TOSHIBA

TOSHIBA POS Terminal

ST-A20

Windows Setup Guide Windows 2000 / XP / Vista / 7 /

WEPOS / POSReady 2009 / POSReady 7

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TOSHIBA TEC CORPORATION

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1. Overview

This document describes the procedures and notes for installing the ST-A20 drivers and building a RAID.

The outline of procedures to install Windows operating system on the ST-A20 is as follows:

Windows Setup Procedure

- 1) Installation for Operating System
- 2) Installation for Intel Chipset Software
- 3) Installation for Intel Graphic Accelerator Driver
- 4) Installation for Intel Network Driver
- 5) Installation for Realtek Audio Driver
- 6) Installation for EloTouch Panel Driver
- 7) Installation for i-Button Driver

2. Setup 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-A20.

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-A20 applies an SATA technology for connection to a hard disk drive (HDD). Windows 2000 SP2 or earlier doesn't support SATA.

Notes: 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.

To use the RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

Notes: To use the two HDDs without using RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

2.2. Installation for Intel Chipset Software

Run "Setup.exe" in the "ST-A20\Intel\Chipset\2000" folder in the Driver Kit CD-ROM. 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.

Intel® Chipset Device Software
Intel® Chipset Device Software (intel)
Readme File Information
Refer to the Readme file below to view the system requirements and installation information. Press the Page Down key to view the rest of the file.

* Product: Intel(R) Chipset Device Software
* Version: 8.3.1.1009
* Target Chipset#: X38 & 3200/3210 Chipset
* Date: July 26 2007

•
< <u>B</u> ack <u>Next</u> > <u>C</u> ancel
Intel® Installation Framework

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

2.3.1. Installation

Run "win2k_xp14324.exe" in the

"ST-A20\Intel\Graphic_driver\2000_XP_WEPOS_POSReady" folder in the Driver Kit CD-ROM. 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.

Intel® Graphics Media Accelerator Driver
Intel® Graphics Media Accelerator Driver
Setup Progress
Please wait while the following setup operations are performed:
Copying File: HDMIENU.dll Creating Key: HKLM\System\CurrentControlSet\Control\Windows\SystemDirectory=C:\WINNT Creating Key: HKLM\System\CurrentControlSet\Services\ialm\Device0\SystemDirectory=C:\W. Creating Key: HKLM\System\CurrentControlSet\Services\ialm\Device1\SystemDirectory=C:\W. Creating Key: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\HDMI\DisplayNa Creating Key: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\HDMI\DisplayNa Creating Key: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\HDMI\DisplayNa Creating Key: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\HDMI\UninstallSI Installing Driver: Mobile Intel(R) 945 Express Chipset Family Version: 6.14.10.4926
Click Next to continue.
Intel® Installation Framework

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..



2.3.2. Additional Setting When Connecting TFTST-A20

When using TFTST-A20, it is necessary to change setting as follows by Intel Graphic control panel.

Below is Intel Graphic Control Panel (From Task tray or Control Panel)

Intel [®] Graphics Media Accelerator Driver for mobile	🔙 Notebook an	ud Monitor	Schem	e Options
Display Devices	Single Display	Monitor		
Display Settings	C Television			
Color Correction	Multiple Display	Primary Device		
Hot Keys	Intel(R) Dual Display Clone	Notebook 💌		
(intel)	Extended Desktop	Secondary Device Monitor		2
Launch Zoom	3D Settings			
		ок	Cancel	Apply

Select [Display Devices] Tab and check "Extended Desktop" radio button. Click [Apply] button, then, TFTST-A20 available.

			00
Intel [®] Graphics Media Accelerator Driver for mobile	🤳 Notebook	J Monitor	Scheme Options
Display Devices	Color Quality	32 Bit	Rotation
Display Settings	Screen Resolution	800 x 600 💌	• 0
Color Correction	Refresh Rate	60 Hertz	90 C 🔽 C 270
Hot Keys	Aspect Ratio (Options	C 180
(intel)			Power Settings
Launch Zoom	3D Settings		
Information	Video Overlay	ок	Cancel Apply

			00
Intel [®] Graphics Media Accelerator Driver for mobile	Intebook	J Monitor	Scheme Options
Display Devices	Color Quality	32 Bit 💌	Rotation
Display Settings	Screen Resolution	800 × 600 💌	© 0
Color Correction	Refresh Rate	60 Hertz	90 C 🞑 C 270
Hot Keys	Aspect Ratio	Options	C 180
(intel)			Advanced Settings
Launch Zoom	3D Settings		
Information	Video Overlay	ОК	Cancel Apply

About the other performance (Screen resolution, Color Quality, etc):

Please set TFTST-A20 for your environment by two Control Panel above at any time.

2.4. Installation for Intel Network Driver

Open the "Administrative Tools" in Control Panels. And then, open the "Services".

🗃 Administrative Tools			
<u> </u>	ls <u>H</u> elp		<u>111</u>
] 🗢 Back 🔹 🔿 👻 🛅 🥘 Search	🖫 Folders 🛛 🛞 History	/ ʰʰ ʰʰ × ဢ]	# *
Address 🗃 Administrative Tools			▼ 🔗 Go
	Name 🛆	Size Type	
	🛅 Component Services	1 KB Shorte	ut 🛛
	📕 Computer Manag	2 KB Shorte	:ut
Administrative	🗊 Data Sources (OD	2 KB Shorte	:ut
Tools	🛃 Event Viewer	2 KB Shorte	:ut
	Docal Security Policy	2 KB Shorte	:ut
Select an item to view its	Performance	2 KB Shorte	:ut
description.	Services	2 KB Shorte	:ut
Configures administrative settings	📶 Telnet Server Ad	2 KB Shorte	:ut
for your computer			
See also:			
My Documents			
My Network Places			
My Computer			
	•		Þ
Starts and stop services.	1.	31 KB 📃 My Com	outer //.

Next, open the "Windows Management Instrumentation" Service Properties menu.

🍇 Services 💶 🔟 🗙				
] <u>A</u> ction ⊻iew] ← →) 🖿 🖬 🗗 🗗 🖧 😫 🛛 🕨 💷			
Tree	Name 🛆	Description	Status	Startup Type 🔺
Services (Local)	Removable Storage	Manages r	Started	Automatic
SV3,	Routing and Remote Access	Offers rout		Disabled
	RunAs Service	Enables st	Started	Automatic
	Security Accounts Manager	Stores sec	Started	Automatic
	Server Server	Provides R	Started	Automatic
	Smart Card	Manages a		Manual
	Smart Card Helper	Provides s		Manual
	System Event Notification	Tracks syst	Started	Automatic
	🖏 Task Scheduler	Enables a	Started	Automatic
	TCP/IP NetBIOS Helper Service	Enables su	Started	Automatic
	Telephony	Provides T	Started	Manual
	🖏 Telnet	Allows a re		Manual
	W Uninterruptible Power Supply	Manages a		Manual
	🦓 Utility Manager	Starts and		Manual
	🦓 Windows Installer	Installs, re		Manual
	Windows Management Instrumentation	Provides s		Manual
	Windows Management Instrumentation Driv	Provides s	Started	Manual
	Windows Time	Sets the co		Manual
	Wireless Configuration	Provides a		Manual 🦳
	Workstation	Provides n	Started	Automatic 🔄 🚬

Change the "Startup types" to "Automatic", and click on the "Start" button to start this service. And then, click on the "OK" button.

Windows Manager	nent Instrumentation Properties (Local Com <mark>?</mark> 🗙
General Log On	Recovery Dependencies
Service name:	WinMgmt
Display <u>n</u> ame:	Windows Management Instrumentation
Description:	Provides system management information.
Pat <u>h</u> to executabl C:\WINNT\Syste	e: m32\WBEM\WinMgmt.exe
Startup typ <u>e</u> :	Automatic
Service status:	Started
<u>S</u> tart	Stop Pause Resume
You can specify t from here.	he start parameters that apply when you start the service
Start parameters:	
	OK Cancel Apply

Run "PRO2KXP.exe" in the "ST-A20\Intel\Lan_driver\2000_XP_WEPOS_POSReady" folder in the Driver Kit CD-ROM. After a while, the following window appears. Click on the "Next" button.

🔂 Intel(R) Network Connections - InstallShield Wizard	×
Welcome to the InstallShield Wizard for Intel(R) Network Connections	(intel)
Installs drivers, Intel(R) PROSet for Windows* Device Manager, and Advanced Networking Services.	
WARNING: This program is protected by copyright law and international treaties.	
InstallShield	Cancel

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.

Intel(R) Network Connections - Ins	stallShield Wizard	×
License Agreement Please read the following license agree	ment carefully.	(intel)
INTEL SOFTWARE LICE <u>IMPORTANT - READ BEFOF</u> Do not use or load this software and "Software") until you have carefully loading or using the Software, you a do not wish to so agree, do not insta	NSE AGREEMENT (Fin RE COPYING, INSTALL I any associated mat read the following te agree to the terms of all or use the Softwar	al, License) ING OR USING. erials (collectively, the rms and conditions. By this Agreement. If you e.
LICENSES: Please Note:		-
• I accept the terms in the license agree • I do not accept the terms in the license	ment agreement	Print
nstallShield		

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

Intel(R) Network Connections			×
Setup Options Select the program features you want in	stalled.		(intel)
Install:			
Drivers Intel(R) PROSet for Windows* Devi Advanced Network Services Intel(R) Network Connections SNMP	ce Manager Agent		
- Feature Description			
	< <u>B</u> ack	Next >	⊆ancel

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.

뤻 Intel(R) Network Connections - InstallShield Wizard	×
InstallShield Wizard Completed	(intel)
To access new features, open Device Manager, and view the properties of the network adapters.	
InstallShield	Cancel

Open Device Manager to confirm the network driver has been installed. Make sure that "Intel (R)PRO/100 VE Network Connection" is registered under the "Network adapters" icon.



2.5. Installation for Realtek Audio Driver

Run "setup.exe" in the "ST-A20\Intel\Audio\2000_XP_WEPOS_POSReady" folder in the Driver kit CD-ROM. After a while, the following window appears. Click on the "Next" button.



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

Digital Signature Not Fou	nd	×
	The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested. The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows. Realtek AC'97 Audio If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available. Do you want to continue the installation?	t
	Yes <u>N</u> o <u>M</u> ore Info	

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. Installation for Elo Touch Panel Driver

2.6.1. Installation for Standard Model

Run "SW600188.exe" in the "ST-A20\Tablet\2000" folder in the Driver Kit CD-ROM, and the following window appears. Click on the "OK" button.



The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - SW600188.exe	×
To unzip all files in SW600188.exe to the specified folder press the Unzip button.	<u>U</u> nzip
Unzip to folder:	Run <u>W</u> inZip
stems\Elo Universal Driver 463b Browse	<u>C</u> lose
☑ verwrite files without prompting	<u>A</u> bout
When done unzipping open: .\Elosetup.exe	<u>H</u> elp

The following window appears. Click on the "OK" button.

WinZip Self-Extractor
168 file(s) unzipped successfully
OK

The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, then click on the "Next" button.

Elo TouchSystems Setup (¥e	rsion 4.6.3.0)	×
TOUCHSYSTEMS	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Install Serial Touchscreen Drivers Install USB Touchscreen Drivers	
	< Back Next > Cancel	

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

Elo TouchSystems Setup (Version 4.6.3.0)	×
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.	
End-User License Agreement	
IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a	
Do you accept the terms of the preceding license agreement? If you choose No, you will not have full touchmonitor functionality and setup will close. To have full functionallity you must accept the license agreement.	
< Back Yes No	

The following window appears. Check the "Auto-detect Elo devices" check box, then click on the "Next" button.

Elo Touchscreen Setup		×
TOUCHSYSTEMS	Select the COM ports to use with Elo serial touchscreens. Check the Auto-detection box if you want Setup to auto-detect COM ports currently connected to Elo devices. During Auto-detection, Setup will send data to each port which may temporarily interfere with some types of serial devices. Click Next to continue.	
	< Back Next > Cancel	

The following window appears. The touch panel connected to the ST-A20 is detected, and "COM6" is chosen. If "COM6" is not chosen, there may be a problem. Click on the "Next" button.

Elo TouchSystems Setup (Versio	on 4.6.3.0)	X
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.	
TOUCHSYSTEMS	□ COM1 □ COM2 □ COM3 □ COM4 □ COM5 ☑ COM5	
	Once you have selected a COM port, click Next to continue the installation.	
	< Back Next > Cancel	

The following window appears. Confirm that "COM6" is chosen, then click on the "Next" button.

Elo TouchSystems Setup (Versi	on 4.6.3.0)	X
	You have selected the COM ports listed below to use with your touchmonitor.	
TOUCHSYSTEMS	CUM6	
	Click Next to complete the installation or click Back to change your selections.	
	< Back Cancel	

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup		×
BO TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.	
Stans Tantastata	Calibrate Elo Touchscreen monitors.	
	< Back [Finish]	

The following calibration screen appears. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.) (Transparent background on v5.41 & above)

۲	
	Touch targets from position of normal use

After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.



2.6.2. Installation When Connecting TFTST-A20

Run "SW600188.exe" in the "ST-A20\Tablet\2000" folder in the Driver Kit CD-ROM, and the following window appears. Click on the "OK" button.

WinZip Self-Extractor
Welcome to Elo Universal Driver for Windows 2K/XP/Vista Installer.
Driver Version 4.6.3b (08-24-2007)
Click OK to continue.
ОК

The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - SW6001	88.exe	×
To unzip all files in SW600188.exe folder press the Unzip button.	to the specified	<u>U</u> nzip
Unzip to <u>f</u> older:		Run <u>W</u> inZip
stems\Elo Universal Driver 463b	<u>B</u> rowse	<u>C</u> lose
verwrite files without prompting		<u>A</u> bout
When done unzipping open: .\Elosetup.exe		<u>H</u> elp

The following window appears. Click on the "OK" button.



The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, then click on the "Next" button.

Elo TouchSystems Setup (Version 4.6.3.0)		
TOUCHSYSTEMS	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Install Serial Touchscreen Drivers Install USB Touchscreen Drivers	
	< Back Next > Cancel	

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

Elo TouchSystems Setup (Version 4.6.3.0)	×	
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.		
End-User License Agreement		
IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a Do you accept the terms of the preceding license agreement? If you choose No, you will		
Kernel and the second sec		

The following window appears. Check the "Auto-detect Elo devices" check box, then click on the "Next" button.

Elo Touchscreen Setup		×
TOUCHSYSTEMS	Select the COM ports to use with Elo serial touchscreens. Check the Auto-detection box if you want Setup to auto-detect COM ports currently connected to Elo devices. During Auto-detection, Setup will send data to each port which may temporarily interfere with some types of serial devices. Click Next to continue.	
	< Back Next > Cancel	

The following window appears. The touch panel connected to the ST-A20 and the TFTST-A20 are detected, and "COM6" and "COM1 or 2" are chosen. If "COM6" and "COM1 or 2" is not chosen, there may be a problem. Click on the "Next" button.

Elo TouchSystems Setup (Version 4.6.3.0)		
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.	
	☐ СОМ1 ✓ СОМ2 ☐ СОМ3 ☐ СОМ4 ☐ СОМ5 ✓ СОМ5	
	Once you have selected a COM port, click Next to continue the installation.	
	< Back Next > Cancel	

The following window appears. Confirm that "COM6" and "COM1 or 2" are chosen, then click on the "Next" button.



After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup		×
BO TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.	
ettai antonyintai	Click Finish to exit Setup.	
	< Back. Finish	

The following calibration screen appears on ST-A20 main screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.) (Transparent background on version 5.41 & above).



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



The following calibration screen appears on TFTST-A20 screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)

۲	
	Touch targets from position of normal use

After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.



2.7. Installation for i-Button Driver

When the iButton is connected to the ST-A20, "Unknown Device" is shown with an exclamationmark (!) under the "Other devices" icon in the Device Manager window.



We can not redistribute this installation driver.

Therefore, if you need the driver, you have to download the driver from following site. http://www.maxim-ic.com/products/ibutton/software/tmex/

Note: This URL was written on 2008/7/30.

Run the "install_1_wire_drivers_v400.msi" which you downloaded. The following window appears. Click on the "Next" button.



After a while, the "License Agreement" window appears. Confirm the contents. If you agree, check the "I Agree" radio button and click on the "Next" button.

👘 1-Wire Drivers		
License Agreemer	ıt	
Please take a moment to read Agree", then "Next". Otherwise	the license agreement now. If y a click "Cancel".	ou accept the terms below, click "I
Copyright (C) 200 Corporation, All Permission is her person obtaining documentation fi Software without limitation the r publish, distribu- the Software, and	D5 Dallas Semicondu Rights Reserved. reby granted, free a copy of this soj les (the "Software" restriction, inclu ights to use, copy, ute, sublicense, au d to nermit nersons	of charge, to any tware and associated '), to deal in the uding without . modify, merge, nd/or sell copies of a to whom the
C I <u>D</u> o Not Agree		
	Cancel	< <u>B</u> ack <u>N</u> ext >

The following window appears. If you only use the Keylock OPOS Control, you don't need "1-Wire API for .NET" and "OWCOM API". If you need these drivers, please check it. Then click on the "Next" button.


I-Wire Drivers
I-Wire Drivers USB Warning
WARNING, if you currently have a 1-Wire USB device plugged in, you must UNPLUG it for the driver to be updated.

Cancel
< Back</td>

The following window appears. Click on the "Next" button.

Configure the necessary settings, then click on the "Next" button.

🙀 1-Wire Drivers			
Select Installation Folde	r		
The installer will install 1-Wire Drivers to th To install in this folder, click "Next". To in	ne following folder. stall to a different fold	ler, enter it below	or click "Browse".
Eolder: C:\Program Files\Dallas Semiconduct	or\1-Wire Drivers Ver	sion 4.00\	B <u>r</u> owse <u>D</u> isk Cost
Install 1-Wire Drivers for yourself, or for C <u>E</u> veryone C Just <u>m</u> e	anyone who uses thi	s computer:	
	Cancel	< <u>B</u> ack	<u>N</u> ext>



The following window appears. Click on the "Next" button.

After a while, the following window appears. Click on the "OK" button.



After a while, the "1-Wire Net Port Selection" window appears. Keep this window without clicking on the "Next" button. (You will click on the "Next" button later.)

1-Wire Net Port Selection		×
	This installation will now request you to select the default 1-Wire Net port. The default 1-Wire Net port will be used as the initial port for communicating with iButtons with any iButton-TMEX application. You will be required to connect the adapter to the port of this PC to successfully compete the installation. On the following screen, first select the adapter type tab at the bottom. Then select the appropriate port number and then click 'NEXT >'. Auto-Detect is available if the adapter is unknown. Now proceed to the port selection screen by clicking on 'NEXT >'.	
	< Back Next > Cancel	

Open Device Manager, right-click on the "Unknown device" icon under the "Other devices", then click on "Properties" to open the "Unknown device Properties" window. Click on the "Driver" tab and click on the "Update Driver..." button.

Unknown	device Propertie	5	? ×
General	Driver		
\diamond	Unknown device		
	Driver Provider:	Unknown	
	Driver Date:	Not available	
	Driver Version:	Not available	
	Digital Signer:	Not digitally signed	
No driv the driv this dev	er files are required o er files for this device rice, click Update Dr Driver Details	r have been loaded for this device. To unins e, click Uninstall. To update the driver files fo iver.	:tall r
		OK Can	cel



The following window appears. Click on the "Next" button.

The following window appears. Check the "Display a list of the known drivers for this device so that I can choose a specific driver" radio button, then click on the "Next" button.

Upgrade Device Driver Wizard
Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system.
This wizard upgrades drivers for the following hardware device: Unknown Upgrading to a newer version of a device driver may add functionality to or improve the performance of this device.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< <u>B</u> ack <u>N</u> ext> Cancel

The following window appears. Click on "Other devices", then click on the "Next" button.

Upgrade Device Driver Wizard	
Hardware Type What type of hardware do you want to install?	
Select a hardware type, and then click Next. <u>H</u> ardware types:	
 Other devices PCMCIA adapters PCMCIA and Flash memory devices Ports (COM & LPT) Printers SCSI and RAID controllers Sound, video and game controllers System devices Tape drives 	A
< <u>B</u> ack <u>N</u> ext >	Cancel

The following window appears. Click on "USB Host Adapter for 1-Wire Network", then click on the "Next" button

Upgrade Device Driver Wizard	
Select a Device Driver Which driver do you want to install for this	device?
Select the manufacturer and model of y have a disk that contains the driver you	our hardware device and then click Next. If you I want to install, click Have Disk.
Mogels: USB Host Adapter for 1-Wire Network	
 Show <u>compatible</u> hardware Show <u>all</u> hardware of this device class 	<u>H</u> ave Disk
	< <u>B</u> ack <u>N</u> ext > Cancel

The following window appears. Click on the "Next" button.

Upgrade Device Driver Wizard
Start Device Driver Installation The device driver will be installed with the default settings.
The wizard is ready to install the driver for the following hardware device: USB Host Adapter for 1-Wire Network
Windows will use default settings to install the software for this hardware device. To install the software for your new hardware, click Next.
< <u>B</u> ack <u>Next></u> Cancel

After completion of the upgrade, the following window appears. Click on the "Finish" button to complete the update process.



Back to the "1-Wire Net Port Selection" window, and click on the "Next" button.



The following window appears. Click on the "Next" button.

选 1-Wire Net Port Selectio	n		×
	Port Selection		
	PC Port Type:	USB	
	Adapter Required:	DS9490	
	Port Number:	1	
	Driver Info		
	Version:	V3.22	
	Release Date:	06/17/05	
	Misc:	(IB90USB.DLL) (C00.54	
		DS9097U \ DS9490 /	
<u>Auto-Detect</u>	< <u>B</u> ack	<u>N</u> ext > Cancel	

When the following window appears, click on the "Close" button to complete the installation.

🙀 1-Wire Drivers			
Installation Complete			
1-Wire Drivers has been successfully ins	talled.		
Click "Close" to exit.			
	Cancel	< <u>B</u> ack	<u>Close</u>

Open Device Manager to confirm the iButton has been installed. Make sure that "USB Host Adapter for 1-Wire Network" is registered under the "1-WireDevices" icon.

🚇 Device Manager	
] <u>A</u> ction <u>Vi</u> ew] ← → 📾 💀 😭 😫] 🕄 🥘 🔀	
Interpretation Interp	

Note: To use the RAID, subsequently install the RAID Utility with reference to Section 6.3 Installation of RAID Utility JMB36X RAID CONFIGURER.

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

3.1. Installation for Operating System (Windows XP, WEPOS, POSReady 2009)

Install Windows XP(or WEPOS, POSReady 2009). And Install Windows XP service pack as needed.

Notes: 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.

To use the RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

Notes: To use the two HDDs without using RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

3.2. Installation for Intel Chipset Software

Run "infinst_autol.exe" in the "ST-A20\Intel\Chipset\XP_WEPOS_POSReady_Vista" folder in the Driver Kit CD-ROM. 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.

Intel® Chipset Device Software
Intel® Chipset Device Software Setup Progress
Please wait while the following setup operations are performed: Installing Driver: Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27C9 Version: 8.2.0.1008 Installing Driver: Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27CA Version: 8.2.0.1008 Installing Driver: Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27CB Version: 8.2.0.1008 Installing Driver: Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27CC Version: 8.2.0.1008
Click Next to continue.

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.

Files Need	led	\mathbf{X}
	The file 'pci.sys' on Windows XP Professional Service Pack 3 CD is needed.	OK Cancel
	Type the path where the file is located, and then click OK.	
	Copy files from:	
	C:\Windows\system32\drivers	Browse

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

Copy Erro)r	$\mathbf{\overline{X}}$
8	Setup cannot copy the file usbui.dll.	<u>R</u> etry
	Ensure that the location specified below is correct, or change it and insert "Windows XP Professional Service Pack 3 CD' in the drive you specify.	Lancel
	Copy files from:	Browse

Note: If "Additional Drivers" of "Optional Components" is installed additionally in POSReady 2009 installation, these screen is not displayed. (Refer to Notice 6.1.3)

3.3. Installation for Intel Graphic Accelerator Driver

3.3.1. Installation

Run "win2k_xp14324.exe" in the

"ST-A20\Intel\Graphic_driver\2000_XP_WEPOS_POSReady" folder in the Driver Kit CD-ROM. The following window appears. Click on the "Next" button.

🐼 Intel(R) Chipset Graphic	cs Driver Software - InstallShield Wizard	×
	<pre>************************************</pre>	
	<back next=""> Cancel</back>	

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.

Intel® Graphics Media Accelerator Driver	
Intel® Graphics Media Accele Setup Progress	erator Driver (inter
Please wait while the following setup operations are p Copying File: HDMIENU.dll Creating Key: HKLM\System\CurrentControlSet\Contr Creating Key: HKLM\System\CurrentControlSet\Servi Creating Key: HKLM\SOFTWARE\Microsoft\Windows\ Creating Key: HKLM\SOFTWARE\Microsoft\Windows\ Installing Driver: Mobile Intel(R) 945 Express Chipset Version: 6.14.10.4926	erformed: ol\Windows\SystemDirectory=C:\WINDC ces\ialm\Device0\SystemDirectory=C:\W ces\ialm\Device1\SystemDirectory=C:\W CurrentVersion\Uninstall\HDMI\Uninstalls Family
Click Next to continue.	× >
	Next
	Intel® Installation Framework

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.

🚇 Device Manager	
Eile <u>A</u> ction <u>V</u> iew <u>H</u> elp	
TeC-SAC08C94DAA Computer Computer Disk drives Disk drives Mobile Intel(R) 945 Express Chipset Family Mobile Intel(R) 945 Express Chipset Family DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives Monitors Monitors Monitors Monitors Processors Processors Sound, video and game controllers System devices System devices System devices Universal Serial Bus controllers	

3.3.2. Additional Setting When Connecting TFTST-A20

When using TFTST-A20, it is necessary to change setting as follows by Intel Graphic control panel.

Below is Intel Graphic Control Panel (From Task tray or Control Panel)

Intel [®] Graphics Media Accelerator Driver for mobile	🧾 Notebook an	d Monitor	Scheme	e Options
Display Devices	Single Display	C Monitor		
Display Settings	C Television			
Color Correction	Multiple Display	Primary Device		
Hot Keys	Intel(R) Dual Display Clone	Notebook 💌		
(intel)	 Extended Desktop 	Secondary Device Monitor		2
Launch Zoom	3D Settings			
Information	Video Overlay	ок	Cancel	Apply

Select [Display Devices] Tab and check "Extended Desktop" radio button. Click [Apply] button, then, TFTST-A20 available.

			00
Intel [®] Graphics Media Accelerator Driver for mobile	🤳 Notebook	J Monitor	Scheme Options
Display Devices	Color Quality	32 Bit	Rotation
Display Settings	Screen Resolution	800 x 600 💌	© 0
Color Correction	Refresh Rate	60 Hertz 💌	90 C 🔽 C 270
Hot Keys	Display Expansion	Options	© 180
(intel)			Power Settings
Launch Zoom	3D Settings		
Information	Video Overlay	ОК	Cancel Apply

			00
Intel [®] Graphics Media Accelerator Driver for mobile	🌙 Notebook	🦪 Monitor	Scheme Options
Display Devices	Color Quality	32 Bit 💌	Rotation
Display Settings	Screen Resolution	800 × 600 💌	• 0
Color Correction	Refresh Rate	60 Hertz	90 C 🚺 C 270
Hot Keys	Display Expansion	Options	C 180
(intel)			Advanced Settings
Launch Zoom	3D Settings		
		ОК	Cancel Apply

About the other performance (Screen resolution, Color Quality, etc):

Please set TFTST-A20 for your environment by two Control Panel above at any time.

3.4. Installation for Intel Network Driver

Run "PRO2KXP.exe" in the "ST-A20\Intel\Lan_driver\2000_XP_WEPOS_POSReady" folder in the Driver Kit CD-ROM. After a while, the following window appears. Click on the "Next" button.

🞲 Intel(R) Network Connections - InstallShield Wizard	
Welcome to the InstallShield Wizard for Intel(R) Network Connections	(intel)
Installs drivers, Intel(R) PROSet for Windows* Device Manager, and Advanced Networking Services.	
WARNING: This program is protected by copyright law and international treaties.	
InstallShield	Cancel

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.

📸 Intel(R) Network Connections - InstallShield Wizard	
License Agreement Please read the following license agreement carefully.	(intel)
INTEL SOFTWARE LICENSE AGREEMENT (Final, License) IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING. Do not use or load this software and any associated materials (collectiv "Software") until you have carefully read the following terms and condit loading or using the Software, you agree to the terms of this Agreement do not wish to so agree, do not install or use the Software.	rely, the ions. By t. If you
LICENSES: Please Note:	▶ Print
< <u>B</u> ack <u>N</u> ext >	Cancel

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

Intel(R) Network Connections	
Setup Options Select the program features you want installed.	(intel)
Install: Privers Intel(R) PROSet for Windows* Device Manag Advanced Network Services Intel(R) Network Connections SNMP Agent	er
Feature Description	:k Mext > Cancel

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

🔀 Intel(R) Network Connections - InstallShield Wizard	
Ready to Install the Program The wizard is ready to begin installation.	(intel)
Click Install to begin the installation. If you want to review or change any of your installation settings, click Ba	ck. Click Cancel to
exit the wizard.	
Install5hield	Cancel

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

👹 Intel(R) Network Connections - InstallShield Wizard	X
InstallShield Wizard Completed	(intel)
To access new features, open Device Manager, and view the properties of the network adapters.	
InstallShield	Cancel

Open Device Manager to confirm the network driver has been installed. Make sure that "Intel (R)PRO/100 VE Network Connection" is registered under the "Network adapters" icon.

🖴 Device Manager	
<u>Eile A</u> ction <u>V</u> iew <u>H</u> elp	
TEC-SAC08C94DAA Display adapters DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives DE ATA/ATAPI controllers DE ATA/ATAPI controllers Monitors Monitors Intel(R) PRO/100 VE Network Connection Ports (COM & LPT) Ports (COM & LPT) System devices System devices Vertices Vertices	

3.5. Installation for Realtek Audio Driver

Run "setup.exe" in the "ST-A20\Intel\Audio\2000_XP_WEPOS_POSReady" folder in the Driver kit CD-ROM. After a while, the following window appears, click on the "Next" button.

Realtek AC'97 Audio Setup	(5.36) 5.10.0.6287	X
Realtek AC'97 Audio Setup	(5.36) 5.10.0.6287 Welcome to the InstallShield Wizard for Realtek AC'97 Audio The InstallShield Wizard will install Realtek AC'97 Audio on your computer. To continue, click Next.	
InstallShield	< Back Cance	٤

After a while, the following window appears. Click on the "Continue Anyway" button.

Hardwa	re Installation
1	The software you are installing for this hardware: Realtek AC'97 Audio has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway

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.

Realtek AC'97 Audio Setup	(5.36) 5.10.0.6287
	InstallShield Wizard Complete Setup has finished installing Realtek AC'97 Audio on your computer.
	 Yes, I want to restart my computer now. No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
InstallShield	< Back Finish Cancel

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 6.1.3)

3.6. Installation for EloTouch Panel Driver

3.6.1. Installation for Standard Model

Run "SW600613.exe" in the "ST-A20\Tablet\XP_WEPOS_POSReady_Vista" folder in the Driver Kit CD-ROM. The following window appears. Click on the "OK" button.

WinZip Self-Extractor
Welcome to Elo Universal Driver for Windows XP/Windows Vista Installer.
Driver Version 4.8 (06-13-2008)
Click OK to continue.
OK

The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - SW600613.exe	X
To unzip all files in SW600613.exe to the specified folder press the Unzip button.	<u>U</u> nzip
Unzip to folder:	Run <u>W</u> inZip
vstems\Elo Universal Driver 480 Browse	<u>C</u> lose
✓ Overwrite files without prompting	About
✓ When done unzipping open: .\Elosetup.exe	<u>H</u> elp

The following window appears. Click on the "OK" button.

WinZip Self-Extractor 🛛 🔀
183 file(s) unzipped successfully
ОК

The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, and click on the "Next" button.

Elo Touchscreen Setup (V	ersion 4.8.0.0) 🔀	
TOUCHSYSTEMS	 Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Choose Enable PreCalibration to store calibration data in touch-monitors Install Serial Touchscreen Drivers Install USB Touchscreen Drivers Enable PreCalibration 	
< Back Next > Cancel		

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

Elo Touchscreen Setup (Version 4.8.0.0)	X
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.	
End-User License Agreement BY DOWNLOADING AND/OR INSTALLING THE SOFTWARE YOU ARE AGREEING TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT INCLUDING THIS SOFTWARE PRODUCT LICENSE	
AND LIMITED WARRANTY. IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal	
Do you accept the terms of the preceding license agreement? If you choose No, you will not have full touchmonitor functionality and setup will close. To have full functionality you must accept the license agreement.	
< Back Ves No	

The following window appears. Check the "Auto-detect Elo devices" check box, then click on the "Next" button.



The following window appears. The touch panel connected to the ST-A20 is detected, and "COM6" is chosen. If "COM6" is not chosen, there may be a problem. Click on the "Next" button.

Elo Touchscreen Setup (Ve	rsion 4.8.0.0)	×
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.	
	Сомз	
TOUCHSYSTEMS		
III	COM6	
	Once you have selected a COM port, click Next to continue the installation.	
	< Back Next > Cancel	

The following window appears. Confirm that "COM6" is chosen, then click on the "Next" button.

Elo Touchscreen Setup (Ve	ersion 4.8.0.0)	×
	You have selected the COM ports listed below to use with your touchmonitor.	
TOUCHSYSTEMS	COM6	
	Click Next to complete the installation or click Back to change your selections.	
	< Back Cancel	

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup (Ver	sion 4.8.0.0)	×
A TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.	
10000 millionsinoi	Calibrate Elo Touchscreen monitors. View Readme. Click Finish to exit Setup.	
	< Back	

The following calibration screen appears. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.) (Transparent background on V5.41 & above)

Touch targets from position of normal use

After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.



3.6.2. Installation When Connecting TFTST-A20

Run "SW600613.exe" in the "ST-A20\Tablet\XP_WEPOS_POSReady_Vista" folder in the Driver Kit CD-ROM. The following window appears. Click on the "OK" button.

WinZip Self-Extractor
Welcome to Elo Universal Driver for Windows XP/Windows Vista Installer.
Driver Version 4.8 (06-13-2008)
Click OK to continue.
OK

The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - SW600613.exe 🛛 🛛 🔀		
To unzip all files in SW600613.exe folder press the Unzip button.	to the specified	<u>U</u> nzip
Unzip to folder:		Run <u>W</u> inZip
vstems\Elo Universal Driver 480	<u>B</u> rowse	<u>C</u> lose
Overwrite files without prompting]	About
✓ When done unzipping open: .\Elosetup.exe		Help

The following window appears. Click on the "OK" button.



The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, and click on the "Next" button.

Elo Touchscreen Setup (Version 4.8.0.0)		
	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Choose Enable PreCalibration to store calibration data in touch-monitors Install Serial Touchscreen Drivers Install USB Touchscreen Drivers Enable PreCalibration	
	< Back Next > Cancel	

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

Elo Touchscreen Setup (Version 4.8.0.0)	X
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.	
End-User License Agreement	
ARE AGREEING TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT, INCLUDING THIS SOFTWARE PRODUCT LICENSE AND LIMITED WARRANTY.	
IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal	
Do you accept the terms of the preceding license agreement? If you choose No, you will not have full touchmonitor functionality and setup will close. To have full functionallity you must accept the license agreement.	
< Back Ves No	

The following window appears. Check the "Auto-detect Elo devices" check box, then click on the "Next" button.



The following window appears. The touch panel connected to the ST-A20 and the touch panel connected to the TFTST-A20 are detected, and "COM6" and "COM1 or 2" are chosen. If "COM6" and "COM1 or 2" is not chosen, there may be a problem. Click on the "Next" button.

Elo Touchscreen Setup (Version 4.8.0.0)		
E COUCHSYSTEMS	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.	
	< Back Next > Cancel	

The following window appears. Confirm that "COM6" and "COM1 or 2" are chosen, then click on the "Next" button.

Elo Touchscreen Setup (Ve	rsion 4.8.0.0)	×
	You have selected the COM ports listed below to use with your touchmonitor.	
TOUCHSYSTEMS	COM2 COM6	
WITE DAY TO IT UNIT	Click Next to complete the installation or click Back to change your selections.	
	< Back Cancel	

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup (Version 4.8.0.0) 🛛 🛛 🗙		
B TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.	
	View Readme.	
	< Back Finish	

The following calibration screen appears on ST-A20 main screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)

Touch tar	ets from position of normal use



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration

The following calibration screen appears on TFTST-A20 screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)


After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.



3.7. Installation for i-Button Driver

When the iButton is connected to the ST-A20, "USB Device" is shown with an exclamation mark (!) under the "Other devices" icon in the Device Manager window.



Note : A confirmation of iButton device

Open Device Manager, right-click on the "USB device" icon, then click on "Properties" to open the "USB Device Properties" window. Click on the "Details" tab, confirm that there is "USB\VID_04FA&xxxxxx".

USB Device Properties	? 🗙
General Driver Details	
Device Instance Id	~
USB\VID_04FA&PID_2490\6&15E10BA5&0&4	
OK Can	cel

We can not redistribute this installation driver. Therefore, if you need the driver, you have to download the driver from following site. <u>http://www.maxim-ic.com/products/ibutton/software/tmex/</u> Note: This URL was written on 2008/7/30.

Run the "install_1_wire_drivers_x86_v401r2.msi" which you downloaded.

The "License Agreement" window appears. Confirm the contents. If you agree, check the "I accept the terms in the License Agreement" check box and click on the "Install" button.

🖟 1-Wire Drivers Version 4.01 R2 Setup				
	Please read the 1-Wire Drivers Version 4.01 R2 License Agreement			
	Copyright (C) 2008 Maxim Integrated Products, All Rights Reserved.			
	Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute,			
TALLET MANAGE	✓ I accept the terms in the License Agreement			
	Print Back Install Cancel			

After completion of the installation, the following window appears. Click on the "Finish" button.



Open Device Manager to confirm the iButton has been installed. Make sure that "USB Host Adapter for 1-Wire Network using WinUSB" is registered under the "1-Wire" icon.

🚇 Device Manager	
Eile <u>A</u> ction <u>V</u> iew <u>H</u> elp	

Note: To use the RAID, subsequently install the RAID Utility with reference to Section 6.3 Installation of RAID Utility JMB36X RAID CONFIGURER.

4. Setup for Windows Vista Business

4.1. Installation for Operating System (Windows Vista Business)

Install Windows Vista. And install Windows Vista service pack as needed.

Notes: 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.

To use the RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

Notes: To use the two HDDs without using RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

4.2. Installation for Intel Chipset Software

Run "infinst_autol.exe" in the "ST-A20\Intel\Chipset\XP_WEPOS_POSReady_Vista" folder in the Driver Kit CD-ROM. 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.

Intel® (hipset Device Soft	ware	/intal
Setup Pro	gress		Inter
Please wait wł	ile the following setup operations a	are performed:	All Charles
Convine Files			
Copying File: Creating Key: Installing Driv	2SVer.dll HKLM\SOFTWARE\Intel\Infinst\Lar er: Mobile Intel(R) 945GME Express	nguage=ENU,sz s Processor to DRAM C	ontroller - 27AC
Version: 8.3.	. 1005		
4	m		•
			Next

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



After completion of the installation, the following window appears. Click on the "Finish" button.



4.3. Installation for Intel Graphic Accelerator Driver

4.3.1. Installation

Run "winvista_1582.exe" in the "ST-A20\Intel\Graphic_driver\Vista" folder in the Driver Kit CD-ROM. 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.

Intel® Graphics Media Accelerator Driver	
Intel® Graphics Media Acc Setup Progress	celerator Driver
Please wait while the following setup operations a Creating Key: HKLM\System\CurrentControlSet\ Creating Key: HKLM\System\CurrentControlSet\ Creating Key: HKLM\SyStem\CurrentControlSet\ Creating Key: HKLM\SOFTWARE\Microsoft\Wind Creating	are performed: Control\Windows\SystemDirectory=C:\Windov Services\Jalm\Device0\SystemDirectory=C:\W Services\Jalm\Device1\SystemDirectory=C:\W lows\CurrentVersion\Uninstall\HDMI\DisplayNa ows\CurrentVersion\Uninstall\HDMI\UninstallS lows\CurrentVersion\RunOnce\WinSat=winsat ipset Family
۲ <u> </u>	•
<u></u>	Next

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.

🚔 Device Manager	
<u>File Action View Help</u>	
Image: Second secon	

4.3.2. Additional Setting When Connecting TFTST-A20

When using TFTST-A20, it is necessary to change setting as follows by Intel Graphic control panel.

Below is Intel Graphic Control Panel (From Task tray or Control Panel)

				00
Intel [®] Graphics Media Accelerator Driver for mobile	Intebook a	nd Monitor	Schem	ne Options
Display Devices	Single Display	O Notebook		
Display Settings				
Color Correction	Multiple Display	Primary Device		
Hot Keys	Display Clone • Extended	Notebook 💌]	
(intel)	Desktop	Secondary Device Monitor	1	2
Launch Zoom	3D Settings			
Information	Video Overlay	И ОК	Cancel	Apply

Select [Display Devices] Tab and check "Extended Desktop" radio button. Click [Apply] button, then, TFTST-A20 available.

				00
Intel® Graphics Media Accelerator Driver for mobile	🌙 Notebook	d Monitor		Scheme Options
Display Devices	Color Quality	32 Bit	→ Rota	ntion
Display Settings	Screen Resolution	800 x 600		© 0
Color Correction	Refresh Rate	60 Hertz	9	0 C 🔽 C 270
Hot Keys	Display Expansion	Options		C 180
(intel)				Power Settings
Launch Zoom	3D Settings			
Information	Video Overlay		Ж	Cancel Apply

lotel [°]			0
Graphics Media Accelerator Driver for mobile	🤳 Notebook	J Monitor	Scheme Options
Display Devices	Color Quality	32 Bit 💌	Rotation
Display Settings	Screen Resolution	800 x 600 💌	• 0
Color Correction	Refresh Rate	60 Hertz 💌	90 C 🔽 C 270
Hot Keys	Display Expansion Aspect Ratio	Options	C 180
(intel)			Advanced Settings
Launch Zoom	3D Settings		
Information	Video Overlay	ок	Cancel Apply

About the other performance (Screen resolution, Color Quality, etc):

Please set TFTST-A20 for your environment by two Control Panel above at any time.

4.4. Installation for Intel Network Driver

Run "PROVISTA32.exe" in the "ST-A20\Intel\Lan_driver\Vista" folder in the Driver Kit CD-ROM. After a while, the following window appears. Click on the "Next" button.

12 Intel(R) Network Connections - InstallShield Wizard	
Welcome to the InstallShield Wizard for Intel(R) Network Connections	(intel)
Installs drivers, Intel(R) PROSet for Windows* Device Manager, and Advanced Networking Services.	
WARNING: This program is protected by copyright law and international treaties.	
InstallShield < Back Next >	Cancel

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.

岃 Intel(R) Network Connections - InstallShield Wizard	×
License Agreement Please read the following license agreement carefully.	itel
INTEL SOFTWARE LICENSE AGREEMENT (Final, License) <u>IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING</u> . Do not use or load this software and any associated materials (collectively, 1 "Software") until you have carefully read the following terms and conditions: loading or using the Software, you agree to the terms of this Agreement. If yo do not wish to so agree, do not install or use the Software.	the By ou
LICENSES: Please Note: I accept the terms in the license agreement! I do not accept the terms in the license agreement	int
InstallShield Ca	ncel

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

Intel(R) Network Connections		×
Setup Options Select the program features you want installed	inte	D
Install:		_
Intel(R) PROSet for Windows* Device Mar Advanced Network Services Intel(R) Network Connections SNMP Agent	nager t	
Feature Description		
	Back Next > Cancel	

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

HINTER Intel (R) Network Connections - InstallShield Wizard	
Ready to Install the Program	(intal)
The wizard is ready to begin installation.	linter
Click Install to begin the installation.	
If you want to review or change any of your installation settings exit the wizard.	s, click Back. Click Cancel to
istallShield	
< Back	Install Cancel

The following window appears asking you to wait until the installation completes.

17	Please wait while the InstallShield Wizard installs Intel(R) Network Connections. This may take several minutes.
	status:
nstallShield -	< Back Next > Cancel
na Drivers	
genters	

After completion of the installation, the following window appears. Click on the "Finish" button.



85

Open Device Manager to confirm the network driver has been installed. Make sure that "Intel (R)PRO/100 VE Network Connection" is registered under the "Network adapters" icon.

🚔 Device Manager	
File Action View Help	
(= -) II I I 0 0 0 0 0 0 0	
Image: Second secon	

4.5. Installation for Realtek Audio Driver

Run "setup.exe" in the "ST-A20\Intel\Audio\Vista" folder in the Driver kit CD-ROM, and the installer starts.



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.



After a while, the installation starts.

Realtek AC'97 Audio Setup (5.35)	6.0.1.6280	x
Setup Status		
	Realtek AC'97 Audio is configuring your new software installation.	
	Installing	
InstallShield	Cancel	

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.

Realtek AC'97 Audio Setup (5.35) 6	5.0.1.6280
	InstallShield Wizard Complete
	Setup has finished installing Realtek AC'97 Audio on your computer.
	Yes, I want to restart my computer now.
	No, I will restart my computer later.
	Remove any disks from their drives, and then click Finish to complete setup.
InstallShield	< <u>B</u> ack Finish Cancel

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. Installation for Elo Touch Panel Driver

4.6.1. Installation for Standard Model

Open the "ST-A20\Tablet\XP_WEPOS_POSReady_Vista" folder in the Driver Kit CD-ROM. Right-click on the "SW600613.exe" icon, and select "Run as administrator" menu. The following window appears. Click on the "OK" button.

Note: If you forget it, the installation will not be completed.



The following window appears. Click on the "Unzip" button, then the files are decompressed.

×
<u>U</u> nzip
Run <u>W</u> inZip
<u>C</u> lose
<u>A</u> bout
Help

Note: If you forget to run the installer as an administrator, writing to the system area is limited and the installation fails. Then, the following window appears.



The following window appears. Click on the "OK" button.

WinZip Self-Extractor	X
183 file(s) unzipped s	successfully
	OK

The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, and click on the "Next" button.

Elo Touchscreen Setup (Versio	n 4.8.0.0)	×
TOUCHSYSTEMS	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Choose Enable PreCalibration to store calibration data in touch-monitors Image: Install Serial Touchscreen Drivers Image: Install USB Touchscreen Drivers Image: Enable PreCalibration	
	< Back Next > Cancel	

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

Elo Touchscreen Setup (Version 4.8.0.0)	×
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.	2
End-User License Agreement	
BY DOWNLOADING AND/OR INSTALLING THE SOFTWARE YOU ARE AGREEING TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT, INCLUDING THIS SOFTWARE PRODUCT LICENSE AND LIMITED WARRANTY.	2
IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a	-
Do you accept the terms of the preceding license agreement? If you choose No, you will not have full touchmonitor functionality and setup will close. To have full functionality you must accept the license agreement.	I
< Back Yes No	

The following window appears. Check the "Auto-detect Elo devices" check box, and click on the "Next" button.



The following window appears. The touch panel connected to the ST-A20 is detected, and "COM6" is chosen. If "COM6" is not chosen, there may be a problem. Click on the "Next" button.

Elo Touchscreen Setup (Version	4.8.0.0)	×
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.	
TOUCHSYSTEMS	□ COM1 □ COM2 □ COM3 □ COM4 □ COM5 ▼ COM6	
STOR TOUCONTOO	Once you have selected a COM port, dick Next to continue the installation.	
	< Back Next > Cancel	

The following window appears. Confirm that "COM6" is chosen, then click on the "Next" button.

Elo Touchscreen Setup (Version	4.8.0.0)	×
	You have selected the COM ports listed below to use with your touchmonitor.	
TOUCHSYSTEMS	COM6	
	Click Next to complete the installation or dick Back to change your selections.	
	< Back Next > Cancel	

After a while, the installation starts.

Elo Touchscreen Setup (Version 4.8.0.0)
Installing Elo Touchscreen drivers and components Copying files

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup (Version 4.8.0.0)		
BO TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.	
TOUCONSTRUCT	 ✓ Calibrate Elo Touchscreen monitors. ✓ View Readme. 	
	Click Finish to exit Setup.	

The following calibration screen appears. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.) (Transparent background on v5.41 & above)



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



If the "Files Needed" window appears during installation, click "Browse" button and select "C:\Program Files\EloTouchSystems" folder. Then click on the "OK" button.

Files Need	led		×
	The file 'EloSer.Sys' on EloSerXp is needed.	ОК	
		Cancel	
	Type the path where the file is located, and then click OK.		
	Copy files from:		
	c:\windows	Browse	

Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.

File Action View Help Image: Second sec	2010 Device Manager	
Image: Second	File Action View Help	
Image: Second state of the second		
	Image: Second	

4.6.2. Installation When Connecting TFTST-A20

Open the "ST-A20\Tablet\XP_WEPOS_POSReady_Vista" folder in the Driver Kit CD-ROM. Right-click on the "SW600613.exe" icon, and select "Run as administrator" menu. The following window appears. Click on the "OK" button.

Note: If you forget it, the installation will not be completed.

WinZip Self-Extractor
Welcome to Elo Universal Driver for Windows XP/Windows Vista Installer. Driver Version 4.8 (06-13-2008) Click OK to continue.
ОК

The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - SW600613.exe	—
To unzip all files in SW600613.exe to the specified folder press the Unzip button.	<u>U</u> nzip
Unzip to <u>f</u> older:	Run <u>W</u> inZip
Bystems\Elo Universal Driver 480 Browse	<u>C</u> lose
✓ □verwrite files without prompting	About
When done unzipping open: .\Elosetup.exe	Help

Note: If you forget to run the installer as an administrator, writing to the system area is limited and the installation fails. Then, the following window appears.



The following window appears. Click on the "OK" button.

WinZip Self-Extractor	—
183 file(s) unzipped	successfully
	ОК

The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, and click on the "Next" button.

Elo Touchscreen Setup (Versio	n 4.8.0.0)	×
TOUCHSYSTEMS	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Choose Enable PreCalibration to store calibration data in touch-monitors Install Serial Touchscreen Drivers Install USB Touchscreen Drivers Enable PreCalibration	
	< Back Next > Cancel	

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

Elo Touchscreen Setup (Version 4.8.0.0)	×
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.	2
End-User License Agreement	
BY DOWNLOADING AND/OR INSTALLING THE SOFTWARE YOU ARE AGREEING TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT, INCLUDING THIS SOFTWARE PRODUCT LICENSE AND LIMITED WARRANTY.	2
IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a	-
Do you accept the terms of the preceding license agreement? If you choose No, you will not have full touchmonitor functionality and setup will close. To have full functionality you must accept the license agreement.	I
< Back Yes No	

The following window appears. Check the "Auto-detect Elo devices" check box, and click on the "Next" button.



The following window appears. The touch panel connected to the ST-A20 and the TFTST-A20 are detected, and "COM6" and "COM1 or 2" are chosen. If "COM6" and "COM1 or 2" is not chosen, there may be a problem. Click on the "Next" button.

Elo Touchscreen Setup (Version 4	.8.0.0)	×
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.	
TOUCHSYSTEMS	□ COM1 ✓ COM2 □ COM3 □ COM4 □ COM5 ✓ COM6	
KIDH INTON	Once you have selected a COM port, click Next to continue the installation.	
	< Back Next > Cancel	

The following window appears. Confirm that "COM6" and "COM1 or 2" are chosen, then click on the "Next" button.

Elo Touchscreen Setup (Version 4.8.0.0)		×
	You have selected the COM ports listed below to use with your touchmonitor.	
TOUCHSYSTEMS	COM2 COM6	
WITTING TO HEAD	Click Next to complete the installation or click Back to change your selections.	
	< Back Cancel	

After a while, the installation starts.

Elo Touchscreen Setup (Version 4.8.0.0)
Installing Elo Touchscreen drivers and components Copying files

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup (Version 4.8.0.0)		
BO TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.	
TOUCONSTRUCT	 ✓ Calibrate Elo Touchscreen monitors. ✓ View Readme. 	
	Click Finish to exit Setup.	

The following calibration screen appears on ST-A20 main screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



The following calibration screen appears on TFTST-A20 screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



If the "Files Needed" window appears during installation, click "Browse" button and select "C:\Program Files\EloTouchSystems" folder. Then click on the "OK" button.

Files Needed		×
	The file 'EloSer.Sys' on EloSerXp is needed.	ОК
		Cancel
	Type the path where the file is located, and then click OK.	
	Copy files from:	
	c:\windows	Browse

Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.



4.7. Installation for i-Button Driver

When the iButton is connected to the ST-A20, "Unknown Device" is shown with an exclamationmark (!) under the "Other devices" icon in the Device Manager window.

🚔 Device Manager 📃 🗖 💌				
File Action View Help				
E A TEC-PC				
B- 🖶 Computer				
🕀 👝 Disk drives				
🕀 📲 Display adapters				
E c Floppy disk drives				
General DE ATA/ATAPI controllers				
Expoards				
⊕- <u>U</u> Mice and other pointing devices				
B→ Monitors				
B → W Network adapters				
Other devices				
Unknown device				
Pors (COM & LPT)				
Processors				
Sound, video and game controllers				
B M A System devices				
I →				

Note : A confirmation of iButton device

Open Device Manager, right-click on the "Unknown device" icon, then click on "Properties" to open the "Unknown device Properties" window. Click on the "Details" tab, confirm that there is "USB\VID_04FA&xxxxxx".

Unknown device Properties	? X
General Driver Details	
Unknown device	
Hardware Ids	•
Value	
USB\VID_04FA&PID_2490	
ОК	Canad
We can not redistribute this installation driver. Therefore, if you need the driver, you have to download the driver from following site. <u>http://www.maxim-ic.com/products/ibutton/software/tmex/</u> Note: This URL was written on 2008/7/30.

Run the "install_1_wire_drivers_x86_v401r2.msi" which you downloaded. After a while, the "License Agreement" window appears. Confirm the contents. If you agree, check the "I accept the terms in the License Agreement" check box and click on the "Install" button.

😼 1-Wire Drivers Version 4.01	R2 Setup	x
	Please read the 1-Wire Drivers Version 4.01 RZ License Agreement	2
	Copyright (C) 2008 Maxim Integrated Products, All Rights Reserved.	-
	Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute,	•
TELEVILLE MANAGEMENT	✓ accept the terms in the License Agreement	
	Print Back Install Cance	

After a while, the following window appears. This is a security notice of Windows system. Click on the "Install" button.

• Windows Security	×
Would you like to install this device software?	
Name: Dallas Semiconductor Maxim Publisher: Dallas Semiconductor Maxim	
Always trust software from "Dallas Semiconductor Maxim".	Install Don't Install
You should only install driver software from publishers you <u>device software is safe to install?</u>	ı trust. <u>How can I decide which</u>

After a while, the installation starts.

岃1-Wire Drivers Version 4.01 R2 Setup	- • -
Installing 1-Wire Drivers Version 4.01 R2	
Please wait while the Setup Wizard installs 1-Wire Drivers Version 4.	01R2.
Status:	
<u>B</u> ack Next	Cancel

After completion of the installation, the following window appears. Click on the "Finish" button.



Next, we explain the method of updating driver from device manager.

Open Device Manager, right-click on the "USB Host Adapter for 1-Wire Network using WinUSB" icon under the "1-Wire", then click on "Properties" to open the "USB Host Adapter for 1-Wire Network using WinUSB Properties" window.

a Device Manager	
File Action View Help	
Image: Second	

Click on the "Details" tab, and confirm that it is same as following window.

General Driver	Details	
USB Property	Host Adapter for 1-Wire Netw	ork using WinUSB
Device descri	ption	•
Value		
USB Host Ac	apter for 1-Wire Network usin	g WinUSB
USB Host Ac	apter for 1-Wire Network usin	g WinUSB

neral Drive	Details	
USB	Host Adapt	er for 1-Wire Network using WinUSB
Drive	r Provider:	Dallas Semiconductor Maxim
Drive	r Date:	5/1/2007
Drive	r Version:	6.0.1.0
Digita	al Signer:	dallas semiconductor maxim
Driver Det	ails	To view details about the driver files.
Update Driv	ver	To update the driver software for this device.
Roll Back D	iver	If the device fails after updating the driver, rol back to the previously installed driver.
Disable		Disables the selected device.
Uninsta		To uninstall the driver (Advanced).

Click on the "Driver" tab, and click on the "Upate Driver..." button.

After a while, the "How do you want to search for driver software" window appears. Click on the "Browse my computer for driver software" button.

Note : If you install it from the media(CD etc.), appoint a media drive path in the search range.



Note: To use the RAID, subsequently install the RAID Utility with reference to Section 6.3 Installation of RAID Utility JMB36X RAID CONFIGURER.

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

5.1. Setup for Operating System (Windows 7 Professional)

5.1.1. Installation for Operating System (Windows 7 Professional)

Notes: 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.

To use the RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

Notes: To use the two HDDs without using RAID, the operation system must be installed with reference to Section 6.2 Installation of Each Operating System in RAID Environment.

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.

😯 User Account Control		
Do you want to allow the following program to make changes to this computer?		
Program name: Intel® Chipset Device Software installer Verified publisher: Intel Corporation File origin: Hard drive on this computer		
Show <u>d</u> etails		
Change when these notifications appe	<u>ar</u>	

5.2. Installation for Intel Chipset Software

Run "infinst_autol.exe" in the "ST-A20\Intel\Chipset\7" folder in the Driver Kit CD-ROM. 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. Please wait.

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

5.3.1. Installation

Run "win7_1512754.exe" in the "ST-A20\Intel\Graphic_driver\7" folder in the Driver Kit CD-ROM. The following window appears. Click on the "Next" button.

🛃 Intel(R) Chipset Graphics Driver Software - InstallShield Wizard	
Production Version Release Microsoft Windows* 7 Driver Revision: 15.12.75.4.1930 October 02, 2009 ************************************	

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.

5.3.2. Additional Setting When Connecting TFTST-A20

When using TFTST-A20, it is necessary to change setting as follows by Intel Graphic control panel.

Below is Intel Graphic Control Panel (From Task tray or Control Panel)

	00
Intel® Graphics Media Accelerator Driver for mobile	Notebook and Monitor
Display Devices	Operating Mode Position
Display Settings	Extended Desktop
Color Correction	1 Primary Device
Hot Keys	Notebook
(intel)	Image: Secondary Device Monitor
3D Settings	OK Cancel Apply Video Overlay
Scheme Options	

Select [Display Devices] Tab and select "Extended Desktop" pull-down menu. Click [Apply] button, then, TFTST-A20 available.

			000
Intel® Graphics Media Accelerator Driver for mobile	🕵 Notebook	😴 Monitor	
Display Devices	Color Quality	32 Bit 💌	Rotation
Display Settings	Screen Resolution	1024 x 768 💌	
Color Correction	Refresh Rate	60 Hertz 💌	90 C 🞑 C 270
Hot Keys	Display Expansion	Options	© 180
(intel)			Power Settings
3D Settings	Video Overlay	ок	Cancel Apply
Scheme Options			

			000
Intel® Graphics Media Accelerator Driver for mobile	💺 Notebook	😴 Monitor	
Display Devices	Color Quality	32 Bit	Rotation
Display Settings	Screen Resolution	1024 x 768 💌	Enable Rotation O
Color Correction	Refresh Rate	60 Hertz 💌	90 O 🔟 O 270
Hot Keys	Aspect Ratio	Options	© 180
intel			Advanced Settings
3D Settings	Video Overlay	,	Cancel Apply
Scheme Options			

About the other performance (Screen resolution, Color Quality, etc):

Please set TFTST-A20 for your environment by two Control Panel above at any time.

5.4. Installation for Intel Network Driver

In windows 7 environment, driver of ST-A20's network adapter is already included in OS itself. Therefore, we don't need to install the driver of network adapter manually.

5.5. Installation for Realtek Audio Driver

Run "setup.exe" in the "ST-A20\Intel\Audio\Vista" folder in the Driver kit CD-ROM, and the installer starts.



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.

😵 Wir	idows Security
\bigotimes	Windows can't verify the publisher of this driver software
	Don't install this driver software You should check your manufacturer's website for updated driver software for your device.
	Install this driver software anyway Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
	See details

After a while, the installation starts.



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.

Realtek AC'97 Audio Setup (5.37	7) 6.0.1.6305
	InstallShield Wizard Complete
	Setup has finished installing Realtek AC'97 Audio on your computer. Yes, I want to restart my computer now. No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
Install Shield	< Back Finish Cancel

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.

🚔 Device Manager	_ D _ X
File Action View Help	
 tecsys-PC Computer Disk drives Display adapters Display adapters IDE ATA/ATAPI controllers Keyboards Mice and other pointing devices Monitors Monitors Network adapters Other devices Ports (COM & LPT) Processors Sound, video and game controllers Realtek AC'97 Audio System devices Universal Serial Bus controllers 	

5.6. Installation for Elo Touch Panel Driver

5.6.1. Installation for Standard Model

Open the "ST-A20\Tablet\7" folder in the Driver Kit CD-ROM. Right-click on the "XPU4.8.7b.exe" icon, and select "Run as administrator" menu. The following window appears. Click on the "OK" button.

Note: If you forget it, the installation will not be completed.



The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - XPU4.8.7b.exe	×
To unzip all files in XPU4.8.7b.exe to the specified folder press the Unzip button.	Unzip
Unzip to folder:	Run WinZip
ustems\Elo Universal Driver 487b Browse	Close
✓ Overwrite files without prompting	About
✓ When done unzipping open: .\Elosetup.exe	Help

Note: If you forget to run the installer as an administrator, writing to the system area is limited and the installation fails. Then, the following window appears.



The following window appears. Click on the "OK" button.

r	WinZip Self-Extractor
	179 file(s) unzipped successfully
	ОК

The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, and click on the "Next" button.

Elo Touchscreen Setup (Version 4.	8.7ь)	x
FOUCHSYSTEMS	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Install Serial Touchscreen Drivers Install USB Touchscreen Drivers	
	< Back Next > Cancel	

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

Elo Touchscreen Setup (Version 4.8.7b)		
License Agreement Please read the following license agreement carefully. Press the PAGE DOWN key to see the rest of the agreement.		
End-User License Agreement		
BY DOWNLOADING AND/OR INSTALLING AND/OR USING THE SOFTWARE YOU ARE AGREEING TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT, INCLUDING THIS SOFTWARE PRODUCT LICENSE AND LIMITED WARRANTY.		
IMPORTANT READ CAREFULLY: This Elo TouchSystems End-User License Agreement ("EULA") is a legal		
Do you accept the terms of the preceding license agreement? If you choose No, you will not have full touchmonitor functionality and setup will close. To have full functionallity you must accept the license agreement.		
< Back Yes No		

The following window appears. Check the "Auto-detect Elo devices" check box, and click on the "Next" button.

Elo Touchscreen Setup (Version	n 4.8.7b)
BOUCHSYSTEMS	Select the COM ports to use with Elo serial touchscreens. Check the Auto-detection box if you want Setup to auto-detect COM ports currently connected to Elo devices. During Auto-detection, Setup will send data to each port which may temporarily interfere with some types of serial devices. Click Next to continue. ✓ Auto-detect Elo touchscreens.
	< Back Next > Cancel

The following window appears. The touch panel connected to the ST-A20 is detected, and "COM6" is chosen. If "COM6" is not chosen, there may be a problem. Click on the "Next" button.

Elo Touchscreen Setup (Version	4.8.7b)
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.
TOUCHSYSTEMS	□ COM1 □ COM2 □ COM3 □ COM4 □ COM5 ▼ COM6
TENS TO LONG THE	Once you have selected a COM port, click Next to continue the installation.

The following window appears. Confirm that "COM6" is chosen, then click on the "Next" button.

Elo Touchscreen Setup (Version	4.8.7b)	×
	You have selected the COM ports listed below to use with your touchmonitor.	
	COM6 Click Next to complete the installation or click Back to change your selections.	
	< Back Next > Cance	

After a while, the installation starts.

Elo Touchscreen Setup (Version 4.8.7b)		
Installing Elo Touchscreen drivers and components TOUCHSYSTEMS Copying files		

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup (Version	4.8.7b)
AO TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.
TRUCIOVALDES	 ✓ Calibrate Elo Touchscreen monitors. ✓ View Readme.
Sum, EU	Click Finish to exit Setup.

The following calibration screen appears. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.) (Transparent background on 5.41 & above)



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



If the "Files Needed" window appears during installation, click "Browse" button and select "C:\Program Files\EloTouchSystems" folder. Then click on the "OK" button.

Files Needed		
	The file 'EloSer.Sys' on EloSerXp is needed.	ОК
		Cancel
	Type the path where the file is located, and then click OK.	
	Copy files from:	
	c:\windows	Browse

Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.

5.6.2. Installation When Connecting TFTST-A20

Open the "ST-A20\Tablet\7" folder in the Driver Kit CD-ROM. Right-click on the "XPU4.8.7b.exe" icon, and select "Run as administrator" menu. The following window appears. Click on the "OK" button.

Note: If you forget it, the installation will not be completed.



The following window appears. Click on the "Unzip" button, then the files are decompressed.

WinZip Self-Extractor - XPU4.8.7b.exe			
Unzip			
un WinZip			
Close			
About			
Help			

Note: If you forget to run the installer as an administrator, writing to the system area is limited and the installation fails. Then, the following window appears.

WinZip Self-Extractor	a d'art hann in goliet	x
Can't creat Universal D	e output file: C:\Program Files\Elo TouchSystems\Elo river 487b\EloStrings_ITA64.dll	
	ОК	

The following window appears. Click on the "OK" button.

WinZip Self-Extractor
179 file(s) unzipped successfully
ОК

The following window appears. Choose a language, if necessary, and then click on the "Next" button.



The following window appears. Check the "Install Serial Touchscreen Drivers" check box, and click on the "Next" button.

Elo Touchscreen Setup (Version 4.8.7b)		×
TOUCHSYSTEMS	Welcome to Elo Touchscreen Setup. This program will install the Elo Serial and USB touchscreen drivers on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Install Serial Touchscreen Drivers Install USB Touchscreen Drivers	
	< Back Next > Cance	el 🔤

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

the rest	ad the following license agreement carefully. Press the PAGE DOWN key to of the agreement.	see
End-U	ser License Agreement	-
BY DO SOFTW TERMS PRODU	WNLOADING AND/OR INSTALLING AND/OR USING THE ARE YOU ARE AGREEING TO BECOME BOUND BY THE OF THIS AGREEMENT, INCLUDING THIS SOFTWARE ICT LICENSE AND LIMITED WARRANTY.	
IMPOH End-U	TANT READ CAREFULLY: This Elo TouchSystems ser License Agreement ("EULA") is a legal ment between you (either an individual or a	-
Do you a not have you mus	ccept the terms of the preceding license agreement? If you choose No, you full touchmonitor functionality and setup will close. To have full functionallit t accept the license agreement.	will Y

The following window appears. Check the "Auto-detect Elo devices" check box, and click on the "Next" button.

Elo Touchscreen Setup (Version	n 4.8.7b)
TOUCHSYSTEMS	Select the COM ports to use with Elo serial touchscreens. Check the Auto-detection box if you want Setup to auto-detect COM ports currently connected to Elo devices. During Auto-detection, Setup will send data to each port which may temporarily interfere with some types of serial devices. Click Next to continue. Auto-detect Elo touchscreens.
	< Back Next > Cancel

The following window appears. The touch panel connected to the ST-A20 and the TFTST-A20 are detected, and "COM6" and "COM1 or 2" are chosen. If "COM6" and "COM1 or 2" is not chosen, there may be a problem. Click on the "Next" button.

Elo Touchscreen Setup (Version 4	1.8.7b)
	Choose the COM ports from the list below to use with your touchmonitors. All COM ports reported by your system are listed.
TOUCHSYSTEMS	□ COM1 ▼ COM2 □ COM3 □ COM4 □ COM5 ▼ COM6
STDR TOROUT	Once you have selected a COM port, dick Next to continue the installation.

The following window appears. Confirm that "COM6" and "COM1 or 2" are chosen, then click on the "Next" button.

Elo Touchscreen Setup (Version 4	.8.7b)	<u>د</u>
	You have selected the COM ports listed below to use with your touchmonitor.	
	COM2 COM6 Click Next to complete the installation or click Back to change your selections.	
	< Back Next > Cancel	

After a while, the installation starts.

Elo Touchscreen Setup (Version 4.8.7b)
Installing Elo Touchscreen drivers and components TOUCHSYSTEMS Copying files

After completion of the installation, the following window appears. Check the "Calibrate Elo Touchscreen monitors" check box, and click on the "Finish" button.

Elo Touchscreen Setup (Version	4.8.7b)
AO TOUCHSYSTEMS	Setup Complete Setup has finished installing the Elo touchscreen drivers and components. You can choose to calibrate your Elo Touchscreen monitors after setup finishes.
TRUCIOVALDES	 ✓ Calibrate Elo Touchscreen monitors. ✓ View Readme.
Sum, EU	Click Finish to exit Setup.

The following calibration screen appears on ST-A20 main screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



The following calibration screen appears on TFTST-A20 screen. Perform a calibration by touching the mark whenever it appears. (The mark appears three times.)



After the mark was touched three times, two buttons appear at the center of the screen. Click on the check mark button to complete the calibration



If the "Files Needed" window appears during installation, click "Browse" button and select "C:\Program Files\EloTouchSystems" folder. Then click on the "OK" button.

Files Need	ed	×
	The file 'EloSer.Sys' on EloSerXp is needed.	ОК
		Cancel
	Type the path where the file is located, and then click OK.	
	Copy files from:	
		<u>B</u> rowse

Open Device Manager to confirm the touch panel driver has been installed. Make sure that "Elo Serial Touchmonitor Interface" is registered under the "Mice and other pointing devices" icon.

5.7. Installation for i-Button Driver

When the iButton is connected to the ST-A20, "Unknown Device" is shown with an exclamationmark (!) under the "Other devices" icon in the Device Manager window.

🚔 Device Manager 📃 🗖 💌
File Action View Help
E A TEC-PC
B- 🖶 Computer
🕀 👝 Disk drives
🕀 📲 Display adapters
E c Floppy disk drives
General DE ATA/ATAPI controllers
Expoards
⊕- <u>U</u> Mice and other pointing devices
B→ Monitors
B → W Network adapters
Other devices
Unknown device
Pors (COM & LPT)
Processors
Sound, video and game controllers
B M A System devices
I →

Note : A confirmation of iButton device

Open Device Manager, right-click on the "Unknown device" icon, then click on "Properties" to open the "Unknown device Properties" window. Click on the "Details" tab, confirm that there is "USB\VID_04FA&xxxxxx".

Unknown device Properties	? X
General Driver Details	
Unknown device	
Hardware Ids	•
Value	
USB\VID_04FA&PID_2490	
ОК	Canad

We can not redistribute this installation driver. Therefore, if you need the driver, you have to download the driver from following site. <u>http://www.maxim-ic.com/products/ibutton/software/tmex/</u> Note: This URL was written on 2008/7/30.

Run the "install_1_wire_drivers_x86_v40xxx.msi" which you downloaded. After a while, the "License Agreement" window appears. Confirm the contents. If you agree, check the "I accept the terms in the License Agreement" check box and click on the "Install" button.

🔀 1-Wire Drivers Version 4.01	R2 Setup
	Please read the 1-Wire Drivers Version 4.01 R2 License Agreement
	Copyright (C) 2008 Maxim Integrated Products, All Rights Reserved.
	Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute,
TELEVILLE MARKAN	Z accept the terms in the License Agreement A
	Print Back Install Cancel

After a while, the following window appears. This is a security notice of Windows system. Click on the "Install" button.

• Windows Security	.
Would you like to install this device software?	
Name: Dallas Semiconductor Maxim Publisher: Dallas Semiconductor Maxim	
Always trust software from "Dallas Semiconductor Maxim".	Install Don't Install
You should only install driver software from publishers you device software is safe to install?	trust. How can I decide which
After a while, the installation starts.

岃1-Wire Drivers Version 4.01 R2 Setup	- • -
Installing 1-Wire Drivers Version 4.01 R2	
Please wait while the Setup Wizard installs 1-Wire Drivers Version 4.	01R2.
Status:	
<u>B</u> ack Next	Cancel

After completion of the installation, the following window appears. Click on the "Finish" button.



Next, we explain the method of updating driver from device manager.

Open Device Manager, right-click on the "USB Host Adapter for 1-Wire Network using WinUSB" icon under the "1-Wire", then click on "Properties" to open the "USB Host Adapter for 1-Wire Network using WinUSB Properties" window.

a Device Manager	
File Action View Help	
Image: Second	

Click on the "Details" tab, and confirm that it is same as following window.

General Driver	Details	
USB Property	Host Adapter for 1-Wire Netw	ork using WinUSB
Device descri	ption	•
Value		
USB Host Ac	apter for 1-Wire Network usin	g WinUSB
USB Host Ac	apter for 1-Wire Network usin	g WinUSB

neral Driver	Details	
USB H	ost Adapt	er for 1-Wire Network using WinUSB
Driver	Provider:	Dallas Semiconductor Maxim
Driver	Date:	5/1/2007
Driver	Version:	6.0.1.0
Digital	Signer:	dallas semiconductor maxim
Driver Detai	s	To view details about the driver files.
Update Drive	r	To update the driver software for this device.
Roll Back Dri	ver	If the device fails after updating the driver, rol back to the previously installed driver.
Disable		Disables the selected device.
Uninstall		To uninstall the driver (Advanced).

Click on the "Driver" tab, and click on the "Upate Driver..." button.

After a while, the "How do you want to search for driver software" window appears. Click on the "Browse my computer for driver software" button.

Note : If you install it from the media(CD etc.), appoint a media drive path in the search range.



Note: To use the RAID, subsequently install the RAID Utility with reference to Section 6.3 Installation of RAID Utility JMB36X RAID CONFIGURER.

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.

Name: JRAID Level: 1-Mirror Disks: Select Disk	▶ HDD0: Hitachi HTE54321 120 GB Non-RAID ▶ HDD1: Hitachi HTE54321 120 GB Non-RAID
Size: 128 GB	
Confirm Creation	
[RAID Disk Drive List]	Setting MiD Capacity
	Enter the Mill capacity. The default value indicates the maximum capacity determined by the selected members. If less then the maximum capacity is chosen, the remaining

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 Section 6.1.4 Exit from BIOS Menu.

Create RAID Disk Drive Delete RAID Disk Drive Revert HDD to Non-RAID Solve Mirror Conflict Rebuild Mirror Drive Rebuild Type: Verify HDD SHART INFO Save And Exit Setup Save And Exit Setup	HDD0: Hitachi HTE54321 120 GB RAID Insid HDD1: Hitachi HTE54321 120 GB RAID Insid
C RAID Disk Drive List]
<u>Model Name</u>	RAID Level Capacity Status Members(HDDx)
RDD0: JRAID	1-Mirror 120 GB Normal 01

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, ST-A20 is automatically restarted.

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

	Create Will Disk Drive Belete RAID Disk Drive Revert HDD to Non-RAID Solve Mirror Conflict Rebuild Mirror Drive Rebuild Type: Verify HDD SHART INFO Save And Exit Setup Exit Without Saving	HUDD: Hitachi HTE54321 128 GB RAID Insid HDD1: Hitachi HTE54321 128 GB RAID Insid
RDD8: JRAID 1-Mirror 128 GB Normal 81	Hodel Name RDD0: JRAID 1-1	us Menbers(HDDx) Hirror 120 GB Normal 81

6.2. Installation of Each Operating System in RAID Environment

6.2.1. Windows 2000/Windows XP

6.2.1.1. Getting Started

The JMicron 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 JMicron RAID driver on the FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk]

Copy all files in the "ST-A20\RAID\Driver\Floppy32" folder contained in the driver kit CD to the FD.

As soon as the boot up from CD-ROM starts, a message will be displayed at the top left area of the screen as shown below. Do not press the "Ctrl + J" key. (Note the message is shown only for about 8seconds. If necessary, press the "Ctrl + J" key to enter RAID Setup.)



6.2.1.2. 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 appears, it means the instruction of the driver installation has failed. In this case, reboot ST-A20 and start the installation of Windows from the beginning.



A short time after the instruction to install the driver is given to Windows XP, 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 diver 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.

RAID/AHCI Driver for JMicron JMB36X Control	ler (x32)
 To specify additional SCSI adapters, CD-RO disk controllers for use with Windows, inc which you have a device support disk from manufacturer, press S. 	M drives, or special luding those for a mass storage device
If you do not have any device support disk device manufacturer, or do not want to spe mass storage devices for use with Hindows,	s from a mass storage cify additional press ENTER.
S=Specify Additional Device ENTER=Continue	F3=Exit

After installing the RAID driver, follow the instructions of the Windows installer to complete the installation. When the hardware installation screen shown below appears during the installation of the operating system, click on the "Yes" button.



Upon completion of the installation of Windows, creation of the RAID is also completed.

6.2.2. Windows Embedded for Point Of Service (WEPOS)

6.2.2.1. Getting Started

The JMicron 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 insert a RAID Driver Floppy Disk into FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk]

Copy all files in the "ST-A20\RAID\Driver\Floppy32" folder contained in the driver kit CD to the FD.

As soon as the boot up from CD-ROM starts, a message will be displayed at the top left area of the screen as shown below. Do not press the "Ctrl + J" key. (Note the message is shown only for about 8seconds. If necessary, press the "Ctrl + J" key to enter RAID Setup.)

Corp. PCIE-to-SATAI JMicron Technology.
BEVS-22VATO
to RAID Setup.

6.2.2.2. 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, press the "Esc" key to cancel. We need to do the installation from the start.

er	Press any key for command prompt.

Afterward this command prompt will be shown.



On command prompt, type "setup /devicefile:a:\driverinstall.xml" and press the "Enter".

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

(Note there is only one space between characters "setup" and "/".)

After we press "ENTER" the command prompt will not close, please wait for the installation to begin. **Do not type "EXIT" and press enter on the command prompt.**



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

Welcome for Point This wizard help of Service. To continue, clic	to Windows of Service Se s you set up Windows k Next.	Embedded otup.
< Back	Next >	Cancel

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
- □ Window Media Player 9.0

Windows Embedded for Point of Service
Optional Software Component Settings Select the optional software components you would like
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 successfully installed, the "User name and Password" window will appear.

Upon completion of the installation of Windows Vista, creation of the RAID is also completed.

6.2.3. Windows Embedded POSReady 2009

6.2.3.1 Getting Started

The JMicron 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 JMicron RAID driver on the FDD before installing the operating system.

[How to Create a RAID Driver Floppy Disk] Copy all files in the "ST-A20\RAID\Floppy32" folder contained in the Driver kit CD to the FD.

As soon as the boot up from CD-ROM starts, a message will be displayed at the top left area of the screen as shown below. Do not press the "Ctrl + J" key. (Note the message is shown only for about 8seconds. If necessary, press the "Ctrl + J" key to enter RAID Setup.)



6.2.3.2. 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.



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".

Windows Embedded POSReady 2009	×
Storage Drivers	Windows Embedded
C No<u>A</u>dditional Storage Drivers are Required Setup will use storage drivers from the PDSReady installation media.	Install storage drivers obtained from the hardware manufacturer if they are required.
 Install Third-PartyStorage Divers Setup will install additional drivers that you provide from your hardwarmanufacture. 	
< <u>₿</u> ack <u>N</u> ext >	Cancel

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.

🐞 Windows Embedded POSReady 2009	X
Storage Drivers	Windows Embedded POSReady 2009
No <u>A</u> dditional Storage Drivers are Required Setup will use storage drivers from the PDSReady installation media.	Install storage drivers obtained from the hardware manufacturer if they are required.
Installing Mass-Storage Device Drivers	
install milder any storage blocks	
Setup will install additional drivers that you provide from your hardware manufacturer.	
< Back Next >	<u>C</u> ancel

"Installation Type" window is displayed.

Select "Custom" and select necessary option on "Optional Component". (Refer to Notice 6.1.3)

🐻 Windows Embedded POS	Ready 2009		×
Installation Type			Windows Embedded
 Typical (1126 MB) This is the recommende Fremework 2.0, POS to virtual memory. Minimum (520 MB) Includes the minimum r to conserve disk space. 	d installation type. Inclu .NET 1.12, and enable equired components and	des the .NET s system-managed I disables vitual mem	Select from the available installation types. Optional components can be modified after Selup is compete by using Add or Remove Programs in the Control Panel.
Custom			
Enables you to select o virtual memory.	ptional components and	to manually configure	
	< <u>B</u> ack	<u>N</u> ext >	Cancel

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

6.2.4. Windows Vista / 7

6.2.4.1. 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-A20\RAID\Driver\Floppy32" folder contained in the driver kit CD to the FD or the USB flash memory.

As soon as the boot up from CD-ROM starts, a message will be displayed at the top left area of the screen as shown below. Do not press the "Ctrl + J" key. (Note the message is shown only for about 8seconds. If necessary, press the "Ctrl + J" key to enter RAID Setup.)



6.2.4.2. 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.

Select the driver to	be installed.	
Load Driver		
To install ti media com Note: The i	he device driver needed to access you taining the driver files, and then click installation media can be a floppy disi	r hard drive, insert the installation OK. k, CD, DVD, or USB flash drive.
P Hote univers units are r		se OK Cancel
Brgute	Bescan	

The driver file selection screen as shown below appears. On this screen, select the JMicron 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 "Jmicron JMB36X Controller (C:\jraid_to.inf)", then click on the "Next" button. The OS installation drive selection screen appears again.



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.

Name	Total Size F	ree Space Type
Disk 0 Unallocated Space	111.8 GB	111.8 GB
fy Befresh 18 Load Driver		rve options (gdvances

Upon completion of the installation of Windows Vista, creation of the RAID is also completed.

6.3. 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 section.

() JMB36X RAI	ID CONFI	GURER		? .	- x
				M	
RAID LIST		зт			
Raid Name	TEST	Normal 9.3438G	B		
TEST	Name		Capacity	Device Type	Chanr
	SATA	TOSHIBA MK6052GSX	55.8902GB	3G NCQ HDD	1
	SATA	TOSHIBA MK6052GSX	55.8902GB	3G NCQ HDD	0
Raid Information Disk Array ID: 0 Disk Array Name: TEST Disk Array Type: Raid 1 (Mining) Disk Count in Array: 2 Disk Members: - SATA TOSHIBA MK6C - SATA TOSHIBA MK6C Disk Array Size: 9.3438GB					
	<	0			
			JMICRON	TECHNOLOGY	CORP.

[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.)



6.3.1. Installation

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

Run setup.exe in the "ST-A20\RAID\Driver" folder in the ST-A20Windows driver kit. 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.

JMicron JMB36X Driver - Ins	stallShield Wizard
JMicron JMD36X Driver - Int	ItalIShield Wizard Maintenance Complete InstalShield Wizard has finished performing maintenance operations on JMicron JMB38K Drives InstalShield wizard has finished performing maintenance operations on JMicron JMB38K Drives
	No. I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
InstallShield	< Back Finish Cancel

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

6.3.2. Setup for Windows Vista / 7

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

	Panel Administrative Tools		- 4	Search	
Organize → III View	vs 🔻			50000	2
Favorite Links Pocuments Pictures Music Recently Changed Searches Public	Name Computer Management Data Sources (ODBC) Event Viewer SCSI Initiator Local Security Policy Memory Diagnostics T Print Management Reliability and Perform Services System Configuration Task Scheduler Windows Firewall with	Date modified 1/20/2008 6:43 PM 11/2/2006 4:53 AM 11/2/2006 4:54 AM 1/20/2006 4:54 AM 1/20/2006 4:53 AM 11/2/2006 4:53 AM 1/20/2008 6:43 PM 1/20/2006 4:53 AM 11/2/2006 4:54 AM 1/20/2008 6:44 PM	Type Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut Shortcut	Size 2 KB 2 KB	
Folders A	ζ				

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

Jask Scheduler (Local)	Task Scheduler Summary (Last refre	shed: 1/6/2009 4:24:22 PN	A)	Actions
Task Scheduler Library	You can use Task Schedu common tasks that your automatically at the time click a command in the A Tasks are stored in folder Library. To view or perfor	ler to create and manage computer will carry out is you specify. To begin, Action menu. s in the Task Scheduler rm an operation on an	e É	 Task Scheduler (Local) Connect to Another C Create Basic Task Create Task Import Task
	Task Status		•	Display All Running Ta.
	Status of tasks that have started	in t lasthaus		AT Service Account Co
	Status of tasks that have started		•	View
	Summary: 2 total - 0 running, 2	succeeded, 0 stopped, 0	failed	Refresh
				Help
	Task Name	Run Result	Run Star	
	E CrawlStartPages (last run su B SR (last run succeeded at 1/4	cceeded 5/2009 3		
	4 [•	+:

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.

inggers	Actions Conditions Settings	
Na <u>m</u> e:	36X Raid Configurer	
Author:	tecsys-PC\tecsys	
Description:		
Security options		
When running th	e task, use the following user account:	
tecsys-PC\tecsys		Change <u>U</u> ser or Group
Run onlywhe	a urar is logged on	
Null Office which	ver is logged on or not	
Pup whether	iser is logged on or not	
Run <u>w</u> hether		local computer resources.
Run whether u Do not store	re <u>p</u> assword. The task will only have access to I	
 Run whether u Do not sto Run with high 	re gassword. The task will only have access to l	
 Run whether of Do not sto Run with high Hidden 	re gassword. The task will only have access to l est privileges Configure for: Windows Vista™ or Window	ws Server™ 2008

Click on the "Triggers" tab and click on the "New..." button.

rigger	Details	Status

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

Segin the task: Settings	At log on			-
Any user				
O Spe <u>c</u> ific use	r or group: tecsys	-PC\tecsys		Change User or Group
Advanced setting	gs			
Advanced setting	gs r:	15 minutes	-	
Advanced setting	gs r: every:	15 minutes	T	for a duration of: 1 day
Advanced setting Delay task fo Repeat task Stop all	gs r: every: running tasks at end	15 minutes 1 hour of repetition dur	• • ation	for a duration of: 1 day
Advanced setting Delay task fo Repeat task (Stop all Stop task if ii	gs rr: every: running tasks at end t runs <u>l</u> onger than:	15 minutes 1 hour of repetition dura 3 day	▼ ▼ atjon	for a duration of: 1 day
Advanced setting Delay task fo Repeat task Stop all Stop task if if Activate:	gs every: running tasks at end t runs longer than: 2/ 9/2009	15 minutes 1 hour of repetition duri 3 day	▼ ▼ ation ys	for a duration of: 1 day
Advanced setting Delay task fo Repeat task o Stop all Stop task if if Activate: Expire:	gs every: running tasks at end t runs <u>longer than:</u> 2/ 9/2009	15 minutes 1 hour of repetition dura 3 day 9:59:23 AM 9:59:23 AM	v ation ys	for a duration of: 1 day

Confirm the new trigger has been added.

General	Triggers	Actions	Conditions	Settings		
When y	ou create	<mark>a task, yo</mark> i	u can specify	the conditions that will trigger	the task.	
Trigge	r	Det	ails			Status
At log	on	At I	og on of any	user		Enabled
	2014/010		2. A.M.	54 (V		
Nev	/	<u>E</u> dit	Delete			

Click on the "Actions" tab and click on the "New..." button.

when you crea	e a task, you must specify the action that will occur w	vhen your task starts.	
Action	Details		
			-
-			

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

Start a program

: C:\Windows\System32\xRaidSetup.exe

Add arguments (optional) : boot

lew Action	
You must specify what action this task will perform.	
Action: Start a program	
Settings	
<u>P</u> rogram/script:	
C:\Windows\System32\xRaidSetup.exe	Browse
Add arguments (optional):	
Start in (ontional):	
start in (optional).	

Confirm the new action has been added.

Action	Details	-
Start a program	C:\Windows\System32\xRaidSetup.exe boot	
		-
		1

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

Create Task	×
General Triggers Actions Conditions Setting	2
Specify additional settings that affect the behavio	or of the task.
Allow task to be run on demand	
Run task as soon as possible after a <u>s</u> cheduled	start is missed
If the task fails, restart every:	1 minute 👻
Attempt to restart up to:	3 times
Stop the tas <u>k</u> if it runs longer than:	3 days 👻
If the running task does not end when request	ed, <u>f</u> orce it to stop
If the task is not scheduled to run again, <u>d</u> elete	e it after: 30 days 👻
If the task is already ru <u>n</u> ning, then the following r	rule applies:
Do not start a new instance 🔻	
	OK Cancel

Task Scheduler		
File Action View Help		
🗢 🤿 🙎 📰 🚺 🖬		
Task Scheduler (Local) Task Scheduler (Local) Task Scheduler Library	Name Status Triggers Next Run Time 950X Raid Configurer Ready At log on of any user Image: Actions Conditions Settings General Triggers Actions Conditions General Triggers Actions Conditions Settings Name: 36X Raid Configurer Author: Image: Conditions Settings Author: tecsys-PC\tecsys E Security options E Security options When running the task, use the following user account: tecsys-PC\tecsys @ Run only when user is logged on Image: Conditions Image: Conditions	Actions Task Scheduler Library Task Scheduler Library Create Basic Task Create Task Toport Task Display All Running Ta New Folder View Refresh Help Selected Item Run End Disable Export Properties Lette Help
	tecsys-PC\tecsys Run only when user is logged on	X Delete

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

6.3.3. Setup for WEPOS

Run the "Del_HKLM.reg" file in the "ST-A20Win\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"

Registry Edito	r			Constant Providence	×
C:¥	you sure you ST-820\RAID	want to add the #Driver¥WEPO5_	information i "Reg¥Del_HKI	n .M.reg to the	registry?
	<u> </u>	Yes	No		
egistry Edito	r			115	2
i) Info	rmation in C:¥ tessfully enter	/ST-B20¥RAID¥D red into the regis	kiver¥WEPOS try.	5_Reg¥Del_H	KLM.reg has been

Reboot your computer.

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

Administrator		
Internet	My Computer	
Notepad	Control Panel	
Shortcut to RaidApiTest.exe	🗁 Run	
Accessor		
Al Programs	Explorer Meda Player	<u></u>]
	Log Off 💽 Shut Down	Evaluation copy

Run the "Add_HKCU.reg" file in the "ST-A20Win\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"

Are you sure C:¥ST-820¥R	you want to add th AID¥Driver¥WEPO:	e information in 5_Reg¥Add_HK	n CU-reg to the n	egistry?
	<u>Y</u> es	No		
jistry Editor				1
 Information is 	n C:¥ST-820¥RAIDA	iDriver¥WEPOS jistry,	_Reg¥Add_HK(U.reg has
successfully e	and a second sec			

Reboot your computer.

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



6.4. 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.

6.4.1. Getting Started

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

6.4.2. Startup of RAID Application

Run the JMB36X RAID CONFIGURER from the task tray.



6.4.3. 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.

🚱 ЈМВЗБХ ВА	ID CONFIGURER				? - X
		Ø	G		A.
RAID LIST					
Raid Name	All disks:	Caractu	Deven Tree	Channel	Device Priority
	Hitachi HTE5432	19.0833GB	3G NCO HDD	0	Master
	Hitachi HTE5432	19.0833GB	3G NCO HDD	1	Master
Raid Information					
			JMICR	ON TECH	NOLOGY CORP.

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



6.4.4. Setup of RAID Name

Input Raid Name at your disposal in the text box.

19	Please spe and the blo	cify the name, the ock size of the rai	e type, d
С м) Јмвзбх	Raid Name	1	
	Raid Type	Raid 0 (Stripe)	T
de	Block Size	64 KB	•

6.4.5. 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.

NTRODUCT	ION
19	Please specify the name, the type, and the block size of the raid
MILTON X	Raid Name JRAID
Courses of	Raid Type Raid 1 (Mirror)
di	Block Size 64 KB

6.4.6. 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.



6.4.7. 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.


6.4.8. 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.

Name Hitachi HTE5432	Capacity 19.0833GB	3G NCQ HDD	Channel	Device Priorit Master
Hitachi HTE5432	19.0833GB	3G NCO HDD	1	Master
	Name Hitachi HTE5432	Name Capacity Itachi HTE5432 19.0833GB Itachi HTE5432 19.0833GB	Hitachi HTE5432 19.0833GB 3G NCO HDD	Hitachi HTE5432 19.0833GB 3G NCO HDD 0

6.4.9. 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.

👰 ЈМВЗБХ RA	ID CONFI	GURER				? - X
<u> </u>			Ø	g	ľ	
RAID LIST		вт				
Kalo Name	JRAID	Normal	9.3438	IGB	an a	
IRAID	Name		Capacity	Device Type	Channel	Device Priority
o trade	SATA	TOSHIBA	55.8902GB	1.5G NCQ H	0	Master
	SATA	TOSHIBA	55.8902GB	3G NCQ HDD	1	Master
Raid Information Disk Array ID: 0 Disk Array Name: JRAID Disk Array Type: Raid 1 (Mirr Disk Count in Array: 2 Disk Members: - SATA TOSHIBA MK80 - SATA TOSHIBA MK60 Disk Array Size: 9.3438GB						
< <u> </u>				JMici	RON TECH	NOLOGY CORP.

6.5. 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 Sections 6.4.1 to 6.4.4.

6.5.1. 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	Туре	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.

6.5.2. 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 following the next chapter.

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.

6.5.3. 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 chapter 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 (Red cable)

HDD1 : ch1 (Blue cable)

Note: For details of the cable location, please refer to the ST-A20 Product Specification.

JHicron Technology Corp.	PCIE-to-SATALI/II	DE RAID Co	ntroller B	10S v1.06.83
Copyright (C) 2005 JMicro	om Technology.			
HDD0: Hitachi HTE5432 HDD1: Hitachi HTE5432	12L9A300 12L9A300	COOD	128 GB N 128 GB N	10 Inside 10 Inside
RDD8: JRAID	1-Mirror		120 GB R	ebu i 1d
Press [Ctrl+J] key to RAI	D Setup. Press [E	nter] key	to quit.	

In the above example, "DOWN" is indicated for HDD0, which means the HDD, which is connected with ch0, is defective. After confirming the defective HDD, turn the HDD power off and replace the HDD, which is connected with ch0 (Red cable), with a new HDD.



6.5.4. 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.	JHicron Technology Corp. PCIE-to-SATAIL/IDE RAID Controller BIOS v1.06.03 Copyright (C) 2005 JHicron Technology. HDD1: Hitachi HTE543212159300 DDAN 120 GB RAID Inside HDD1: Hitachi HTE543212159300 COOD 120 GB Rabaild RDD0: JMAID 1-Mirror 120 GB Rabaild Press [Ctrl+J] key to RAID Setup. Press [Enter] key to quit.
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.	Unicrom Technology Corp. PCIE-to-SMTAIL/IDE BAID Controller BIDS v1.86.63 I Main Mema J Create BAID Disk Drive Belete BAID Disk Drive Babelid Mirror Conflict Rebuild Hype: No Verly HUDS: Hitachi HTES4321 128 GB BAID Inside HUDS: Hitachi HTES4321 128 GB BAID Inside Rebuild Hype: No Verly HUD SHMT HIVP Save find Exit's Setup Exit Hithout Saving Capacity Status Members(HUDx) 128 GB Rebuild 01
Select "Rebuild Mirror Drive" from "[RAID Disk Drive List]" and press the [Enter] key. Then rebuilding starts.	Microm Technology Corp. PCIE-to-SMIAIL/IBE Mill Controller BIOS v1.05.03 I Hain Hemu J I Hard Disk Drive Create RMID Disk Drive I Hard Disk Drive Robeild Hirror Drive Rebuild Upe: Verify NDD SHRIT INFO Svie Merkor Conflict Save And Exit Setup Exit Hithout Saving Li MAID Disk Drive List 1 Inside MDD SHRIT INFO Svie Merkor Conflict Robeild Hare RID Level Capacity Status Hembers(HDDs) Rbde: Mare RID Level Capacity Status Hembers(HDDs) Rbde: Mare I-Hirror 120 DB Rebuild UP: 1-Hirror Rbde: JABID 1-Hirror 120 DB Rebuild UP: 1-Hirror Rbde: JABID 1-Hirror 120 DB Rebuild UP: 1-Hirror 120 DB Rebui

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While rebuilding, It is displayed with "Rebuilding xx% ,please wait" under the screen. (When xx becomes 100%, it means rebuilding has completed.)	Unicrom Technology Corp. PCIE-to-SATATIL/IDE RAID Controller BIOS v1.06, 83 Create RAID Disk Drive Revert WD to Non-RAID Solve Mirror Conflict Rebuild Mirror Drive Revert WD to Non-RAID Save And Exit Status Exit Hithout Saving Clean And Disk Drive Capacity Status HUB: Hitachi HTS54321 120 GB RAID Inside C AND Disk Drive Ist Model Manuary Save And Exit Status Exit Hithout Saving Raid Disk Drive Ist Midel Mirror Drive Revert WD to Non-RAID Save And Exit Status Exit Hithout Saving Capacity Status 120 GB Rebuild 01 C AND Disk Drive Ist Model Manuary Exit Hithout Saving Raid Disk Drive Ist Midel Mirror Capacity Status 120 GB Rebuild 01 Model Manuary Model Manuary Model Manuary Midel Mirror Raid Disk Drive Ist Midel Mirror Capacity Status 120 GB Rebuild 01
When rebuilding is completed, RAID status turns into "Normal" from "Rebuild".	Hirror Technology Cary. File-to-Stitui/LBE Mill Controller BildS vi.86.83 I fain fem 1 File-to-Stitui/LBE Mill Controller BildS vi.86.83 Create Mill Bild brive Revert Mill Mohartife Robuit Mirror Brive Robuit Mirror Brive Hall Brite Hitcher Mill Level Hill Evel Hill
Select "Save And Exit Setup" from "[Main Menu]", and press the [Enter] key.	Unicron Technology Corp. Hain New J Create Build Disk Brive Robert 100 Disk Drive Robert 100 Disk Drive Rober
A confirmation screen ("Save to Disk &" Exit) is displayed, and press the [Y] key.	Uniteronal Technology Corp. FEIE-to-SHTMI1/DEE BAID Controller BUDS v1.66.82 Chain Benn I Index Back Drive List I Coracte BAID Bisk Brive List I Coracte DATE DATE DATE DATE DATE DATE DATE DATE

[Rebuild from Operating System]

Description	JMB36X RAID CONFIGURER Screen
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.	JHieron Technology Corp. PCIE-to-SATAII/IDE RAID Controller BIOS v1.86.83 Copyright (C) 2005 JHieron Technology. MDD: Hitachi HTES4321219A300 DDM 120 CB MHD inside HDD1: Hitachi HTES4321219A300 COOD 120 CB MHD inside RDD9: JMAID 1-Hirror 120 CB Rebuild Press [Ctrl+J] key to MAID Setup. Press [Enter] key to quit.
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]	ABB35X RAID CONFIGURER 2 - X Image: Configure
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 wan to rebuild, appears.	CALL LIST Constructions Rad Witand Call List Constructions Rad Witand Call List Constructions Rad Witand Virad Name Resultations Rad Witand Virad Name Virad Witand Virad Name Witand Virad Information Witand Next Concert Next Concert JMICHON TECHNOLOgy Edge

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7. Notice and Limitation

7.1. Notice

7.1.1. About Power management of USB-HUB

Open the "Device Manager", right-click on the "USB Root Hub" icon under the "Universal Serial Bus controllers", and then click on "Properties" to open the "USB Root Hub Properties" window.



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-A20 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" window. And click on the "Configure.." button. (Left-hand figure) Choose the Wake On LAN function as you like. (Right-hand figure)

tworking	Teaming VLANs Driver Details
Connect using:	General Link Speed Advanced Power Managemen
Market Intel(R) PRO/100 VE Network Connection	Power Saver and Wake on LAN Options
his connection uses the following items:	Power Saver Options:
Client for Microsoft Networks QoS Packet Scheduler	Reduce link speed during standby
File and Printer Sharing for Microsoft Networks	Wake on LAN:
A Internet Protocol Version 6 (ICP/IPv6)	Wake on Directed Packet
Link-Laver Topology Discovery Mapper I/O Driver	Wake on Magic Packet
🗹 📥 Link-Layer Topology Discovery Responder	Wake on Magic Packet from power off state
	Wake on Directed Packet
InstallUninstall Properties	Enables this device to bring the computer out of standby or hibernation when a packet is sent directly to the adapter.
Allows your computer to access resources on a Microsoft network.	For example, any attempt to remotely access files stored on the computer will wake it.

There are four settings in Wake On LAN. Choose the best for your system.

Wake on directed packet

Enables this device to bring the computer out of standby or hibernation when a packet is sent directly to the adapter.

For example, any attempt to remotely access files stored on the computer will wake it.

Wake on Magic packet

Enables a management station to bring the computer out of standby or hibernation when a Magic Packet is sent directly to the adapter.

Wake on Magic Packet from power off state

Allows the adapter to wake an Advanced Power Management (APM) enabled system from a power-off (S5) state. ACPI systems can wake from an S5 state if the system's BIOS supports it.

Wake on Link

Allows the adapter to wake an Advanced Power Management (APM) enabled system from a power-off (S5) state when the network connection establishes link.

ACPI systems can wake from standby (S3) or Hibernate (S4). If the system's BIOS supports it, ACPI systems can wake from an S5 state.

NOTE: Link must be lost before the system enters an S5 state in order to wake the system with a link up event.

7.1.3. "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".

🐻 Windows Embedded POSReady 2009	×
Optional Components	Windows ⁻ Embedded
Vet Framework 2.0 Additional Drivers Additional Drivers Fax Services Indexing Services Internet Information Services (IIS) Management and Monitoring Tools Message Queuing Networking Services Vetworking Services Vetworking Services Vetworking Services Vetworking Services Vetworking Services	 Select the optional software components you want to install. Optional components can be modified after Setup is complete by using Add or Remove Programs in the Control Panel.
Description: Includes device drivers needed during the installation of computer peripherals.	
Space required: 823 MB	
< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel

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 Graphic Driver

The graphic driver of ST-A20 possesses Hot Key (shortcut key) to offer the option settings. However, we strongly recommend that you don't use it. When you take the wrong handling of this hot key, inconveniences in the display and false setting with the touch panel occur.

Intel® Graphics Media Accelerator Driver for mobile	Hot Keys	Scheme Options
Display Devices	🗖 Enable Hot Κεγs	
Display Settings	Action Enable Notebook Enable/Disable Panel Fitting	Hot Keys CTRL> <alt>F3 <ctrl><alt>F11</alt></ctrl></alt>
Color Correction	Open Graphics Property Application Rotate to Normal	<ctrl><alt>F12 <ctrl><alt>Up</alt></ctrl></alt></ctrl>
Hot Keys	Rotate 90 Degrees Rotate 180 Degrees	<ctrl> <alt>Left <ctrl> <alt>Down</alt></ctrl></alt></ctrl>
(intel)		Restore Defaults
Launch Zoom	3D Settings	
Information	Video Overlay	OK Cancel Apply

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.

7.2.2. 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-A20 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". And then, select the "Internet Time" tab and click on the "Change settings..." buttion.



Uncheck the "Synchronize with an Internet time server" check box.



Control Panel	•			↓ 49	Search			× P
Control Panel Home Classic View	Name Add Hardware	Category	nfigure administ	vative setting	is for your con	nputer. and	Default Programs	
	Device Manager	Ease of Acce	Elo Touchscreen	Folder Options	Fonts	Game Controllers	Indexing Options	ш

Next, open "Administrative Tools" from "Control Panel".

And then, open "Services" as below.

🕒 🗢 🗟 🕨 Control	Panel Administrative Tools		✓ 4 5	earch	Q
🌗 Organize 👻 🏢 View	rs 🔻 🛄 Open				0
Favorite Links	Name	Date modified	Туре	Size	
E Decuments	🛃 Computer Management	7/18/2008 11:49 AM	Shortcut	2 KB	
	Data Sources (ODBC)	11/2/2006 9:53 PM	Shortcut	2 KB	
Pictures	🔚 Event Viewer	11/2/2006 9:54 PM	Shortcut	2 KB	
Music	🛃 iSCSI Initiator	11/2/2006 9:54 PM	Shortcut	2 KB	
🚯 Recently Changed	🛃 Local Security Policy	7/18/2008 11:49 AM	Shortcut	2 KB	
R Searches	Memory Diagnostics T	11/2/2006 9:53 PM	Shortcut	2 KB	
Public	Print Management	11/2/2006 9:55 PM	Shortcut	2 KB	
· · · · · · · · · · · · · · · · · · ·	Reliability and Perform	-7/18/2008 11:49 AM	Shortcut	2 KB	
	Services	7/18/2008 11:49 AM	Shortcut	2 KB	
	System Configuration	11/2/2006 9:53 PM	Shortcut	2 KB	
	🔊 Task Scheduler	11/2/2006 9:54 PM	Shortcut	2 KB	
	Windows Firewall with	7/18/2008 11:49 AM	Shortcut	2 KB	

File Action View	Help						
Services (Local)	Q Services (Local)						
	Windows Time	Name	Description	Status	Startup Type	Log On As	-
	Description: Maintains date and time synchronization on all clients and servers in the network. If this service is stopped, date and time synchronization will be unavailable. If this service is disabled, any services that explicitly depend on it will fail to start.	Windows Connect Windows Defender Windows Driver F Windows Event C Windows Event Log Windows Event Log Windows Firewall Windows Installer Windows Installer Windows Installer Windows Manage Windows Manage Windows Anage Windows Assarch Windows Remote Windows Remote Windows Trne	Act as a Reg Scan your c Manages us Allows error This service Windows Fi Provides im Adds, modi Provides a c Shares Win Shares Win Optimizes p Windows R Provides co Provides co	Started Started Started Started Started Started Started	Manual Automatic Automatic Manual Automatic Automatic Automatic Manual Manual Manual Manual Manual Automatic Disabled	Local Service Local Syste Local Syste Network S Local Service Local Service Local Service Local Service Local Syste Network S Local Syste Local Syste	
		Windows Update	Enables the	Started	Automatic (D	Local Syste	1

From displayed service, double-click the "Windows Time" as below.

In the service setup window, change the Startup type value from "Automatic" to "Disabled" as below.

Log Un	Recovery Dependencies	
Service name:	W32Time	
Display name:	Windows Time	
Description:	Maintains date and time synchronization on all clients and servers in the network. If this service is	
Path to executab C:\Windows\sys	le: tem32\svchost.exe +k LocalService	Path to executable: C:\Windows\system32\svchost.exe +k LocalService
Startup type:	Automatic	Startup type: Disabled
Help me configur	e service startup options.	Help me configure service startup options.
Service status:	Stopped	III
Start	Stop Pause Resume	
You can specify the from here.	the start parameters that apply when you start the service	
Start parameters:		

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

7.2.3. Warning message on Control Panel of Touch Panel driver

As a default, the ST-A20 shows the following warning on the control panel of the touch panel.

eneral Mode Sound Tropentes 1	About
Screen Information	
Windows monitor number:	1 🖌
Touchscreen type:	AccuTouch
Connection Port:	COM6
Controller model:	SCOACh [2.0 - 0.0]
Controller Status:	Error Code (0x10)
Controller Serial Number:	000000
Video Alignment	
Identify Align	Advanced

You have to change a value of the next registry to use it definitely.

\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\SERENUM\ELOSERIAL\xxxxx\Devic eParameters\HardwareHandshaking

Note: The part of above "xxxxx" is a monitor ID. Refer to the following window.



Default is 1 (Left-hand figure). Change it to 0(Right-hand figure).

Edit DWORD (32-bit)	Value	Edit DWORD (32-bit)	Value
Value name: HardwareHandshakin	g	Value name: HardwareHandshakir	Ig
Value data:	Value data: Base OK Cancel		Base Hexadecimal Decimal OK Cancel

In "Properties1" and "Properties2" tab, there are three items to become the "Not Available" indication after changing registry setting.

Touchscreen Type Controller model Controller Status

Elo Touchscreen Properties	Elo Touchscreen Properties
General Mode Sound Properties 1 Properties 2 About	General Mode Sound Properties 1 Properties 2 About
Screen Information	Screen Information
Windows monitor number: 1	Windows monitor number: 1
Touchscreen type: Not Available	Touchscreen type: Not Available
Connection Port: COM2	Connection Port: COM6
Controller model: Not Available	Controller model: Not Available
Controller Status: Not Available	Controller Status: Not Available
Controller Serial Number: 000000	Controller Serial Number: 000000
Video Alignment	Video Alignment
Identify Align Monitor Advanced	Identify Align Monitor Advanced
Ok Cancel Apply Help	Ok Cancel Apply Help

It mean, the reason is because it stopped the acquisition / an indication function of the hardware information by a setting change of the registry, and there is not the influence in touch panel performance.

7.2.4. About the necessity of the touch panel reset related to a setting change of the display

When you changed the resolution / indication method of the display via Intel Graphic Driver, it is recommended that you set the touch panel function using the "Video Alignment" function.

Because the touch panel driver doesn't do the automatic adjustment by itself when the setting of graphic changes.

Otherwise the wrong click point of the touch panel might happen unless you do this procedure.