FOR.A®
INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

OPERATION MANUAL

MBP-120SX
MBP-125SX

MXF Clip Server

S

2nd Edition

FOR-A COMPANY LIMITED

Edition Revision History

Edit.	Rev.	Date	Description	Chapter
1	-		(Not released)	
2	-	2014/09/01		

Precautions

Important Safety Warnings

[Power]

 Caution	Operate unit **only** on the specified supply voltage.
	Disconnect power cord by connector only. **Do not** pull on cable portion.
 Stop	**Do not** place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.

[Grounding]

 Caution	**Ensure** unit is properly grounded at all times to prevent electrical shock hazard.
 Hazard	**Do not** ground the unit to gas lines, units, or fixtures of an explosive or dangerous nature.
 Caution	**Ensure** power cord is firmly plugged into AC outlet.

[Operation]

 Hazard	**Do not** operate unit in hazardous or potentially explosive atmospheres. Doing so could result in fire, explosion, or other dangerous results.
 Hazard	**Do not** allow liquids, metal pieces, or other foreign materials to enter the unit. Doing so could result in fire, other hazards, or unit malfunction.
	If foreign material does enter the unit, turn power off and disconnect power cord **immediately.** Remove material and contact authorized service representative if damage has occurred.

[Transportation]

 Caution	**Handle** with care to avoid shocks in transit. Shocks may cause malfunction. When you need to transport the unit, use the original packing materials or alternate adequate packing.

[Circuitry Access]

	**Do not** remove covers, panels, casing, or access circuitry with power applied to the unit! Turn power off and disconnect power cord prior to removal. Internal servicing / adjustment of unit should only be performed by qualified personnel.
 Stop	**Do not** touch any parts / circuitry with a high heat factor. Capacitors can retain enough electric charge to cause mild to serious shock, even after power is disconnected. Capacitors associated with the power supply are especially hazardous. Avoid contact with any capacitors.
 Hazard	Unit **should not** be operated or stored with cover, panels, and / or casing removed. Operating unit with circuitry exposed could result in electric shock / fire hazards or unit malfunction.

[Potential Hazards]

 Caution	If abnormal smells or noises are noticed coming from the unit, turn power off immediately and disconnect power cord to avoid potentially hazardous conditions. If problems similar to above occur, contact authorized service representative **before** attempting to again operate unit.

[Rack Mount Brackets, Ground Terminal, and Rubber Feet]

 Caution	To rack mount or ground the unit, or to install rubber feet, **do not** use screws or materials other than those supplied. Otherwise, it may cause damage to the internal circuits or components of the unit. If you remove the rubber feet attached on the unit, **do not** reinsert the screws securing the rubber feet.

[Consumables]

 Caution	The consumables used in unit must be replaced periodically. For further details on which parts are consumables and when they should be replaced, refer to the specifications at the end of the Operation Manual. Since the service life of the consumables varies greatly depending on the environment in which they are used, they should be replaced at an early date. For details on replacing the consumables, contact your dealer.

Upon Receipt

Unpacking

MBP-120SX/125SX units and their accessories are fully inspected and adjusted prior to shipment. Operation can be performed immediately upon completing all required connections and operational settings.

Check your received items against the packing list below.

ITEM	QTY	REMARKS
MBP-120SX MBP-125SX	1	
AC Cord	1 set	One AC cord and one AC cord retaining clip
Rack Mount Brackets	1 set	EIA standard type
Rubber Feet	1 set	
DVI-VGA Conversion connector	1	
CD-ROM	1	MBP-120/125SX Operation Manual (PDF) MCS-MBPPON Operation Manual (PDF)
Unpacking	1	

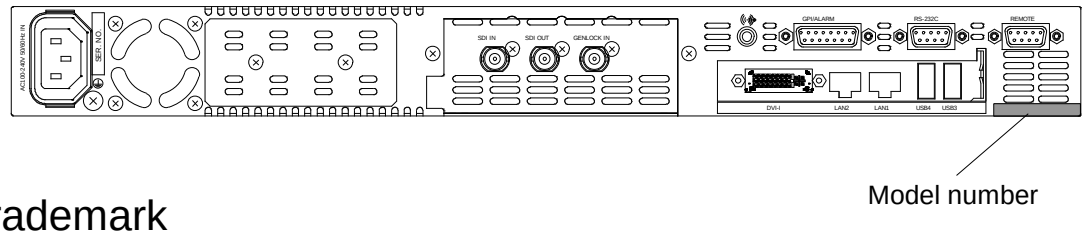
Option

ITEM	QTY	REMARKS
MBP-SSD480G	1	SSD upgrade option from 240GB to 480GB

IMPORTANT
Wait **at least 15 seconds** before turning the MBP-120SX/125SX back on after powering off.

Check

Check to ensure no damage has occurred during shipment. If any damage has occurred, or items are missing, inform your supplier immediately.
In order to verify that you have received a correct product, please check the model number printed on the label attached on the rear panel at the lower right corner of the product as shown below.



Trademark

Microsoft ® Windows ® 7 Embedded operating system is a trademark of Microsoft Corporation.

Rack Mounting

The MBP-120SX/125SX can be mounted to EIA standard rack units. When rack mounting a unit, use the supplied rack mount brackets (rack ears).

Table of Contents

1. Prior to Starting

1-1. Welcome

Congratulations! By purchasing MBP-120SX/125SX MXF Clip Server you have entered the world of FOR-A and its many innovative products. Thank you for your patronage and we hope you will turn to FOR-A products again and again to satisfy your video and audio needs.
FOR-A provides a wide range of products, from basic support units to complex system controllers, which have been increasingly joined by products for computer video based systems. Whatever your needs, talk to your FOR-A representative. We will do our best to be of continuing service to you.

1-2. Comparing Features: MBP-120/125SX vs 100SX Series

Item	MBP-100SX Series	MBP-120SX/125SX
USB interface	USB 2.0 x 4	USB 2.0 x 2 USB 3.0 x 2
Data storage	16GB (standard), 64GB, 128GB and 256GB (optional)	240GB (standard) 480GB (optional)
Size and Weight	EIA 1RU, 8 kg	EIA 1RU, 8 kg
OS	Windows XP Embedded	Windows 7 Embedded

1-3. Features

The MBP-120SX/125SX devices are cross converters between MXF(XDCAM) files and HD/SD SDI baseband signals. The devices have SSD (Solid State Drive) installed to ensure reliable playback. High-speed file transfers over network is also supported.

- Real-time conversion from HD/SD SDI inputs to MXF files
- Built-in SSD storage, which allows to use MBP-120SX/125SX as a stand-alone MXF player
- MXF XDCAM format supported
- Hardware codec for stable encoding and decoding
- EIA 1RU compact size
- Playback (decoding) supports:
  - Real-time conversion of MXF files to HD/SD-SDI signals (also supports MXF file transfer over a network)
  - Embedded audio (* up to 8 channels), and Ancillary Time Code
  - AES output of embedded audio data (* up to 8 channels)
  - Conversion of embedded time code data to LTC (MBP-125SX only)
  - Superimposition of embedded time code data onto video output (MBP-125SX only)
- Recording (encoding) supports:
  - Real-time conversion of HD/SD-SDI signal inputs to MXF files
  - Embedded audio (* up to 8 channels), and Ancillary Time Code
  - External AES inputs (MBP-125SX only)
  - External LTC input (MBP-125SX only)
- No need to log-off and OS shutdown
- Remote control via RS-422 using VTR protocol
- GPI remote control

* The maximum number of channels varies depending on the MXF format.

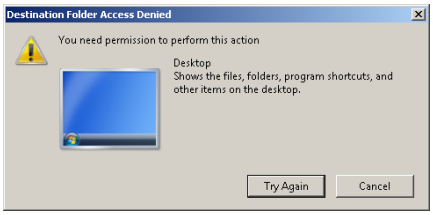
1-4. Notes on Using The MBP-120SX/125SX

Please note the following:

- EWF (Enhanced Write Filter) must not be disabled when operating the device.
  Powering the MBP-120/125SX on or off while EWF is disabled may corrupt or damage files.

- The C drive of the MBP-120/125SX is write-protected.
  Do not create folders or data in the C drive.
  Writing in the C drive may cause Windows to hang up.

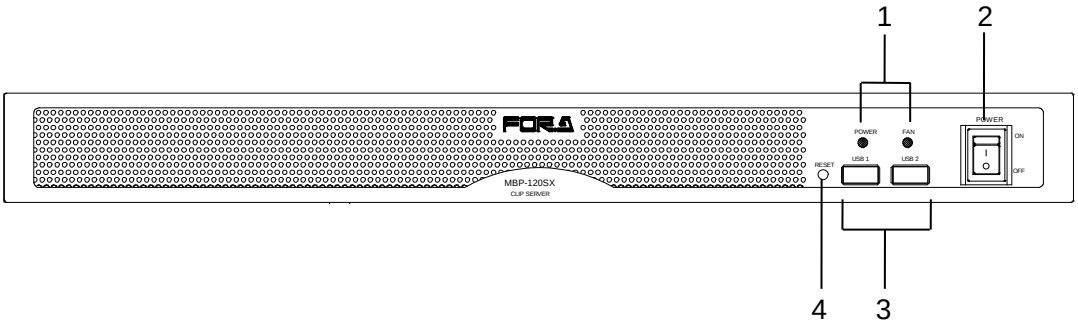
- Files cannot be created on the desktop regardless of whether write-protection is enabled or disabled.
  The below error message will appear if you attempt to write on the desktop.



- The MBP-120/125SX has the Windows Operation System (Microsoft Windows 7) installed and customized.
  Do not install applications that are not required.

2. Panel Descriptions

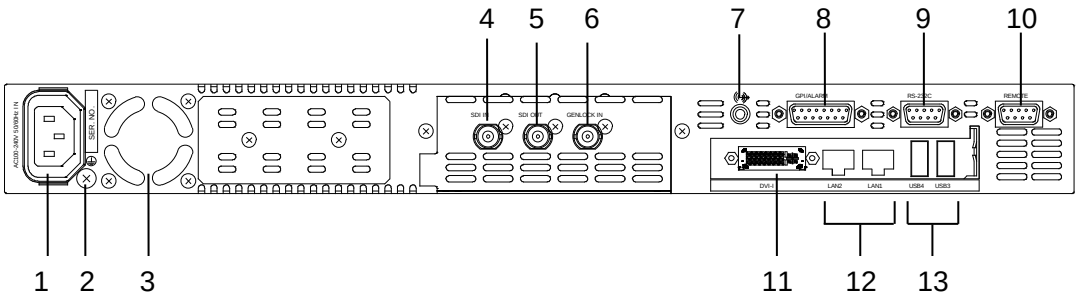
2-1. Front Panel (MBP-120SX/125SX)



No.	Name	Description		
1	Status Indicators	POWER	Lit green	Power is supplied to the unit.
			Unlit	The unit is powered off or the power cord is not plugged in properly.
		FAN	Unlit	All cooling fans are operating properly.
			Lit red	One or more fans have failed. Power off the unit and replace the failed fan, if necessary.
2	Power switch Power indicator	Switch used to turn the unit ON / OFF. Power indicator will light up green when the power switch is turned ON. It takes about 5 seconds for the indicator to light. Wait at least 15 seconds to turn ON again after the power switch is turned OFF.		
3	USB1 USB2	Used to connect USB devices such as a keyboard, mouse, and other USB devices (USB2.0 compatible).		
4	RESET	If the POWER indicator does not light up green in 5 seconds after the power switch is turned on, press the RESET switch to restart MBP-120SX/125SX. (Not for normal use.).		

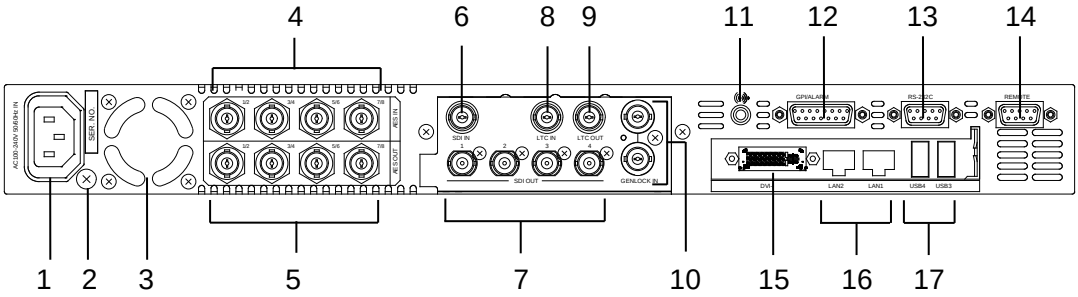
IMPORTANT
If the FAN indicator lights up red, there is a fan failure. Turn off the MBP-120SX/125SX and contact your retailer.

2-2. Rear Panel (MBP-120SX)



No.	Name	Description
1	AC IN	For connection to an AC power source via the supplied accessory cord. (100-240VAC 50/60Hz)
2	Ground Terminal	For grounding the unit to protect operators against static electricity and / or electrical shock.
3	Cooling Fan	For cooling the unit to prevent overheating. Do not block the vent with other equipment or objects.
4	SDI IN	For serial digital component video input (HD/SD SDI). (BNC)
5	SDI OUT	For serial digital component video output (HD/SD SDI). (BNC) OUT 3 and 4 are supported for superimposing time code.
6	GENLOCK IN	For external reference signal input (Black Burst signal or Tri-level sync signal). (BNC)
7	Audio Out	Stereo headphone jack (Unable to monitor source audio.)
8	GPI / ALARM	For power / fan alarm output and the GPI input/output. (15-pin D-sub, female)
9	RS232C	Used for RS232C serial interface for control via PC. (9-pin D-sub, male)
10	REMOTE	Used for RS422 seria interface for control via PC. (9-pin D-sub, female)
11	DVI-I	For output video on a monitor.
12	LAN1/2	Ethernet ports (100BASE-TX/1000BASE-T, RJ-45 x 2)
13	USB3 USB4	For connection to USB devices (USB3.0 compatible).

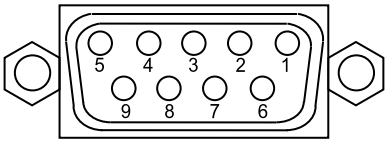
2-3. Rear Panel (MBP-125SX)



No.	Name	Description
1	AC IN	For connection to an AC power source via the supplied accessory cord. (100-240VAC 50/60Hz)
2	Ground Terminal	For grounding the unit to protect operators against static electricity and / or electrical shock.
3	Cooling Fan	For cooling the unit to prevent overheating. Do not block the vent with other equipment or objects.
4	AES IN (1/2–7/8)	For AES input. (BNC) The audio input can be embedded into MXF files when capturing SDI signals.
5	AES OUT (1/2–7/8)	For AES output. (BNC) Outputs audio channels by de-embedding from the SDI OUT signal.
6	SDI IN	For serial digital component video input (HD/SD SDI). (BNC)
7	SDI OUT1-4	For serial digital component video output (HD/SD SDI). (BNC) OUT 3 and 4 are supported for superimposing time code.
8	LTC IN	For LTC input. (BNC) The timecode input can be embedded into MXF files when capturing SDI signals.
9	LTC OUT	For LTC output. (BNC connector) Outputs a time code by de-embedding from the SDI OUT signal.
10	GENLOCK IN	For external reference signal input (Black Burst signal or Tri-level sync signal). Either one of two connectors can be used to input the reference signal. If one connector is used to input reference signal, the other is used as a loop through output to pass through the signal. If the loop through output is not used, please terminate the connector with 75 ohm terminator.
11	Audio Out	Stereo headphone jack (Unable to monitor source audio)
12	GPI / ALARM	For power / fan alarm output and the GPI input/output. (15-pin D-sub, female)
13	RS232C	Used for RS232C serial interface for control via PC. (9-pin D-sub, male)
14	REMOTE	Used for RS422 seria interface for control via PC. (9-pin D-sub, female)
15	DVI-I	For output video on a monitor.
16	LAN1/2	Ethernet ports (100BASE-TX/1000BASE-T, RJ-45 x 2)
17	USB3 USB4	For connection to USB devices (USB3.0 compatible).

2-4. Serial Interfaces

2-4-1. Remote

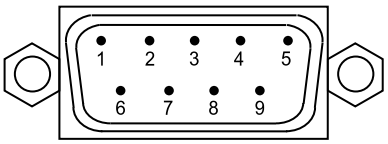


9-pin D-sub, female

◆ **Pin Assignment**

Pin No.	Signal	I/O	Description
1	FG	-	Frame ground
2	TX-	Out	Transmit data (-)
3	RX+	In	Receive data (+)
4	SG		Signal ground
5	NC		No connection
6	SG		Signal ground
7	TX+	Out	Transmit data (+)
8	RX-	In	Receive data (-)
9	FG		Frame ground

2-4-2. RS-232C



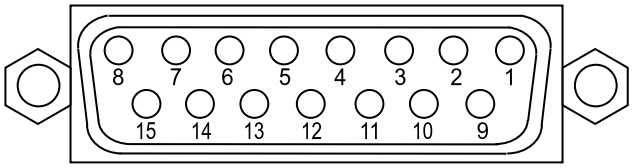
9-pin D-sub, male

◆ **Pin Assignment**

Pin No.	Signal	I/O	Description
1	DCD	In	Data carrier detect
2	RXD	In	Received data
3	TXD	Out	Transmitted data
4	DTR	Out	Data terminal ready
5	GND	―	Signal ground
6	DSR	In	Data set ready
7	RTS	Out	Request to send
8	CTS	In	Clear to send
9	RI	In	Ring indicator

2-5. Parallel Interface

2-5-1. GPI / ALARM



15-pin D-sub, female

◆ **Pin Assignment**

Pin No.	Signal	I/O	Description
1	GND	―	Signal ground
2	POW ALARM	Out	Power alarm output (*1)
3	FAN ALARM	Out	Fan alarm output (*1)
4	NC	―	Not used
5	GPI IN3	In	GPI input(*2)
6	GPI IN2	In	GPI input (*2)
7	GPI IN1	In	GPI input (*2)
8	+5VOUT	Out	+5V DC output
9	COMMON	―	Power alarm output, common (*1)
10	NC	―	Not used
11	NC	―	Not used
12	GPI OUT3	Out	GPI output (*3)
13	GPI OUT2	Out	GPI output(*3)
14	GPI OUT1	Out	GPI output(*3)
15	GND	―	Signal ground
―	―	―	―

* The maximum current rating for +5V output is 200mA.

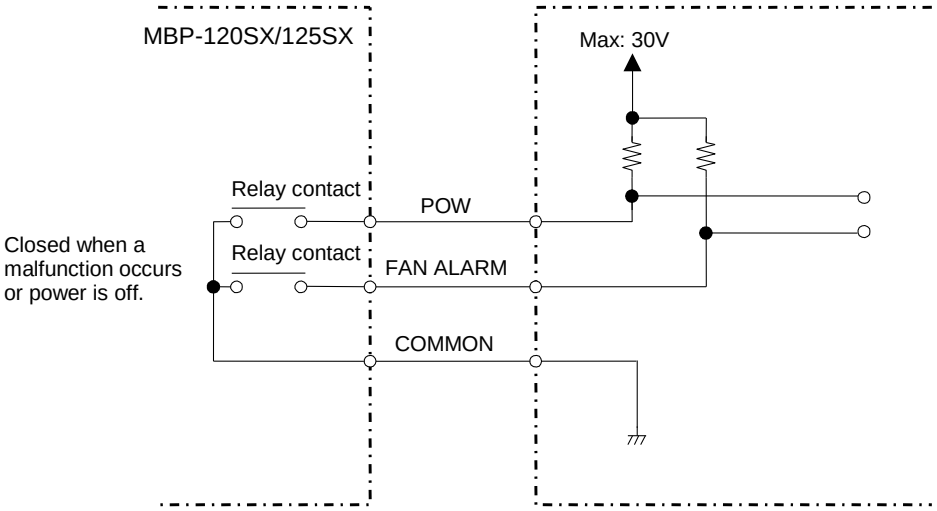
(*1) See "Alarm Output Circuit" below.
(*2) See "GPI IN Circuit" in the next page.
(*3) See "GPI OUT Circuit" in the next page.

Alarm Output Circuit
A normally open relay circuit that behaves as below.

Under normal operation:	An alarm pin and the common pin are open.
In a malfunction or power-off state:	An alarm pin and the common pin are closed.

Pin 9 is a common pin for both the power alarm and fan alarm.
The contact rating is 0.5 A @ 30 VDC.

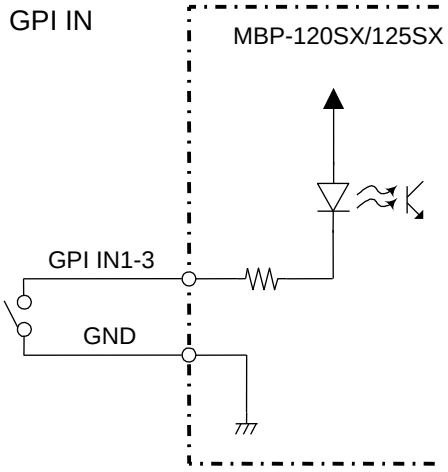
Alarm Out



GPI IN Circuit

GPI input behaves as below.

The circuit between the GPI IN pin and Ground pin are closed:	The function is ON.
The circuit between the GPI IN pin and Ground pin are open:	The function is OFF.

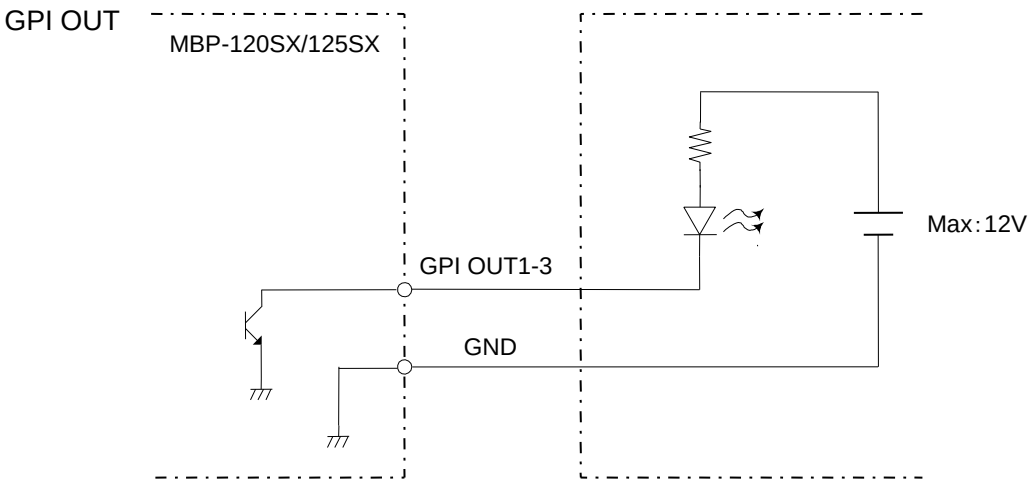


GPI OUT Circuit

Open collector output.

When using an external power source, its voltage should be 12V or less.

The output current of each GPI OUT pin should be less than 20mA.

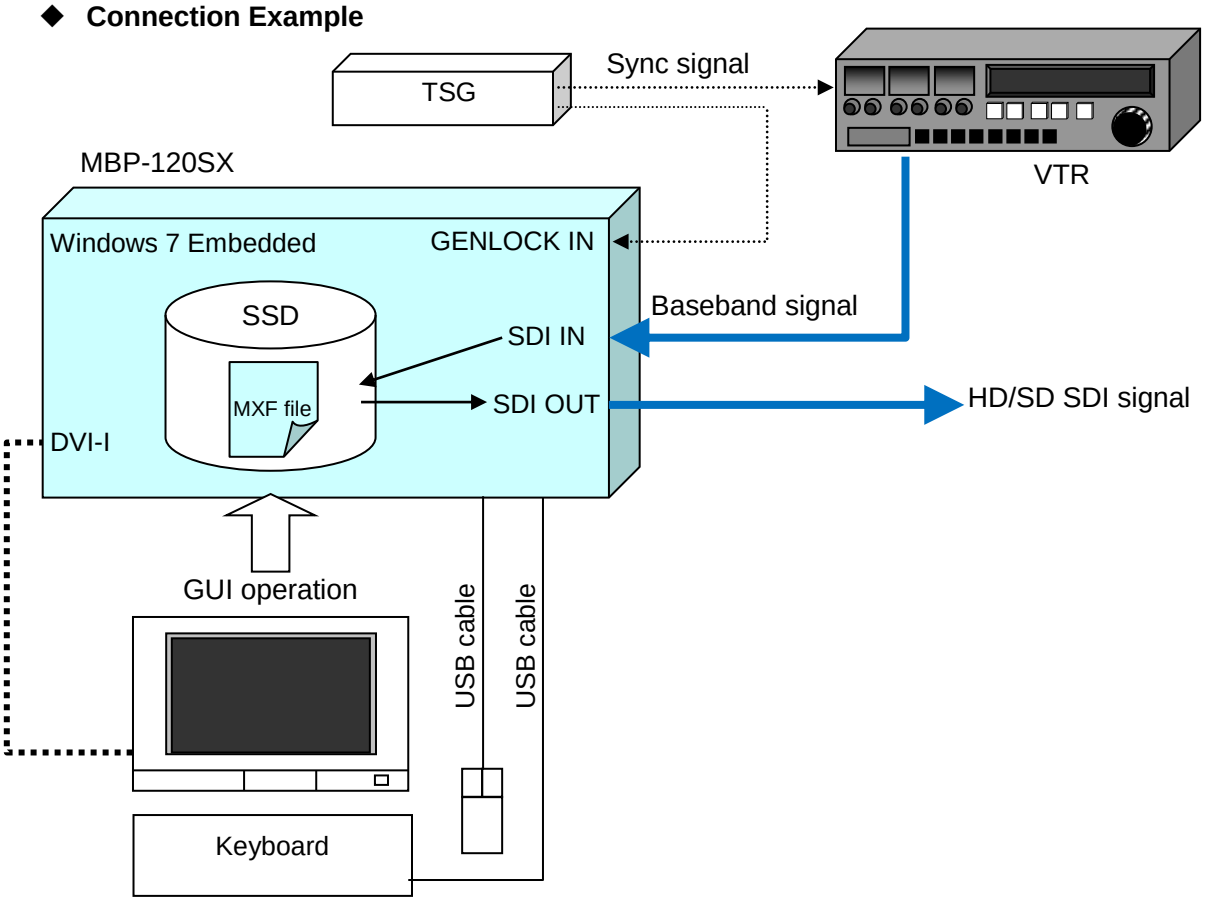


3. Connection and Video Conversion Porcess

Connect your clip server (MBP-120SX/125SX) with peripheral devices as depicted in the following chapters. HD/SD-SDI signal inputs from the VTR are converted to MXF files (XDCAM), and stored to the built-in SSD. The MXF files in the SSD can also be converted and output as SDI signals. The control software (MCS-MBPPON) is installed in the embedded OS on the clip server. It allows users to control the clip server through a GUI on a monitor screen.

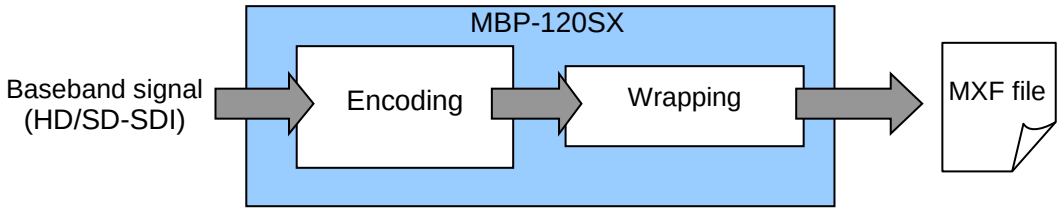
3-1. MBP-120SX

◆ **Connection Example**

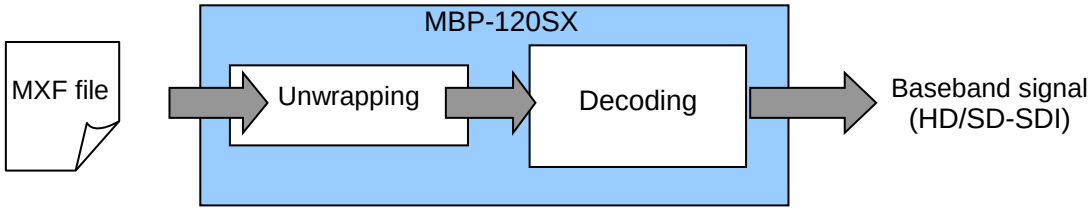


◆ **Video Conversion Process**

Capturing an SDI input and saving it in an MXF file.

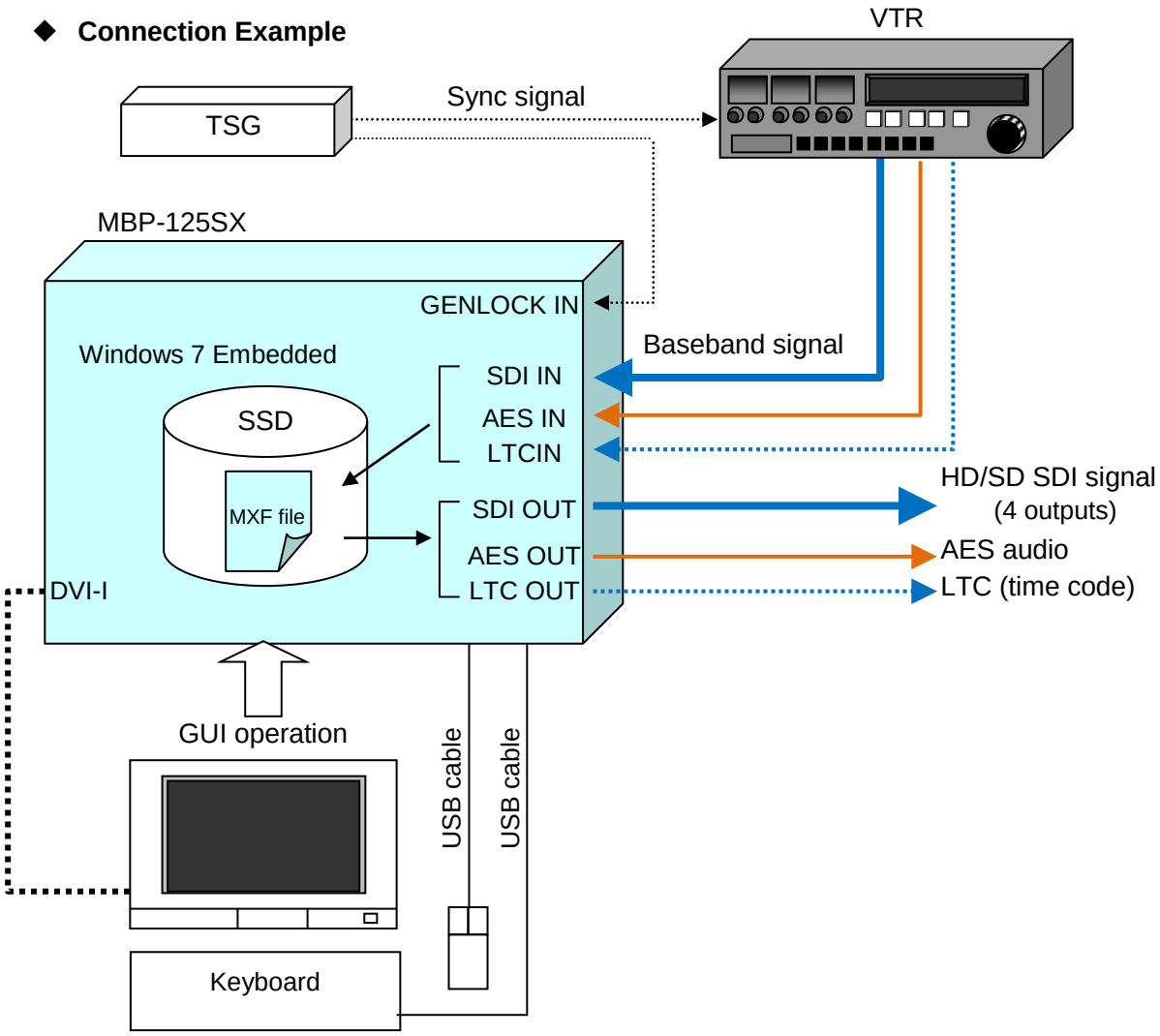


Converting an MXF file to an SDI signal output.



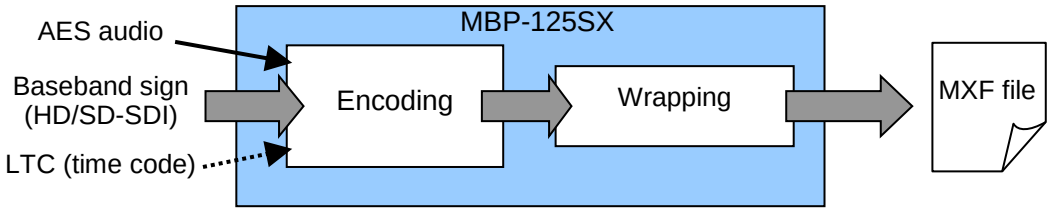
3-2. MBP-125SX

◆ **Connection Example**

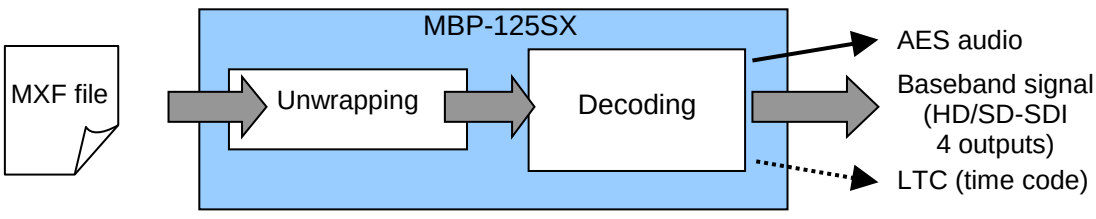


◆ **Video Conversion Process**

Capturing an SDI input and saving it in an MXF file.



Converting an MXF file to an SDI signal output.



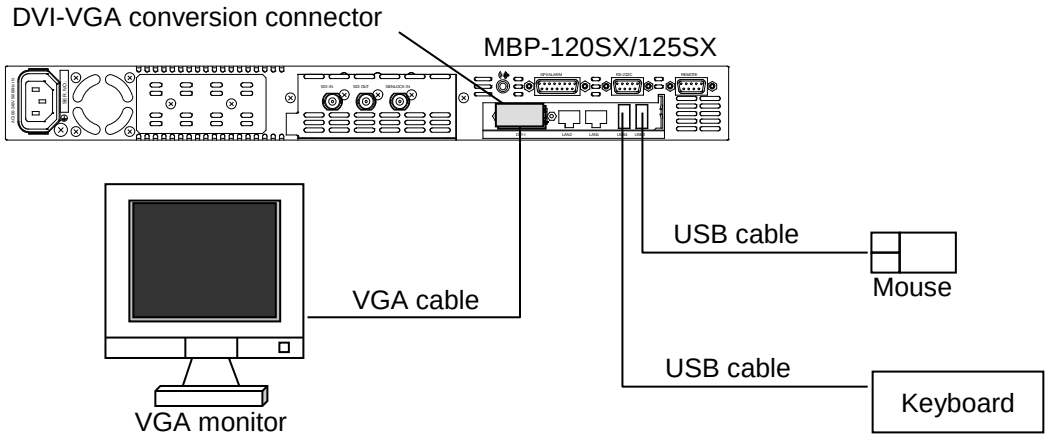
4. How to Change Network Settings

The Windows Operation System (Microsoft Windows 7 Embedded) is installed in the MBP-120SX/125SX. There are a few cases in which users will need to change network settings in order to use the MBP-120SX/125SX over a network. This section describes how to change the computer name and IP address for such cases.

> The C drive is write-protected to enable the MBP-120SX/125SX to be powered on or off without shutting down. The write protection on the C drive must be disabled to change the computer name or IP address.

4-1. Connecting Monitor, Keyboard, and Mouse

To change settings on the MBP-120SX/125SX connect a VGA monitor, keyboard and mouse as shown below. (VGA monitor, keyboard and mouse need to be purchased separately.)



4-2. Disabling Write-Protection

1. When you power on the MBP-120SX/125SX, Windows and the listed start-up programs automatically start. Close all programs.

2. Double-click the **ewf_disable.bat** in **D:\forawork** to execute the batch file.

3. **Command Prompt** opens and shows the following message. Press any key on the keyboard once.

```
**************************************************************************
The write-protection (EWF) for the boot drive(C:) is set to enable.
The any driver cannot install when write-protection is enabled.
**************************************************************************
Press any key to continue . . .
```

4. The following message appears. Check that **Boot Command** is set to **DISABLE**, and then press any key on the keyboard once. Windows automatically restarts.

```
** Enabling overlay

Protected Volume Configuration
      Type                  RAM<REG>
      State                 ENABLED
      Boot Command          DISABLE
           Param1           0
           Param2           0
      Persistent Data       " "
      Volume ID             XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX
      Device Name           "\Device\HarddiskVolume1" [C: ]
      Max Levels            1
      Clump Size            512
      Current Level         N/A

      Memory used for data  0 bytes
      Memory used for mapping  0 bytes

********************************************************************************
The write-protection for the boot drive was set to disable.
It is reflected in the next boot. Please restart the Windows.
********************************************************************************
Press any key to continue . . .
```

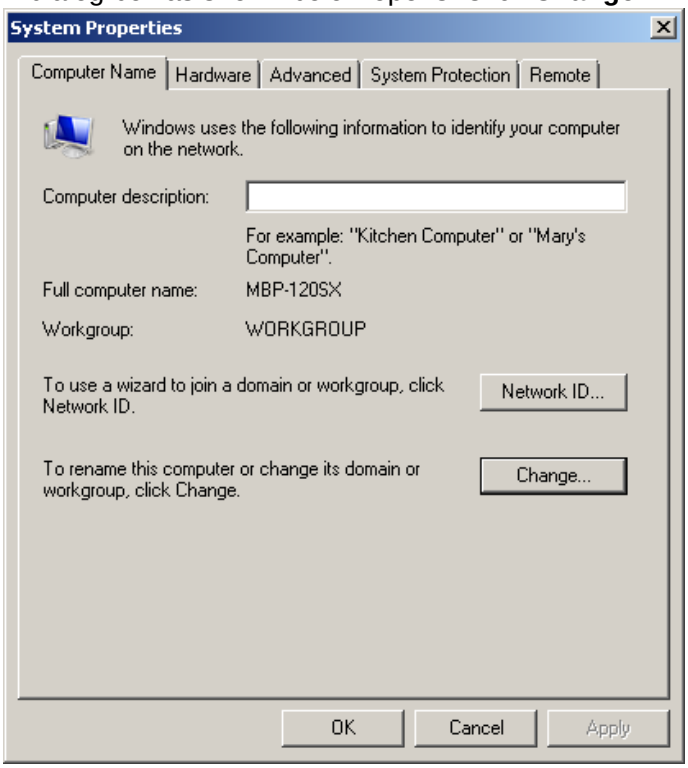
5. After restarting, the listed start-up programs start automatically. Close all programs.

   The system is now ready to change settings or install new applications.

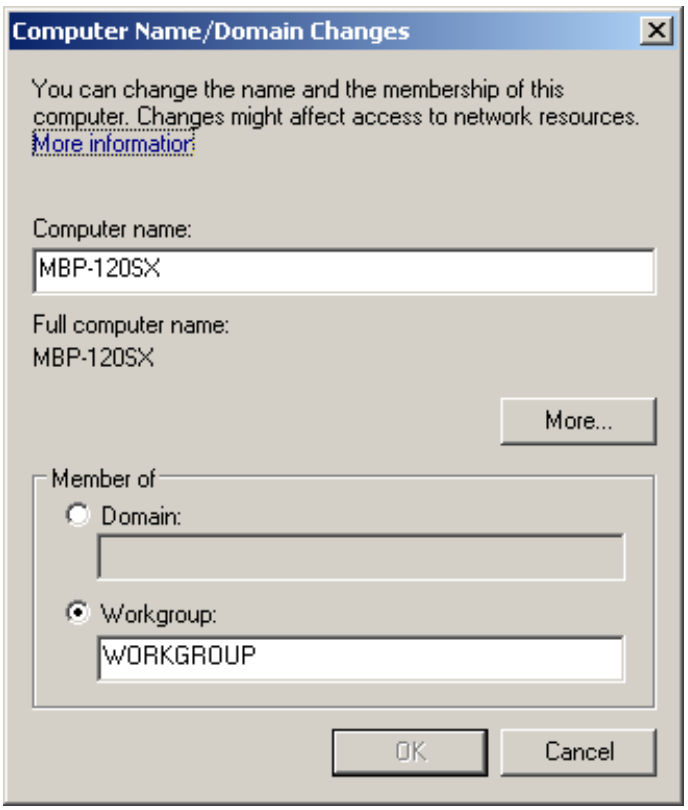
IMPORTANT
Note that when powering off the MBP-120SX/125SX while the write protection is disabled, **Windows must be shut down before** powering off. Powering off without shutdown may corrupt data.

4-3. Changing the Computer Name

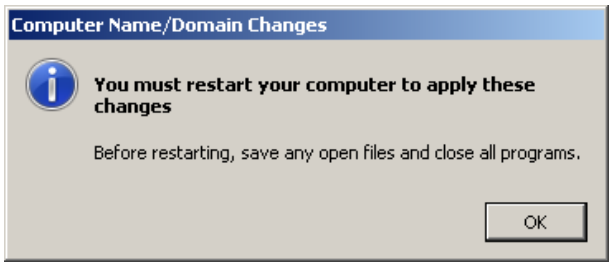
1. Right-click **Computer**, and then click **Properties**.
2. A dialog box as shown below opens. Click **Change**.



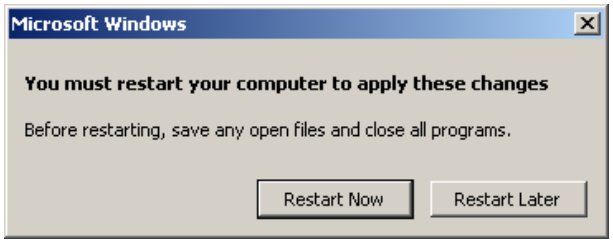
3. Type a new name for the computer in the **Computer name** box, and click **OK**.



4. The confirmation dialog box appears. Click **OK**.

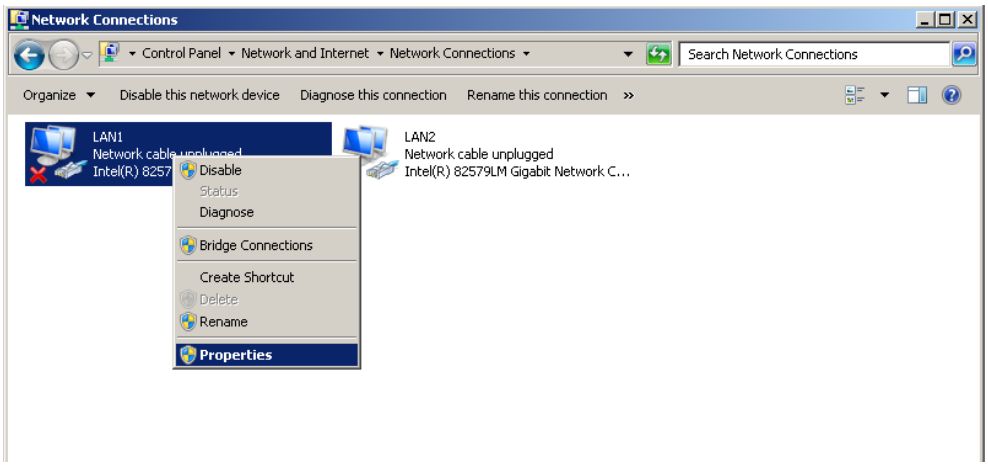


5. The screen returns to the dialog box that appeared in step 3. Click **OK**.
6. The dialog box as shown below appears. If you want to continue to change the settings, click **No**. If your changes are complete, click **Yes**. If you click **Yes**, the computer automatically restarts.

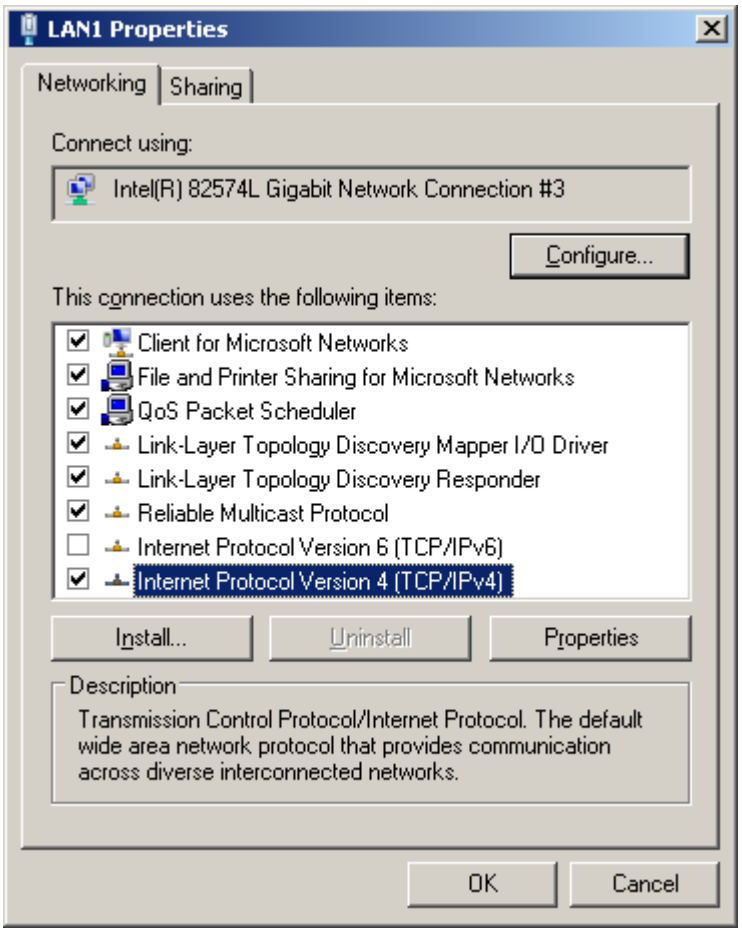


4-4. Changing the IP Address

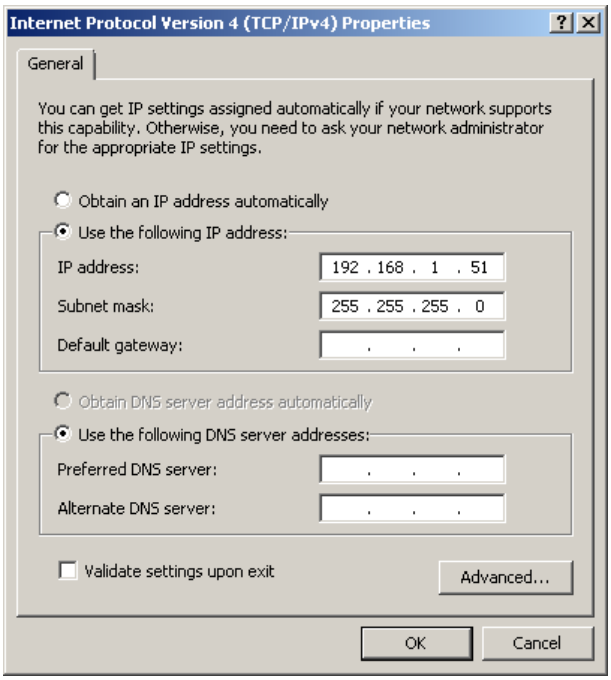
1. Right-click **Network**, and then click **Properties**.
2. Click **Change Adapter Settings.**
3. Right-click **LAN1**, and then click **Properties**.



4. A dialog box as shown below appears. Double-click **Internet ProtocolVersion4 (TCP/IPv4)**.



5. Enter a new **IP address**, **Subnet mask** and other necessary setting values that suit your network, and then click **OK**.



6. It returns to the dialog box that appeared in step 4. Click **OK**.

> The touch panel driver can be installed in the same manner.

4-5. Enabling Write-Protection

Write-protection must be enabled after the setting or the installation is finished.

1. Double-click **ewf_enable.bat** in **D:\forawork** to execute the batch file.
2. **Command Prompt** opens. Press any key on the keyboard.
3. Check that **Boot Command** is set to **Enable**, and then press any key on the keyboard once. Windows automatically restarts. (See section 4-2. "Disabling Write-Protection".)

After the restart the write-protection on the C drive is enabled.

5. Specifications and Dimensions

5-1. Unit Specifications

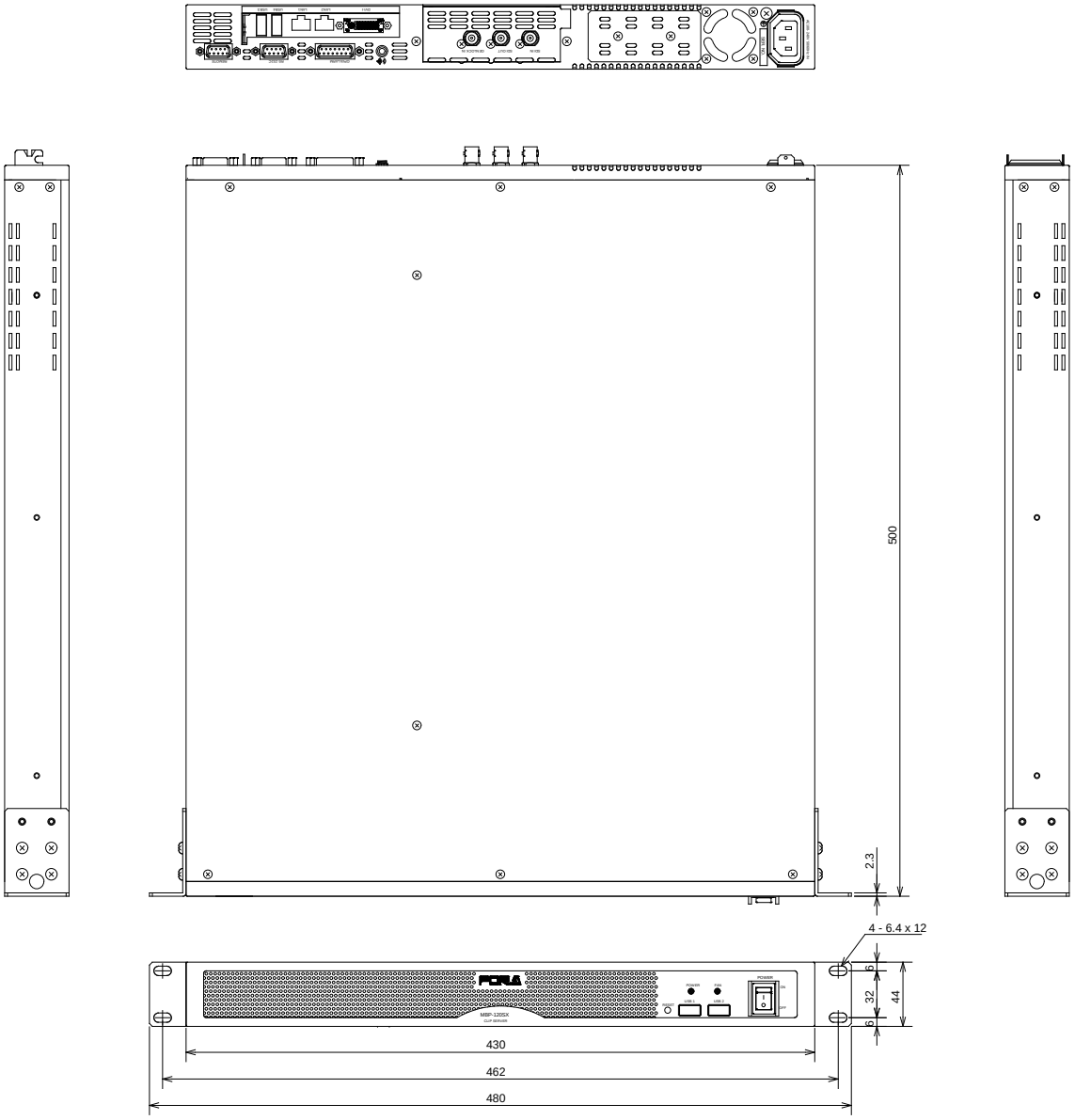
	MBP-120SX	MBP-125SX
Video formats	HD-SDI : 1080/59.94i, 1080/50i, 720/59.94p, 720/50p SD-SDI : 525/60, 625/50	
MXF	SONY XDCAM SD: IMX (50/40/30 Mbps) HD (1080/59.94i, 50i): XDCAM HD (35/25/18 Mbps), XDCAM HD422 (50 Mbps) HD (720/59.94p,50p): XDCAM HD (35/25 Mbps), XDCAM HD422 (50 Mbps)	
Video Inputs	HD: 1.485/1.001 Gbps or SD: 270 Mbps, 75Ω, BNC x 1	
Video Outputs	HD: 1.485/1.001 Gbps or SD: 270 Mbps, 75Ω, BNC x 1	HD: 1.485/1.001 Gbps or SD: 270 Mbps, 75Ω, BNC x 4 * Time code can be superimposed on to OUT 3 and 4
Genlock Input	BB: 0.429V(p-p) (NTSC) / 0.45V(p-p) (PAL) or Tri-level Sync: 0.6V(p-p), 75Ω BNC x 1	BB: 0.429V(p-p) (NTSC) / 0.45V(p-p) (PAL) or Tri-level Sync: 0.6V(p-p) 75Ω BNC x 1, loop-through (75 Ω termination required if not looped-through.)
Audio Input	(Maximum number of channels and the quantization bit rate vary depending on the MXF format.)	
Embedded	HD: Up to 8 ch (4 stereo pairs) (group 1 and 2) 16/24-bit 48kHz SD: 8 ch (group 1 and 2) 16-bit 48kHz	
AES-EBU		1.0 Vp-p, unbalanced, 75Ω, BNC x 4 (4 stereo pairs) Sampling rate: 48 kHz Bit quantization: 16/24-bit (HD), 16-bit (SD)
Audio Output	(Maximum number of channels and the quantization bit rate vary depending on the MXF format.)	
Embedded	HD: Up to 8 ch (4 stereo pairs) (group 1 and 2) 16/24-bit 48kHz SD: 8 ch (group 1 and 2), 16-bit 48kHz, or 4 ch (group 1 and 2) 48kHz 20-bit	
AES-EBU		1.0V(p-p), unbalanced, 75Ω, BNC x 4 (4 stereo pairs) Sampling rate: 48kHz Bit quantization: 16/24-bit (HD),16/20-bit (SD)
Time Code Input		
Embedded	HD: Ancillary Time Code (LTC/VITC) SD: Ancillary Time Code (LTC) and D-VITC	
LTC		1.0Vp-p, unbalanced, 75Ω, BNC x 1
Time Code Output		
Embedded	HD: Ancillary Time Code (LTC/VITC) SD: Ancillary Time Code (LTC)	
LTC		1.0V(p-p), unbalanced, 75Ω, BNC x 1
Storage Capacity (SSD)	Actual storage capacity: 240 GB (standard), 480 GB (optional)	

	MBP-120SX	MBP-125SX
Interface		
REMOTE	9-pin D-sub (female) x 1	
RS-232C	9-pin D-sub (male) x 1	
USB	2.0 , Series-A type connector x 2 (2 on the front panel) 3.0 , Series-A type connector x 2 (2 on the rear panel)	
LAN1/2	100BASE-TX / 1000BASE-T compatible, RJ-45 x 2	
DVI-I	DVI-I x 1 (1280 x 1024)	
GPI/ALARM	15-pin D-sub (female) x 1 ALARM: power and fan alarms (Relay make contact output) GPI: 3-input/3-output (Input: contact closure, Ouput: open collector)	
Audio Out	3.5 mm Stereo headphone mini jack x 1	
Temperature	0°C to 40°C	
Humidity	20% to 80% (no condensation)	
Power	100 VAC to 240 VAC ±10%, 50/60 Hz	
Power Consumption	70 VA (68 W) at 100 - 240 VAC, 73 VA (56 W) at 200 - 240 VAC	80 VA (78 W) at 100 - 240 VAC, 81 VA (66 W) at 200 - 240 VAC
Dimensions	430 (W) x 44 (H) x 500 (D) mm, EIA 1RU	
Weight	7.5 kg	8 kg
Consumables (if used 24 hours a day at room temperature)	Cooling fans: Replace every 3 years Power unit: Replace every 5 years Battery: Replace every 5 years	

5-2. External Dimensions

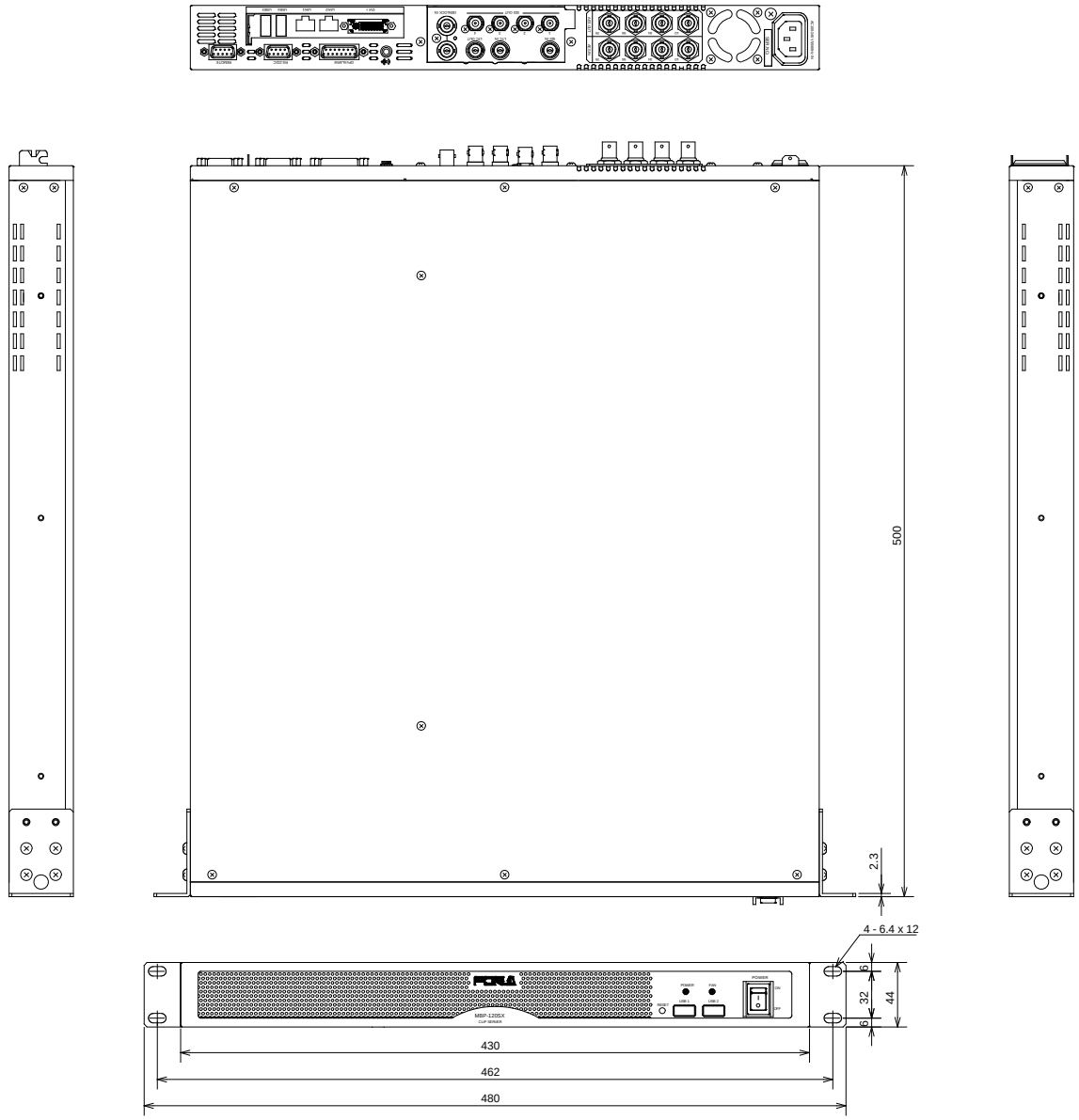
5-2-1. MBP-120SX

(All dimensions in mm.)



5-2-1. MBP-125SX

(All dimensions in mm.)



Appendix. How to Reset BIOS

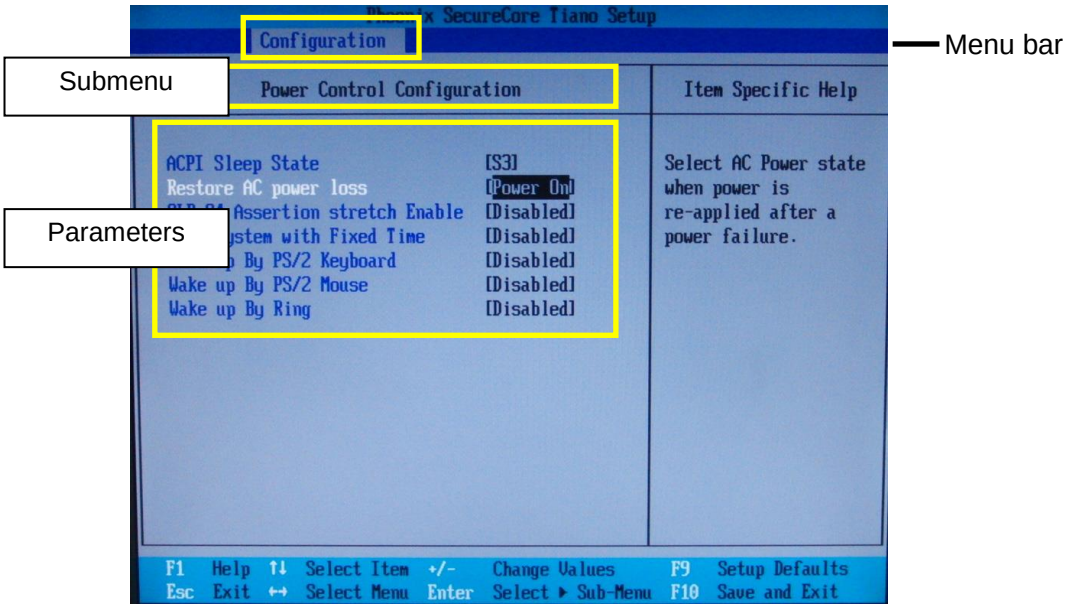
This appendix explains how to reset the BIOS. Please follow the procedure below in case you need to reset the BIOS due to the battery failure or such reason.

1. Opening the BIOS Setup Menu

1. Connect a PC monitor, keyboard, and mouse to your MBP unit and turn on the unit.
2. The screen appears as shown below. Press the **F2** key.

   * The **F2** key is used to open the BIOS setup menu when BIOS is initialized due to various causes such as the battery failure. The **F2** key is used to open the BIOS setup menu while the MBP unit is running normally.

3. The **Phoenix SecureCore Tiano Setup** page is opened.
   On the menu bar, select the menu page using the right and left arrow keys.
   The **Configuration** menu page is displayed in the figure below.



Set the values for the menus as shown below on this page.
The detailed procedure is given in the following section.

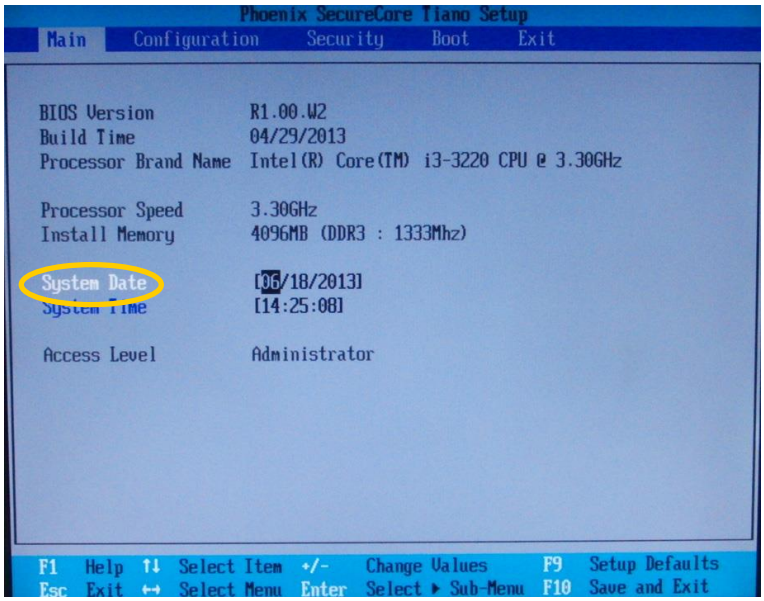
Menu	Submenu	Parameter	Value
Main	-	System Time	Current time
	-	System Date	Current date
Configuration	PCI/PCIE Configuration	PEG0～PEG3	Auto
	Power Control Configuration	Restore AC Power Loss	Power On
	Chipset Configuration	Max TOLUD	Dynamic
Boot	-	Boot Priority Order	1. ATA HDD4

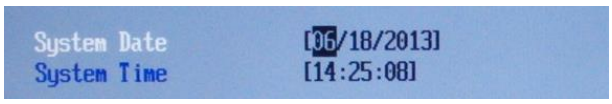
2. Main Menu Settings

Set the **current date** and **time** in the **Main** menu provided on the menu bar.
On the menu bar, select **Main** using the right and left arrow keys to display the Main menu page.

◆ **Setting the current date**

(1) Select **System Date** (month, day or year) using the up and down arrow keys.
(2) Enter the current value using the numeric keys and press **Enter** to confirm the change. Move the cursor to the next item of **System Date** to change the value in the same manner.





◆ **Setting the system time**

(1) Select **System Time** (hour, minute or second) using the up and down arrow keys.
(2) Enter the current value using the numeric keys and press **Enter** to confirm the change. Move the cursor to the next item of the **System Time** to change the value in the same manner.

3. Configuration Menu Settings

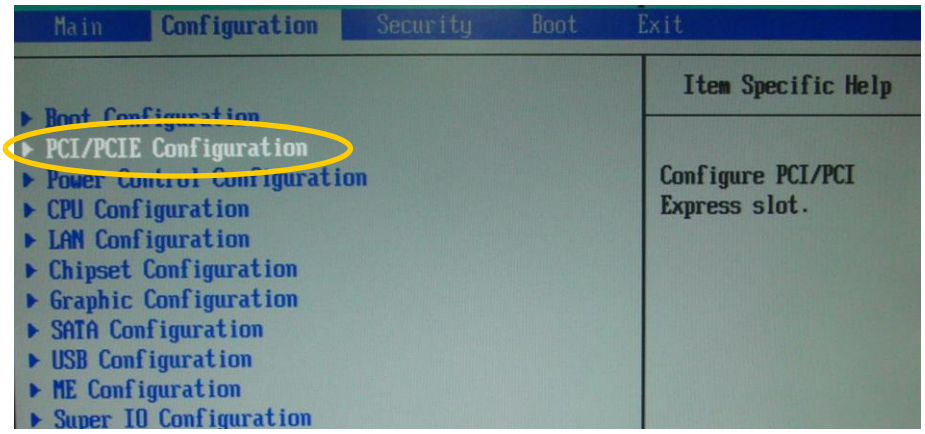
Perform the following settings in the **Configuration** menu.

PCI/PCIE Configuration
Power Control Configuration
Chipset Configuration

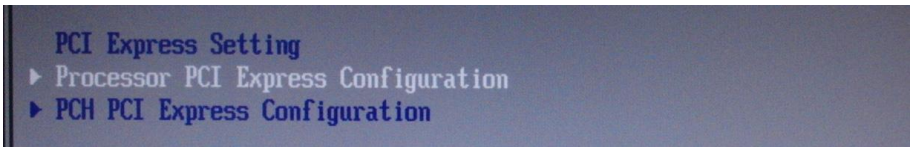
On the menu bar, select **Configuration** using the right and left arrow keys to display the Configuration menu page.

◆ **PCI/PCIE Configuration setting**

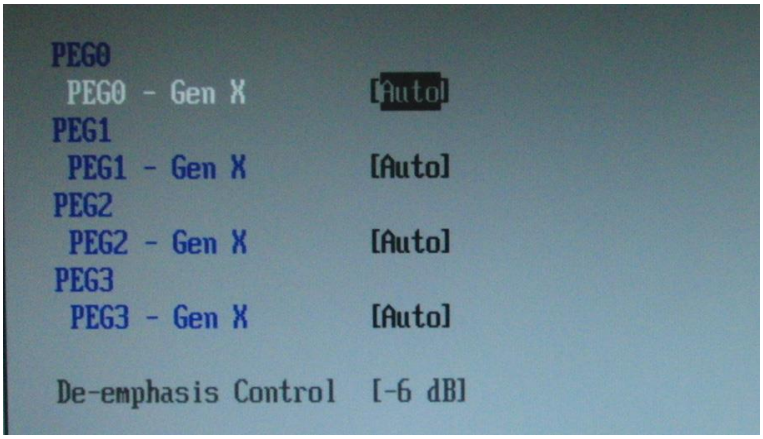
(1) Select **PCI/PCIE Configuration** using the right and left arrow keys. Press **Enter** to display the submenu.



(2) Select **Processor PCI Express Configuration** using the right and left arrow keys. Press **Enter** to display menu parameters.



(3) To set PEG0 to PEG3 to Auto, first, press **Enter** on the **PEGO** setting. The Options page will appear. Select **Auto**, then press **Enter**. Set others to **Auto** in the same manner.

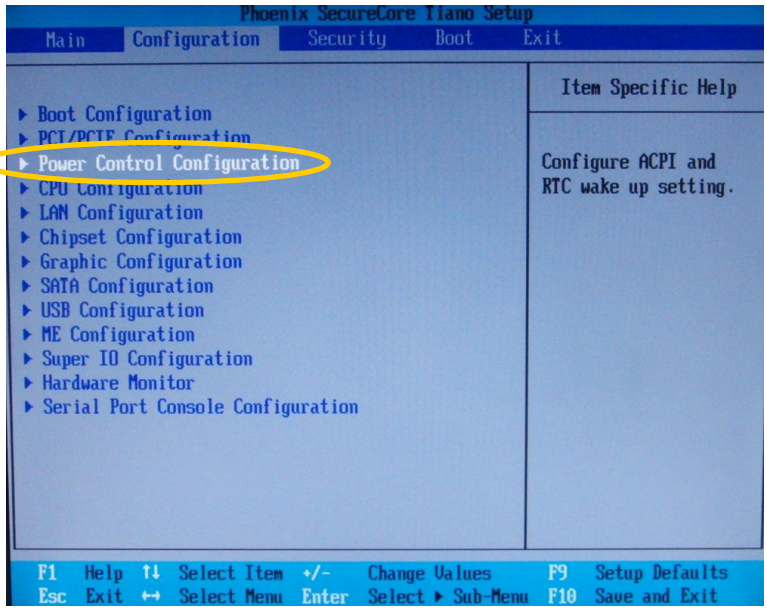


Verify that all PEG parameters are set to **Auto** as shown above.

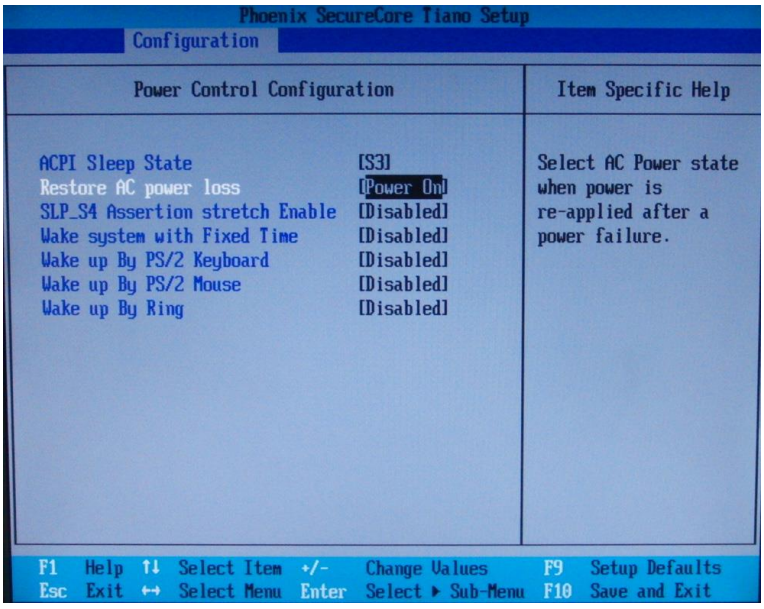
(4) Press **Esc** to return to the Configuration menu page.

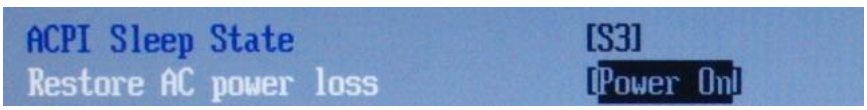
◆ **Power Control Configuration setting**

(1) Select **Power Control Configuration** using the up and down arrow keys. Press **Enter** to display the submenu.



(2) Select **Restore Restore AC Power Loss** using the up and down arrow keys. Change the setting to **Power On** using the plus and minus keys.

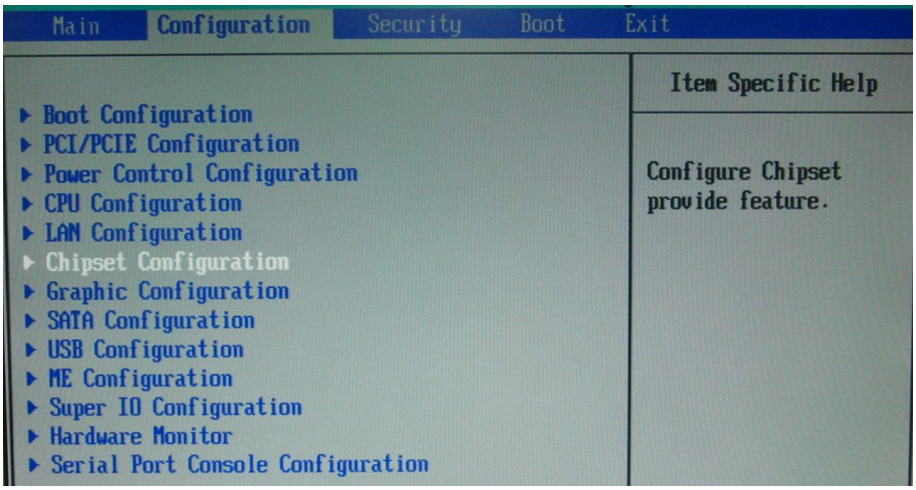




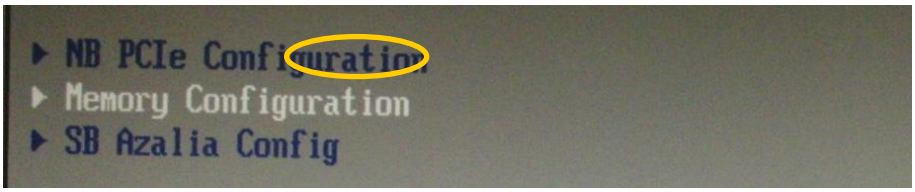
(3) Press **Esc** to return to the Configuration menu page.

◆ **Chipset Configuration setting**

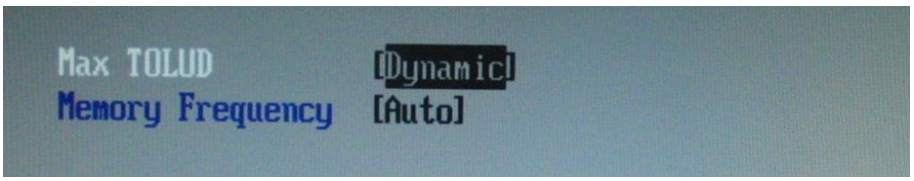
(1) Select **Chipset Configuration** using the up and down arrow keys. Press **Enter** to display the submenu.



(2) Select **Memory Configuration** using the up and down arrow keys. Press **Enter** to display menu parameters.



(3) To set **Max TOLUD** to **Dynamic**, first press **Enter** on the **Max TOLUD** parameter to display the Options. Select **Dynamic**, then press **Enter**.

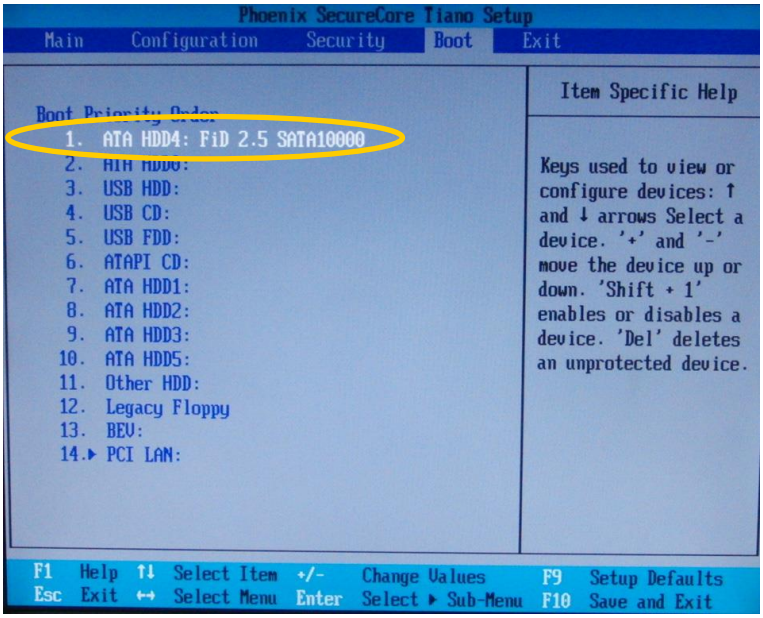


4. Boot Menu Setting

Change the **Boot Priority Order** in the **Boot** menu.
On the menu bar, select **Boot** using the right and left arrow keys to display the Boot menu page.

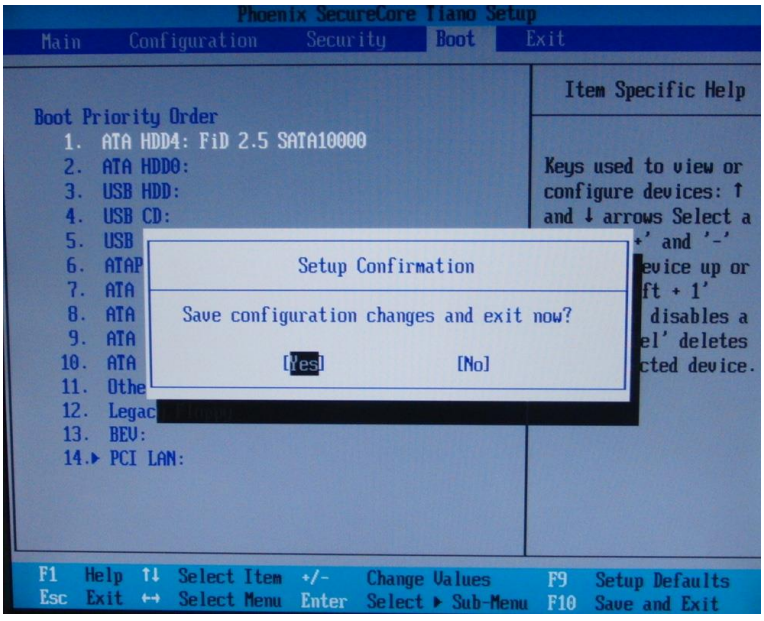
◆ **Boot Priority Order setting**

(1) Select **ATA HDD4** using the up and down arrow keys. Use the plus key to move **ATA HDD4** to the top of the list.



5. Saving Settings and Exiting BIOS Setup Menu

Once you have completed the settings, press the **F10** key. A confirmation message appears asking if you want to save the settings and exit the BIOS setup menus. Click **Yes**. The **BIOS SETUP Menu** will close and the Windows restarts with new BIOS settings.



Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

2014/09/01 Printed in Japan

FOR-A COMPANY LIMITED

Head Office	3-8-1 Ebisu, Shibuya-ku, Tokyo 150-0013, Japan
Overseas Division	Phone: +81(0)3-3446-3936, Fax: +81(0)3-3446-1470
Japan Branch Offices	Osaka/Okinawa/Fukuoka/Hiroshima/Nagoya/Sendai/Sapporo
R&D/Production	Sakura Center/Sapporo Center

FOR-A America Corporate Office
11155 Knott Ave., Suite G&H, Cypress, CA 90630, USA
Phone: +1-714-894-3311 Fax: +1-714-894-5399

FOR-A America East Coast Office
2 Executive Drive, Suite 670, Fort Lee Executive Park, Fort Lee, NJ 07024, USA
Phone: +1-201-944-1120 Fax : +1-201-944-1132

FOR-A America Distribution & Service Center
2400 N.E. Waldo Road, Gainesville, FL 32609, USA
Phone: +1-352-371-1505 Fax: +1-352-378-5320

FOR-A Corporation of Canada
346A Queen Street West, Toronto, Ontario M5V 2A2, Canada
Phone: +1-416-977-0343 Fax: +1-416-977-0657

FOR-A Latin America & the Caribbean
5200 Blue Lagoon Drive, Suite 760, Miami, FL 33126, USA
Phone: +1-305-931-1700 Fax: +1-305-264-7890

FOR-A Europe S.r.l.
Via Volturno 37, 20861 Brugherio MB, Italy
Phone: +39-039-879-778 Fax:+39-039-878-140

FOR A UK Limited
Trident Court, 1 Oakcroft Road, Chessington, KT9 1BD, United Kingdom
Phone: +44 (0)20-3044-2935 Fax: +44(0)20-3044-2936

FOR-A Italia S.r.l.
Via Volturno 37, 20861 Brugherio MB, Italy
Phone: +39-039-881-086/103 Fax: +39-039-878-140

FOR-A Corporation of Korea
1007, 57-5,Yangsan-ro,Yeongdeungpo-gu, Seoul 150-103, Korea
Phone: +82(0)2-2637-0761 Fax: +82(0)2-2637-0760

FOR-A China Limited
708B Huateng Bldg., No. 302, 3 District, Jinsong, Chaoyang, Beijing 100021, China
Phone: +86(0)10-8721-6023 Fax: +86(0)10-8721-6033

FOR-A Middle East-Africa Office
Jebel Ali Free Zone, LOB-16, Office 619, P. O. Box: 261914 Dubai, UAE
Phone: +971 4 887 6712 Fax: +971 4 887 6713

http://www.for-a.com/