



RICOH UNIVERSITY
Learning ♦ Knowledge ♦ Performance

FIERY E-7000 SERVICE MANUAL

Gestetner **LANIER** **RICOH** **SAVIN**

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Ricoh Corporation

LEGEND

PRODUCT CODE	COMPANY			
	GESTETNER	LANIER	RICOH	SAVIN
G815	Fiery E-7000			

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Read this "Safety Information" carefully before you use this product.
For safety, please follow the instructions in information slip.

SAFETY INFORMATION

When using this machine, the following safety precautions should always be followed.

Safety During Operation

In this manual, the following important symbols are used:

WARNING

Indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

WARNING
• Connect the power cord directly into a wall outlet and never use an extension cord. • Disconnect the power plug (by pulling the plug, not the cable) if the power cable or plug becomes frayed or otherwise damaged. • To avoid hazardous electric shock, do not remove any covers or screws other than those specified in this manual. • Turn off the power and disconnect the power plug (by pulling the plug, not the cable) if any of the following occurs: – You spill something into the machine. – You suspect that your machine needs service or repair. – The external housing of your machine has been damaged.

CAUTION
• Protect the machine from dampness or wet weather, such as rain and snow. • Unplug the power cord from the wall outlet before you move the machine. While moving the machine, you should take care that the power cord will not be damaged under the machine. • When you disconnect the plug from the wall outlet, always pull the plug (not the cable). • Risk of explosion if battery is replaced by an incorrect type. • Dispose of used batteries according to the instructions.

ACHTUNG (Deutsch)
• Die batterie darf nur durch eine des gleichen Typs ersetzt werden, da anderenfalls Explosionsgefahr besteht. • Sie die debrauchten Batterien entsprechend den gegebenen Anweisungen.

Power Cord Precautions:

To reduce the risk of electric shock or damage to the equipment:

- User the appropriate power cord which was set up by your manufacturer's authorized service provider.
- Do not place objects on AC power cords or cables. Arrange them so that no one may accidentally step on or trip over them.
- Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug.
- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Power Supply:

The socket-outlet shall be installed near the product and shall be easily accessible.

Netzanschluss: (Deutsch)

Die Wandsteckdose sollte in der Nähe Geräts installiert und leicht zugänglich sein.

Warning:

Use of controls, adjustment or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

IMPORTANT SAFETY NOTICES

PREVENTION OF PHYSICAL INJURY

1. Before disassembling or assembling parts of the controller, make sure that the AC power cord is unplugged.
2. The wall outlet should be near the controller and easily accessible.
3. Note that some components of the controller are supplied with electrical voltage even if the main power switch is turned off.
4. If any operation check has to be made with exterior covers off while the main switch is turned on, keep hands away from electrified or mechanically driven components.

OBSERVANCE OF ELECTRICAL SAFETY STANDARDS

1. The controller must be installed and maintained by a customer service representative who has completed the training course on the controller.
2. The danger of explosion exists if the battery on the motherboard is incorrectly replaced. Replace the battery only with the equivalent type recommended by the manufacturer. Discard the used motherboard battery in accordance with the manufacturer's instructions and local regulations.

SAFETY AND ECOLOGICAL NOTES FOR DISPOSAL

1. Dispose of replaced parts in accordance with local regulations.
2. When keeping used lithium batteries in order to dispose of them later, do not put more than 100 batteries per sealed box. Storing larger numbers or not sealing them apart may lead to chemical reactions and heat build-up.

This manual uses several symbols.

Symbol	What it means
	Refer to section number/document
	Screw
	Connector

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1 INSTALLATION

1.1 INSTALLATION REQUIREMENTS

1.1.1 ENVIRONMENT

1. Temperature Range: 5°C to 40°C (41°F to 104°F)
2. Humidity Range: 10% to 90% RH
3. Ambient Illumination: Less than 1500 lux (do not expose to direct sunlight or strong light)
4. Ambient Dust: Less than 0.10 mg/m³
5. If the place of installation is air-conditioned or heated, do not place the machine where it will be:
 - 1) Subjected to sudden temperature changes
 - 2) Directly exposed to cool air from an air-conditioner
 - 3) Directly exposed to heat from a heater
6. Do not place the machine where it will be exposed to corrosive gases.
7. Do not install the machine at any location over 3,048 m (10,000 feet) above sea level.
8. Place the controller on a strong and level base.
9. Do not place the machine where it may be subjected to strong vibrations.
10. Do not connect the machine to a power source shared with another electrical appliance.
11. The machine can generate an electromagnetic field, which could interfere with radio or television reception.

1.1.2 MACHINE LEVEL

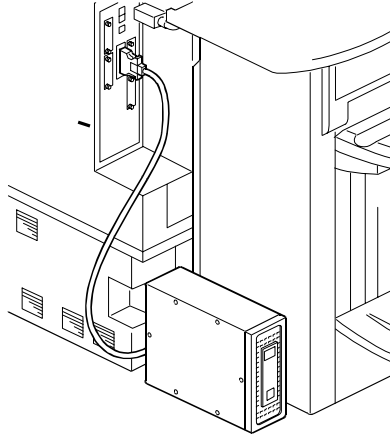
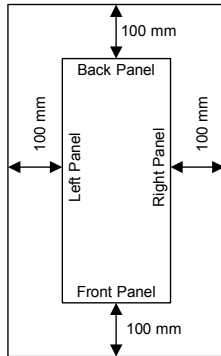
1. Front to back: Within $\pm 5^\circ$ (0.2") away from level
2. Right to left: Within $\pm 5^\circ$ (0.2") away from level

INSTALLATION REQUIREMENTS

1.1.3 MINIMUM SPACE REQUIREMENTS

Place the machine near the power source, providing clearance as shown.

You may place the machine on the rear side of the finisher as shown in the illustration.



1.1.4 POWER REQUIREMENTS

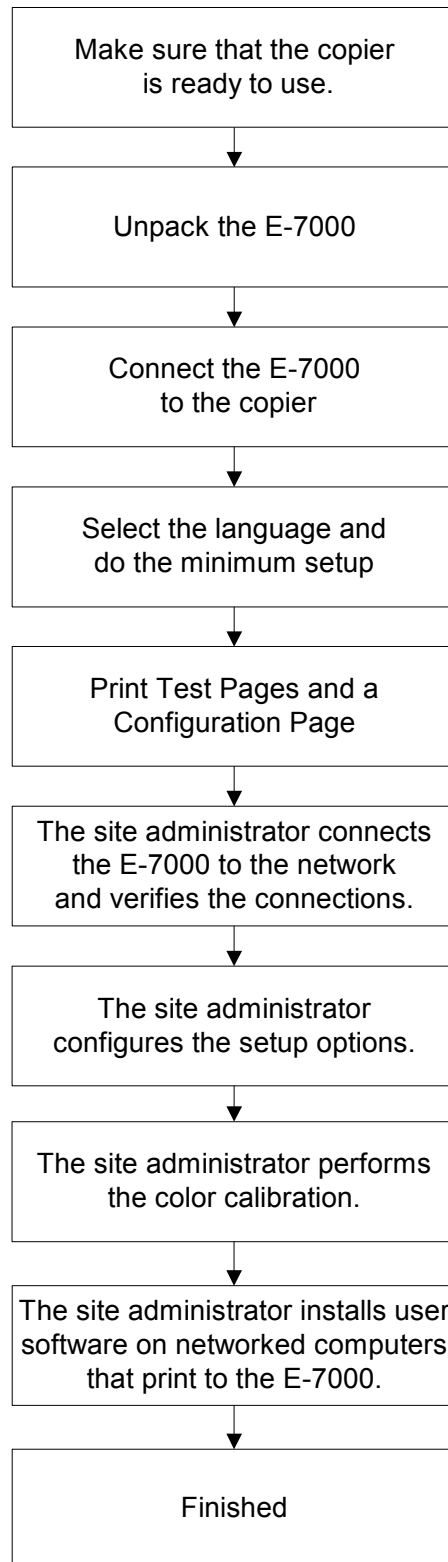
CAUTION

1. Insert firmly the plug in the outlet.
2. Avoid using an outlet extension plug or cord.
3. Ground the machine. Avoid using a 3-prong adapter in a 2-hole ungrounded outlet.
4. Use the supplied AC power cord with this product.

1. Input voltage level: 100 – 240V, 50-60Hz; 3A
2. Do not put anything on the AC power cord.

1.2 INSTALLATION FLOW CHART

Recommended installation steps are as follows:



1.3 MACHINE INSTALLATION

1.3.1 SETTING CUSTOMER EXPECTATIONS

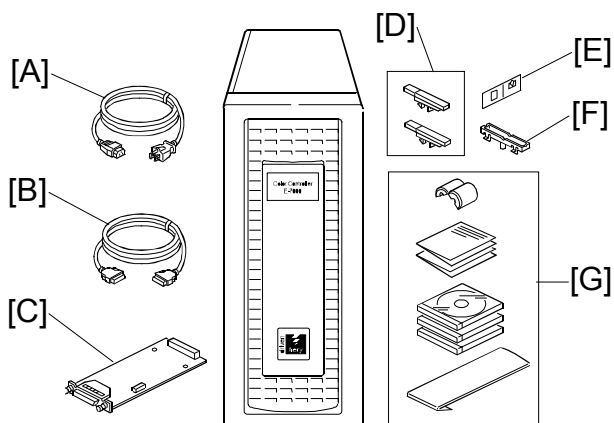
Before installation, the customer should be informed of the following:

- Some nodes on the network may be unavailable for up to one hour.
- The copier may be unavailable for up to one hour
- The site administrator should be available during the installation for network connectivity.
- Equipment downtime and impact on the network can be minimized if the site administrator installs a network connector for the E-7000 and confirms network connection for the E-7000 installation.
- The site administrator should have a networked computer available during the installation. The appropriate software should already be installed. Documentation for the networked computer and the network operating software should be available.
- The site administrator should install the user software shipped with the E-7000 (user documentation is also included) onto the networked PCs and Mac OS computers that will print to the E-7000.

NOTE: This guide covers hardware installation and service. It provides general information on connecting the E-7000 to the customer's network. For network setup and configuration information, refer the site administrator to the *Configuration and Setup* manual.

1.3.2 UNPACKING THE E-7000

1. Open the box and remove the packing material.
2. Remove the contents from the top container. Inspect the contents for visible damage. The top container should include the following items:



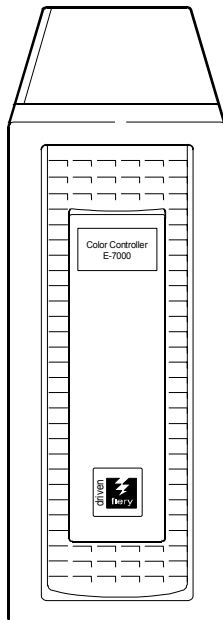
- [A] AC Power Cord
- [B] Interface Cable
- [C] Extension Card
- [D] Fierydriven Keytops
- [E] Fierydriven Logo
- [F] Base for Keytop
- [G] Media Package

3. Give the Media Package to the site administrator.
4. Take the remaining components out of the top container.
5. Remove the top container and any packing materials.
6. Carefully lift the E-7000 out of the box.

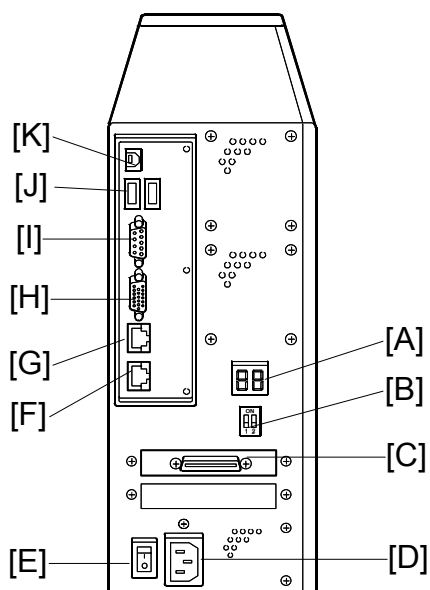
1.3.3 FRONT AND BACK PANELS

After unpacking the E-7000, familiarize yourself with the front and back panels before you connect the E-7000 to the copier.

• Front Panel



• Back Panel



A	Diagnostic LEDs (for service use only)
B	Service Switches (for service use only)
C	Video Interface
D	Power Connector
E	Power Switch
F	Not Used
G	RJ-45 Connector (10BaseT/100BaseTX/1000BaseT)
H	Not used (Monitor port)
I	Not used (Serial Port)
J	USB Ports
K	Not used (USB Type B port)

1.3.4 CONNECTING E-7000 TO THE COPIER

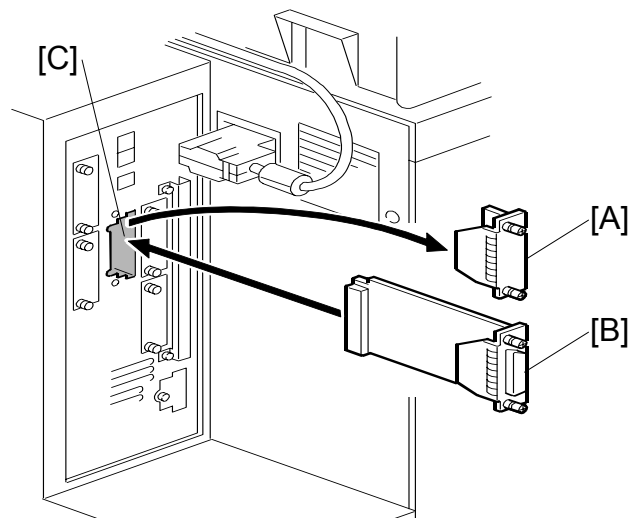
After you unpack the E-7000, connect the E-7000 to the copier before you connect it to the network. This is to confirm that there are no problems with the hardware and controller itself.

⚠ WARNING!

Turn the controller main power switch and copier main power switch to off and disconnect the power cords before you do these procedures.

1. Remove the I/F slot cover [A] of **Slot C** [C] (this is the slot for the external controller) (⚙ x 2).
2. Touch a metal surface to remove static charge from your hands before you touch the extension card.
3. Insert the extension card [B] into **Slot C** [C] and fasten it with the screws. (⚙ x 2).

NOTE: Make sure that the extension card is inserted straight and firmly.

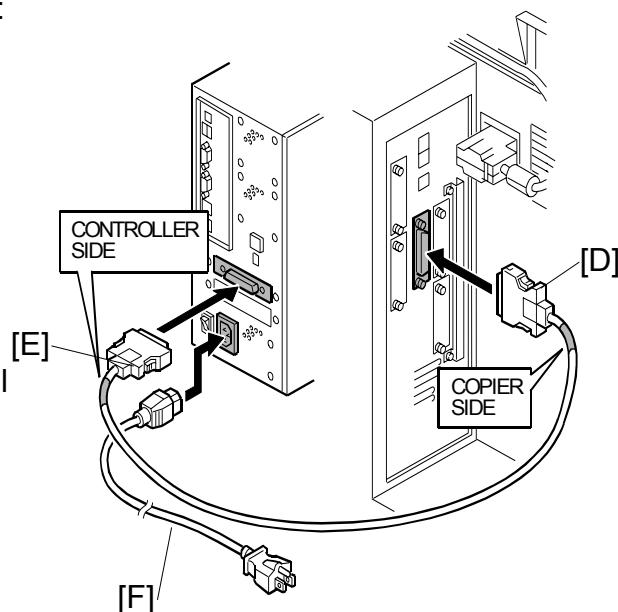


MACHINE INSTALLATION

4. Connect the interface cable as follows:

- “Copier Side” [D]:
Connect this to the extension card and fasten the screws.
- “Controller Side” [E]:
Connect this to the video interface on the rear of the E-7000.

NOTE: If the interface cable is connected in the opposite direction, the copier engine will fail to communicate with the controller.

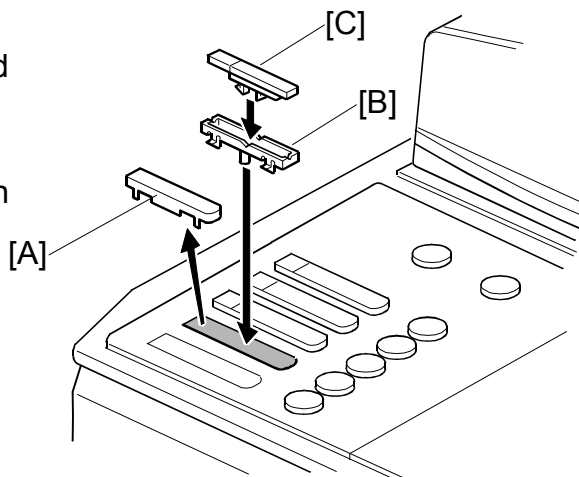


5. Connect the appropriate AC power cord [F] to the power connector at the back of the E-7000.

6. On the operation panel of the copier, remove the Slot Cover [A] and discard it.

7. Install the base key top [B] and **Fierydriven** key top [C] in the position indicated in the illustration.

Use the correct keytops, as shown in the table below.



	US Model (English)	International Model (Symbols)
Only the E-7000 is connected.		
The E-7000 and the Copy Connector Kit (for the Tandem Copy feature) are connected.		

1.3.5 STARTUP AND INITIAL SETUP

1. Connect the power cord of the copier to a power outlet and switch on the copier main power.

NOTE: 1) The copier must be turned on before you turn the E-7000 on.
 2) Make sure that all firmware modules for the copier are updated to the newest versions. If they are not, update them before you turn on the E-7000.
 (☛ *Copier Service Manual*)

2. Turn the power switch on the E-7000 back panel to ON.
3. Allow startup to proceed without interruption, while you watch the diagnostic LEDs on the back panel of the E-7000.
4. When the diagnostic LEDs show '00', go to the copier operation panel and press the **Fierydriven** key. 'Please wait' may be shown on the copier operation panel.
5. The language selection screen is shown. (If this screen is not shown, then press the **Fierydriven** key again.)
 Select the desired language with the down arrow "▼" key and up arrow "▲" key, and touch **OK**.

- English
- Dutch
- Spanish
- Italian
- German
- French

- NOTE:** 1) After you have selected a language, you cannot change the language unless you do "Factory Defaults (☛ 4.3)" or re-install the system software.
- 2) The default settings for the E-7000 depends on the language selection as follows:

		Selected Language & Market Region	
		English - US	English – UK/Dutch / Spanish/ Italian /German/French
PS Setting	Default Paper Sizes	US	Metric

MACHINE INSTALLATION

Select Market Region

U.S.

OK

▲ Main Menu/Cancel ▼

If you selected “**English**” at the language selection screen, you are prompted to select the market region. Select either “**US**” or “**UK**” with the down arrow “▼” key and up arrow “▲” key, then touch “**OK**”.

6. “Please wait...” will be indicated on the Fiery menu screen, then the Fiery menu screen will disappear from the operation panel.
7. Wait for a moment, then press the **Fierydriven** key again on the operation panel. The Setup main menu will appear on the Fiery menu screen.

Exit Setup

Server Setup

Network Setup

Printer Setup

▲ Main Menu/Cancel ▼

NOTE: The E-7000 setup options should be configured later by the site administrator. However, during the installation, a field technician must check that the E-7000 controller works correctly with the default configuration.
Therefore, the next steps show the steps for minimum configuration.

8. “Enter Password” message will appear.
Enter the default administrator password: “**Fiery.1**”.
9. Touch the keys in the following order, to configure the minimum setup.
 - 1) “**Server Setup**” key
 - 2) “**Main Menu/Cancel**” key
 - 3) (When you see “Save Changes for Server Setup / YES”) “**OK**” key
 - 4) “**Network Setup**” key
 - 5) “**Exit Network**” key
 - 6) (When you see “Save Changes for Server Setup/ YES”) “**OK**” key
 - 7) “**Printer Setup**” key
 - 8) “**Main Menu/Cancel**” key
 - 9) (When you see “Save Changes for Printer Setup / YES”) “**OK**” key

NOTE: If you need to specify the system date and time, enter the Server Setup menu and set them.

10. Select “**Exit Setup**”.

Exit Setup

Server Setup

Network Setup

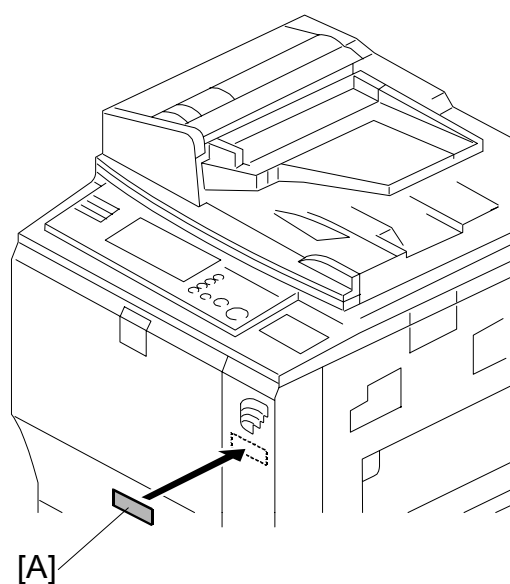
Printer Setup

▲ Main Menu/Cancel ▼

11. The system will reboot. The **Fierydriven** key will have no effect until after the system reboots. To confirm that the reboot was successful, press the **Fierydriven** key. The Fiery Menu screen will appear on the operation panel of the copier.

Server Name	▶
Idle	▶
	▶
XXXXXXMB (Version)	▶
▲	Main Menu/Cancel ▼

12. Attach the Fiery Decal [A] to the copier front cover.



1.3.6 VERIFYING THE CONNECTION (LOCAL TEST PRINT)

After you connect the E-7000 to the copier, print the Test Page and the Configuration Page to verify that the connection between the E-7000 and the copier is good.

1. Make sure that the copier is not in use.
2. Check the settings in the following table, and make sure that Letter or A4 paper is loaded in at least one of the paper trays of the copier.

Setup Option	PS Setting Default Paper Size	
	"US"	"Metric"
Configuration Page requires...	Letter	A4
PS Test Page requires...	Letter	A4

3. On the operation panel of the copier, press the **Fierydriven** key to access the printer initial menu screen.
4. Access the menu list. To do this, touch the "**Main Menu/Cancel**" key, and select "**Print Pages**".
5. Print the following pages:
 - Configuration Page
 - PS Test Page
6. Examine the quality of the test pages.
 - All patches should be visible, but it is acceptable if they are very faint in the 5% and 2% ranges.
 - Each patch set should show uniform gradation from patch to patch as the shade lightens from 100% to 0%.
 - Poor image quality may indicate that the copier needs service. For more information, see the documentation provided with the copier.

1.3.7 VERIFYING CONNECTION TO THE NETWORK

The E-7000 provides twisted pair connectivity to an Ethernet network.

Cable requirements:

- 10BaseT (Ethernet): Unshielded Twisted Pair (UTP), Category 3 or higher
- 100BaseTX (Fast Ethernet): UTP, Category 5 or higher (4-pair/8-wire, short length)
- 1000BaseT (Gigabit Ethernet): UTP, Category 5e or higher (4-pair/8-wire, short-length)

NOTE: If the print engine is 230V, use a shielded network cable.

1. Turn off the E-7000 power before connecting the E-7000 to any network device.
2. Connect the network cable to the RJ-45 connector (upper connector) on the E-7000. (The lower connector cannot be used.)
3. Make sure that the copier power is switched on.
4. Turn the power switch on the E-7000 back panel to ON.
5. Allow startup to proceed without interruption, while you watch the diagnostic LED on the back panel of the E-7000. When the diagnostic LEDs show '00', go to the copier operation panel.
6. Configure the Setup options.

1) Press the **Fierydriven** key on the copier operation panel. ('Please wait' may be shown on the copier operation panel. If the next screen is not shown after 'Please wait', then press the **Fierydriven** key again.)

2) Touch the "**Main Menu/Cancel**" key.

3) Touch the down arrow "▼" key.

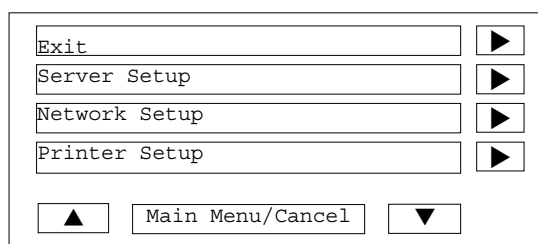
4) Select "**Run Setup**".

5) Touch "**OK**".

6) Wait for a while and then press the **Fierydriven** key again.

7) Wait until the setup main screen appears.

8) Ask the site administrator to configure the Setup options.



NOTE: It is the site administrator's responsibility to configure the correct setup options for the network and user environment. The default settings in the setup may be adequate, but they may not be optional for the user's environment. Refer the site administrator to the *Configuration and Setup* manual for setup information.

7. After configuring the Setup options, verify the network connection. Ask the site administrator to install the printer driver on a client PC, and to make a test print from that PC.

1.4 INSTALLING OPTIONAL FEATURES

1.4.1 OVERVIEW

The system software for the E-7000 contains the following optional features:

- EFI Spot-On
- EFI Hot Folders
- EFI Auto Trap

Initially, the above three optional functions cannot be used. When the customer purchases any of these functions, a hardware USB dongle which includes a license for the optional feature will be provided.

After the license for the feature is transferred to the E-7000, the dongle will be locked to that particular E-7000 (a unique value will be written to the dongle).

- To transfer the license from the dongle to the E-7000, you turn off the E-7000 power, connect the dongle, turn on the E-7000 power, wait for the E-7000 to get to the idle condition, then remove the dongle. The feature is now activated. There is a detailed procedure on the next page.

After this, the same dongle cannot be used on another E-7000, unless the license is first removed from the original E-7000 using that dongle. (You must use the same dongle.)

- To remove the license from the E-7000, do exactly the same procedure that you use when you transfer the license from the dongle to the E-7000. This deactivates the feature.

When the feature is removed from the original E-7000, the unique value will be removed from the dongle. The dongle can now be used on another E-7000.

If a dongle that has already a unique value (had its unit ID locked to a E-7000) is inserted into another E-7000 unit, the dongle will have no effect.

The number of times the license can be removed from the E-7000 is limited as shown in the table below. (Activate 4 times and deactivate 3 times.) When this limit is reached, the dongle can no longer be used to remove the license, so the license will stay on the E-7000. If a dongle is inserted to remove a feature but the limit has been reached, there will be no effect.

E-7000 Power Turned On (or E-7000 Rebooted) with Dongle Connected	Activates/Deactivates the feature on the E-7000	License Transferred to
1 st time	Activates	E-7000
2 nd time	Deactivates	Original Dongle
3 rd time	Activates	E-7000
4 th time	Deactivates	Original Dongle
5 th time	Activates	E-7000
6 th time	Deactivates	Original Dongle
7 th time	Activates	E-7000
8 th time and after	No effect	No effect

1.4.2 ACTIVATE / DEACTIVATE AN OPTIONAL FEATURE USING A DONGLE

The optional feature dongle can be used to either activate or deactivate a feature. The operation for both of these procedures is exactly the same, and the successful activation or deactivation can be confirmed by printing the configuration page.

The purpose of the ability to remove the license (deactivation) is to handle cases where the license was accidentally installed on the wrong E-7000 unit.

Immediately after the E-7000 main power is turned on or the E-7000 is rebooted, the E-7000 checks for the presence of the feature activation dongle.

1. Print the configuration sheet of the E-7000. (☛ 2.3)
2. With the configuration sheet, check the condition of the optional feature that you will activate/deactivate. (Disabled/Enabled).
3. Shut down the E-7000 and turn the power of the E-7000 OFF. (☛ 2.1.3)
4. Insert the dongle in a USB port.
(There are two USB ports in the back panel of the E-7000. Any of the USB ports can be used.)
5. Make sure that the copier main power is already ON.
6. Turn the power switch of the E-7000 ON.
7. Wait for the E-7000 to come to the idle status.
During this startup sequence, the optional feature will be activated/deactivated.

NOTE: If the E-7000 already has a particular feature activated, and a new dongle for the same feature is inserted, the license will not be affected and the new dongle will remain active.

If the E-7000 already has a particular feature activated and the matching dongle is inserted, the feature will be removed, and the dongle can then be re-used on another E-7000 unit.

8. Remove the dongle from the USB port.

CAUTION

Do not forget to remove the dongle at this time.

If you leave the dongle in the USB port and the E-7000 main power is restarted or the E-7000 is rebooted, then the condition of the optional feature will be reversed. (For example, if you wanted to activate the feature, it is now deactivated.) The only exception is that after you activate a feature for the 4th time, it cannot be deactivated.

INSTALLING OPTIONAL FEATURES

9. Print a configuration sheet (➡ 2.3).
10. On the configuration sheet, check if the desired optional feature is activated/deactivated.

If you have activated an optional feature, keep the configuration sheet. You may need it later for troubleshooting purposes, as shown in the following caution.

CAUTION

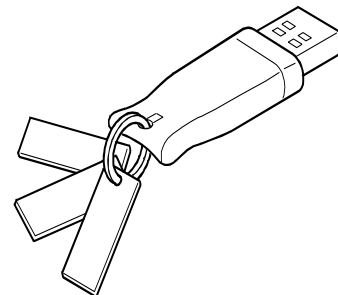
After an optional feature has been activated, the optional feature license information is kept inside the U38 chip on the video board of the E-7000. If the U38 chip becomes defective, the following are needed as evidence in order to get a new U38 chip and optional feature dongle:

- The defective U38 chip
- The configuration sheet that shows that the defective U38 chip had the optional feature license installed.

Therefore, always print a configuration sheet and keep it when you activate a new optional feature on the E-7000.

11. 3 tags with 6 labels are attached to each optional feature dongle.

- a) Optional Feature Name: **Printed**
- b) Optional dongle serial number: **Printed**
- c) Installed Controller Model Name: **Blank**
- d) Installed Controller Serial Number: **Blank**
- e) 4 check boxes for Activation: **Not checked**
- f) 3 check boxes for Deactivation: **Not checked**



For the labels c) to f), you can fill in the related information or check the boxes, if you want to keep a record of the status of each dongle.

2 GENERAL OPERATIONS FOR SERVICING

2.1 START-UP, SHUT-DOWN, AND REBOOT PROCEDURES

The copier and the E-7000 have separate power switches. During normal operation, you can leave the E-7000 switch in the ON (I) position. If you turn off the main power of the copier, this shuts down the E-7000 correctly. If you turn the copier power back on, this will wake up the E-7000 correctly.

2.1.1 STARTING THE COPIER AND THE E-7000

1. Turn on the copier using the main power switch.
2. Turn on the E-7000 using its power switch.
The E-7000 takes less than 3 minutes to reach the idle condition. The copier may need several minutes to warm its components.

NOTE: Always turn on the copier main power first. If the copier main power is off (or disconnected from the E-7000), the E-7000 will begin to start up but it will shut down automatically before it reaches the idle condition. This feature protects the E-7000 from incorrect shutdown.

3. After the E-7000 and the copier become idle, press the **Fierydriven** key. The Fiery menu screen will appear on the copier operation panel.

Server Name	▶
Idle	▶
	▶
XXXXXXMB (Version)	▶
▲	Main Menu/Cancel ▼

2.1.2 SHUTTING DOWN THE COPIER AND THE E-7000

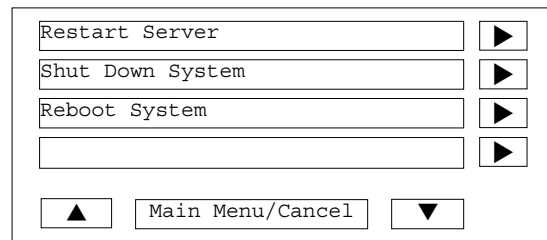
1. Make sure the **On** indicator on the copier operation panel is off. If not, press the operation switch and wait until the **On** indicator is off.

NOTE: Do not turn off the main power switch of the copier when the On indicator is on or blinking. Failure to observe this may result in damage to the copier's HDD or memory, leading to a malfunction.

2. Turn the main switch of the copier OFF.
3. Wait for the E-7000 diagnostic LEDs to turn off.
The E-7000 is now ready to turn back on automatically when the copier power is turned on.
4. If the E-7000 is being taken out of service, turn off the E-7000 using its power switch. (For example, if someone needs to move the E-7000, disconnect cables, or open the chassis.)

2.1.3 SHUTTING DOWN THE E-7000 ONLY

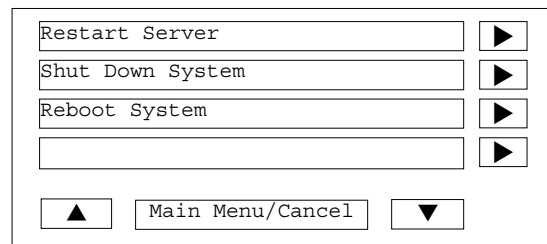
1. Press the **Fierydriven** key on the operation panel of the copier. The Fiery menu screen appears.
2. Touch the "**Main Menu/Cancel**" key to access the menu list.
3. Scroll through the menu list by touching the down arrow "**▼**" key.
4. Touch the "**Shut Down**" key, then press the "**Shut Down System**" key.
5. Wait for the diagnostic LEDs on the E-7000 to turn off.
6. Turn off the E-7000 using its power switch.
The Fiery will remain OFF even when the copier power is turned on or on/off.



2.1.4 RESTARTING THE E-7000

When restarting the E-7000 to recover from a problem, try this procedure first. However, this procedure will only restart the E-7000 application software that is now running on the system OS. To reboot the system OS (for example, after downloading a patch), see the next section “Rebooting the E-7000 (☛ 2.1.5)”.

1. Make sure that the E-7000 is not in use.
2. Press the **Fierydriven** key on the operation panel of the copier. The Fiery menu screen appears.
3. Press the “**Main Menu/Cancel**” key to access the menu list.
4. Scroll through the menu list by pressing the down arrow “▼” key.
5. Touch the “**Shut Down**” key, then touch the “**Restart Server**” key.
6. Wait until the E-7000 becomes idle.

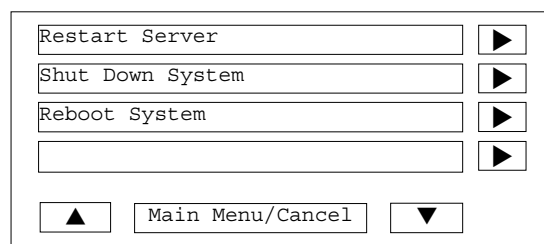


Replacement

2.1.5 REBOOTING THE E-7000

Use this procedure to reboot the system OS (for example, after downloading a patch).

1. Make sure that the E-7000 is not in use.
2. Press the **Fierydriven** key on the operation panel of the copier. The Fiery menu screen appears.
3. Press the “**Menu/Cancel**” key to access the menu list.
4. Scroll through the menu list by pressing the down arrow “▼” key.
5. Touch the “**Shut Down**” key, then touch the “**Reboot Server**” key.
6. Wait until the E-7000 becomes idle.



NOTE: Do not reboot the E-7000 by turning the copier main switch OFF and ON. Recycling power to the copier does not reboot the E-7000 properly.

2.2 CANCELLING THE CURRENT PRINT JOB

When you want to cancel the current print job, do the following:

1. Press the **Fierydriven** key on the operation panel of the copier to access the Fiery menu screen.
2. Press the “**Main Menu/Cancel**” key to access the menu list.
3. Press “**Cancel Job**”.

Server Name

Printing

XXXXXXMB (Version)

▲ Main Menu/Cancel ▼

For how to cancel print jobs, please also refer to the *Configuration and Setup* manual.

Cancel Job

(User Name)

(Job Name)

▲ Main Menu/Cancel ▼

2.3 PRINTING THE CONFIGURATION SHEET OR TEST SHEETS

1. Make sure that the E-7000 is not in use.
2. Press the **Fierydriven** key on the operation panel of the copier to access the Fiery menu screen.
3. Press the “**Main Menu/Cancel**” key to access the menu list.
4. Touch the “**Print Pages**” key, then touch the desired key.
 - “**PS Test Page**”
 - “**Configuration Page**”

2.4 RUNNING THE E-7000 SETUP

The following procedures show how to access the Setup menu from the Fiery menu screen.

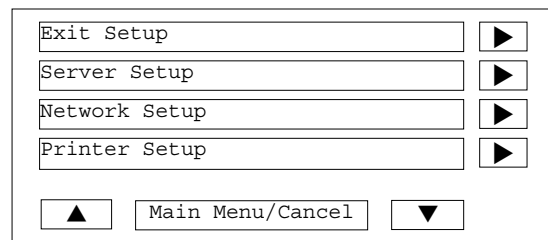
NOTE: When the network settings (protocol, IP Address, etc.) are already configured and the “Enable Web Service” option is set to ON, you can also configure the E-7000 setup from “Fiery Web Setup”. To do this, use a web browser on a personal computer which is connected on the network. For more detailed instructions, please refer to the *Configuration and Setup* manual.

NOTE: When you try to get access to the Setup menu, you are always asked to input an administrator password. (The default password is “**Fiery.1**”) Ask the site administrator to input the administrator password when you must get access to the Setup menu.

Replacement

2.4.1 TO ACCESS THE SETUP MENU

1. Make sure that the E-7000 is not in use.
2. Press the **Fierydriven** key on the operation panel of the copier to access the Fiery menu screen.
3. Press the “**Main Menu/Cancel**” key to access the menu list.
4. Scroll through the menu list by pressing the down arrow “▼” key.
5. Touch the “**Run Setup**” key.
6. When you are prompted “Continue to Setup? / YES”, press “**OK**”.
The Fiery menu screen will disappear.
7. Press the **Fierydriven** key to access the Fiery menu screen.
8. You may be asked to enter an administrator password. (Ask the site administrator to enter the password. The default password is “**Fiery.1**”)
9. The main setup screen appears.
For the details of each setup option value, refer to the *Configuration and Setup* manual.



2.4.2 TO EXIT FROM THE SETUP MENU

1. At the main setup screen, touch “**Exit Setup**” key.
The Fiery menu screen will disappear.
2. Press the **Fierydriven** key to access the Fiery menu screen.

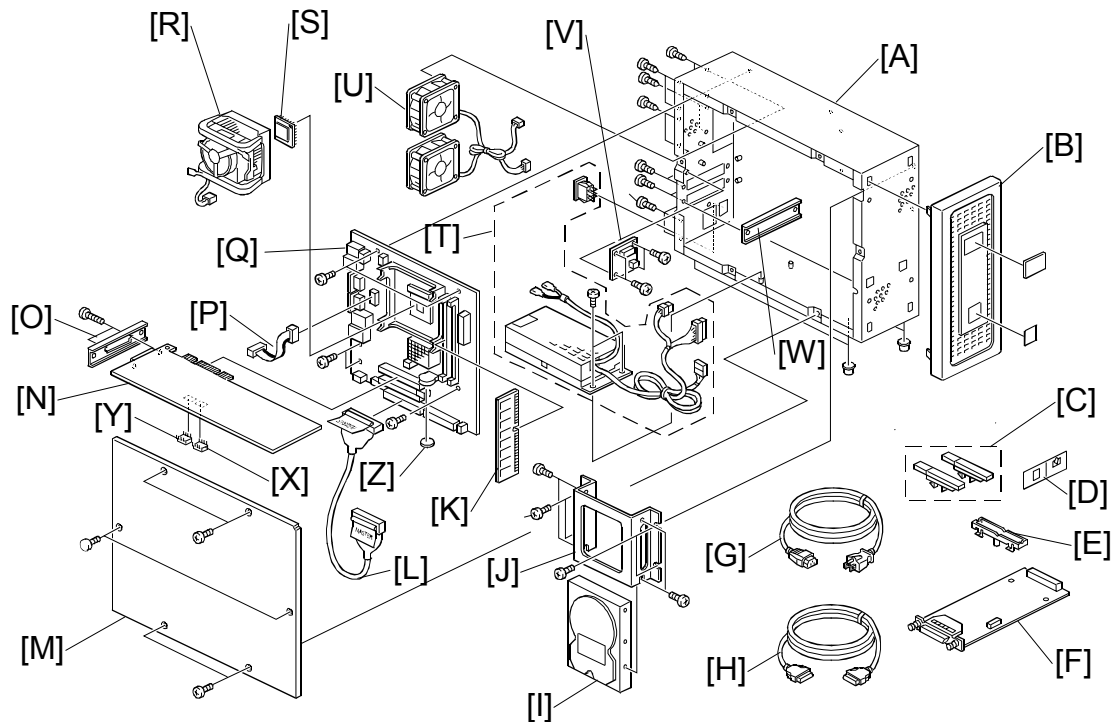
3 REPLACEMENT

3.1 GENERAL CAUTION

WARNING
Turn off the power and unplug the E-7000 before attempting any of the procedures in this section.

- Before accessing internal components, position the E-7000 so that it is resting on its right-hand side on a flat, anti-static surface.

3.2 NAMES OF MAIN PARTS/UNITS



Replacement

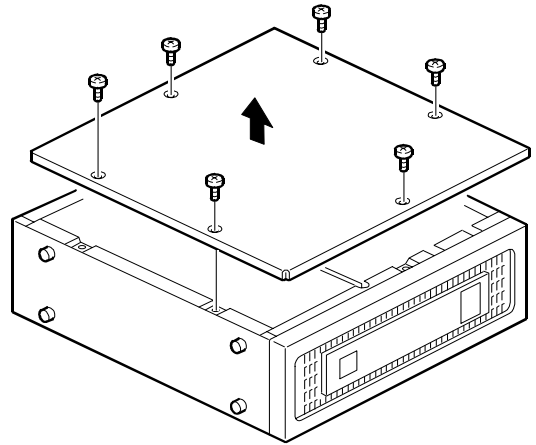
	Name	Refer to		Name	Refer to
A	Base of case	-	N	Video board	☛ 3.4.1
B	Front cover	-	O	Video board bracket	☛ 3.4.1
C	Fierydriven keytops	☛ 1.3.4	P	14-pin LED cable	☛ 3.4.2, 3.4.6
D	Fierydriven decal	☛ 1.3.4	Q	Motherboard	☛ 3.4.6
E	Base for keytop	☛ 1.3.4	R	CPU cooling assembly	☛ 3.4.8
F	Extension card	☛ 1.3.4	S	CPU	☛ 3.4.8
G	AC power cord	☛ 1.3.4	T	Power supply unit	☛ 3.4.4
H	Interface cable	☛ 1.3.4	U	Fan(s)	☛ 3.4.5
I	HDD	☛ 3.4.3	V	Diagnostic LED board	☛ 3.4.2
J	HDD bracket	☛ 3.4.3	W	Bracket	-
K	Memory	☛ 3.4.7	X	U38 chip	☛ 3.4.1
L	IDE cable	☛ 3.4.3, 3.4.6	Y	U39 chip	☛ 3.4.1
M	Side cover	☛ 3.3.1	Z	Lithium Battery	☛ 3.4.9

COVER REMOVAL

3.3 COVER REMOVAL

3.3.1 SIDE COVER FOR THE E-7000

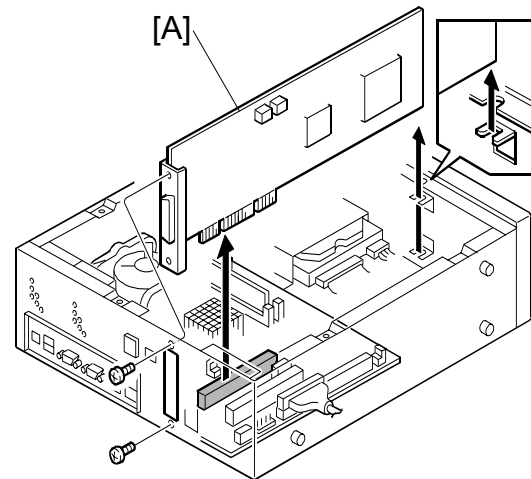
[A]: Side cover (🔩 x 6)



3.4 UNIT REMOVAL

3.4.1 VIDEO BOARD

[A]: Video board with bracket (⚙ x 2)



Replacement

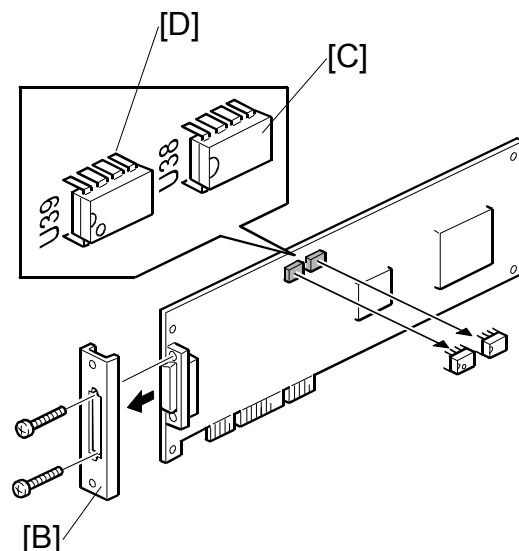
[B]: Bracket (⚙ x 2)

[C]: U38 Chip

[D]: U39 Chip

NOTE: The video board that you use as a spare part does not include the U38 and U39 ROMs.

When you replace the video board, do not forget to move the U38 and U39 ROMs from the old board to the new board.



- **U38 Chip:**
Contains option upgrade information and licensing information for the E-7000.
- **U39 Chip:**
Contains the following printer-related configuration settings.
 - Shift Operation (E-7000 Printer Setup)
 - Bypass Tray Priority (E-7000 Printer Setup)
 - Bypass Tray Paper Size (Copier User Tool Menus)
 - Paper Tray Priority: Printer (Copier User Tool Menus)
 - Printer Auto Reset Timer (Copier User Tool Menus)
 - Printer Authentication Mode (Copier User Tool Menus)
 - Output Tray Priority: Printer (Copier User Tool Menus)

UNIT REMOVAL

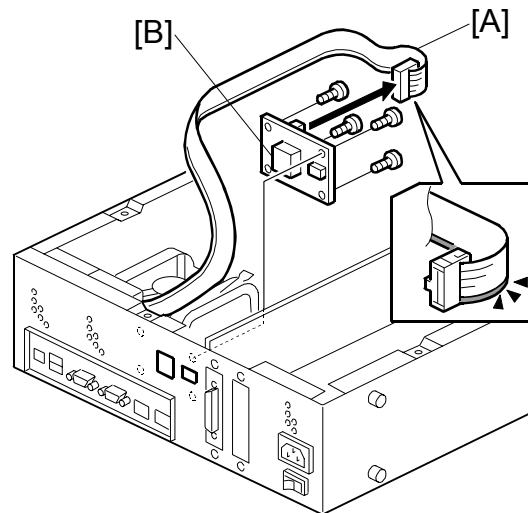
3.4.2 DIAGNOSTIC LED BOARD

[A]: 14-pin LED cable (1 x 1)

[B]: LED board

Notes for Re-assembling:

- The red line on the LED cable must face down when you connect the cable to the LED board (see the illustration).



3.4.3 HARD DISK DRIVE (HDD)

[C]: IDE cable (1 x 1)

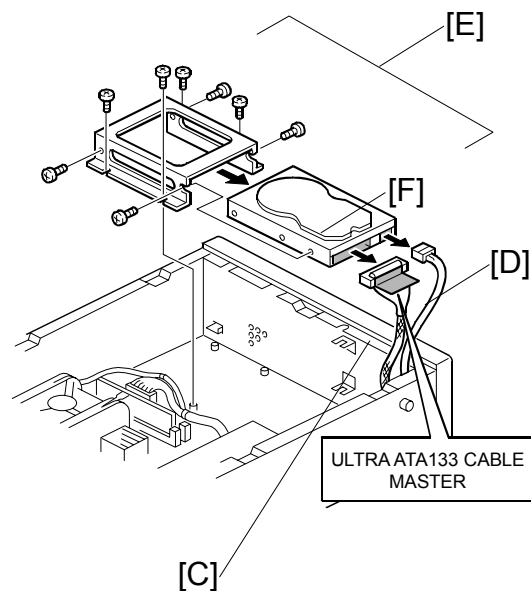
[D]: Power cable (1 x 1)

[E]: HDD with bracket (4 x 4)

[C]: HDD (4 x 4)

Notes for Re-assembling:

- [C]: Make sure to connect the black side ("MASTER" side) of cable to the HDD.

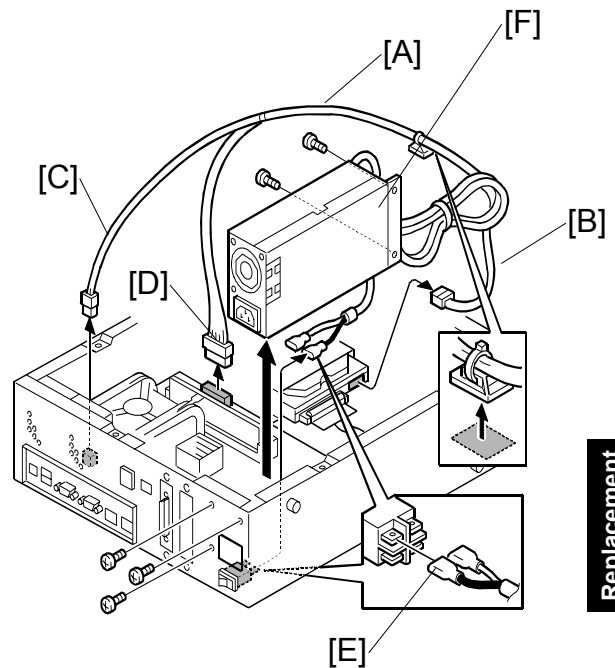


3.4.4 POWER SUPPLY UNIT

Power supply cable (🔌 x 4).

- [A]: Harness from Main Power Switch.
- [B]: HDD power connector from HDD
- [C]: 4-pin power connector from the J1 socket on the motherboard.
- [D]: 20-pin power connector from the JB3 socket on the Motherboard.
- [E]: Power Switch

[F]: Power supply unit (🔌 x 5)



3.4.5 FAN

Cables (🔌 x2):

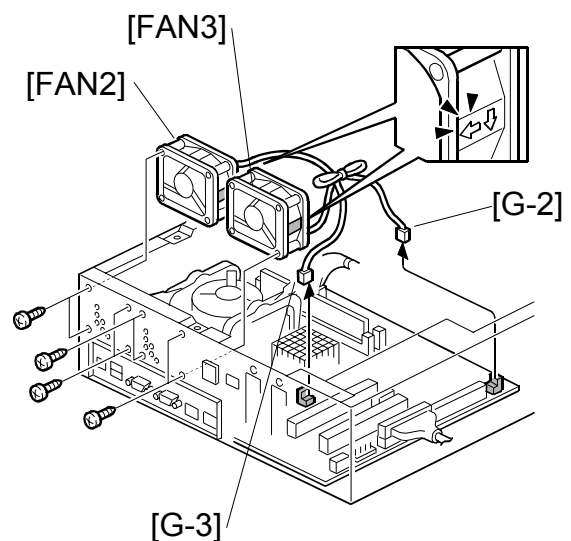
- [G-2] from FAN2
- [G-3] from FAN3

[FAN2]: Fan (🔌 x 4)

[FAN3]: Fan (🔌 x 4)

Notes for Re-assembling:

- Connect the [G-2] cable (Short) to FAN2 on the motherboard.
- Connect the [G-3] cable (Long) to FAN3 on the motherboard.



UNIT REMOVAL

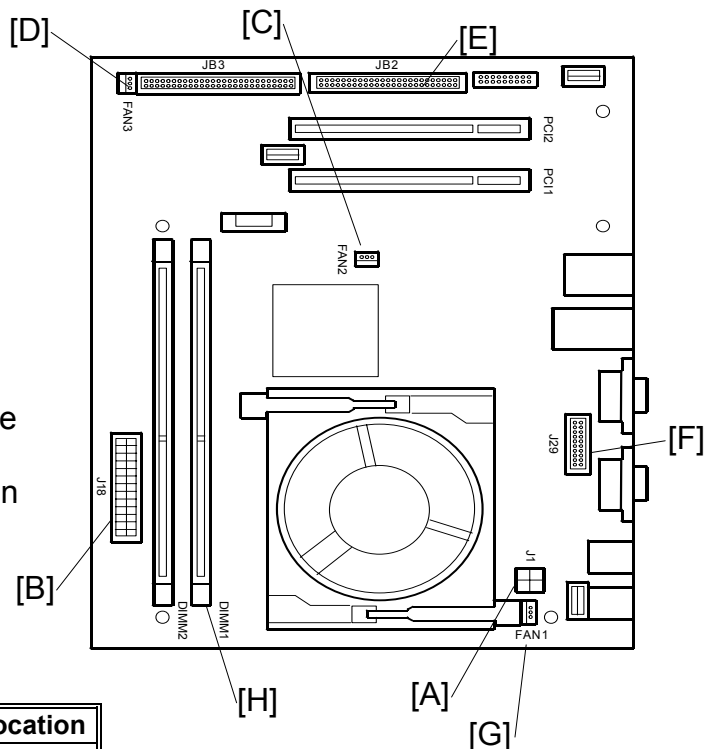
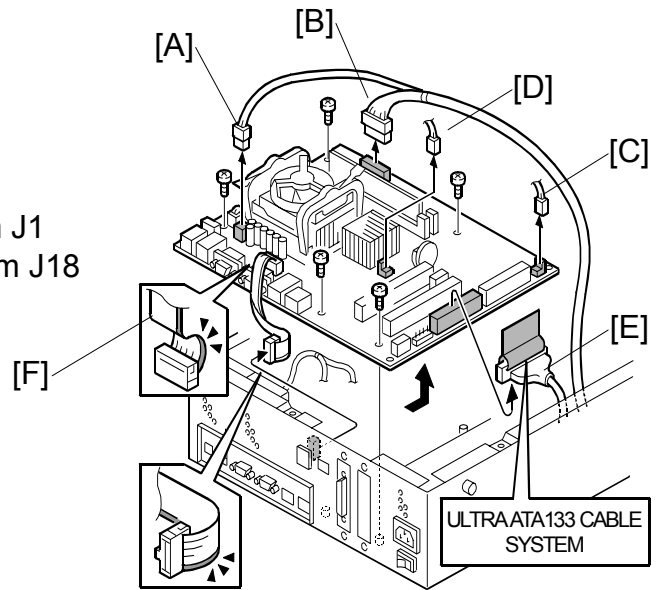
3.4.6 MOTHERBOARD

1. Video board (☛ 3.4.1)
2. Fan case (☛ 3.4.5)
3. Cables (☛ x4):
 - [A]: 4-pin power connector from J1
 - [B]: 20-pin power connector from J18
 - [C]: Fan cable from FAN2
 - [D]: Fan cable from FAN3
 - [E]: IDE cable from JB2
 - [F]: LED cable from J29
4. Screws (☛ x 5)
5. Memory (☛ 3.4.7)
6. CPU Cooling Assembly (☛ 3.4.8)
7. CPU (☛ 3.4.8)

NOTE: When you replace the motherboard, remove the CPU and memory and attach them to the new motherboard. (☛ 3.4.8)

Notes for Re-assembling:

- Make sure of where to connect the connectors for each cable. Make sure that all connectors are inserted firmly in the sockets. Also, do not put the connectors in the sockets the wrong way around.



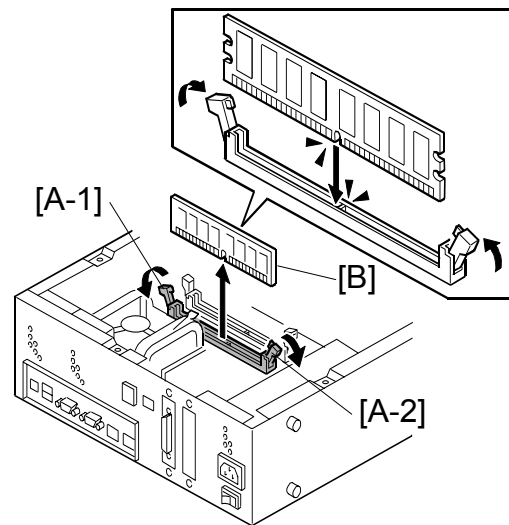
No.	Connector	Location
[A]	4-pin power connector	J1
[B]	20-pin power connector	J18
[C]	Fan cable from FAN2	FAN2
[D]	Fan cable from FAN3	FAN3
[E]	IDE cable	JB2
[F]	LED cable	J29
[G]	CPU fan cable	FAN1
[H]	Memory	DIMM1

3.4.7 MEMORY - 512 MB DIMM

1. Push outward on the levers [A-1], [A-2] on each side of the DIMM.
2. Slide the DIMM [B] straight out of the socket.

Notes for Re-assembling:

- Always attach the DIMM [D] to the DIMM1 socket (closer to the CPU unit).
- Gently slide the DIMM straight down into the socket and press so that the levers lock the DIMM into place. Make sure that the levers close securely around the ends of the DIMM.
- DIMMs fit in the socket only one way. The two notches [D] on the bottom of the DIMM should line up with the notches in the socket.



Replacement

3.4.8 CPU AND COOLING ASSEMBLY

You can replace the following parts.

- Cooling Assembly [D] only
- CPU [F] and Cooling Assembly [D] (as a set): If you replace the CPU, you must replace the cooling assembly also, as a set.

The cooling assembly consists of a fan with heat sink and a clip assembly.

NOTE: 1) Be careful not to damage the motherboard, the CPU, or the CPU socket when you replace the cooling assembly.

Remove the memory before you remove the cooling assembly.

- 2) When you want to replace the CPU, replace the CPU and the cooling assembly as a set.

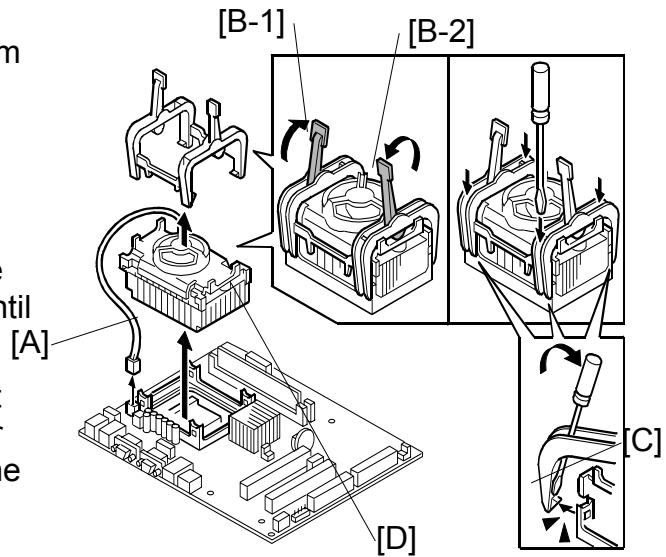
This is very important, because the thermal pad that is attached to a new heat sink will make a good contact between the CPU and the heat sink when heated.

If you attach a used cooling assembly to a new CPU by mistake, the heat sink will not contact the CPU properly, and this will cause the CPU to overheat.

UNIT REMOVAL

Cooling assembly removal procedure:

1. Remove the CPU fan cable [A] from the motherboard FAN1 (⏏ x 1).
2. Open the clip levers [B-1] [B-2] by lifting them up.
3. Insert a flathead screwdriver between fan shroud and clip frame [C]. Push the screwdriver down until it hits the clip hook.
4. Push down on the clip hook and at the same time turn the screwdriver towards the fan heat sink to free the clip hook. Repeat this process for the remaining clip hooks.
5. Remove the fan heat sink. [D].

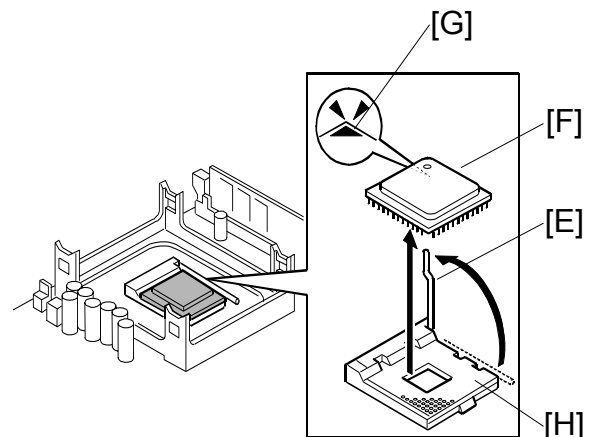


Notes for re-assembling the CPU cooling assembly:

- Make sure to close the clip levers one at a time. Close the clip levers [B-1] while holding the topside of the fan heat sink with your other hand. Then, close the clip lever [B-2], while holding the topside of the fan heat sink with your other hand.

CPU removal procedure:

1. Lift the CPU socket lever [E] to release the CPU [F] from the socket.
2. Grasp the CPU [F] by its edges and gently lift it from the socket.



Notes for re-attaching the CPU:

- Check the location of the arrow [G] on the CPU [F] when you insert the CPU [F] into the socket [H]. (See the illustration.)
- Be careful not to bend the pins when you insert the CPU into the socket.
- Set the CPU in the socket completely and without forcing it.
- Close the socket lever [E] to secure the CPU [F] in place.

3.4.9 LITHIUM BATTERY

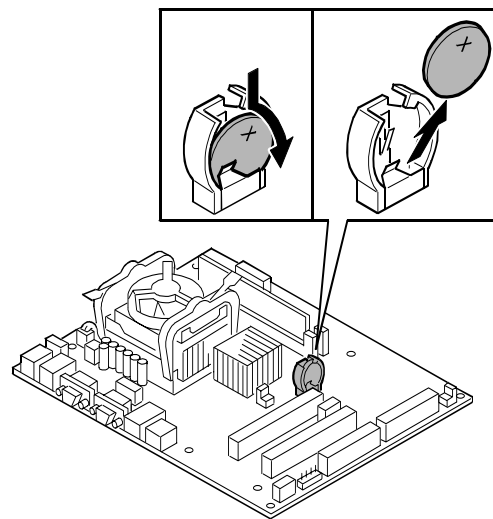
⚠ CAUTION

There is danger of explosion if the battery is replaced with the incorrect type. Replace with only with the same lithium battery supplied as a spare part.

Discard the used motherboard battery in accordance with the manufacturer's instructions and local regulations.

Note for Re-assembling:

- You need to re-configure the system date and time.
To configure the system date and time, enter the 'Server setup' menu from the Setup main menu. (➡ 2.4.1)



3.4.10 EXTENSION CARD

- Extension Card (🔧 x 2), on the copier

Note for Re-assembling:

- Make sure that the extension card is inserted straight.

4 SOFTWARE MAINTENANCE

4.1 GENERAL NOTES AND CAUTIONS

You may use one of the following when you have a problem with the system software or the HDD.

- Clear Server: Deletes all queued print jobs from the E-7000
- Factory Default: Restores the E-7000 to the factory defaults
- System Software Reinstallation

The following table shows whether the current data on the E-7000 will remain or be deleted when each of these is used.

	“Clear Server”	“Factory Default”	System Software Reinstallation / Upgrade
Job Log	Deleted	Deleted	Deleted
Queued Jobs	Deleted	Deleted	Deleted
Scanned Jobs	Deleted	Deleted	Deleted
MailBox	Deleted	Deleted	Deleted
Archived Jobs	Deleted	Deleted	Deleted
FreeForm masters	Deleted	Deleted	Deleted
Resident Fonts	Not Deleted	Not Deleted	Deleted
Downloaded Fonts	Not Deleted	Deleted	Deleted
Language Selection	Not Deleted	Deleted	Deleted
Setup Options	Not Deleted	Deleted	Deleted
Patches	Not Deleted	Deleted	Deleted
Administrator Password	Not Deleted	Not Deleted	Deleted
Option Activation	Not Deleted	Not Deleted	Not Deleted

Trouble-
shooting

NOTE: In ‘System Software Reinstallation/Upgrade’, ‘Upgrade’ refers to replacing the software with a new version. It does not refer to the application of patches. When you apply a patch, data is not deleted.

Before you use any of the above features, make sure you inform the site administrator that the indicated data and settings will be deleted and should be re-installed after the feature has been used.

- **Job Log**

The list of jobs in the Job Log and all jobs in the queues are deleted. The site administrator can use Fiery Spooler to save a current list of jobs from the Job Log (the actual jobs are not saved, only a list of them).

- **Queued Jobs**

All queued print jobs (in the Print, Hold, and Printed queues) will be deleted.

CLEARING THE QUEUED PRINT JOBS IN THE E-7000

- **Archived Jobs and Free Form masters**

Archived jobs on the E-7000 HDD and FreeForm masters are deleted. The lists of archived jobs and FreeForm masters are deleted as well.

- **Fonts**

All fonts on the HDD are deleted when you reinstall the system software. Resident fonts are reinstalled when you reinstall the system software. Any customer-supplied fonts will need to be reinstalled by the site administrator using Fiery Downloader.

- **Administrator Password**

The administrator password will be deleted when system software is re-installed. (The administrator password will return to “**Fiery.1**” after the system software is re-installed.)

- **Configuration**

Make sure to print a configuration page before reinstalling the system software. The Setup configuration will be lost when you reinstall the system software.

Compatibility

When you upgrade the system software, make sure the latest user software is installed onto all computers that print to the E-7000. Using incompatible versions of the system and user software can result in system problems.

4.2 CLEARING THE QUEUED PRINT JOBS IN THE E-7000

The “**Clear Server**” command allows you to clear all queued print jobs from the E-7000 – jobs in the E-7000 Print, Hold, and Printed queues. Clear Server also clears all jobs archived on the E-7000 hard disk, the index of archived jobs, and finally, all Fiery FreeForm masters and the index of Fiery FreeForm masters.

NOTE: Before using Clear Server, inform the site administrator that data on the E-7000 hard disk will be deleted.

1. Make sure the E-7000 is not in use.
2. Run the setup menu. (➡ 2.4)
3. Scroll through the setup main menu list by pressing the down arrow “▼” key twice.
4. Touch the “**Clear Server**” key.
5. When you are prompted “Clear all jobs from all queues?/NO”, press the down arrow “▼” key so that the second line will be changed to “YES”
6. Touch the “**OK**” key.
The Fiery menu screen will disappear and data will be cleared before the system restarts.
7. Press the **Fierydriven** key and check if the E-7000 becomes idle.

4.3 RESTORING THE E-7000 TO FACTORY DEFAULTS

When E-7000 system software is first installed, a backup copy is made automatically. You or your customer can recover the system from this backup without having to reload the software from the CD (or USB Flash drive).

Also use “Factory Default” when you want to change the language selection.

NOTE: Before using “**Factory Default**”, inform the site administrator that all data (including the downloaded fonts) stored on the HDD and setup options will be deleted.

NOTE: Performing “**Factory Default**” will not delete the current administrator password, which was set for E-7000 (the initial password is “**Fiery.1**”). Before performing “**Factory Default**”, check if the site administrator can input the current administrator password after the system software is restored.
If a unique administrator password is already set for the E-7000, but the site administrator does not remember the password, re-install the system software from the CD (or from USB flash drive).

1. Make sure the E-7000 is not in use.
2. Print a configuration page (you may refer to this configuration page when you re-enter the setup options). (🖨 2.3)
3. Run the setup menu. (🖨 2.4)
4. Scroll through the setup main menu list by pressing the down arrow “▼” key twice.
5. Touch the “**Factory Default**” key.
6. When you are prompted “Reset server to factory settings?/NO”, press the down arrow “▼” key so that the third line will be changed to “YES”
7. Touch the “**OK**” key.
The Fiery menu screen will disappear.
8. Go to the copier and press the **Fierydriven** key.
9. The language selection screen will appear. Start to configure the E-7000.
(For details, go to step 23 of the system software installation procedure. 🖨 4.4)

4.4 SYSTEM SOFTWARE INSTALLATION PROCEDURE

4.4.1 OVERVIEW

System software should be installed in the following cases:

- You replace the HDD with a new one (on which the System Software is not installed)
- You update to a more recent version of the system software (this is not necessary when you apply a patch; it is necessary when you install a major version change)
- You have trouble with the system software (i.e. software corruption) and the problem cannot be solved by performing "Factory Default".
- The site administrator forgets the administrator password for the E-7000.

The system software is provided as a CD set as follows:

- 1) System Software CD
System software and an installation program are included.
- 2) USB Flash Tool CD
This utility will copy the contents of the system software CD to the USB Flash drive, and at the same time make the USB Flash drive bootable.

There are two ways to install/reinstall system software on the E-7000.

- a) Installing system software over the network port.
Connect a PC to the E-7000 directly, or through a hub using a network cable. Install the system software from the System Software CD.
- b) Installing system software by booting the E-7000 from a USB Flash drive.
With the System Software CD, USB Flash Tool CD, and a PC which can boot from a CD-ROM, first make a bootable USB flash drive that includes E-7000 system software and the installation program.
At the customer site, connect the USB flash drive to the E-7000's USB port and turn the power ON. System installation will be done automatically.

NOTE: Before you start system installation, give the site administrator the opportunity to print the Job Log and to save any custom simulations. Also, print the following from the Print menu.

1. Configuration page
2. Font Lists

4.4.2 INSTALLING SYSTEM SOFTWARE OVER THE NETWORK PORT

The system software CD contains the system software and Fiery System Software Installer. To install system software using the LAN port on the E-7000, you need:

- Either
 - Two Ethernet cables and an isolated hub/switch
Cables must be 4-pair/8-wire, short-length Cat 5 (for 100BaseT) or Cat 5e (for 1000BaseT)

Or

- For 100BaseTX: One Category 5 or higher Ethernet cross-over cable (4-pin/8-wire, short-length)
For 1000BaseT: One Category 5e or higher Ethernet cross-over cable (4-pin/8-wire, short-length)
- A Windows XP/2000 computer with:
 - A CD-ROM drive, built in or attached
 - Support for 100BaseTX or 1000BaseT

NOTE: This procedure describes using one cross-over cable. Instead of using a cross-over cable, you may use two Ethernet cables and an isolated hub/switch. (Do not connect any other devices to the hub/switch. Do not put the hub/switch on the LAN. Do not use the hub's optical port or uplink switch.)

NOTE: If the print engine is 230V, use shielded network cables.

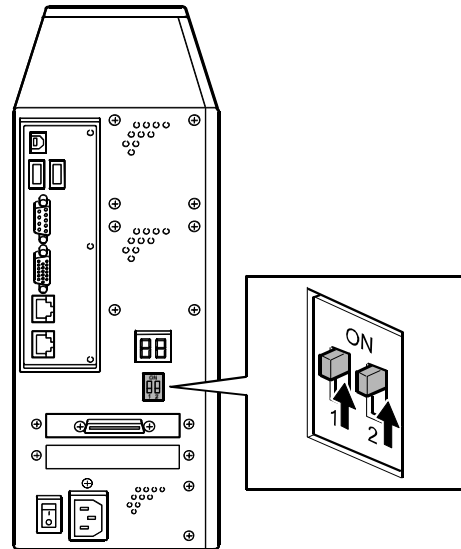
1. Print the Configuration Page. Then perform the Shut Down procedure from the copier operation panel (➡ 2.1.3)
2. When the E-7000 power is down (that is when the diagnostic LEDs are off), turn the main switch of the E-7000 to OFF.
3. Disconnect all cables from the E-7000 connector panel. Disconnect the LAN cable that was connected to the customer's LAN.
4. Connect the Ethernet cross-over cable to the LAN port and to the Windows XP/2000 PC.
5. Turn on the PC's power and insert the System Software CD into the PC's CD-ROM drive.
6. If the PC is connected to a wireless LAN, disable the wireless LAN connection. Otherwise the Fiery Installer cannot find E-7000 automatically.
7. Navigate to the CD-ROM drive and click the icon for the Installer.exe file, if it does not start automatically.

SYSTEM SOFTWARE INSTALLATION PROCEDURE

8. Click **Next** at the Welcome screen. Read the Software License Agreement and click the “**I Agree**” checkbox if you wish to continue the installation process, then click **Next**.
9. At the Connection Type screen, make sure **Ethernet** is selected. Click **Next** to advance to the Confirmation screen.
10. Set the E-7000 service switches to the service mode position: ON.

NOTE: The illustration shown on the PC screen, from the software, is incorrect. It shows the wrong direction for turning the service switches to ON.

Set the E-7000 two service switches in the upper position as shown in the illustration in this page.



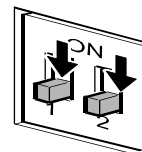
11. Turn the main power switch of the E-7000 to ON and wait 10 seconds.
12. Click **Next** on the PC screen.
13. At the Installation screen, click **Next** to start the installation. Wait while the files are copied and installed.

The progress is slow at first.

For most computers, you must wait approximately 25 minutes – do not cancel.

If you do click Cancel: Click **Finish** then turn the main power switch of the E-7000 to OFF. Wait 10 seconds, and then repeat this procedure from the beginning. If the installation terminates abnormally, you may need to reboot the PC also.

14. Click **Exit** when the screen shows that the installation is successful. Remove the System Software CD from the PC.
15. Turn the main power switch of the E-7000 to OFF.
16. Set the service switches in the normal position (not ON).
17. Disconnect the cross-over cable from the LAN port and the Windows XP/2000 PC.
18. Reconnect all cables that you removed earlier from the E-7000 panel.
19. Turn on the main switch of the copier.
20. Turn on the main power switch of the E-7000.
21. Allow startup to proceed without interruption while you watch the diagnostic LEDs on the back panel of the E-7000.



SYSTEM SOFTWARE INSTALLATION PROCEDURE

22. When the diagnostic LEDs show '00', go to the copier operation panel and press the **Fierydriven** key. 'Please wait' may be shown on the copier operation panel.
23. The language selection screen is shown. (If this screen is not shown, then press the **Fierydriven** key again.)
Select the desired language by using the down arrow "▼" key and up arrow "▲" key, and touch "OK".

- English
- Dutch
- Spanish
- Italian
- German
- French

- NOTE:** 1) After you select a language, you cannot change the language unless you do "Factory Defaults (☛ 4.3)" or re-install the system software.
2) The default settings for the E-7000 depend on the language selection as follows:

		Selected Language & Market Region	
		English - US	English – UK/Dutch / Spanish/ Italian /German/French
PS Setting	Default Paper Sizes	US	Metric

If you selected "**English**" at the language selection screen, you are prompted to select the market region. Select either "**US**" or "**UK**" by using the down arrow "▼" key and up arrow "▲" key, then touch "**OK**".

Trouble-shooting

24. "Please wait..." will be shown on the Fiery menu screen. Then the Fiery menu screen will disappear from the operation panel.
25. Wait for a short time, then press the **Fierydriven** key again on the operation panel. The Setup main menu will appear on the Fiery menu screen.
26. "Enter Password" will appear.
Enter the default administrator password: "**Fiery.1**".
27. Input the customer's settings from the Configuration Page that you printed earlier.
Ask the site administrator for the other settings that are not on the configuration page, or ask the site administrator to input these settings. For more information, see the *Configuration and Setup* manual.

4.4.3 INSTALLING SYSTEM SOFTWARE USING A USB FLASH DRIVE

To prepare a USB flash drive, which is bootable and includes system software and the software installer program, the following items should be prepared:

- E-7000 System Software CD set.
 - System Software CD
 - USB Flash Tools CD
- A 1GB-size USB Flash drive.

These USB flash drives can be used with the E-7000.

 - SanDisk Mini Cruzer 1G
 - Lexar JumpDrive Secure USB Flash 1G
 - PNY USB Pen Drive
- A PC
 - It must be possible to set this PC to boot from the CD-ROM drive.

The PC must boot from the USB Flash Tools CD.
 - The PC must have at least one USB port. (USB 2.0 or later is recommended)

USB 1.x can also be used, but it will take more time to copy the system software.

1. Prepare the USB flash drive.

- 1) Make sure the boot order on the PC is set to boot first from the CD-ROM drive.

To find out how to change the PC's BIOS configuration, see the PC documentation.

- 2) Insert the USB Flash Tool CD into the PC's CD-ROM drive.

- 3) Turn off the PC's power

- 4) Attach the USB flash drive to the PC.

- 5) Turn on the PC's power.

If the LED on the USB flash drive does not light, turn off the PC's power.

Remove and reinsert the USB flash drive into the PC. Check that its LED turns on when the PC is turned on.

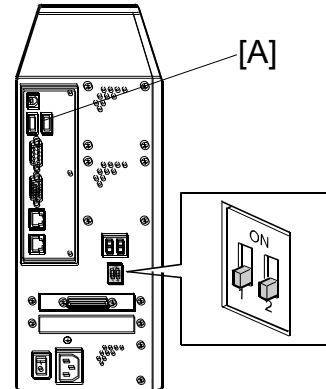
NOTE: If the PC boot order is set to boot from the CD-ROM drive, but the PC still does not boot up properly, try another PC. Your PC may not be compatible with the boot program on the USB Flash Tool CD.

- 6) Follow the on-screen prompts to set up the flash drive.

You will be prompted to insert the system software CD and install the files onto the flash drive. Installing the files usually takes 15-30 minutes, but may take considerably longer depending on your PC. The final step reboots the PC.

SYSTEM SOFTWARE INSTALLATION PROCEDURE

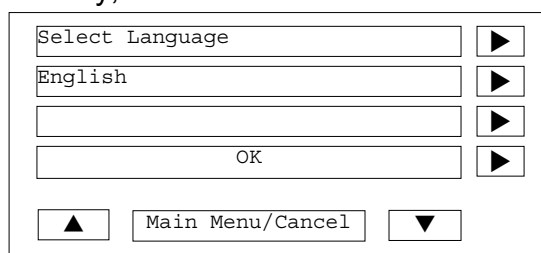
1. Print the Configuration Page. Then perform the Shut Down procedure from the copier operation panel (☛ 2.1.3)
2. When the E-7000 power is down (that is when the diagnostic LEDs are off), turn the main switch of the E-7000 to off.
3. Disconnect all cables from the E-7000 connector panel.
4. Make sure that the service mode switches are in the normal (lower) position. (Not ON.)



5. Attach the prepared USB flash drive to one of the USB ports [A] on the E-7000.

NOTE: If dust covers are attached to the USB Type A connectors, remove one dust cover using needle-nose pliers.

6. Turn the main power switch of the E-7000 to On and wait until installation is complete. Installation takes approximately 15-25 minutes. The LED on the flash drive should show that files are being transferred. The E-7000 shuts down automatically after installation is complete.
7. Turn the main power switch of the E-7000 to Off.
8. Remove the USB flash drive from the E-7000.
9. Reconnect all cables that you removed earlier from the E-7000 panel.
10. Turn on the main switch of the copier.
11. Turn on the main power switch of the E-7000.
12. Allow startup to proceed without interruption while you watch the diagnostic LEDs on the back panel of the E-7000.
13. When the diagnostic LEDs show '00', go to the copier operation panel and press the **Fierydriven** key. 'Please wait' may be shown on the copier operation panel.
14. The language selection screen is shown. (If this screen is not shown, then press the **Fierydriven** key again.) Select the desired language by using the down arrow "▼" key and up arrow "▲" key, and touch "OK".



- English
- Dutch
- Spanish
- Italian
- German
- French

Trouble-
shooting

PATCH INSTALLATION PROCEDURE

- NOTE:** 1) After you select a language, you cannot change the language unless you do “Factory Defaults (🔧 4.3)” or re-install the system software.
2) The default settings for the E-7000 depend on the language selection as follows:

		Selected Language & Market Region	
		English - US	English – UK/Dutch / Spanish/ Italian /German/French
PS Setting	Default Paper Sizes	US	Metric

Select Market Region

U.S.

OK

Main Menu/Cancel

If you selected “**English**” at the language selection screen, you are prompted to select the market region. Select either “**US**” or “**UK**” by using the down arrow “▼” key and up arrow “▲” key, then touch “**OK**”.

15. “Please wait...” will be shown on the Fiery menu screen. Then the Fiery menu screen will disappear from the operation panel.
16. Wait for a short time. Then press the **Fierydriven** key again on the operation panel. The Setup main menu will appear on the Fiery menu screen.

Exit Setup

Server Setup

Network Setup

Printer Setup

Main Menu/Cancel

17. Enter the administrator password “**Fiery.1**”.
18. Input the customer’s settings from the Configuration Page that you printed earlier.
Ask the site administrator for the other settings that are not on the configuration page, or ask the site administrator to input these settings. For more information, see the *Configuration and Setup* manual.

4.5 PATCH INSTALLATION PROCEDURE

When a software bug is found and fixed, or a new feature is added, a patch file (ps file) may be additionally released.

The patch installation procedure may vary depending on the patches; the download destination queue or system rebooting procedure may be different. Some patches may require prerequisite patches.

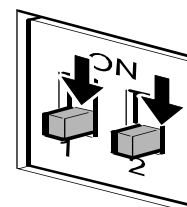
Therefore, when you install a patch, make sure to carefully read the attached release note and follow the instructions.

5 TROUBLESHOOTING

5.1 OVERVIEW

When a problem occurs, check in the following order.

1. Verify that the service switches are in normal mode, not service mode. (The switches should be in the lower position.)
2. Check that the Fiery menu appears on the copier's operation panel.
3. Verify that the network is functioning, no unauthorized software or hardware is installed on the E-7000, and there are no problems with a particular print job or application. The site administrator can help you to verify these issues.
4. Verify that the E-7000 and connection with the copier has no problem by printing test pages. (☛ 2.3)
5. If the E-7000 can boot, check if the diagnostic LEDs on the backside of E-7000 stop on a particular diagnostic code. (☛ 5.2)
6. Check that all parts and cables are correctly installed and connected. (☛ 3)
7. Try to solve the problem by performing "Clear Server" or "Factory Default". Inform the site administrator that the data stored in the HDD will be deleted. (☛ 4.2, 4.3)
8. Check if a newer version of system software, firmware or patch for the E-7000 and copier has been released. If so, install it. (☛ 4.4)
9. If the problem will not disappear, reinstall the system software. (☛ 4.4)
10. If the problem will still not disappear, replace parts of the hardware. (☛ 5.3)



5.2 LED DIAGNOSTIC CODES

During startup, the EB-7000 advances through a standard diagnostic sequence. Each diagnostic code flashes rapidly on the LED display during this sequence until the EB-7000 reaches the Idle condition. In the Idle condition, the LED display shows the **00** code. This shows that the EB-7000 is in normal operation mode. The EB-7000 may flicker or drift from 00 during normal operation, but it will always return to **00**.

If the LED display stops on a code other than **00**, one or more diagnostic tests may have failed. Look up the diagnostic code in the following table to determine the troubleshooting actions that you should take.

NOTE: A component may be faulty without an error code being displayed. Also, it is possible for an error code to indicate a defective component but that component may not be defective. Use the error codes only as a guide for what to investigate further.

Before you replace a part, make sure that the parts and connectors are correctly and firmly installed.

LED DIAGNOSTIC CODES

LED diagnostic code	Possible cause	Suggested action (Try in the listed order. If the problem persists, try the next one.)
One of the following: CF C0 C5 01 03 05 0E 10 12 14 16 1B 1D 24 26 27 29 2B 2D 35 37 39 3C 3E 40 43 53 57 59 5D 60 67 6B 6D 77 7F 82 83 84 85 89 94 96	Motherboard defective	1. Turn the copier power OFF/ON. 2. Check all cables and connections again. 3. Replace the motherboard. (➡ 3.4.6)

Trouble-
shooting

LED DIAGNOSTIC CODES

LED diagnostic code	Possible cause	Suggested action (Try in the listed order. If the problem persists, try the next one.)
One of the following: C1 C3 49 52	Possibly one of the following: - DIMM defective - Motherboard defective.	1. Turn the copier power OFF/ON. 2. Check the DIMM(s) and reseal them to remove oxidation on the connectors. 3. Replace the DIMM. (☛ 3.4.7) 4. Replace the motherboard. (☛ 3.4.6)
One of the following: 18 4E 69	Possibly one of the following: - CPU defective - Motherboard defective.	1. Turn the copier power OFF/ON. 2. Replace the CPU. (☛ 3.4.8) 3. Replace the motherboard. (☛ 3.4.6)
23	Possibly one of the following: - Motherboard battery is defective or dead. - Motherboard defective.	1. Replace the battery. (☛ 3.4.9) 2. Replace the motherboard. (☛ 3.4.6)
25 8B 8F	Possibly one of the following: - Video board is incorrectly installed in the PCI slot. - Video board defective. - Motherboard defective.	1. Turn the copier power OFF/ON. 2. Reinstall the video board. (☛ 3.4.1) 3. Replace the video board. (☛ 3.4.1) 4. Replace the motherboard. (☛ 3.4.6)
75 93	Possibly one of the following: - HDD is faulty. - Motherboard defective.	1. Turn the copier power OFF/ON. 2. Reconnect the power and IDE cables to the HDD. 3. Replace the IDE cable. (☛ 3.4.3) 4. Replace the HDD. (☛ 3.4.3) 5. Replace the motherboard. (☛ 3.4.6)

LED DIAGNOSTIC CODES

LED diagnostic code	Possible cause	Suggested action (Try in the listed order. If the problem persists, try the next one.)
FF	Possibly one of the following: • Service switches are set to Service mode. • DIMM missing or defective. • CPU missing or defective. • Motherboard missing or defective.	1. Make sure the EB-7000 service switches are set to Normal mode (away from "ON"). 2. Turn the copier power OFF/ON. (☛ 2.1) 3. Reconnect the power and IDE cables to the HDD. 4. Replace the HDD. (☛ 3.4.3) 5. Replace the CPU. (☛ 3.4.8) 6. Check the DIMM. For details, see the Action for code C1 (above). 7. Replace the motherboard. (☛ 3.4.6)

5.3 ERRORS AND SUGGESTED ACTIONS

The most common causes of hardware problems are loose connections. Before you decide to replace any parts of E-7000, make sure that the parts and connectors are correctly and firmly installed. (☛ 3)

5.3.1 START-UP PROBLEMS

Symptom	Possible Cause	Suggested Action
When the main power switch is turned on, no power is supplied to the E-7000.	The AC power cord of the E-7000 is not connected.	Connect the AC power cord.
	Defective power supply. Open the cover of E-7000 and see what happens when you connect the AC power cord. (You must turn the power switch ON.) - If you can see a small Yellow LED near the PCI slot which is lit, then +5V stand-by power is correctly supplied to the motherboard. - If you cannot see an LED which is lit on the Motherboard, the +5V stand-by power is not correctly supplied to the motherboard.	If the LED is not lit: - Check if the connector of the power supply unit is correctly inserted into the motherboard J18 socket. (☛ 3.4.6) - If the connector is inserted correctly, replace the parts in the following order. 1) AC Power cord 2) Power supply unit (☛ 3.4.4) 3) Motherboard (☛ 3.4.6) If the LED is lit: - Check if the connector of the power supply unit is correctly inserted into the motherboard J18 socket. (☛ 3.4.6) - If the connector is inserted correctly, replace the parts in the following order. 1) Power supply unit (☛ 3.4.4) 2) Motherboard (☛ 3.4.6)

ERRORS AND SUGGESTED ACTIONS

Symptom	Possible Cause	Suggested Action
The E-7000 power can be turned on, but will not continue to boot-up.	Motherboard / Memory / CPU is incorrectly installed.	Disconnect the AC power cord to the E-7000 and check the following items: Memory: (☛ 3.4.7) CPU: (☛ 3.4.8) - Is the memory installed in the DIMM1 socket, and is it installed firmly and correctly. - Is the CPU installed properly (no pins of the CPU bent or broken) - Is the cable of the CPU cooling assembly connected to the FAN1 socket.
	- Motherboard defective - Memory defective - CPU defective - Power supply unit defective	- Try to install the following parts correctly, and then try to replace the parts in the following order: - Power supply unit (☛ 3.4.4) - CPU (☛ 3.4.8) - Memory (☛) - Motherboard (☛ 3.4.6)
The E-7000 starts up and reaches 00 on the LED display. But after 5 minutes, the Fiery menu still does not appear on the copier operation panel when you press the Fierydriven key.	- Bad connection between the E-7000 and the copier. - System software corruption. - Defective video board. - Missing or defective security chip.	- Check if the interface cable is connected the correct way round. (☛ 1.3.4) - Replace the interface cable. (☛ 1.3.4) - Reinstall the system software. (☛ 4.4) - Make sure that the U38 chip is correctly installed on the video board. (☛ 3.4.1) - Replace the video board. (☛ 3.4.1) - Replace the U38 chip. (☛ 3.4.1)
The CPU cooling fan is not working.	- Incomplete cable connection. - CPU cooling fan defective.	- Check if the cable of the CPU cooling assembly is connected firmly to FAN1. (☛ 3.4.8) - Replace the CPU cooling assembly. (☛ 3.4.8 above)
The CPU cooling fan is making noise.	Dirty cooling fan.	Remove the cooling fan, clean it, and re-attach it. (☛ 3.4.8 above)

ERRORS AND SUGGESTED ACTIONS

Symptom	Possible Cause	Suggested Action
If the Fiery menu does not appear on the copier operation panel when you press the Fierydriven key.	- Controller not ready. - Incomplete cable connection. - Interface cable defective. - Loose connection of the extension card. - Extension card defective. - System software corruption.	- Check if the interface cable is connected the correct way round. (☛ 1.3.4) - Check if the connectors of the interface cable are inserted firmly in the sockets. - Check if the extension card is inserted straight and connected firmly into the C slot on the copier. (☛ 1.3.4) - If the above checks do not solve the problem, replace the interface cable or extension card.

5.3.2 SYSTEM PROBLEMS

Symptom	Possible Cause	Suggested Action
The system date on the configuration will always be returned to an old date (factory default date) after you turn on the E-7000. Or, the time and date settings that appear on the configuration sheet are sometimes earlier or later than the actual time and date.	- BIOS settings were lost due to a dead battery. - Motherboard defective.	- Replace the lithium battery on the motherboard, and re-configure the system time and date. (☛ 3.4.9) - Replace the motherboard. (☛ 3.4.6)
The system performs slowly or stops sometimes.	- DIMM defective or faulty DIMM connection. - HDD defective. - CPU overheat or defective. - Motherboard defective.	- Reconnect the DIMM. (☛ 3.4.7) - Replace the DIMM. (☛ 3.4.7) - Check if the connectors of the power supply unit and HDD are firmly inserted to the sockets. (☛ 3.4.4, 3.4.3) - Replace the IDE cable. (☛ 3.4.3) - Replace the HDD. (☛ 3.4.3) - Make sure that the CPU on the motherboard is connected correctly and that the fan cable is connected. - Replace the CPU. (☛ 3.4.8) - Replace the motherboard. (☛ 3.4.6)

5.3.3 SYSTEM SOFTWARE INSTALLATION

Symptom	Possible Cause	Suggested Action
System software installation: When installing the system software from the USB flash drive, the E-7000 remains on for 30 minutes (or longer) after beginning the installation.	- The service switches are set to Service Mode (On) - HDD defective. - Motherboard defective. - USB flash drive defective.	- Make sure that the service switches are set to Normal mode (away from "ON"). - Check the LED on the USB flash drive. If the LED is not blinking (remains off or on), the flash drive may be connected incorrectly. Turn off the E-7000 power, and reconnect the flash drive. Then turn the power on and allow the installation to resume. - Check the connection of the power and IDE cables. - Replace the IDE cable. (➡ 3.4.3) - Replace the HDD. (➡ 3.4.3) - Replace the motherboard. (➡ 3.4.6) - Replace the CPU. (➡ 3.4.8) - Retry the installation with a different USB flash drive.
System software installation: When installing the system software from the USB flash drive, the LED on the flash drive remains off or on (not blinking).	- USB defective or not correctly connected. - Motherboard defective. - HDD defective.	- Turn off the E-7000 power and reconnect the flash drive. Then turn the power on and allow the installation to resume. - Retry the installation with a different USB flash drive. - Replace the motherboard. (➡ 3.4.6) - Check the connection of the power and IDE cables. - Replace the IDE cable. (➡ 3.4.3) - Replace the HDD. (➡ 3.4.3)
When installing the system software from a network port, installation stalls for 5 minutes (or longer) while downloading "file 1 of 2".	- The service switches are set to normal mode - Incorrect or defective RJ-45 cable - Motherboard defective.	- Make sure the E-7000 service switches are set to service mode (toward "ON"). - Make sure you are using a cross-over RJ-45 cable. As an alternative, you can use two straight-through RJ-45 cables and a network hub. Connect only the PC and the E-7000 to the hub. If the cable appears damaged, replace it. - Replace the motherboard. (➡ 3.4.6)

ERRORS AND SUGGESTED ACTIONS

Symptom	Possible Cause	Suggested Action
When installing the system software from a network port, installation stops for 20 minutes (or longer) while downloading “file 2 of 2”.	- HDD defective. - Motherboard defective.	- Check the connection of the power and IDE cables. - Replace the IDE cable. (➡ 3.4.3) - Replace the HDD. (➡ 3.4.3) - Replace the motherboard. (➡ 3.4.6)

5.3.4 NETWORK PROBLEMS

Symptom	Possible Cause	Suggested Action
Unable to connect the network; or no LED on the 10/100/1000BaseT network connector is lit	- The cable is connected to a port that is not used. - Defective network cable or connection. - Network problem. - Defective Ethernet interface on the motherboard.	- Make sure the network cable is the correct type and connected to the correct network port on the E-7000. The lower network port is not used. - Check the cable connection to the network port. - Replace the cable with a new or tested cable. - Ask the network administrator to check other devices on the network. If other devices are not functioning, it could be a problem with the network. - If the rest of the network operates correctly and the problem persists, replace the motherboard.
The system starts up slowly (seems to stop); and the Configuration Page shows an error on the “IP Address” line under “Network Setup”.	- Normal behavior. The system is searching for a nonexistent DHCP server. DHCP is enabled by default on the E-7000, but the customer’s network is not using DHCP. - If the customer’s network is using DHCP: - Defective network cable or connection. - Network problem. - Defective Ethernet interface on the motherboard.	- If the problem persists, ask the network administrator to change the default in the E-7000 network setup. - If no LED is lit on the E-7000’s network port, check the cable connection to the E-7000 and the network. Make sure the cable is the correct type. - Ask the network administrator to check other devices on the network. If other devices are not functioning, it could be a problem with the network. - If the rest of the network operates correctly and the problem persists, replace the motherboard. (➡ 3.4.6)

5.3.5 PRINTING PROBLEMS

Symptom	Possible Cause	Suggested Action
A test page or configuration page cannot be printed, or the images on the printed pages are abnormal.	- The copier is not ready to print. - Copier problem	- Make sure the copier power is on and the copier is ready to print. - Check the copier operation panel for indications or messages about the copier status. - Check that the copier operates correctly. (Check if you can make hard copies without any problem)
	- Loose cable connection. - Interface cable defective. - Loose connection of the extension card. - Extension card defective. - Video board defective.	- Make sure the E-7000 power switch is in the "ON" position. - Turn the copier power OFF/ON. - Make sure the Fiery menu appears when you press the Fierydriven key. - Check if the interface cable is connected the correct way round. (☛ 1.3.4) - Check if the extension card is inserted straight and connected firmly into the C slot on the copier. (☛ 1.3.4) - Check again that the copier interface cable is properly connected to the E-7000 and the copier. (☛ 1.3.4) - Check again that the video board is present and properly connected to the motherboard. - Replace the copier interface cable. - Replace the extension card. - Replace the video board. (☛ 3.4.1) - If the problem persists, you may need to service the copier.
	Corrupted system software.	Try "Clear Server", "Factory Default", or re-install the system software. (☛ 4.2, 4.3)
	HDD defective.	- Replace the HDD. (☛ 3.4.3) - If replacing the HDD does not correct the problem, make sure you install the old HDD back in the Fiery.

ERRORS AND SUGGESTED ACTIONS

Symptom	Possible Cause	Suggested Action
The E-7000 appears on the list of printers on the customer's workstation, but certain jobs do not print.	PostScript error	Make sure 'Print to PostScript Error' in Setup is set to Yes. Check for error messages on the E-7000 output.
	Application problem	- Print a job from a different application to determine if the problem is associated with a particular application. - Make sure the connection between the E-7000 and the workstation is operating. To do this, download a test page from the workstation or print a simple test file. - Resend the problem file.
The configuration page is completely or mostly blank.	- Defective DIMM. - Corrupted system software.	- Check the DIMM and reconnect it, to remove oxidation on the connectors. (☛ 3.4.7) - Reinstall the system software. (☛ 4.4) - Replace the DIMM. (☛ 3.4.7)
A print job stops after one or few pages.	Normal process, if this occurs when printing the first copy of a multi-copy print job.	The working area memory became full during ripping, and the printer switched to rip-only mode until all pages were ripped. (☛ 6.2.2)
	PostScript or application error.	- Cancel the E-7000 print job. - If this fails to clear the problem, turn the copier power OFF/ON. - If the problem persists, perform Clear Server. (☛ 4.2)
	Defective DIMM.	- Check the DIMM and reconnect it, to remove oxidation on the connectors. (☛ 3.4.7) - Reinstall the system software. (☛ 4.4) - Replace the DIMM. (☛ 3.4.7)
Color quality is not consistent.	Problem with the copier.	Test the copier and service it if necessary (refer to the copier service manual).
	File or application problem.	- Print a different color test page from another application. - If the quality of the test page is good, there may be a file or application problem.

ERRORS AND SUGGESTED ACTIONS

Symptom	Possible Cause	Suggested Action
	Out of calibration or calibration information/curves on the active partition are corrupted.	- Start <i>ColorWise Pro Tools</i> from a client computer and click the Calibrator icon. Then click <i>Restore Device</i> in the calibrator window. <i>Restore Device</i> restores the Fiery calibration information to the factory defaults. If restoring the default calibration does not solve the problem, you may need to service the copier. - If restoring the default calibration corrects the color quality, a custom calibration may have been the cause of the problem. Ask the site administrator to recalibrate the E-7000. (☛ <i>Color Printing</i>). - If the problem persists after recalibration, the calibration information on the HDD may be corrupted. Reinstall the system software. (☛ 4.4) - If the problem persists, the HDD may be corrupted. Verify that all HDD cabling is correct. - If HDD cabling is correct, you may need to replace the HDD. (☛ 3.4.3)
Print Quality is poor.	- Missing or outdated printer description file. - The application cannot find the necessary printer description file.	Make sure the necessary printer description file is installed. For information on printer files, see <i>Printing from Windows</i> and <i>Printing from Mac OS</i> on the user documentation CD.
	Problem with the copier.	Test the copier and service it if necessary (see the copier service manual)

Trouble-shooting

ERRORS AND SUGGESTED ACTIONS

Symptom	Possible Cause	Suggested Action
	Out of calibration or calibration information/curves on the active partition are corrupted.	- Start <i>ColorWise Pro Tools</i> from a client computer and click the Calibrator icon. Then click <i>Restore Device</i> in the calibrator window. <i>Restore Device</i> restores the Fiery calibration information to the factory defaults. If restoring the default calibration does not solve the problem, you may need to service the copier. - If restoring the default calibration corrects the color quality, a custom calibration may have been the cause of the problem. Ask the site administrator to recalibrate the E-7000. (☛ <i>Color Printing</i>). - If the problem persists after recalibration, the calibration information on the HDD may be corrupted. Reinstall the system software. (☛ 4.4) - If the problem persists, the HDD may be corrupted. Verify that all HDD cabling is correct. - If HDD cabling is correct, you may need to replace the HDD. (☛ 3.4.3)
Pages come out blank, or tinted with green or some other color.	Loose cable connection between the E-7000 and the copier.	- Check the copier interface cable and the connection at the E-7000 and the copier. - Turn the copier power OFF/ON. - Replace the copier interface cable.
	Problem with the copier.	Test the copier and service it if necessary (refer to the copier service manual).

If the customer can print the Configuration Page from the copier operation panel but cannot print a job from a computer on the network, ask the network administrator to do the following:

- Check all components of the network, including cables, connectors, network adapter boards, and network drivers.
- Activate the network and use it to communicate with other printers.
- Confirm that the applicable network setting in Setup (such as AppleTalk zone, IP address, Subnet mask, and Gateway address) match the settings used in the network.

NOTE: EPS file generation is not fully standardized among applications. Some users may encounter problems while printing certain EPS files.

5.4 TESTING THE VOLTAGE SUPPLIES

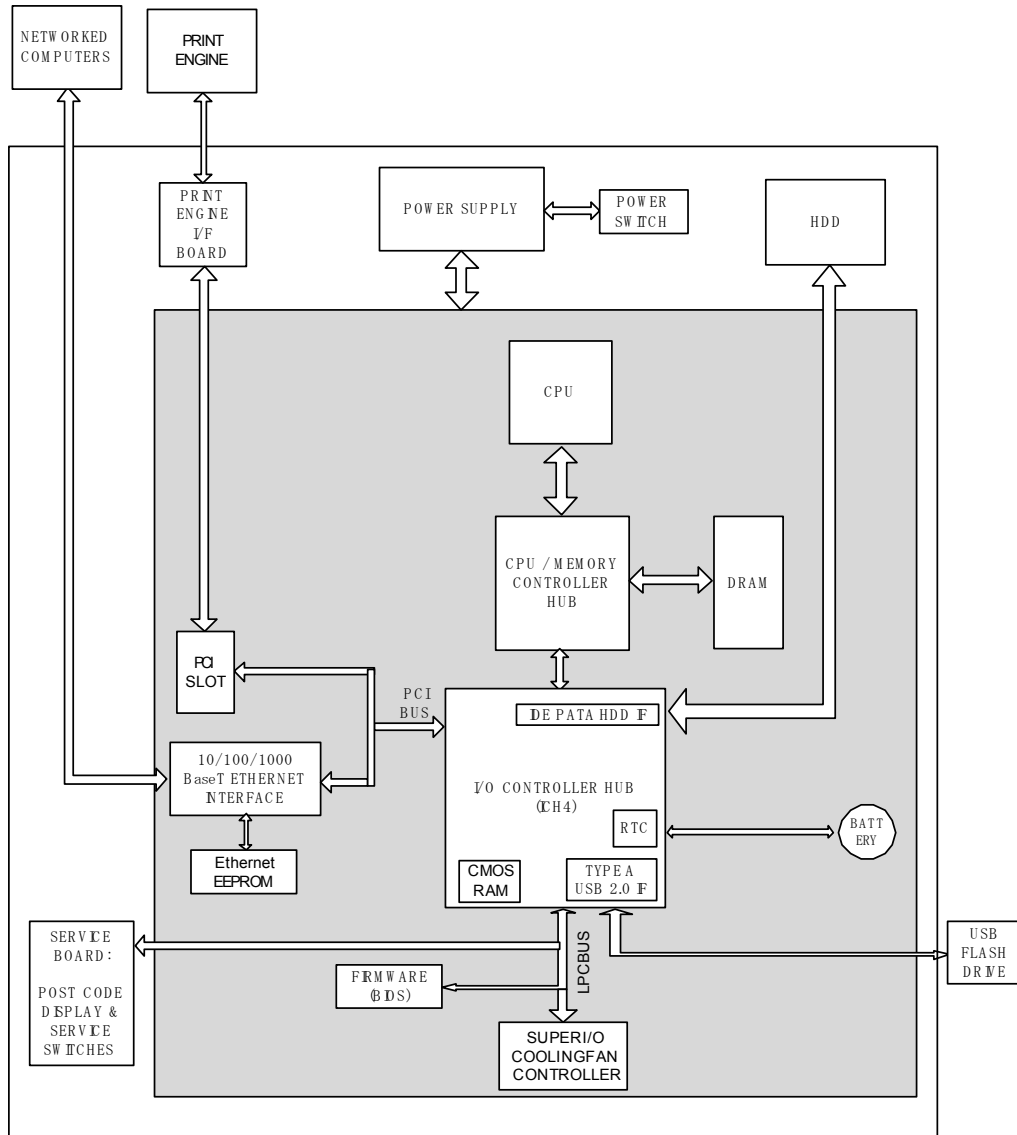
To check if the power supply is working, use a multimeter at the following locations on the power supply unit.

Test the voltages on the ends of the connectors coming from the power supply unit. The following table lists the power connectors.

Connector No.	Connected To	Position	Output	Wire Color
20-pin connector	Motherboard (J18)	1	+3.3V	Violet
		2	+3.3V	Violet
		3	Ground	Black
		4	+5V	Red
		5	Ground	Black
		6	+5V	Red
		7	Ground	Black
		8	(No output)	White
		9	+5V aux	Green
		10	+12V	Orange
		11	+3.3V and +3.3V Remote Sense	Violet
		12	-12V	Blue
		13	Ground	Black
		14	On/Off	Gray
		15	Ground	Black
		16	Ground	Black
		17	Ground	Black
		18	(Not Connected)	-
		19	+5V	Red
		20	+5V	Red
4-pin connector	HDD	4	+5V	Red
		1	+12V	Orange
		2	Ground	Black
		3	Ground	Black

6 DETAILED SECTION DESCRIPTIONS

6.1 BLOCK DIAGRAM AND FUNCTIONS



Detailed Descriptions

Components

Component	Type	Configuration
Processor	Intel Celeron	2GHz
Hard Drive	IDE Parallel ATA	40GB
SDRAM	PC2100 DDR	512MB, 184 pin DIMM
BIOS ROM	Flash	512KB
EEPROM	EEPROM	1Kbit
CMOS RAM	CMOS	1Kbit

BLOCK DIAGRAM AND FUNCTIONS

Networking

Cable requirements:

- 10BaseT (Ethernet): Unshielded Twisted Pair (UTP), Category 3 or higher
- 100BaseTX (Fast Ethernet): UTP, Category 5 or higher (4-pair/8-wire, short length)
- 1000BaseT (Gigabit Ethernet): UTP, Category 5e or higher (4-pair/8-wire, short-length)

NOTE: If the print engine is 230V, use a shielded network cable.

Video Board

The Video Board responsibilities include:

- High speed data transmission
- High speed data decompression
- Engine output at maximum rated output speed

The video interface controls such aspects of the print job as:

- Hardware decompression
- Print quality enhancement technologies

Hard Disk Drive

The hard disk drive is used to optimize many parts of the printing system as well as improving throughput and ease-of-use. The two hard disks are RAID-configured (using striping) and used as one drive. The hard disk drive stores the following information:

- System software
- Non-volatile spooled print jobs
- Additional storage for compressed pages
- Non-volatile record of printed jobs (Job Log)
- Resource storage space for downloaded fonts

Non-Volatile Memory

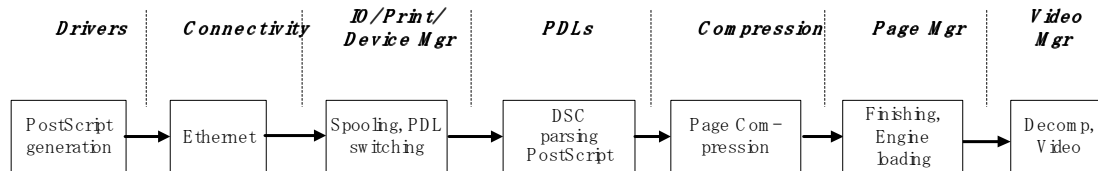
- The 512KB Flash Memory contains the BIOS program and ULTRA POST (low level hardware diagnostic program), etc.
- The 1Kbit EEPROM holds the MAC address data.
- The 256bit CMOS RAM holds the configuration data from the BIOS setup menu. The CMOS RAM itself and integrated inside the ICH4.

Volatile Memory

- SDRAM is one 512MB DIMM, PC2100, Double Data Rate (DDR), 184-pin.

6.2 PRINT DATA PROCESSING

6.2.1 FLOW CHART



The key roles of each part of the print system are outlined below.

- The *drivers* are responsible for generating the page description on the host system and for transmitting data to the printer.
- The *I/O manager* mediates the connection with the network interface and establishes a device or print manager connection.
- The *print manager* is responsible for spooling the job (if appropriate) and for feeding jobs to the correct PDL interpreter.
- The *PDL interpreters* are responsible for turning page descriptions into rendered pages and for parsing job management comments.
- The *compression* subsystem manages compressed pages in memory.
- The *page manager* coordinates pages for sending to the engine for the most efficient printing, finishing, and accessory handling.
- The *video* subsystem is responsible for decompressing pages and feeding the engine with appropriate engine signals. The video subsystem also handles certain print quality processing functions.

6.2.2 MULTI-COPY PRINT JOBS

Printing sometimes stops temporarily during the first print of a multi-copy print job.

During a single-copy print job, the controller simultaneously rips the pages to a memory work area and prints them.

During a multi-copy print job, the controller uses this memory work area but also stores the image data in the hard disk, and this data will be used for the 2nd and subsequent prints. But, in multi-copy mode, if the data volume and/or number of pages in the job are large, the available memory work area can become full. If that occurs, printing stops and the controller goes into 'rip-only' mode. In this mode, the controller continues to rip the data and store it on the hard disk, until the last page is ripped and stored on the hard disk. Then, printing will continue.

Because of this, printing can stop for a long interval during the first output of a multi-copy print job, and customers can become worried by this. The duration of the interval depends on the data volume and/or number of pages. The customer can check the status of ripping if the job pauses. To do this, press the 'Fiery Driven' key on the copier operation panel, or use *CommandWorkstation*.

PRINT DATA PROCESSING

But, for the 2nd and subsequent prints, printing can continue at full speed without stopping, because the ripped data is already on the hard disk. Because of this, multi-copy mode is faster than a sequence of single-copy jobs.

7 SPECIFICATIONS

7.1 GENERAL SPECIFICATIONS

Configuration:	External Type Printer Controller Unit
Motherboard:	CPU: Intel Celeron 2GHz Network Interface: RJ-45 Network port (1000-BaseT/100-BaseTX/10-BaseT)
Memory:	512MB (standard and max.) 184 pin SDRAM: PC2100 DDR
HDD:	Internal HDD: 40GB
Operating System:	Linux
Network Protocols:	AppleTalk TCP/IP SMB IPX/SPX (Novell)
Printer Description Languages:	Adobe PostScript3
Supported Driver Language:	English, French, German, Italian, Spanish and Dutch
Print Resolution:	600dpi
Gradation:	1 bit/pixel, 2 bit/pixel, 4 bit/pixel
Scan Resolution:	100 / 150 / 200 / 300 / 400 / 600 dpi
Scan Source:	ADF / Exposure Glass
Scan Sides:	Simplex / Duplex
Scan Destination:	Hold Queue / MailBox / Email / FTP Server/ Internet Fax Client PC Disk (Fiery Remote Scan only)
Scan Format:	PDF / TIFF/JPEG
Printing Speed:	V-C1a: 60ppm B/W, 45ppm color V-C1b: 60ppm B/W, 55ppm color (A4/Letter, LEF 600dpi)
Resident Fonts:	142 Fonts (126 Adobe type 1 fonts, 10 TrueType fonts, 2 multiple master basefonts, 4 Europ fonts)
Print Paper Size:	See the table on the following pages.

GENERAL SPECIFICATIONS

Media Type:	See the table on the following pages.
Power Consumption:	Maximum 100 W
Noise Emission: (Sound Power Level)	Sound Power Level : Less than 51db(A) Sound Pressure Level: Less than 39db(A)
Dimensions (W x D x H):	124.3 x 344.5 x 294.6, 4.9" x 13.6" x 11.6"
Weight:	5.8 kg (12.5 lb)

7.2 SUPPORTED PAPER SIZES

Paper Orientation: SEF = Short Edge Feed, LEF=Long Edge Feed

	Direction	Paper Size	Tandem Tray		Tray2 / Tray3		LCT	Bypass	
			US	Europe	US	Europe	Common	US	Europe
A3	SEF	297 x 420	(Y)T	(Y)T	Y	Y	No	Y	Y
B4	SEF	257 x 364	(Y)T	(Y)T	Y	Y	(Y)L	Y	Y
A4	LEF	297 x 210	Y	Y	Y	Y	Y	Y	Y
A4	SEF	210 x 297	(Y)T	(Y)T	Y	Y	(Y)L	Y	Y
B5	LEF	257 x 182	N	N	Y	Y	Y	Y	Y
B5	SEF	182 x 257	N	N	Y	Y	N	Y	Y
A5	LEF	210 x 148	N	N	Y	Y	N	Y	Y
A5	SEF	148 x 210	N	N	Y	Y	N	Y	Y
B6	SEF	128 x 182	N	N	N	N	N	Y	Y
A6	SEF	105 x 148	N	N	N	N	N	Y	Y
DLT	SEF	11" x 17"	(Y)T	(Y)T	Y	Y	N	Y	Y
LG	SEF	8.5" x 14"	(Y)T	(Y)T	Y	Y	(Y)L	Y	Y
LT	LEF	11" x 8.5"	Y	Y	Y	Y	Y	Y	Y
LT	SEF	8.5" x 11"	(Y)T	(Y)T	Y	Y	(Y)L	Y	Y
HLT	LEF	8.5" x 5.5"	N	N	Y	Y	N	N	N
HLT	SEF	5.5" x 8.5"	N	N	Y	Y	N	Y	Y
Executive	LEF	10.5" x 7.25"	N	N	Y	Y	N	Y	Y
Executive	SEF	7.25" x 10.5"	N	N	Y	Y	N	Y	Y
F	SEF	8" x 13"	N	N	Y	Y	N	Y	Y
Foolscap	SEF	8.5" x 13"	N	N	Y	Y	N	Y	Y
Folio	SEF	8.25" x 13"	N	N	Y	Y	N	Y	Y
A3 Wide	SEF	12" x 18"	N	N	Y	Y	N	Y	Y
JPOSTD-S	SEF	100 x 148	N	N	N	N	N	Y	Y
JPOSTD-L	LEF	200 x 148	N	N	Y	Y	N	C2	C2
Custom			N	N	C1	C1	N	C2	C2

Remarks:

Y: Paper size detected automatically.

N: Not available

(Y)T: Paper size set in Tandem tray with A3/11"x17" tray option.

(Y)L: Paper size set in LCT with 8.5"x14" paper size tray option.

C1: Available as custom setting. Width: 139.7mm to 305.0mm, Length: 139.7mm to 457.2mm

C2: Available as custom setting. Width 100.0mm to 305.0mm, Length 148.0mm to 457.2mm

SUPPORTED MEDIA TYPES

7.3 SUPPORTED MEDIA TYPES

Media Type	Setting	Tray1	Tray2, 3	LCT	Bypass
None (Plain)	Thin	X	X	X	X
	Normal	X	X	X	X
	Thick1	X	X	X	X
	Thick2				X
Recycled	Thin	X	X	X	X
	Normal	X	X	X	X
	Thick1	X	X	X	X
	Thick2				X
Special	Thin	X	X	X	X
	Normal	X	X	X	X
	Thick1	X	X	X	X
	Thick2				X
Color1	Thin	X	X	X	X
	Normal	X	X	X	X
	Thick1	X	X	X	X
	Thick2				X
Color2	Thin	X	X	X	X
	Normal	X	X	X	X
	Thick1	X	X	X	X
	Thick2				X
Letter Head	Thin	X	X	X	X
	Normal	X	X	X	X
	Thick1	X	X	X	X
	Thick2				X
Tab Stock	Thin		X		X
	Normal		X		X
	Thick1		X		X
	Thick2				X
Labels	Thin				X
	Normal				X
	Thick1				X
	Thick2				X
Pre-printed	Thin	X	X		X
	Normal	X	X		X
	Thick1	X	X		X
	Thick2				X
Pre-Punched	Thin	X	X		X
	Normal	X	X		X
	Thick1	X	X		X
	Thick2				X
Bond	Thin	X	X		X
	Normal	X	X		X
	Thick1	X	X		X
	Thick2				X
Card Stock	Thin	X	X		X
	Normal	X	X		X
	Thick1	X	X		X
	Thick2				X

Remarks: Available media types are marked as “X”.

SUPPORTED MEDIA TYPES

Media Type	Setting	Tray1	Tray2, 3	LCT	Bypass
Translucent	Thin				X
	Normal				X
	Thick1				X
	Thick2				X
Transparency (OHP)	-				X

Remarks: Available media types are marked as “X”.