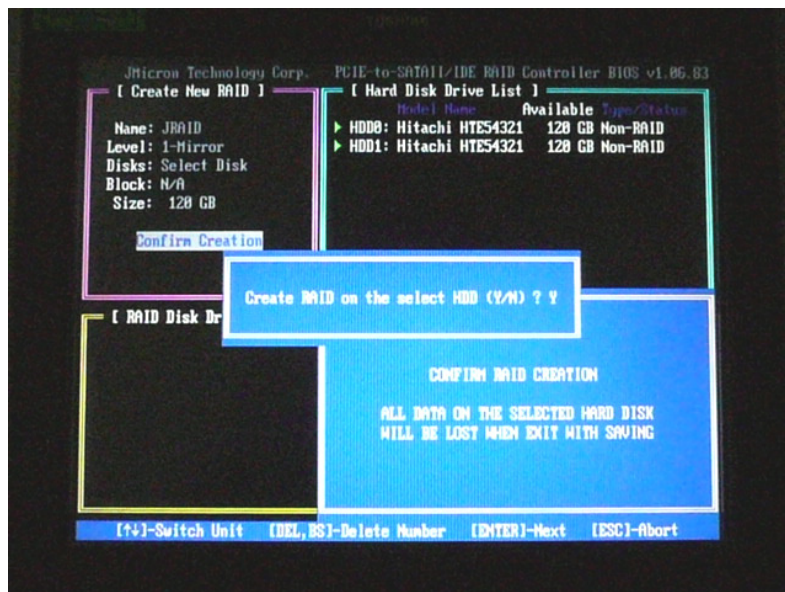
6.1.5. Setup of RAID Size

With the cursor on “Size”, where you can specify a RAID capacity, enter the RAID capacity from the keyboard, and press the “ENTER” key. The Confirm Creation screen appears.



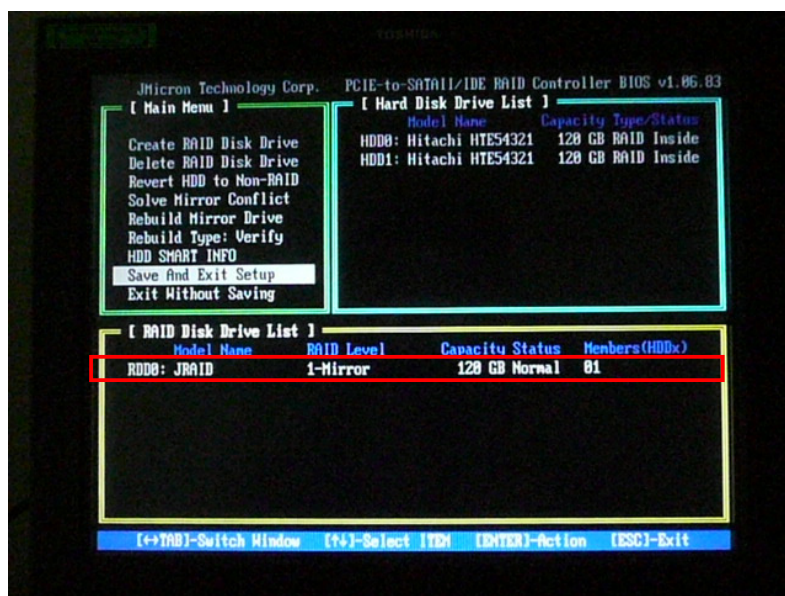
6.1.6. Confirm Creation Pop-up Screen

Upon completion of the setting of Name and Size, the RAID Confirm Creation pop-up screen appears. If both the name and size entered are correct, press the “Y” key to complete the creation of the RAID. If either/both of them need to be changed, press the “N” key, and try to create a RAID again.



6.1.7. Completion of Creation of RAID

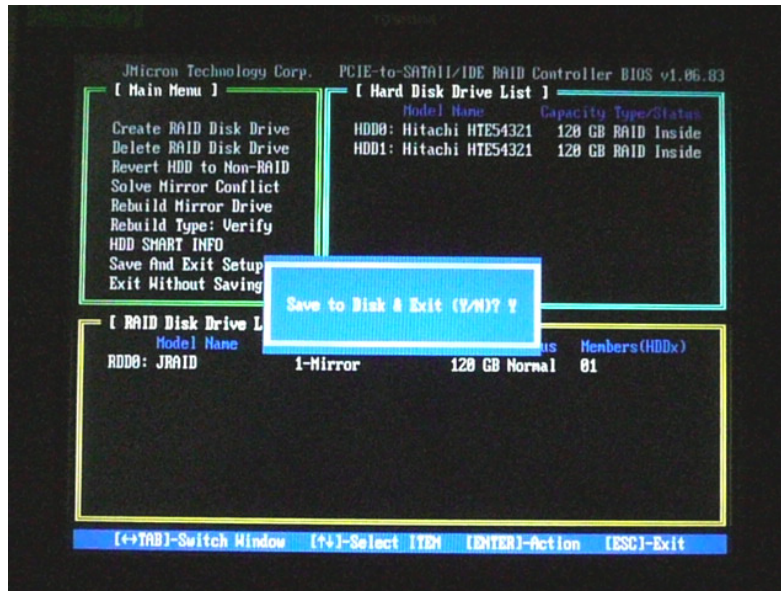
When the creation of the RAID is completed, the RAID information you set is displayed in the “RAID Disk Drive List” on the RAID BIOS menu. Note the information is only shown and has not been saved yet. To save it and exit the setup, complete the setup by selecting “Save And Exit Setup” on the RAID BIOS menu as explained in the next subsection.



6.1.8. Exit from RAID BIOS Menu

To save the items you set up in the RAID BIOS menu and exit the menu, always select “Save And Exit Setup” and press the “Y” key. When the RAID BIOS menu exits, the computer is automatically restarted.

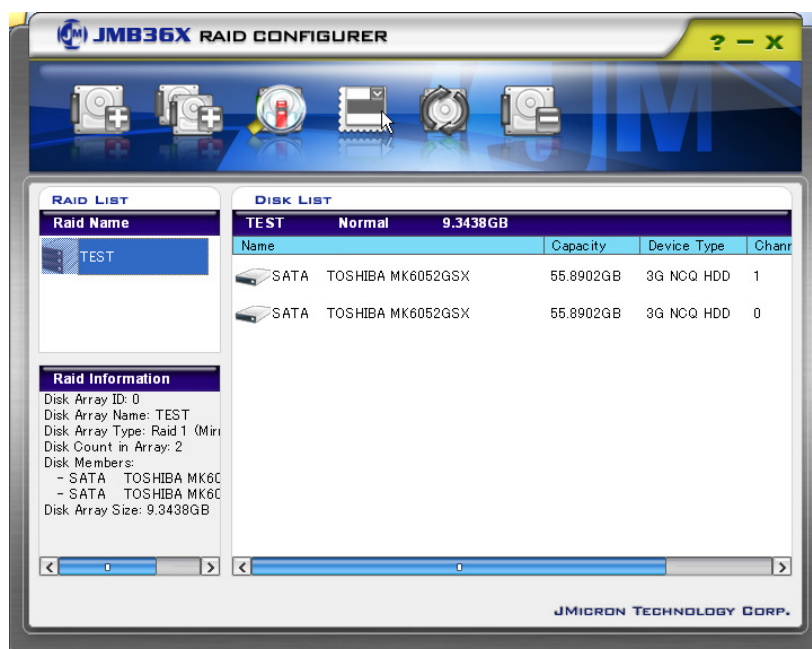
Note: When the RAID BIOS menu is exited by any other operation, the setup information is not saved.



6.2. Installation of RAID Utility JMB36X RAID CONFIGURER

The JMB36X RAID CONFIGURER (RAID Application) is an operating system resident application which monitors and maintains the RAID. It monitors a status, for example, disconnection and connection of an HDD from/with the RAID controller. When the HDD is connected, it performs rebuilding or resynchronization so that the connected HDD can be used in the RAID environment. It also provides the same features as those provided by the RAID BIOS menu including status monitor of the HDD connected with the RAID controller, RAID configuration and rebuilding.

Note: The RAID Application cannot be used unless it is installed as described in the next subsection.



[RAID LIST]

Lists the RAIDs created.

[Raid Information]

Displays the information about the RAID selected from the RAID LIST.

[DISK LIST]

Displays the information about the HDD connected with the RAID controller and the information about the HDD related to the RAID selected from the RAID LIST.

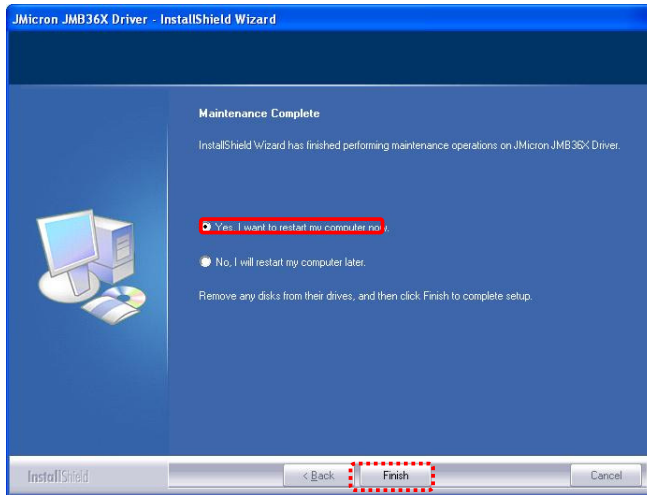
- The figure below shows the JMB36X RAID CONFIGURER icon in the task tray (as indicated with the red box). When the icon is double clicked, the RAID Application is displayed. (It is not displayed if the RAID Application already exists in the task bar.)



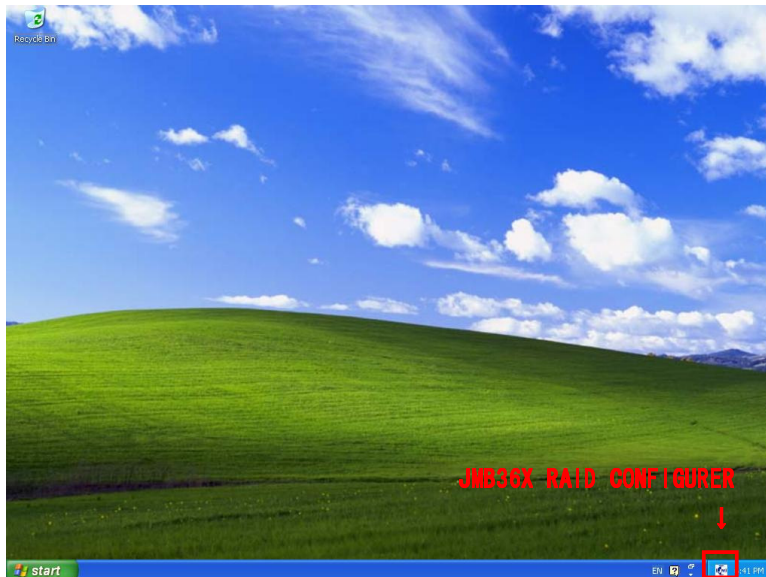
6.2.1. Installation

This subsection describes the procedure to install the JMB36X RAID CONFIGURER.

Run setup.exe in the “ST-B20\RAID\Driver” folder in the Driver kit CD. For the subsequent installation procedures, follow the instructions of the installer. When the screen asking you to reboot your computer appears as shown below, check the “Yes, I want to reboot my computer now.” radio button, then click on the “OK” button to reboot your computer.



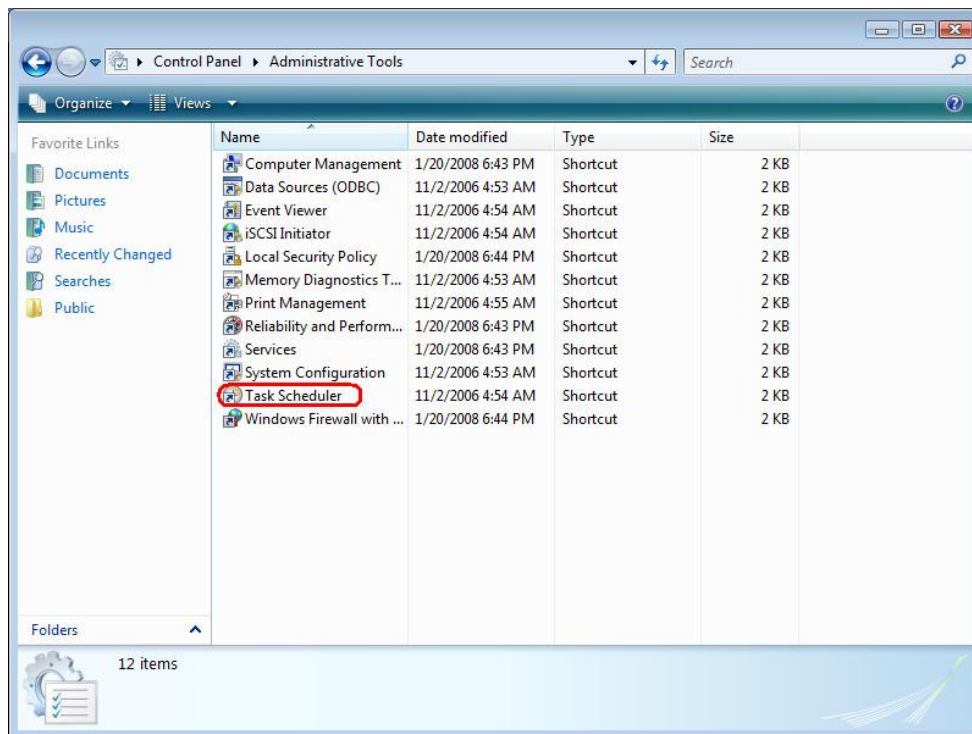
After the computer is rebooted and the desktop screen appears, make sure the JMB36X RAID CONFIGURER icon is shown in the task tray as indicated in the red box in the figure below. If it is in the task tray, the installation is completed.



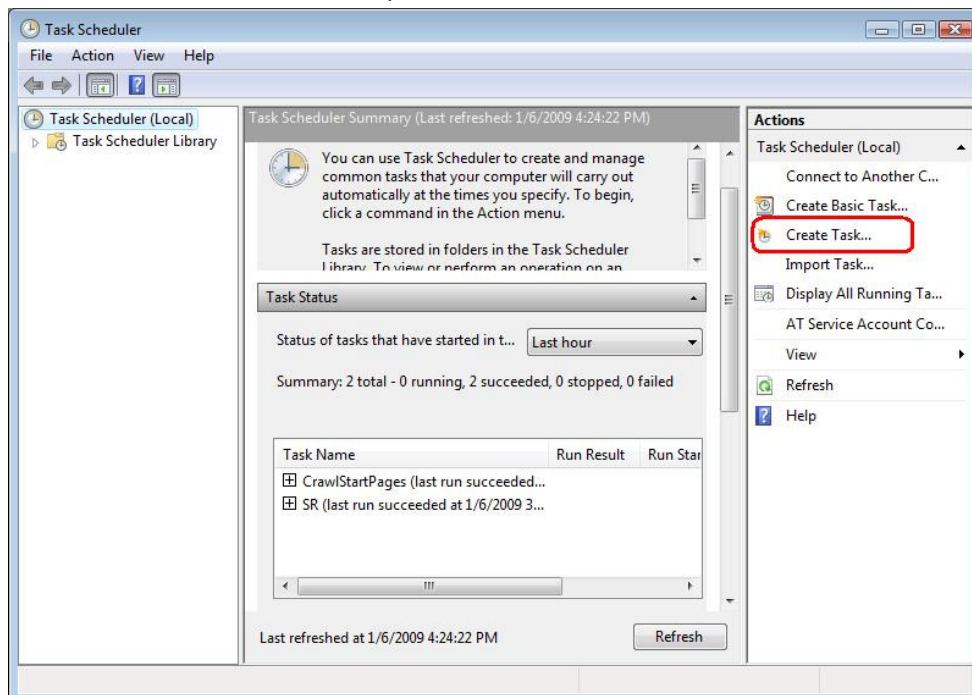
When the operating system is Windows Vista and Windows 7, the JMB36X RAID CONFIGURER does not automatically start up when the operating system starts up. Please perform the following additional settings.

6.2.2. Setup for Windows Vista / 7

Open the Control Panel, then Administrative Tools. Click on Task Scheduler to start.



After the Task Scheduler starts up, click on "Create Task..."

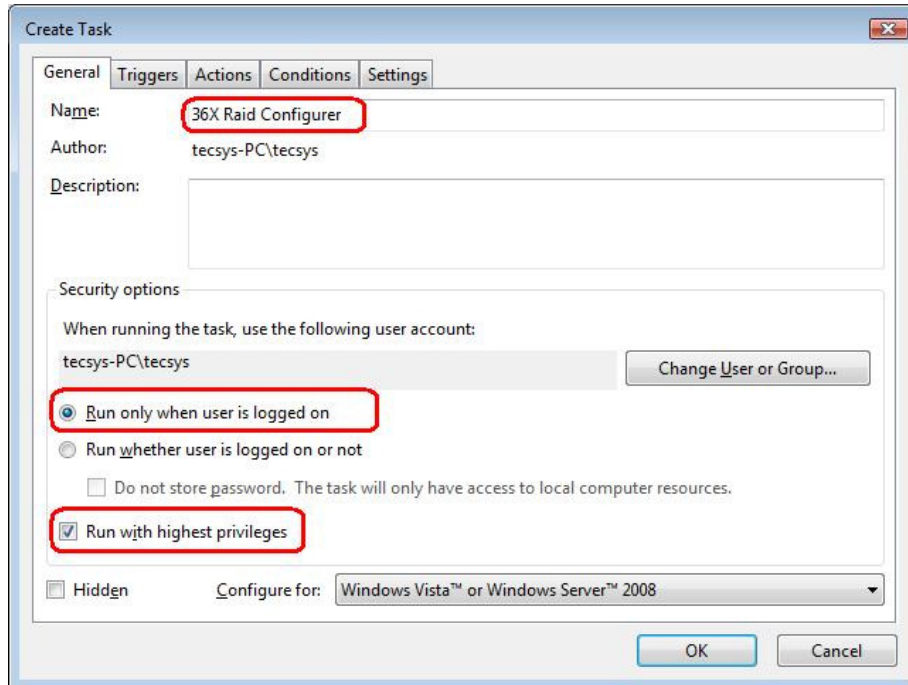


Click on the “General” tab and make settings as shown in the figure below.

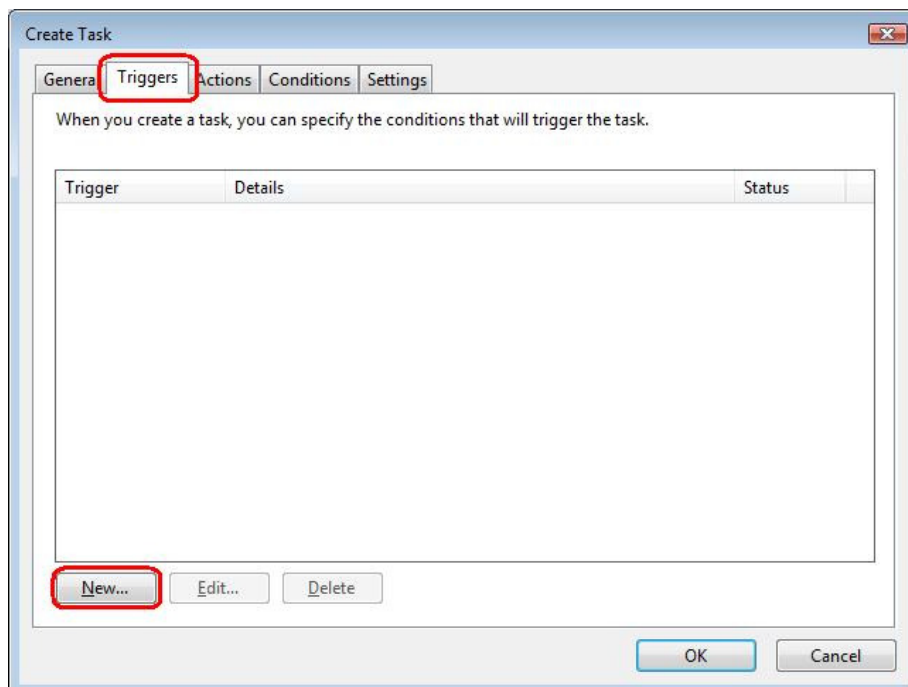
Name: 36X Raid Configurer

Security options: Click on the “Run only when user is logged on” radio button.

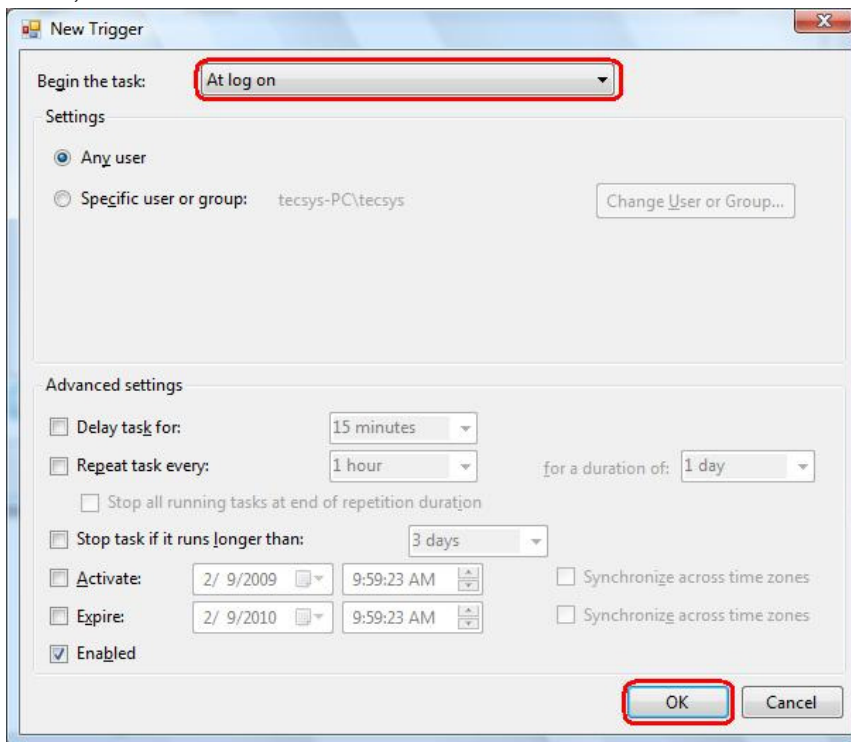
Check the “Run with highest privileges” box.



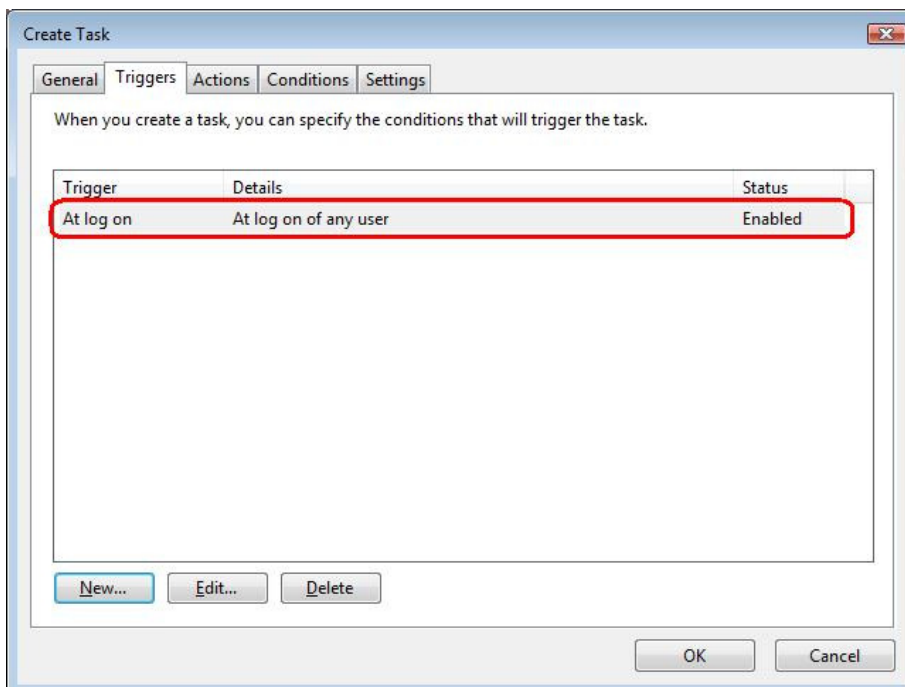
Click on the “Triggers” tab and click on the “New...” button.



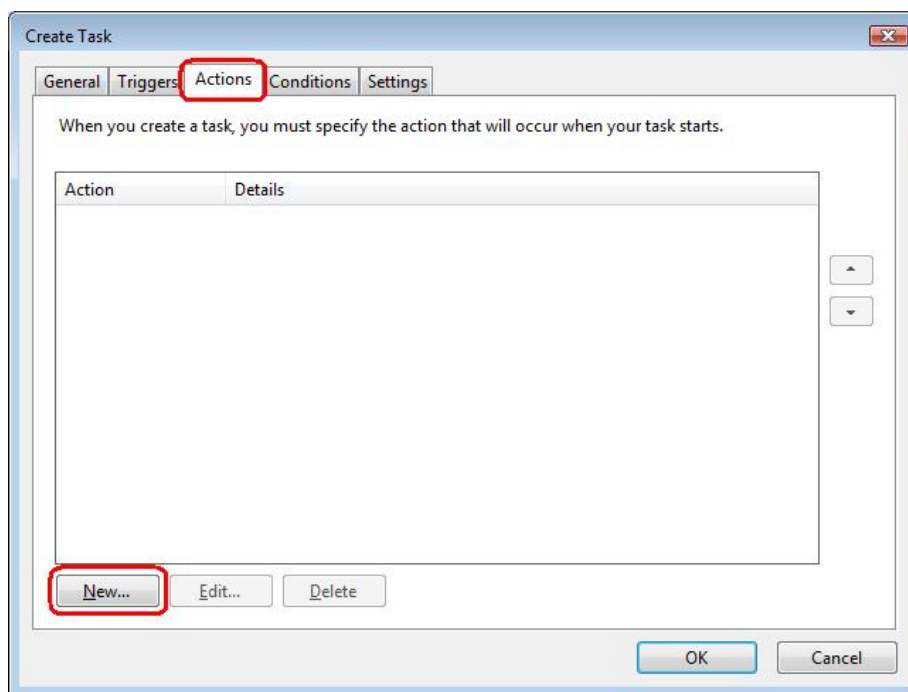
The “New Trigger” screen appears. Select “At log on” from the “Begin the task:” pull-down menu, then click on the “OK” button.



Confirm the new trigger has been added.

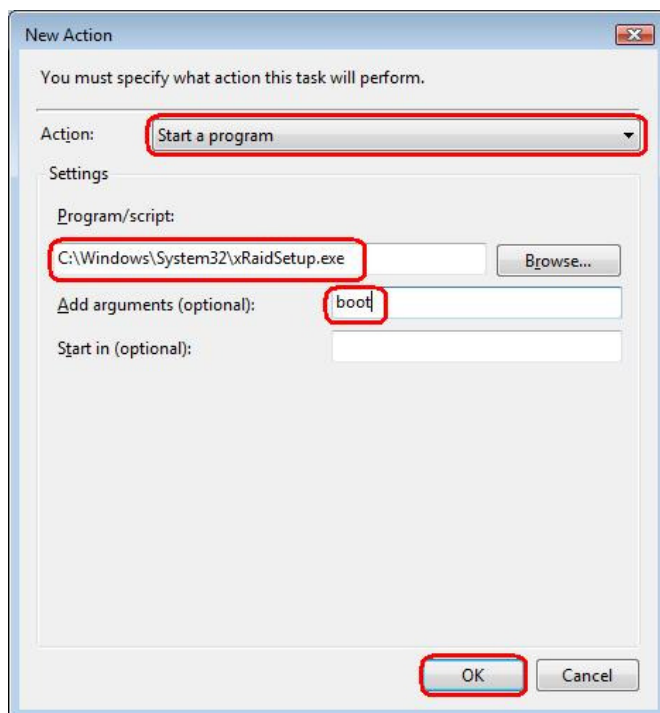


Click on the “Actions” tab and click on the “New...” button.

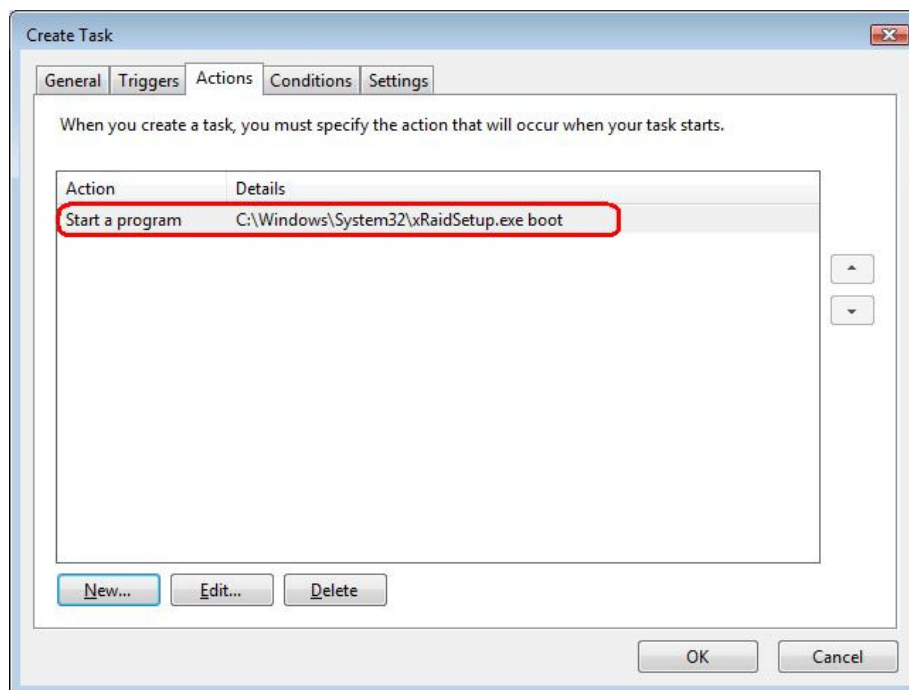


After the “New Action” screen appears, make settings as shown in the figure below and click on the “OK” button.

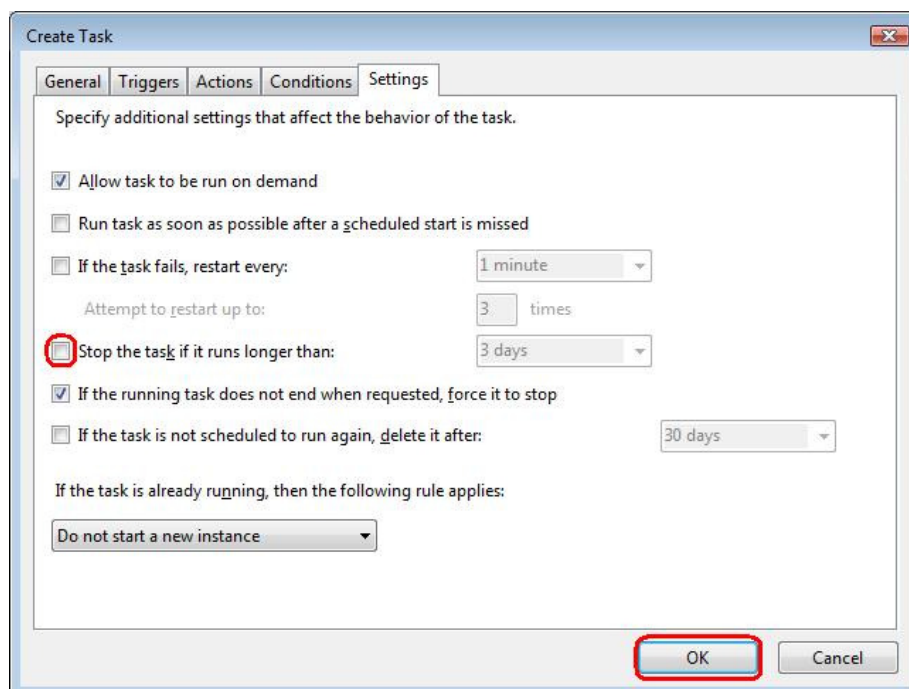
Action : Start a program
Program/script : C:\Windows\System32\xRaidSetup.exe
Add arguments (optional) : boot



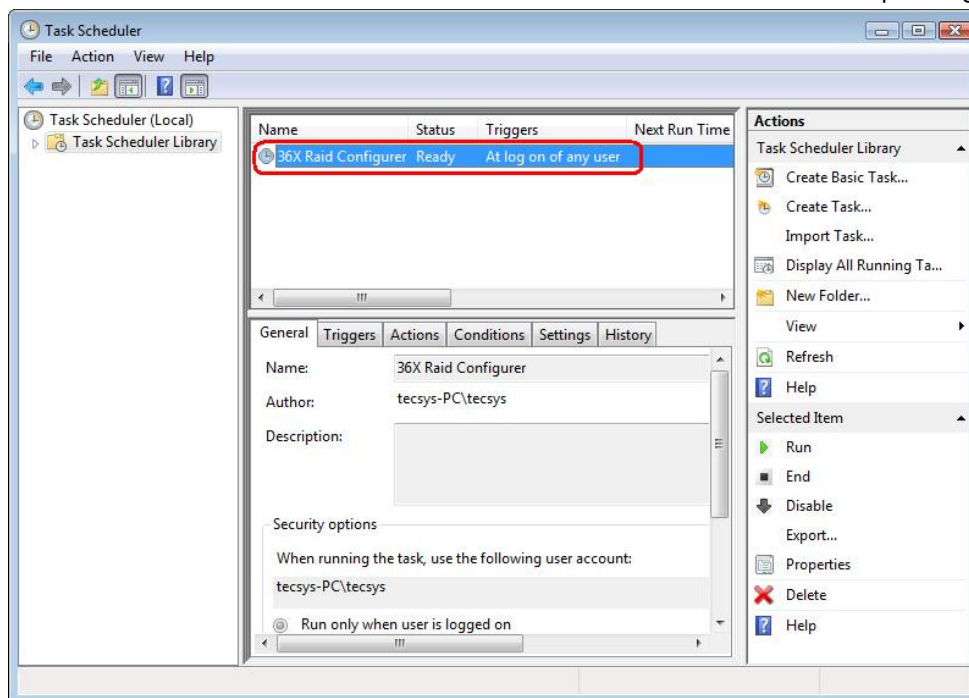
Confirm the new action has been added.



Click on the "Settings" tab, uncheck the "Stop the task if it runs longer than:" box, and click on the "OK" button.



Confirm the new task has been added. Close the screen and reboot the operating system.

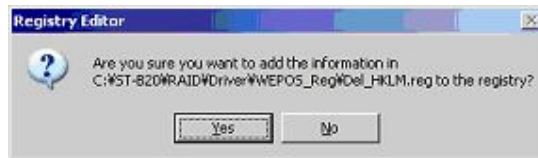


6.2.3. Setup for WEPOS

Run the "Del_HKLM.reg" file in the " ST-B20Win\RAID\ Driver\WEPOS_Reg" folder contained in the driver kit CD to delete the following registry information from

"HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Run".

- Name: "JMB36X IDE Setup" Data: "C: \\\Windows\\RaidTool\\xInsIDE.exe"
- Name: "36X Raid Configurer" Data: "C:\\\\Windows\\system32\\xRaidSetup.exe boot"



Reboot your computer.

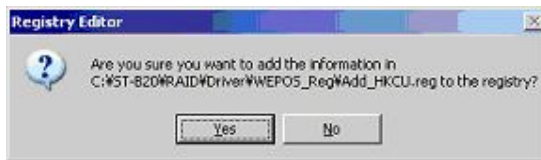
After the OS has started up, run the "JMB36X Raid Configurer" from [Start] -> [All Programs]->[JMicron Technology Corp].



Run the "Add_HKCU.reg" file in the "ST-B20Win\RAID\ Driver\WEPOS_Reg" folder contained in the driver kit CD to add the following registry information to

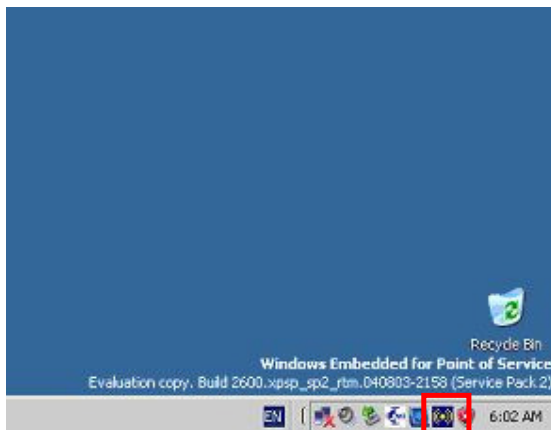
"HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Run".

- Name: "JMB36X IDE Setup" Data: "C:\\Windows\\RaidTool\\xInsIDE.exe"
- Name: "36X Raid Configurer" Data: "C:\\Windows\\system32\\xRaidSetup.exe boot"



Reboot your computer.

After the OS has started up, check the task tray to confirm whether the icon exists.



6.3. Creation of RAID from JMB36X RAID CONFIGURER

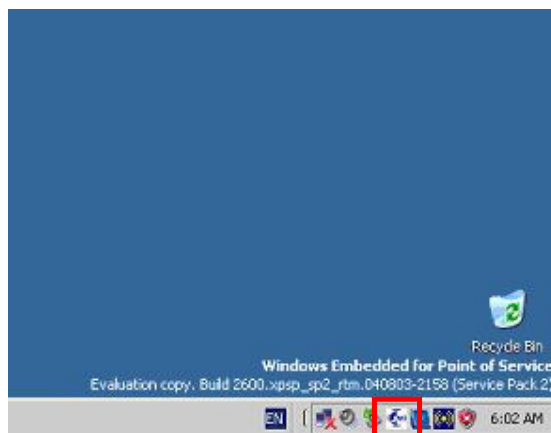
This section describes the procedures to create the RAID from the HDD which has been installed OS without RAID.

6.3.1. Getting Started

Connect the source disk to channel 0, connect the destination disk to channel 1.

6.3.2. Startup of RAID Application

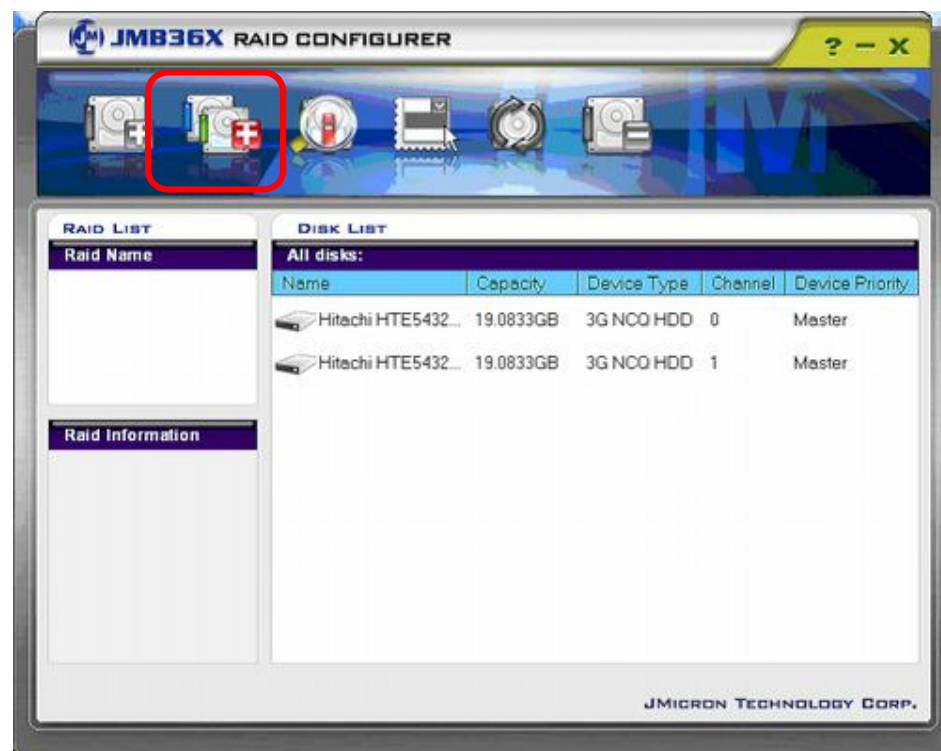
Run the JMB36X RAID CONFIGURER from the task tray.



6.3.3. Creation of RAID

Confirm the Create RAID From Existing Disk icon on the RAID Application screen indicated with the red box in the figure becomes effective.

Click on this icon to show the Create RAID From Existing Disk dialog screen.

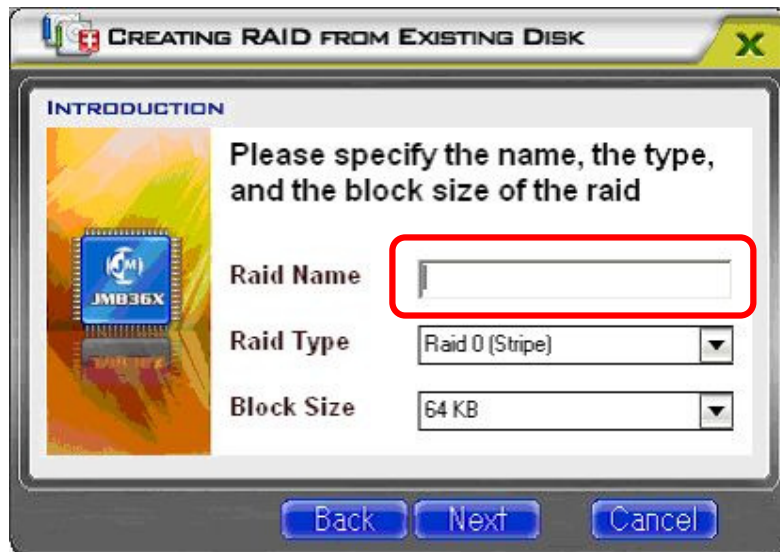


Click on the "Next" button on the screen, and the screen to create a RAID appears.



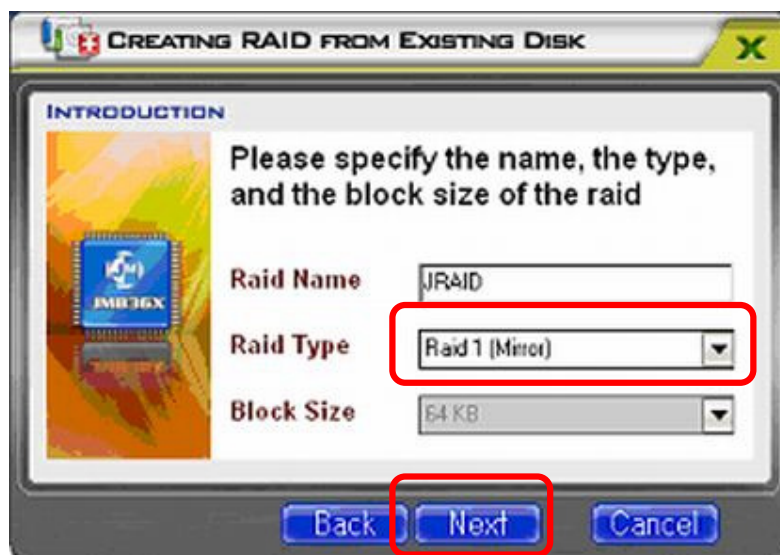
6.3.4. Setup of RAID Name

Input Raid Name at your disposal in the text box.



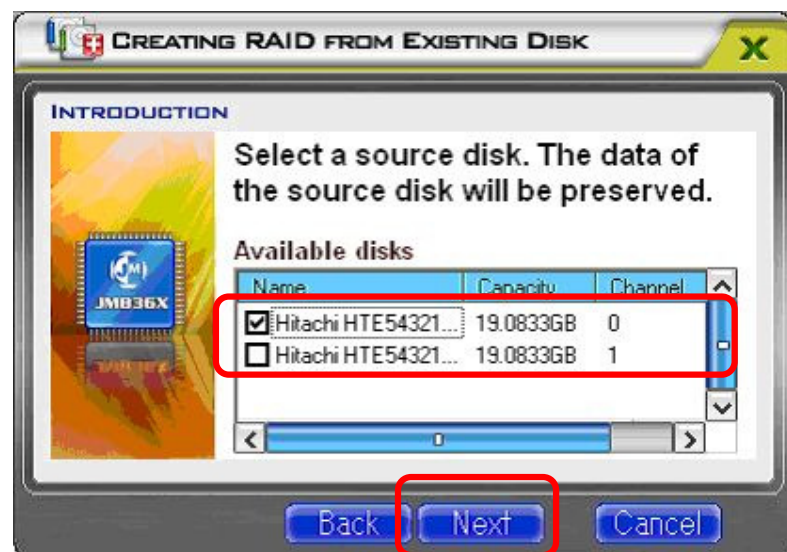
6.3.5. Setup of RAID Type

Select Raid Type as "Raid 1 (Mirror)". Click on the "Next" button on the screen, and the screen to select a source disk appears.



6.3.6. Select a source disk

Check the radio button, channel 0. Click on the “Next” button on the screen, and the screen to select a destination disk appears.

**6.3.7. Select a destination disk**

Check the radio button, channel 1. Click on the “Next” button on the screen, and the screen to New Raid Creation appears.

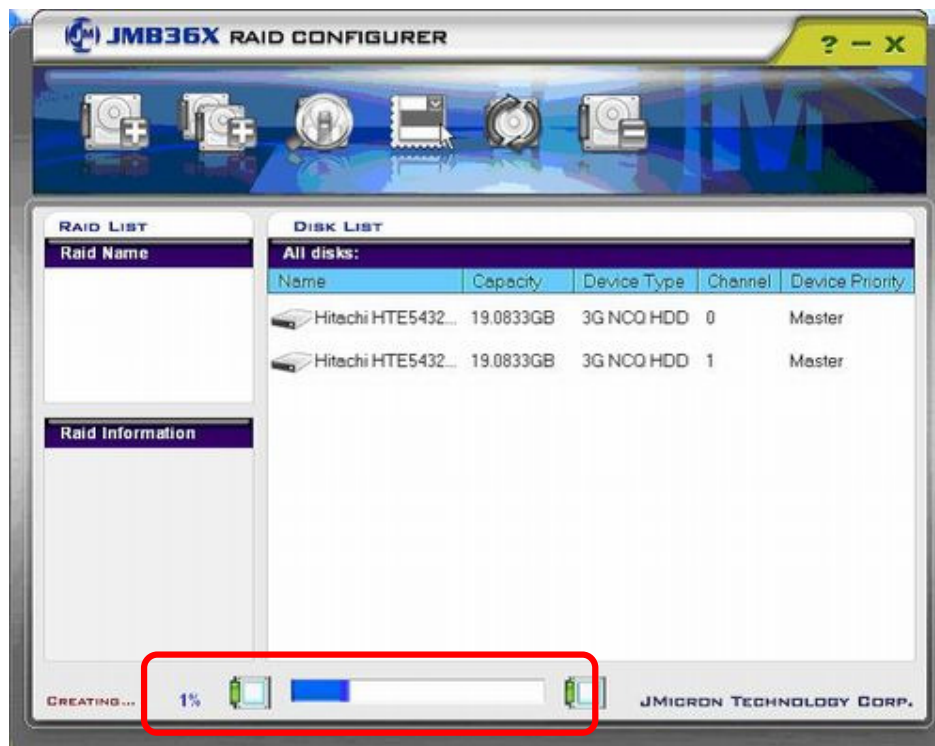


6.3.8. Confirm Creation Screen

Click on the "Finish" button on the screen and start to create RAID.

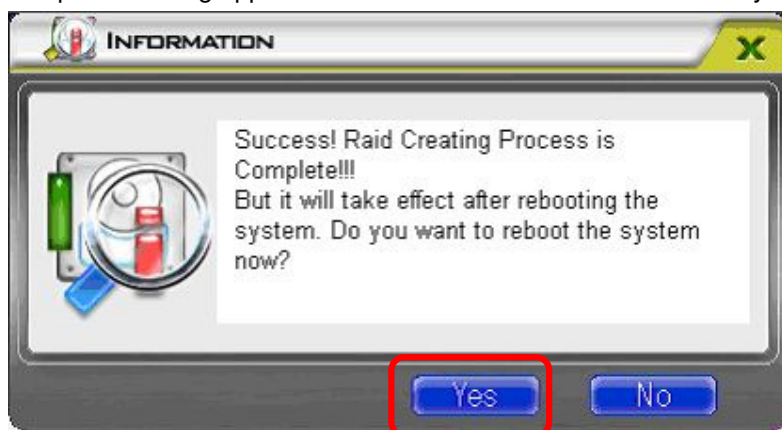


If creating RAID begins, the progress bar appears like the following screen.

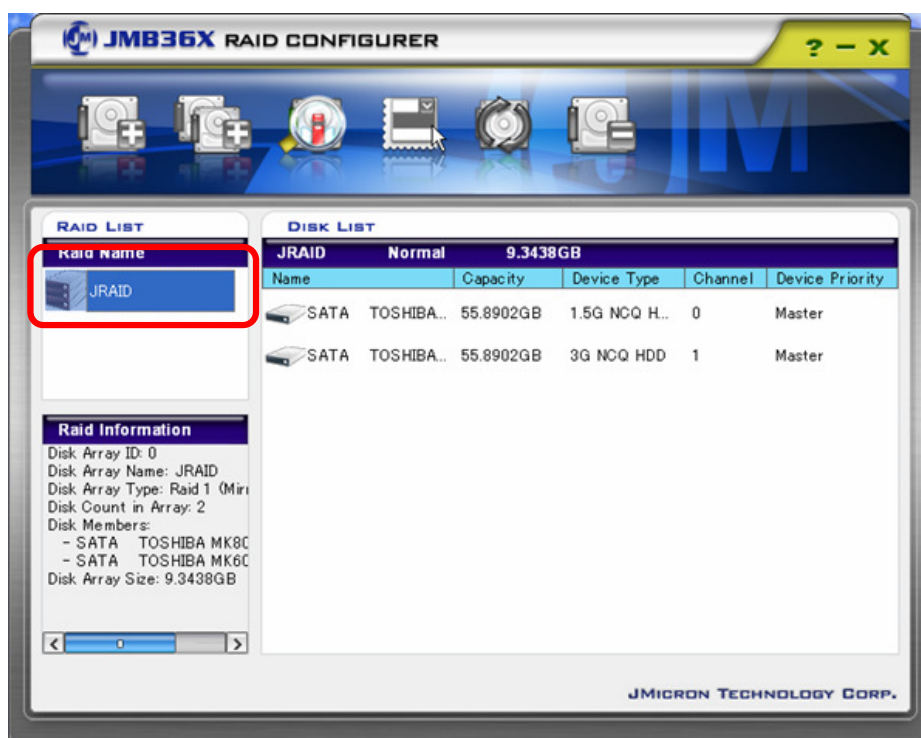


6.3.9. Completion of Creation of RAID

When the progress percentage reaches 100%, the rebuilding process is completed and the process completion dialog appears. Click on the “Yes” button to reboot your Computer.



When the RAID configuration works properly, the Raid Name you created appears in the RAID LIST.



6.4. Procedure from Occurrence of HDD Error to Rebuild of RAID

This section describes the procedures to rebuild the RAID when an HDD error has occurred.

When an HDD error occurs, replace a defective HDD with a new one and rebuild the RAID in accordance with this section.

6.4.1. Two Methods to Rebuild RAID

There are two types of methods to rebuild the RAID: “with verify” and “without verify”.

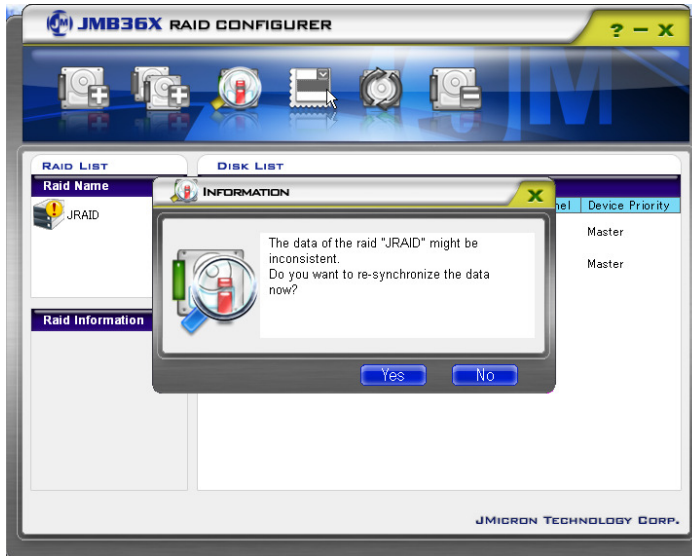
Note: A recommended method is the “with verify” method by the “Verify” function of the RAID BIOS.

Rebuild Method	Type	Time to rebuild (120 GB)
“Verify” of RAID BIOS	With verify	Approx. 300 min.
“No Verify” of RAID BIOS, or RAID utility on operating system	Without verify	Approx. 50 min.

6.4.2. HDD Error Handling

When an HDD error occurs, replace the HDD and rebuild the RAID following the procedures described below. If a defective HDD is continuously used, an unexpected system error may occur. To avoid such a case, replace the HDD and rebuild the RAID as soon as possible in accordance with following subsections.

When an HDD error occurs, a pop-up message requesting resynchronization appears. Click on the “No” button.



Note 1: When the “No” button is clicked on, the POS system continues operating but only one HDD is running without the RAID configuration. If an HDD error occurs under this condition, data cannot be recovered.

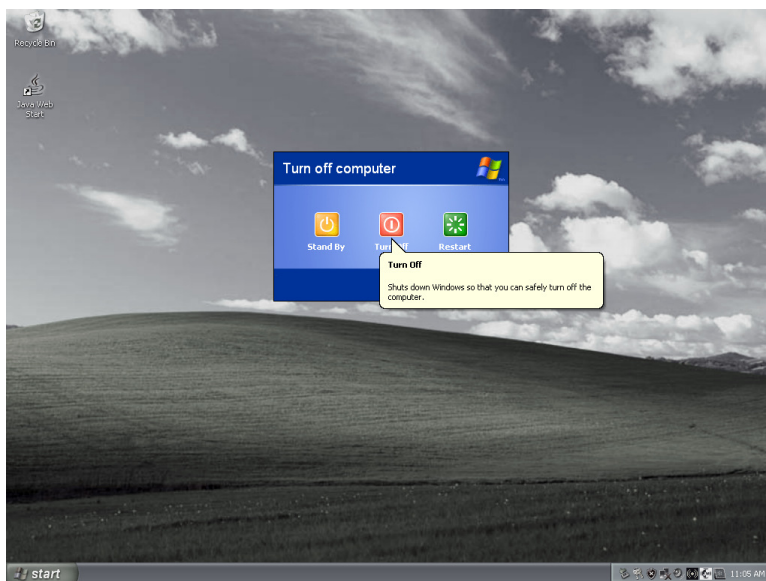
Note 2: When the HDD is continued to be used without being replaced after the “No” button is clicked on, the above pop-up screen appears whenever the operating system is rebooted until the defective HDD is replaced with a new one.

6.4.3. Replacement of HDD

When replacing the defective HDD with a new one, confirm the defective HDD on the RAID BIOS screen, then replace the HDD. After the replacement, follow the next subsection to rebuild the RAID.

Note: Be careful not to replace a non-defective HDD.

Shut down the operating system.

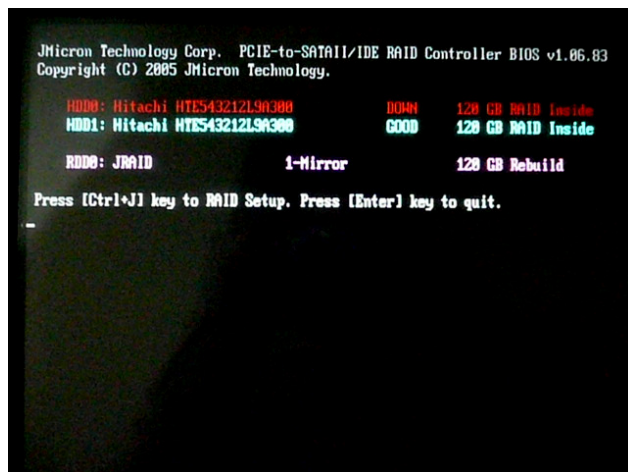


On the BIOS screen as shown below, confirm the defective HDD. “DOWN” indicates the HDD is defective.

HDD0 : ch0 (left side)

HDD1 : ch1 (right side)

Note: For details of the HDD connection, please refer to the Product Specification.

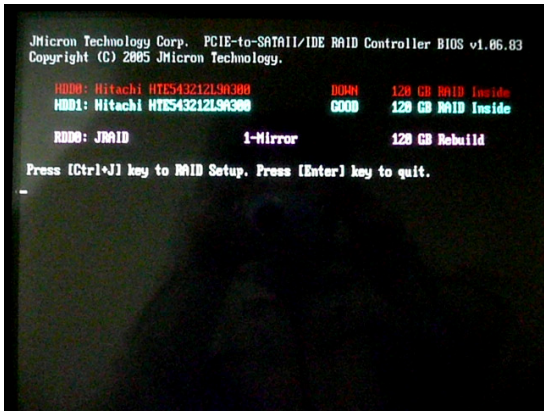
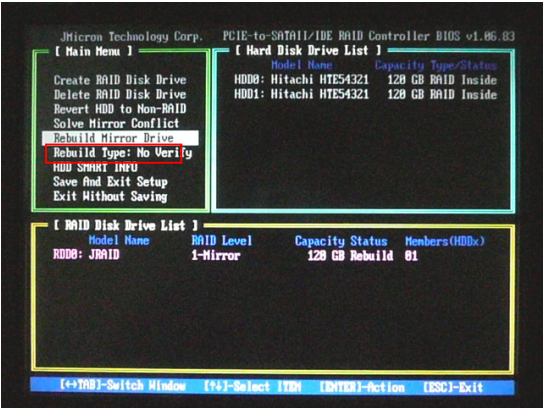


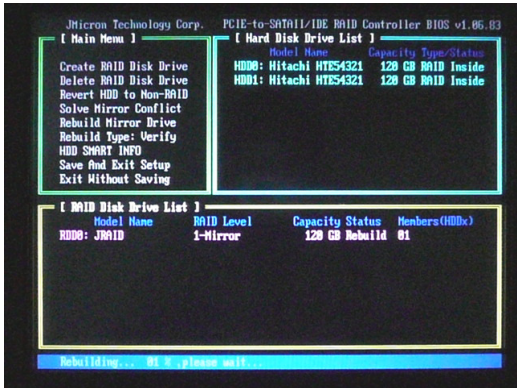
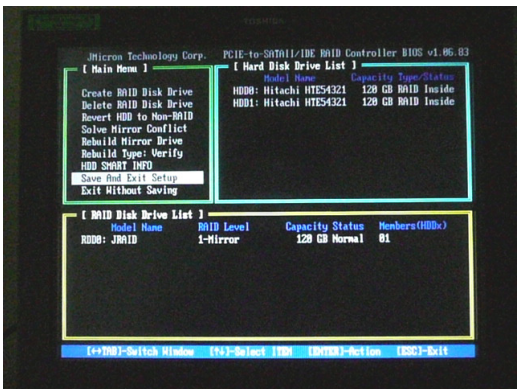
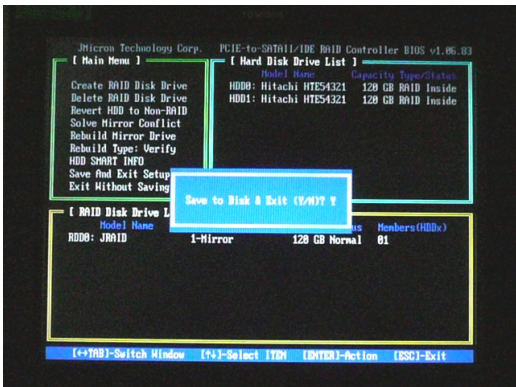
In the above example, “DOWN” is indicated for HDD0 that is connected to ch0. Therefore, turn off the computer and replace the HDD that is connected to ch0 with a new HDD.

6.4.4. Rebuild of RAID

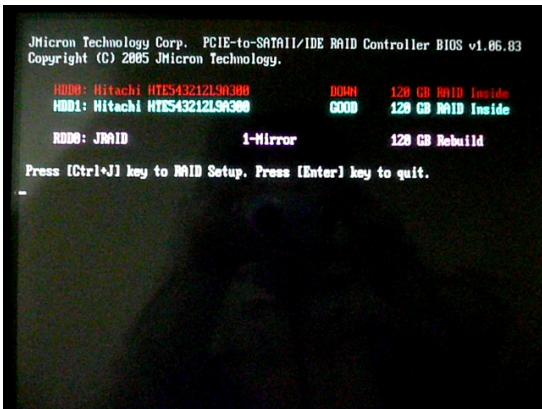
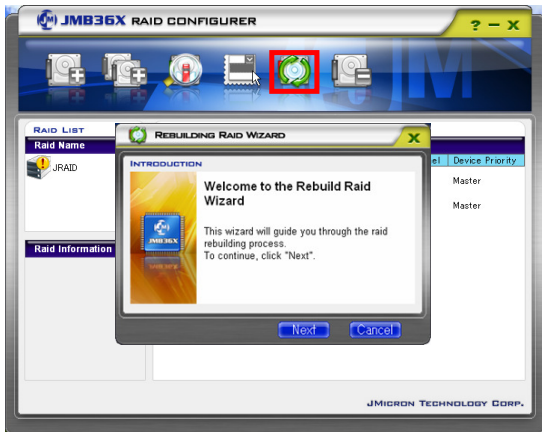
After replacing the HDD, rebuild the RAID.

[Rebuild from RAID BIOS]

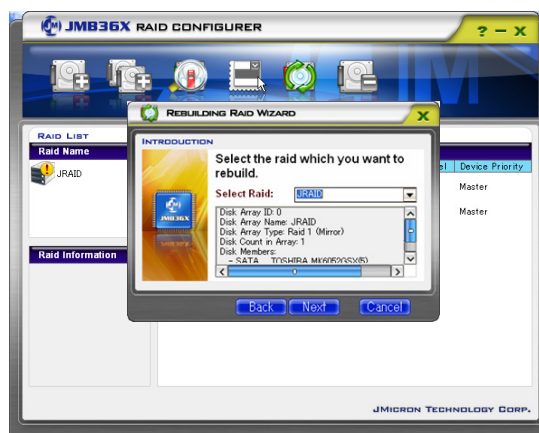
Description	RAID BIOS Menu Screen
After a short time since the power is turned on, the display stops at the RAID BIOS screen. On this screen, press the [Ctrl]+[J] keys to start the RAID BIOS menu. Note the display always stops at this screen whenever the POS system is started up until the RAID is rebuilt.	
On the "[Main Menu]", select "Rebuild Type: Verify". Press the [Enter] key and select whether or not "Verify" is to be executed when the RAID is rebuilt. "Rebuild Type: Verify" : "Verify" "Rebuild Type: No Verify" : "No Verify" Select "Rebuild Mirror Drive" from "[Main Menu]", and press the [Enter] key.	
Select "Rebuild Mirror Drive" from "[RAID Disk Drive List]" and press the [Enter] key. Then rebuilding starts.	

While rebuilding, It is displayed with “Rebuilding... xx% ,please wait...” under the screen. (When xx becomes 100%, it means rebuilding has completed.)	 The screenshot shows the JMicron Technology Corp. PCI-E-to-SATA/IDE RAID Controller BIOS v1.06.03. The [Main Menu] is on the left, and the [Hard Disk Drive List] is on the right. The RAID status is 'Rebuild'. <table><tr><th>Model Name</th><th>RAID Level</th><th>Capacity</th><th>Status</th><th>Members(HDDs)</th></tr><tr><td>HDD0: Hitachi HTS54321</td><td>1-Mirror</td><td>120 GB</td><td>Rebuild</td><td>01</td></tr></table> Rebuilding... 01 %, please wait...	Model Name	RAID Level	Capacity	Status	Members(HDDs)	HDD0: Hitachi HTS54321	1-Mirror	120 GB	Rebuild	01
Model Name	RAID Level	Capacity	Status	Members(HDDs)							
HDD0: Hitachi HTS54321	1-Mirror	120 GB	Rebuild	01							
When rebuilding is completed, RAID status turns into “Normal” from “Rebuild”.	 The screenshot shows the JMicron Technology Corp. PCI-E-to-SATA/IDE RAID Controller BIOS v1.06.03. The RAID status is 'Normal'. <table><tr><th>Model Name</th><th>RAID Level</th><th>Capacity</th><th>Status</th><th>Members(HDDs)</th></tr><tr><td>HDD0: Hitachi HTS54321</td><td>1-Mirror</td><td>120 GB</td><td>Normal</td><td>01</td></tr></table>	Model Name	RAID Level	Capacity	Status	Members(HDDs)	HDD0: Hitachi HTS54321	1-Mirror	120 GB	Normal	01
Model Name	RAID Level	Capacity	Status	Members(HDDs)							
HDD0: Hitachi HTS54321	1-Mirror	120 GB	Normal	01							
Select “Save And Exit Setup” from “[Main Menu]”, and press the [Enter] key.	 The screenshot shows the JMicron Technology Corp. PCI-E-to-SATA/IDE RAID Controller BIOS v1.06.03. The RAID status is 'Normal'. <table><tr><th>Model Name</th><th>RAID Level</th><th>Capacity</th><th>Status</th><th>Members(HDDs)</th></tr><tr><td>HDD0: Hitachi HTS54321</td><td>1-Mirror</td><td>120 GB</td><td>Normal</td><td>01</td></tr></table>	Model Name	RAID Level	Capacity	Status	Members(HDDs)	HDD0: Hitachi HTS54321	1-Mirror	120 GB	Normal	01
Model Name	RAID Level	Capacity	Status	Members(HDDs)							
HDD0: Hitachi HTS54321	1-Mirror	120 GB	Normal	01							
A confirmation screen (“Save to Disk & Exit”) is displayed, and press the [Y] key.	 The screenshot shows the JMicron Technology Corp. PCI-E-to-SATA/IDE RAID Controller BIOS v1.06.03. The RAID status is 'Normal'. A confirmation dialog 'Save to Disk & Exit (Y/N)?' is displayed. <table><tr><th>Model Name</th><th>RAID Level</th><th>Capacity</th><th>Status</th><th>Members(HDDs)</th></tr><tr><td>HDD0: Hitachi HTS54321</td><td>1-Mirror</td><td>120 GB</td><td>Normal</td><td>01</td></tr></table>	Model Name	RAID Level	Capacity	Status	Members(HDDs)	HDD0: Hitachi HTS54321	1-Mirror	120 GB	Normal	01
Model Name	RAID Level	Capacity	Status	Members(HDDs)							
HDD0: Hitachi HTS54321	1-Mirror	120 GB	Normal	01							

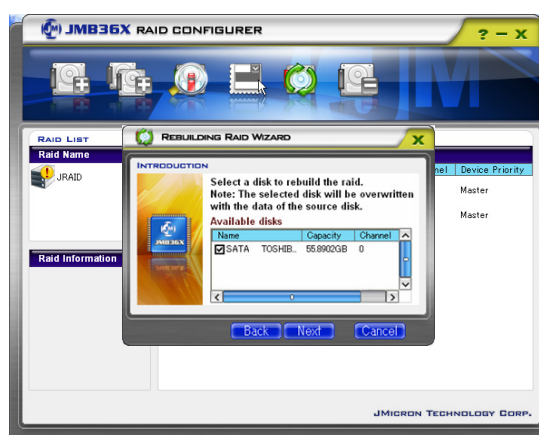
[Rebuild from Operating System]

Description After a short time since the power is turned on, the display stops at the RAID BIOS screen. On this screen, press the [Enter] key to start the operating system. Note the display always stops at this screen whenever the POS system is started up until the RAID is rebuilt.	JMB36X RAID CONFIGURER Screen 
Clicking on the RAID Utility icon in the task bar displays information of the HDD being connected in the RAID LIST on the RAID application screen. [the RAID Utility icon] 	
When the RAID unconfigured HDD is connected, the Rebuild Raid Wizard icon on the RAID Application screen indicated with the red box in the figure becomes effective. Click on this icon to show the Rebuild Raid Wizard dialog screen. Click on the “Next” button on the screen, and the screen to select a RAID, which you want to rebuild, appears.	

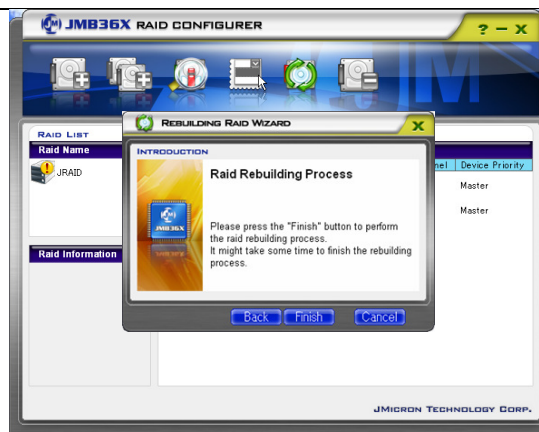
On the screen select a RAID which you want to rebuild, then click on the "Next" button.
The screen to select a disk to rebuild the RAID appears.

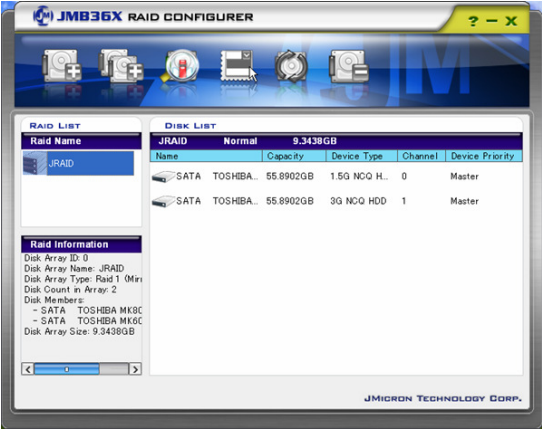


On the disk selection screen, select a disk to rebuild the RAID selected.
Note that only the RAID unconfigured HDDs are available.
After selecting the disk, click on the "Next" button, and the Raid Rebuilding Process screen appears.



On the Raid Rebuilding Process screen, click on the "Finish" button, and the RAID rebuilding process starts.



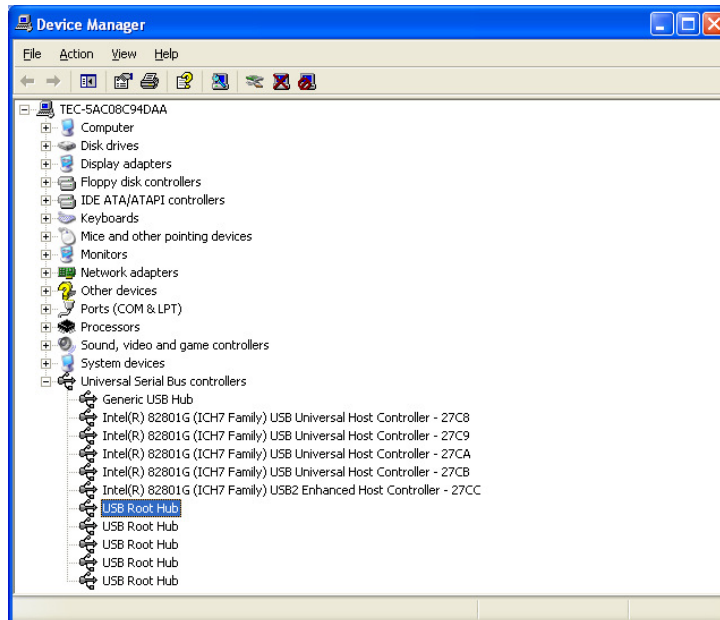
This process rebuilds the same RAID configuration as that of the HDD in operation. The progress of the rebuild process is shown in percentage at the bottom of the RAID Application screen.	 The screenshot shows the JMB36X RAID CONFIGURER interface. On the left, the RAID LIST shows a RAID array with a warning icon. On the right, the DISK LIST shows two disks: SATA TOSHIBA 55.8902GB 1.5G NCQ H... 0 Master and SATA TOSHIBA 55.8902GB 3G NCQ HDD 1 Master. At the bottom, a progress bar indicates the rebuild process is in progress.
When the progress percentage reaches 100%, the rebuilding process is completed and the process completion dialog appears. Click on the “OK” button.	 The screenshot shows the JMB36X RAID CONFIGURER interface. A completion dialog box is displayed in the center, stating "Success! Raid Rebuilding Process is Complete!!". The progress bar at the bottom now shows 100% completion.
When the RAID configuration works properly, the exclamation mark “!” in the RAID LIST disappears.	 The screenshot shows the JMB36X RAID CONFIGURER interface. The RAID LIST now shows the RAID array with a normal status. The DISK LIST remains the same. The progress bar at the bottom is no longer visible.

7. Notice and Limitation

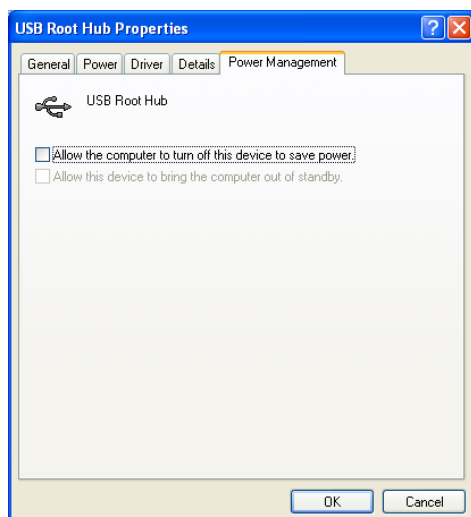
7.1. Notice

7.1.1. About Power management of USB-HUB

Open the property of the "USB Root Hub" under the "Universal Serial Bus controllers" of Device Manager.



Click on the "Power Management" tab. Uncheck the "Allow the computer to turn off this device to save power" check box, and click on the "OK" button.

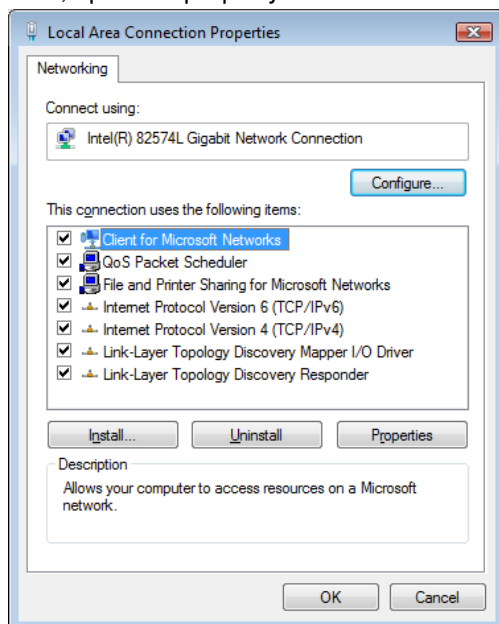


About all the "USB Root Hub", you have to operate the above.

7.1.2. Setting of Wake On LAN

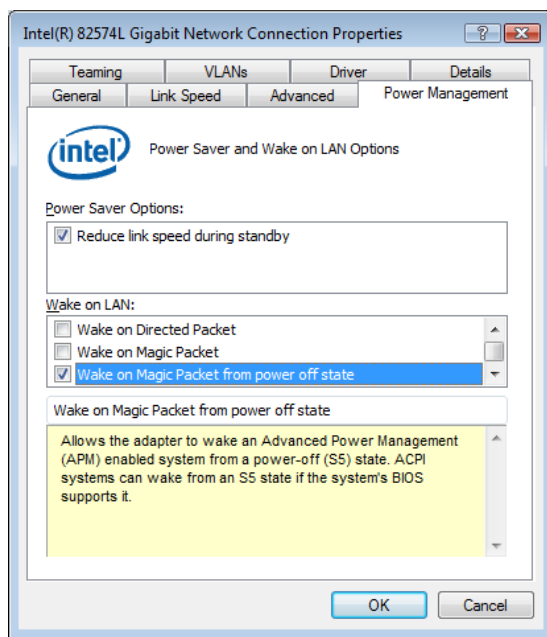
The LAN controller of ST-B20 possesses a function of the Wake On LAN. However, it is disabled in the default setting. When you need this function, you have to enable the Wake On LAN function by the following settings.

First, open the property of Local Area Connection, and click on the “Configure...” button.



Select the “Power Management” tab and check the “Wake on Magic Packet from power off state” check box of “Wake on LAN”, and click on the “OK” button.

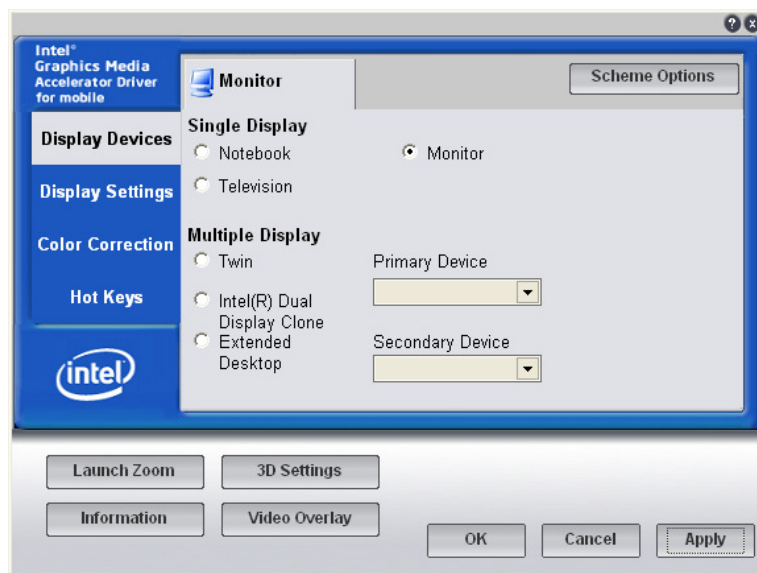
Note: Only “Wake on Magic Packet from power off state” is possible.



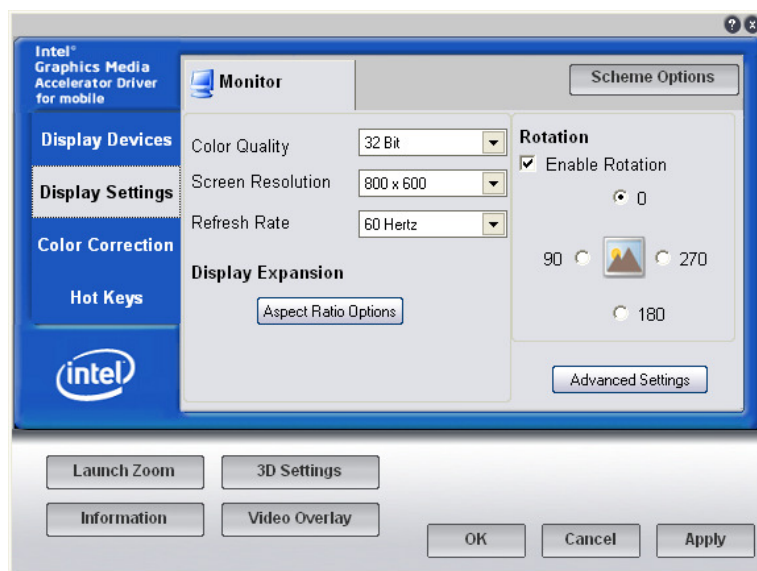
7.1.3. Resolution setting when single display connected via VGA is used

If single display connected via VGA is used, it is necessary to change setting as follows by Intel Graphic control panel to change screen resolution of the display.

Open the Intel Graphic Control Panel from Task tray or Control Panel. Then, select “Display Devices” tab and check “Monitor” radio button. Then, click on the “Apply” button.

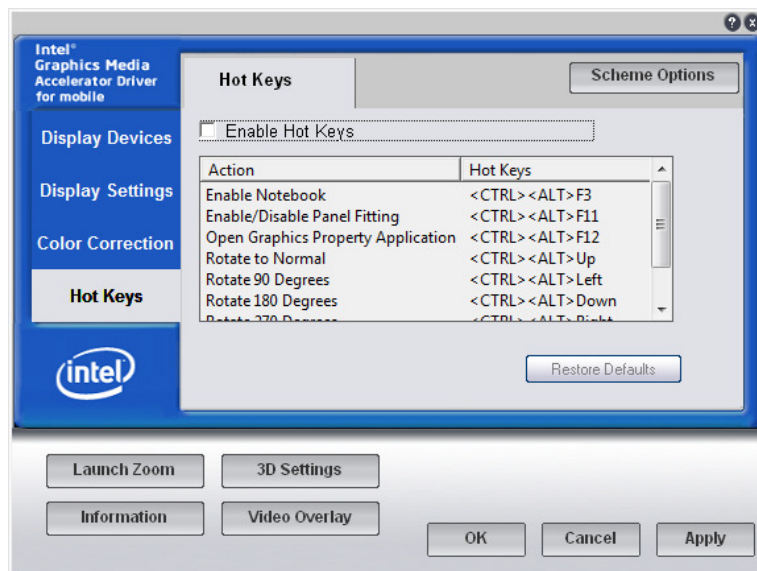


Select “Display Settings” tab and change the “Screen Resolution” setting.



7.1.4. About Hot Key of Intel Graphic Driver

The graphic driver of ST-B20 possesses Hot Key (shortcut key) to offer the option settings. However, we strongly recommend that you do not use it. When you take the wrong handling of this hot key, inconveniences in the display and false setting with the touch panel occur.



So that Hot Key does not work carelessly, you should disable it by above settings.

For example, if you work Hot Key of “Static Device Detection” carelessly, driver recognize the television device which is the inside device of the chip set.

Such an unnecessary indication disappears by rebooting.

However, changing the setting of unnecessary device causes the unexpected malfunction.

7.1.5. Dual Display connection combinations list

ST-B20 supports the display below.

TFTST56 (LVDS Direct - Fujitsu Touch Panel / via PCI - SMK Touch Panel)

LKBST65 (LVDS Direct - Fujitsu Touch Panel / via PCI - SMK Touch Panel)

TFTST76 (VGA – Fujitsu Touch Panel)

TFTST-A20 (VGA - ELO(Tyco) Touch Panel)

TFTST-B20 (LVDS Direct - ELO(Tyco) Touch Panel / VGA - ELO(Tyco) Touch Panel)

As notice, there is the limitation to use dual display function, please refer to the following list and please use it carefully.

[Limitation of dual display function]

	TFTST56 (LKBST65) (LVDS)	TFTST56 (LKBST65) (PCI)	TFTST76 (VGA)	TFTST-A20 TFTST-B20 (VGA)	TFTST-B20 (LVDS)
TFTST56 (LKBST65) (LVDS)		can not use	can use	can use	
TFTST56 (LKBST65) (PCI)	can not use		can not use	can not use	can not use
TFTST76 (VGA)	can use	can not use			can use
TFTST-A20 TFTST-B20 (VGA)	can use	can not use			can use
TFTST-B20 (LVDS)		can not use	can use	can use	

can not use : you can not use dual display by limitation between Intel graphic driver and PCI card.

can use : you can use dual display by using Intel graphic driver.

[Limitation of dual touch panel function]

	TFTST56 (LKBST65) (LVDS)	TFTST56 (LKBST65) (PCI)	TFTST76 (VGA)	TFTST-A20 TFTST-B20 (VGA)	TFTST-B20 (LVDS)
TFTST56 (LKBST65) (LVDS)		can not use	can use with limitation	can use with limitation	
TFTST56 (LKBST65) (PCI)	can not use		can not use	can not use	can not use
TFTST76 (VGA)	can use with limitation	can not use			can use with limitation
TFTST-A20 TFTST-B20 (VGA)	can use with limitation	can not use			can use
TFTST-B20 (LVDS)		can not use	can use with limitation	can use	

can not use : you can not use dual touch panel by limitation of display type.

can use : you can use dual touch panel.

can use with limitation : you can use dual touch panel with limitation.

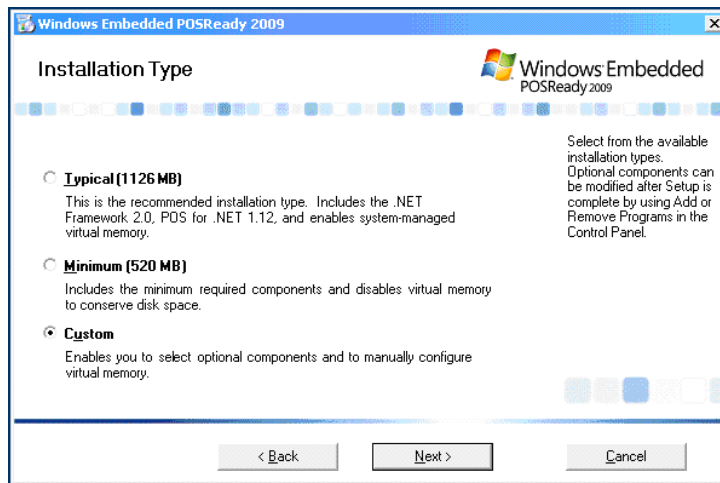
7.1.6. "Optional Components" setting in POSReady 2009 installation

It is necessary to select "Custom" installation on "Installation Type" and install "Additional Drivers" of "Optional Components" additionally in POSReady 2009 installation.

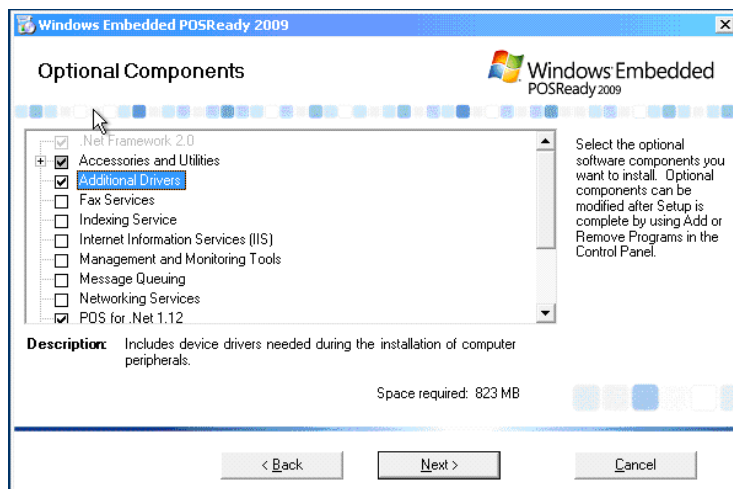
If "Typical" or "Minimum" is selected on "Installation Type", or "Additional Drivers" is not checked on "Optional Components", the screen that requests "*.sys" file or "*.dll" file is displayed during driver installation. (Chipset, Audio, OPOS driver, etc)

Refer to below instruction to install "Additional Drivers" of "Optional Components".

Select "Custom" on "Installation Type" and click on the "Next" button.



Check "Additional Drivers" on "Optional Components".



Check other options if necessary, and click on the "Next" button.

Follow the instructions of the Windows installer to complete the installation.

7.2. Limitation

7.2.1. Limitation about Windows XP SP2 installation on the ST-B20 Series

If you need to install the Windows XP SP2 (Service Pack2) on the ST-B20 series, Please use the USB PC keyboard. Please do not connect the PS2 interfaced keyboard during the installation procedure. (not only PC keyboard but also the PKBST-50 series). If you connect the PS2 keyboard, the Windows XP SP2 can not install correctly. (Error happens). After you finish the OS installation, you can connect the PS2 type keyboards. This is the limitation of the ST-B20 series.

7.2.2. Limitation about Wake on Touch

Wake on Touch function can not be used on ST-B20

7.2.3 Limitation about Wake-On-LAN (WOL)

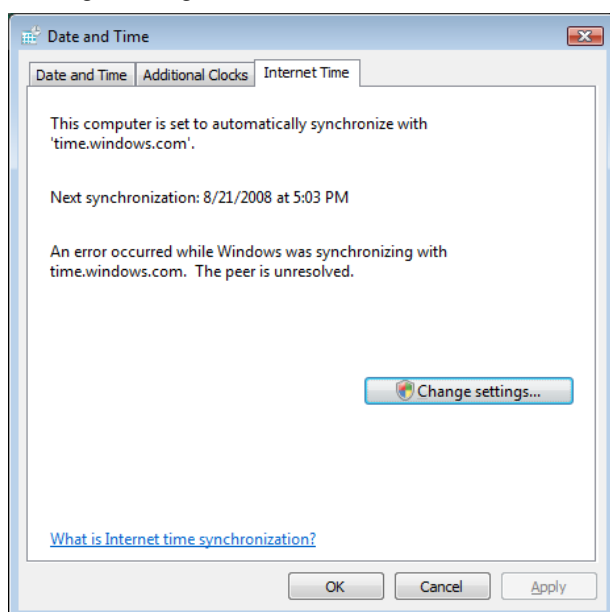
WOL is not supported in Windows7 and PosReady7

7.2.4 Limitation of Windows Time Service

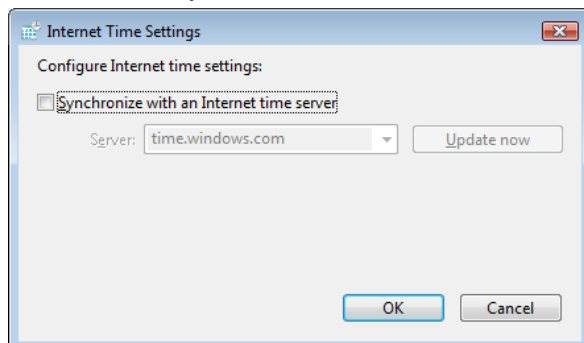
In usual Windows system, Windows Time Service adjusts system time automatically via network with NTP protocol. Usually, this service functions effectively in the environment that can access the Internet. However, it does not function definitely in the network environment of the local area. The self-adjustment function of the clock does not work unless above service functions definitely. And it generates a gap in the standard time. So, we recommend that you stop this service when using ST-B20 in the environment that does not connect with the Internet.

This service can be stopped by sequences below.

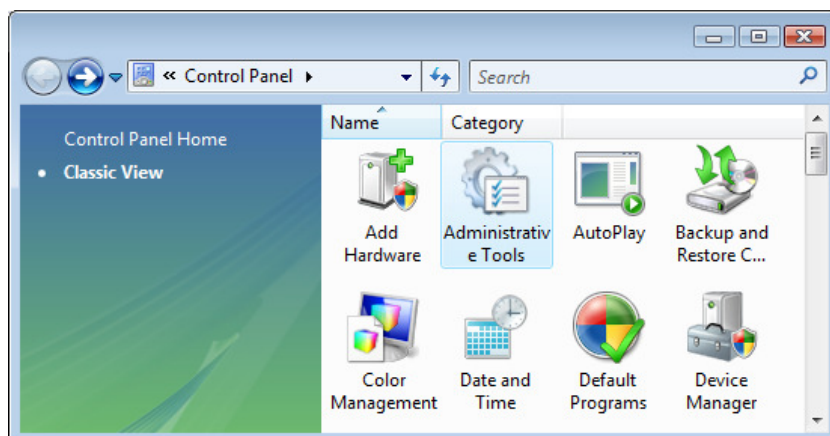
Open “Date and Time” from “Control Panel”. Then, select the “Internet Time” tab and click on the “Change settings...” button.



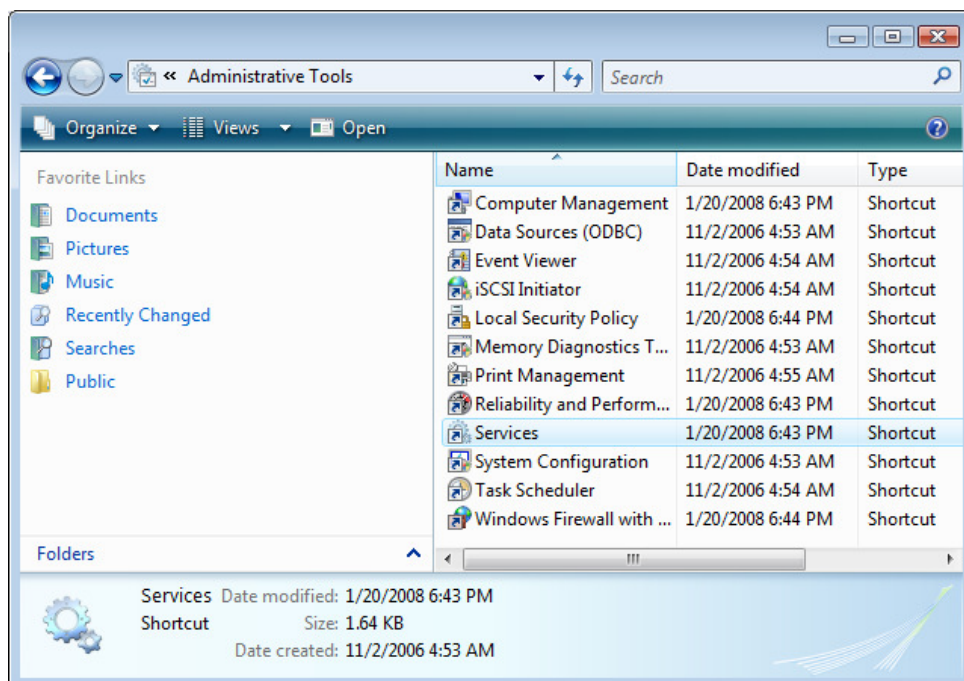
Uncheck the “Synchronize with an Internet time server” check box.



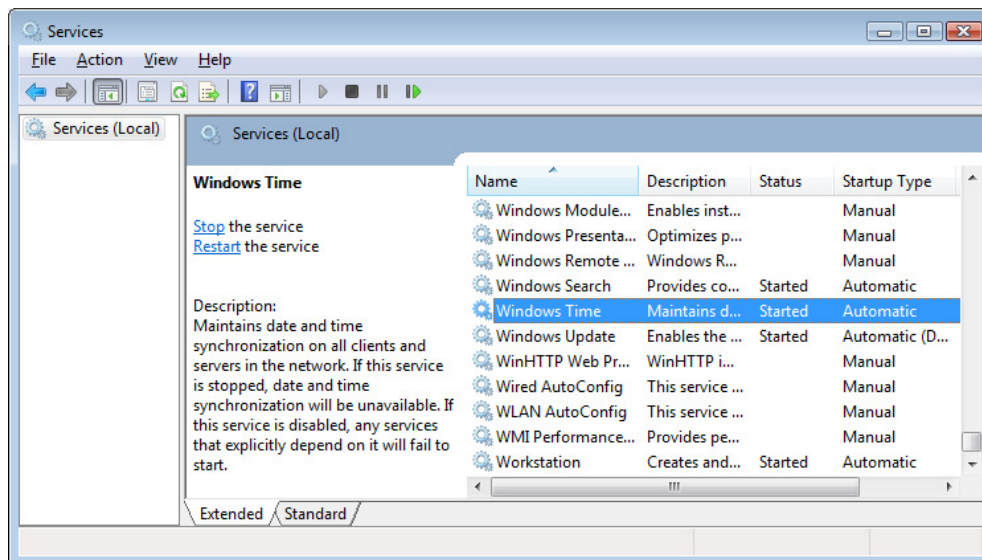
Next, open “Administrative Tools” from “Control Panel”.



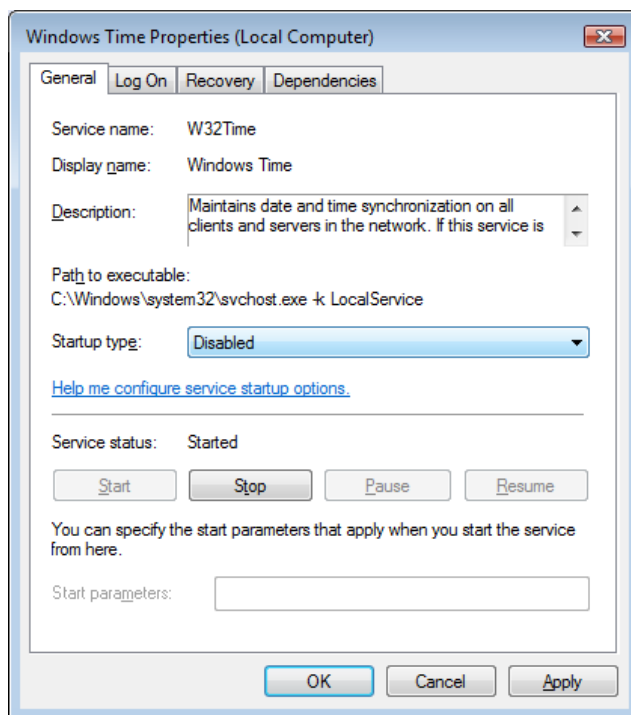
Then, open the “Services” from displayed tools.



Open the property of the "Windows Time" from displayed services.



Select the "General" tab and change the "Startup type" value to "Disabled".



If you need detail information about it, refer to the technical support site of Microsoft. There is detail information about it.