

SCREEN

SCREEN

No. 70199460-02

For operators
(including the machine administrator)

Desktop Flatbed Scanner

FT-S5000

(Ver. 1.00)

**User's Manual
(Hardware Volume)**

for Power Macintosh

3rd Edition

Please give this manual to the operator of the FT-S5000.

Do not operate or inspect the FT-S5000 until you have read this manual well and understood its contents.

The administrators and operator of the FT-S5000 should not let anyone who does not understand the contents of this manual operate or inspect the FT-S5000.

After reading this manual, keep it near the FT-S5000.

Related Manuals

In addition to this User's Manual, the FT-S5000 is supplied with the manuals listed below.

Name	Part Code	Contents
Start-up Manual	70199470	FT-S5000 hardware installation, software installation, and basic scanning procedure explanation.
ColorScope Pro 3.0 User's Manual	70199452	ColorScope Pro 3.0 functions and operation.
Profile Maker Fit Ver. 1.0– (for Input Device) USERS MANUAL	70199482	Creates and edits the profile for your monitor and edits the profile for ColorScope Pro 3.0. Explains how to use the Fit Ver. 1.0– software
FT-S5000 plug-in USERS MANUAL	70199486	A plug-in module that enables you to scan images with the FT-S5000 directly from Adobe Photoshop. This manual explains the FT-S5000 Plug-in functions and operating procedures.

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Chapter 1

Ensuring Safety

- 1. Precautions for Safe Operation**
- 2. Labels Used On the FT-S5000**
- 3. Location of Labels Used On the FT-S5000**
- 4. Emergency Procedures**
 - 4.1 Emergency Shutdown**

1

1. Precautions for Safe Operation

Be especially aware of the following points in order to prevent a potentially dangerous condition.

1

WARNING

- Even if your AC power outlet fits the power cable with 3-pin plug for the FT-S5000, to prevent electrical problems, have a qualified electrical technician verify that the ground terminal of the AC power outlet is properly grounded with a resistance to ground of less than 100 Ω . Have the ground wire exclusive for the FT-S5000.
- Safety warning labels are attached to various parts of the FT-S5000 to help assure safe operation. Always be aware of the information contained on these labels and do not remove, disfigure, cover or erase the letters on them.
- Never operate the FT-S5000 if there are combustible gasses in the area. It may result in an explosion or other disaster.
- Never open or remove any of the protective covers of the FT-S5000 while the power is turned on. Never touch internal components while the power is turned on. There are high voltage electrical components inside the scanner that are very dangerous.
- The FT-S5000 is equipped with an interlock system to help assure operator safety. This interlock must not be removed by anybody other than a trained service personnel. Operating the FT-S5000 with the interlock system disconnected may result in serious personal injury.

WARNING

- Since the FT-S5000 has a built-in power supply, install a powder fire extinguisher nearby in case of a fire. Never use water or a foam fire extinguisher to put out a fire near the FT-S5000 for their use may cause electrocution.
- To avoid the possibility of overheating, never cover the FT-S5000 with a cloth or block the ventilation ports.
- Before inspecting the FT-S5000, always turn the main power switch off and remove the power cable from the AC power outlet.

CAUTION

- Before changing the lamp, always turn the main power switch off and remove the power cable from the AC power outlet. Never touch a lamp while it is lit, or within 10 minutes after it has been turned off, for it will be extremely hot.
- When moving the FT-S5000, always have at least four people carry it. The FT-S5000 is very heavy and may cause back injury if moved by a single person. Also, always hold the FT-S5000 by the four handles underneath. Do not attempt to lift or carry the FT-S5000 by holding it at any other location for it may damage it.
- Never apply excessive force to, or place heavy objects on, an external cover of the FT-S5000.
- The FT-S5000 weighs a total of 73 kg (161 lbs). Make sure that the surface you are placing the FT-S5000 on is capable of bearing this weight. The FT-S5000 should be placed on a table, counter, desktop, or other surface with a surface area greater than that of the FT-S5000 itself.

2. Labels Used On the FT-S5000

Labels are attached to the FT-S5000 at areas where potential dangerous conditions may develop. Pay particular attention to the information on these labels.



WARNING

- Always heed the information on all labels.
- Do not tear, erase, or damage the labels.
- Do not place objects in front of the labels or cover the labels in any way.
- If a label becomes damaged, soiled, or unreadable, replace it with a new label as soon as possible. It is dangerous to operate the FT-S5000 with a label in this condition.

NOTE

If a new label is required, contact your Dainippon Screen sales office or agency. A list of Dainippon Screen address and phone numbers is provided at the end of this manual.

This label warns of high temperature. Take care when opening a cover with this label on it.



Fig. 1-1

This label asks you not to place objects on or apply pressure to the cover with this label on it.



Fig. 1-2

3. Location of Labels Used On the FT-S5000

The figure below shows the location of the labels that are placed on the FT-S5000. Always follow the instructions given on these labels.

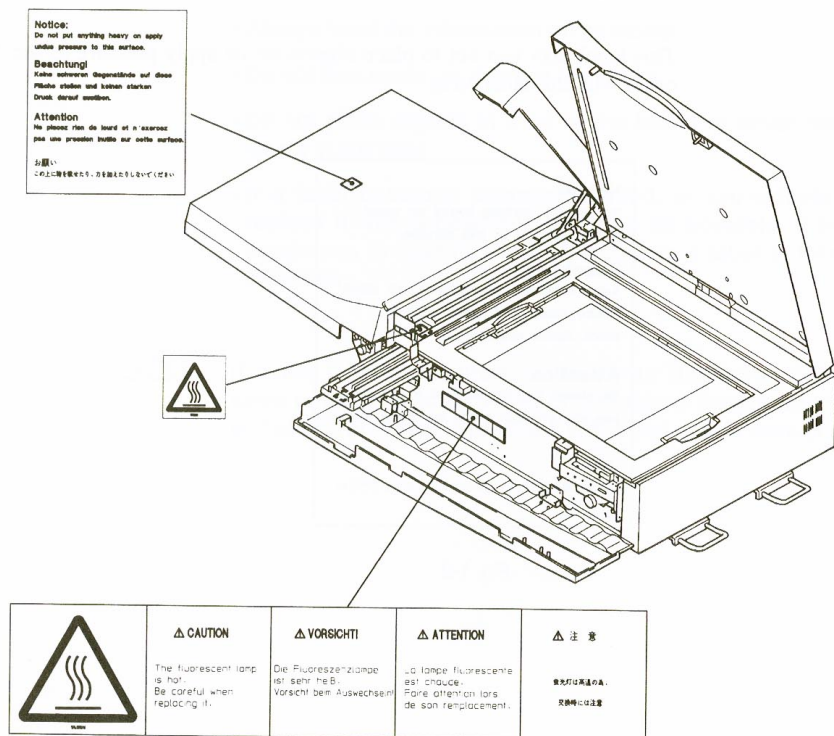


Fig. 1-3

4. Emergency Procedures

4.1 Emergency Shutdown

If it becomes necessary to shut down the FT-S5000 quickly during operation, turn off the main power switch and pull the power cord out of the AC power outlet.

Chapter 2 Operating Environment

1. Scanner Environment

- 1.1 Table Strength
- 1.2 Space and Layout
- 1.3 Vibration
- 1.4 Air Conditioning
- 1.5 Cleanliness
- 1.6 Electrical Specifications
- 1.7 Power Supply
- 1.8 Peripheral Equipment

1. Scanner Environment

To assure maximum performance and a long service life, install the FT-S5000 in accordance with the information below.

WARNING

- To avoid the chance of a fire or explosion, do not install the FT-S5000 in areas exposed to combustible gases. Small sparks generated by electrical contact points in the FT-S5000 may ignite combustible gases in the immediate vicinity.
- To avoid the possibility of an accident or damage to the scanner, do not place DC motors or welding equipment (or any other machines capable of generating sparks) near the FT-S5000.

CAUTION! To assure maximum performance from the FT-S5000:

- Do not place it in areas or positions where the ventilation ports are blocked.
- Do not place it in the direct path of heated or cooled drafts from air conditioning equipment.
- Do not place it near equipment that emit strong magnetic fields.

1.1 Table Strength

Make sure that the table or surface on which the FT-S5000 is placed can bear the weight of the FT-S5000, which is 73 kg (161 lbs). This surface should be larger than the FT-S5000 itself. The surface should have a flatness of more than 2 mm/m² (0.007 inch/ft²). Contact your nearest Dainippon Screen sales office or agency if you do not have a suitable table.

1.2 Space and Layout

The FT-S5000 requires a total area of at least 5.2 m² (56.4 ft²). At least 50 cm (19.7 inches) should be allowed between the sides of the FT-S5000 and adjacent walls to allow sufficient space for service and maintenance. (Refer to Fig. 2-1 "Installation Dimensions" on the next page. Particular attention should be paid to maintaining these clearances at the FT-S5000 sides and back panel.)

Any shocks applied to the FT-S5000 while it is in operation can generate an error condition or result in errors in its output. Allow sufficient space around the FT-S5000 so that people in the vicinity are not prone to bump into it. When the FT-S5000 is running, be careful not to touch the table on which it is mounted.

- The FT-S5000 has ventilation ports on the left, right, and rear sides to prevent the temperature from rising excessively. Do not plug these vents or operate the FT-S5000 in locations with poor ventilation. Also, do not place the FT-S5000 where it is subjected to hot air from the exhaust of other peripheral devices.
- The FT-S5000 has ventilation ports on the left, right, and rear sides. Do not place objects near these ventilation ports, or the internal temperature of the FT-S5000 will rise and possibly cause an accident. When operating the FT-S5000, always keep at least 10 cm (3.9 inch) of space open near any ventilation port.

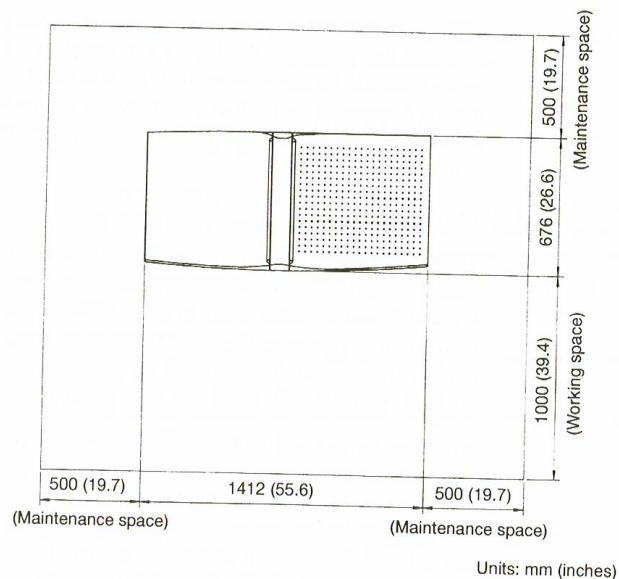


Fig. 2-1 Installation Dimensions

NOTE

- **Working space** is defined as the minimum amount of space in which a person can comfortably operate the FT-S5000.
- **Maintenance space** is defined as the minimum amount of space in which a service technician can perform necessary service operations.

1.3 Vibration

Vibrations have an adverse affect on the output quality from the FT-S5000 and therefore take the precautions given below in the following situations.

- If trains, trucks, or other large vehicles pass near the FT-S5000 frequently, perform the necessary vibrations tests to ascertain whether the vibrations are above normal levels.
- If an air conditioner, printing machine, proof press, compressor, or other source of vibration is located near the FT-S5000, their shock waves or resonance may damage it. If this is the case, contact your nearest sales office or agency of Dainippon Screen for measures to stop the vibrations.
- The vibration standard of the FT-S5000 is less than 1 Gal for frequencies from 0 to 20 Hz and less than 5 Gal for frequencies more than 20 Hz in both the vertical and horizontal axes.

1.4 Air Conditioning

Have the indoor conditions of the location of installation as follows.

- Operating temperature range: $23\pm5^{\circ}\text{C}$ ($73.4\pm9^{\circ}\text{F}$) (with no drastic temperature changes over short periods of time)
- Storage temperature range: 0 to 50°C (32 to 122°F)
- Humidity range: 50 to 70% (no condensation)
- During the middle of the winter and summer seasons, the temperature inside the operating room during the daytime may be very different from that of the nighttime or holidays. Due to this difference in temperature, while the machine is warming up, the precision of the optical axis in the optical system will be temporarily shifted. In this situation, install an air conditioner with a timer and set it to start more than two hours before operations and adjust the ambient temperature to a suitable temperature to minimize the warm-up time when you start operations.

- Heat given off by the FT-S5000 amounts to approximately 170 kcal (680 BTU). Take this into consideration when installing the air conditioning system of the room.
- Do not operate the air conditioning system (of the room where the FT-S5000 is placed) in a manner which results in extreme temperature changes in a short time. Also, the FT-S5000 should not be placed directly in the path of drafts from an air conditioner.
- Keep the atmospheric pressure in the FT-S5000 room slightly higher than that of adjacent rooms. The continuous introduction of outside air will provide optimal performance from the FT-S5000.

1.5 Cleanliness

Dust can cause a great amount of damage to the FT-S5000, so be sure to always keep the operating environment clean. The recommended density for floating dust inside the room is 0.1 mg/m^3 ($6.3 \times 10^{-9} \text{ lb/ft}^3$).

- The FT-S5000 incorporates a precision optics system. Dirt or dust on the lenses or mirrors can adversely affect the resolution, so the system should be kept extremely clean.
- Avoid placing rugs or carpets that create dust. Take measures to prevent the creation of dust by installing urethane resin or linoleum mats.
- Place an adhesive-type dust-preventive mat at the room entrance.
- Do not allow smoking in the room.

1.6 Electrical Specifications

The FT-S5000 runs off a single phase 95 to 125 V AC power supply or a 180 to 255 V AC power supply (at 50/60 Hz).

- With a 100 V power supply, the FT-S5000 consumes 0.2 kW at 2.0 A. (Rush current is 40 A and starting current is 2.0 A.)
- With a 200 V power supply, the FT-S5000 consumes 0.2 kW at 1.0 A. (Rush current is 60 A and starting current is 1.0 A.)

NOTE

- **Rush current refers to the maximum current draw immediately after the unit is turned on.**
- **Starting current refers to the maximum current draw immediately after any of the FT-S5000 functions begins operating.**

1.7 Power Supply

■ AC power outlet and power cable

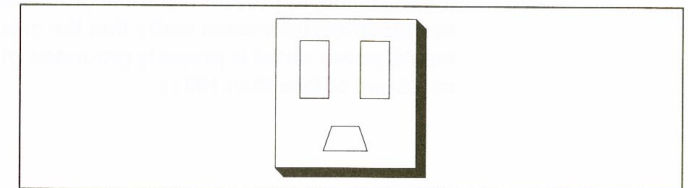


Fig. 2-2

The AC power outlet must be a three-hole receptacle with a properly grounded earth terminal.

- For the 100 V AC systems (e.g. North America, Japan, and other 100 V AC regions), an outlet like that shown above is required. The FT-S5000 is supplied with a 2.0 m (78.7") power cable. Refer to "1.2 Space and Layout" and have the AC power outlet in a suitable location.

2

1

- For 200 V AC systems (e.g. Europe and other 200 V AC regions), a power cable is not supplied. If you are using a 200 V AC FT-S5000, you must purchase a power cable that fits the AC power port of your FT-S5000 and your 3-pin grounded AC power outlet. These items must be rated for at least 250 V at 6 A.

If you cannot find an applicable power cable, contact your nearest Dainippon Screen sales office or agency.

Grounding

Always use a grounded AC outlet with a ground resistance of less than 100 Ω . Have a qualified electrician check to make sure that your AC outlet is properly grounded.



WARNING

Even if your AC power outlet fits the 3-pin power cable for the FT-S5000, to prevent electrical problems, have a qualified electrical technician verify that the ground terminal of the AC power outlet is properly grounded with a resistance to ground of less than 100 Ω .

Voltage Fluctuations

The FT-S5000 can run adequately with line voltage fluctuations of up to $\pm 10\%$ that of the rated voltage. You should install a voltage stabilizer if power at your facility is prone to fluctuations beyond this range. This specification only refers to gradual voltage fluctuations over time, and does not include voltage spikes and surges. For this reason, do not connect the FT-S5000 to the same circuit utilized by machinery subject to sudden changes in operating loads. Wherever possible, the FT-S5000 should be connected to its own independent power circuit.

Voltage Drops

Always use a properly rated power cable so that voltage drop do not occur during starting currents as well as steady-state currents. To prevent possible electrical damage to the FT-S5000, use fuses, circuit breakers, and switches that have the appropriate ratings.

Have all components selected and installed by an electrical service company or a qualified electrician.

2

1

1.8 Peripheral Equipment

Required Macintosh Environment

The required Macintosh environment will differ depending on the software you install and the size of the images you will be scanning.

The following four situations are considered:

- Installing the Photoshop Plug-in
- Installing the ColorScope Pro 3.0 server and client
- Installing the ColorScope Pro 3.0 server only
- Installing the ColorScope Pro 3.0 client only

NOTE

For more details regarding the ColorScope Pro 3.0 server and client, refer to the ColorScope Pro 3.0 User's Manual.

Recommended Environment

Computer type		Power Macintosh 9600/233
Operating system		Mac OS 7.6 or higher
Memory	Plug-in	160 MB or more
	Server and client	256 MB or more
	Server	160 MB or more
	Client	128 MB or more
Empty hard disk space		<ul style="list-style-type: none"> • 3 GB or more • More than 5 times that of the images being scanned.
Display		<ul style="list-style-type: none"> • 21-inch full color display • 16,700,000 full color display card

The environment listed below can also be used, but will not provide the same processing speed and display performance as that listed on the previous page.

Computer type		Power Macintosh 9600/233
Operating system		Mac OS 7.6 or higher
Memory	Plug-in	80 MB or more
	Server and client	128 MB or more
	Server	80 MB or more
	Client	64 MB or more
Empty hard disk space		<ul style="list-style-type: none"> • 500 MB or more • More than 5 times that of the images being scanned.
Display		<ul style="list-style-type: none"> • 17-inch full color display • 32,768 color display card

Chapter 3 Installation

1. Verifying the Shipment Contents
2. Installing the Standard Accessories
3. Connecting the Power Cable
4. Connecting the FT-S5000 to the Host Computer

For Dainippon Screen Agent or
Administrator of the FT-S5000

1. Verifying the Shipment Contents

After unpacking the FT-S5000, verify the components against the packing list provided on the next page. If a component is missing, contact your nearest Dainippon Screen sales office or agency.

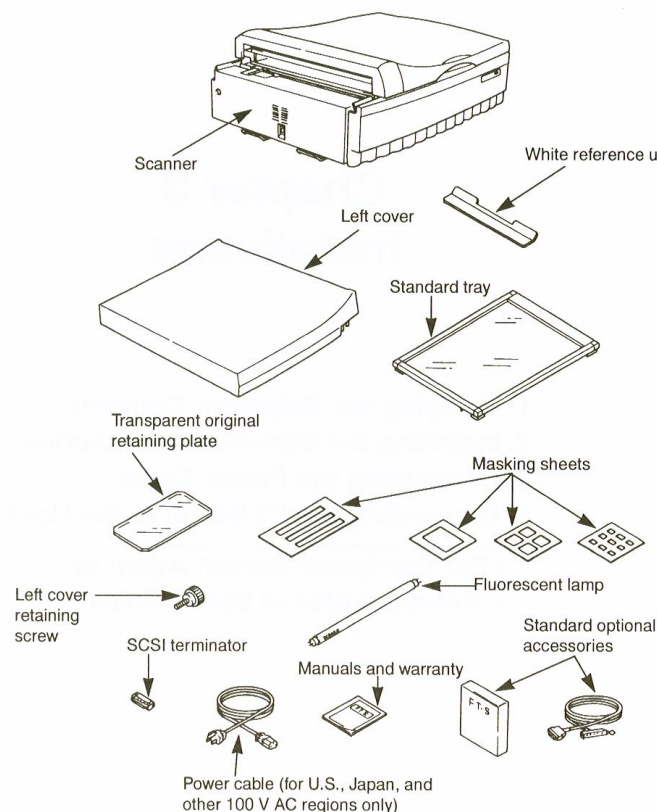


Fig. 3-1 Shipment Contents

Component list

1. Scanner
2. Standard accessories:
 - Left cover 1 piece
 - Standard tray 1 piece
 - White reference unit 1 piece
 - Masking sheet 1 set
 - Transparent original retaining plate 1 piece
 - Fluorescent lamps 4 lamps
 - SCSI terminator 1 piece
 - Power cable
(for U.S., Japan, and other 100 V AC regions only) 1 cord
 - Manuals and warranty
 - Left cover retaining screw 1 piece
3. Standard user selectable products:
 - Macintosh driver set (2-meter SCSI cable included)
 - Windows driver set (2-meter SCSI cable included) (under development)

2. Installing the Standard Accessories

After installing the main FT-S5000 unit, attach the left cover, transparent original lamp, reflective original lamp, standard tray, and white reference unit.

Installing the Left Cover

- ① Take the left cover and its retaining screws out of the standard accessories case.
- ② Open the front cover on the FT-S5000.

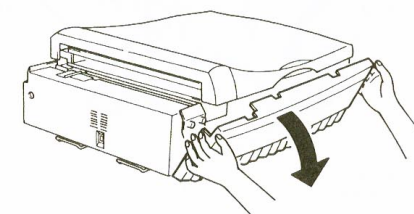


Fig. 3-2

- ③ Attach the left cover to the FT-S5000 by slipping the cover attachment brackets over the narrow portion of the four pins on the front and rear of the FT-S5000 (two at each location). Then push the left cover back so that the cover slips over the large section of the pins. Insert and tighten the left cover retaining pins.

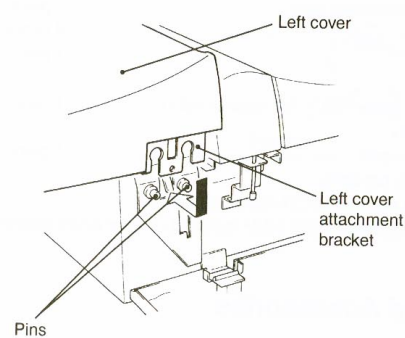


Fig. 3-3 Front View

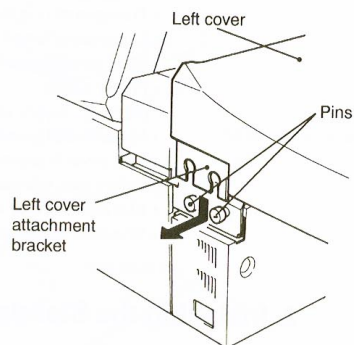


Fig. 3-4 Rear View

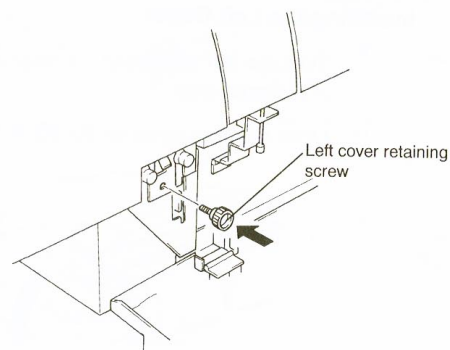


Fig. 3-5

Installing the Transparent Original Lamp and Reflective Original Lamp

- ① Loosen the lock screw on the left side of the front frame, and lower the transparent original lamp cover retainer.

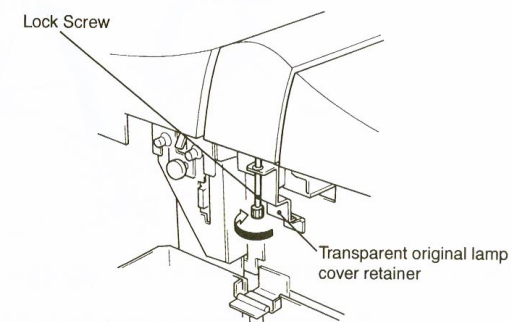


Fig. 3-6

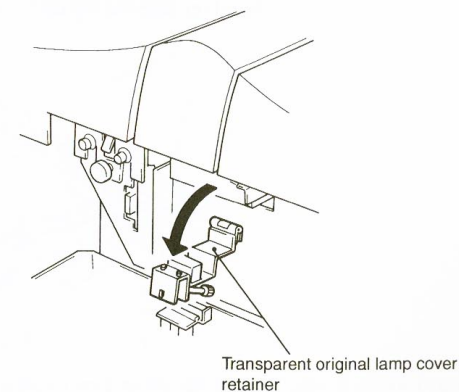


Fig. 3-7

Installing the Transparent Original Lamp

- ② Open the transparent original lamp cover and push it back until the cover stay reaches its lock position.

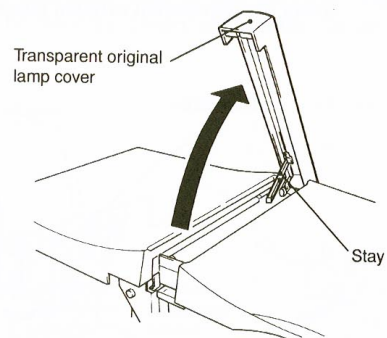


Fig. 3-8

- ③ Holding the lamp with the SCREEN logo near you, insert the lamp into the left socket so that the SCREEN logo remains visible.
- ④ Turn the lamp to the right until it reaches its lock position with the silver tape facing up.

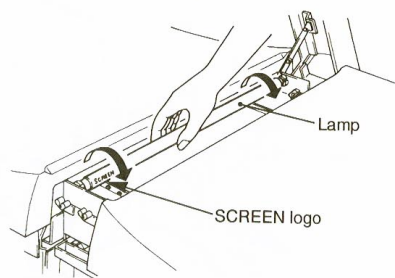


Fig. 3-9

- ⑤ Insert the other lamp in the right socket in the same manner as described in step ③. Then turn the lamp to the right until it reaches its lock position with the silver tape facing up.

- ⑥ Push the lamp cover stay to release the lock and gently lower the lamp cover in the direction of the arrow in the figure below.

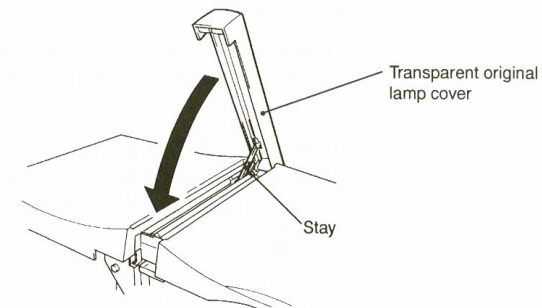


Fig. 3-10

- ⑦ Press down on top of the lamp cover to lock it in its closed position.

Installing the Reflective Original Lamp

- ⑧ Slide the reflective lamp unit out of the FT-S5000 until it contacts the fall-out prevention stopper.

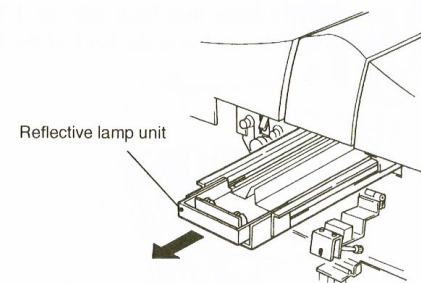


Fig. 3-11

- ⑨ Hold the first lamp so that the SCREEN logo is away from you and visible, and insert it into the sockets on the left side of the reflective lamp unit.

- ⑩ Turn the lamp to the right (as shown in Fig. 3-12) until it locks into place with the SCREEN logo facing the middle of the reflective lamp unit.
- ⑪ Hold the other lamp so that the SCREEN logo is near you and visible, and insert it into the sockets on the right side of the reflective lamp unit.
- ⑫ Turn the lamp to the left (as shown in Fig. 3-12) until it locks in place with the SCREEN logo facing the middle of the reflective lamp unit. Make sure that the logos on both lamps are facing each other.

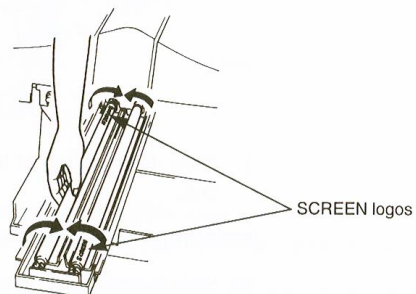


Fig. 3-12

- ⑬ Slide the reflective lamp unit back into the FT-S5000 until it is fully inserted into the socket at the back of the FT-S5000.

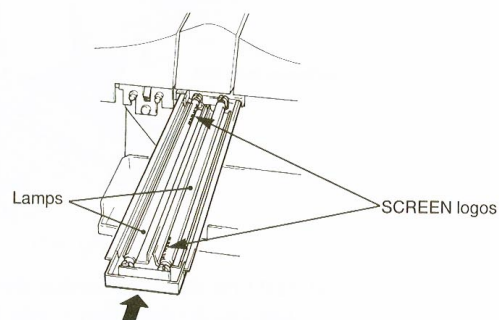


Fig. 3-13

- ⑭ Lift up the transparent original lamp cover retainer and securely tighten the lock screw.

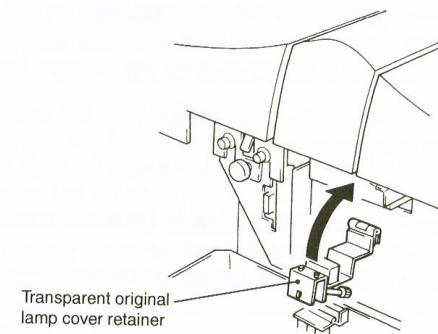


Fig. 3-14

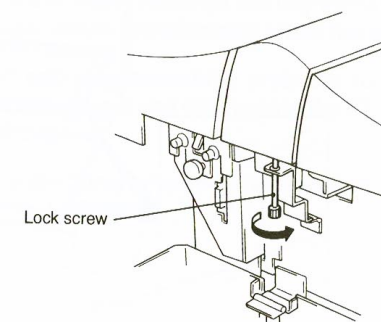


Fig. 3-15

- ⑮ Close the front cover.

Installing the Standard Tray

The standard tray must be installed in a specific orientation with respect to the FT-S5000. Viewing the standard tray from the side, the wide section of the frame is installed on the right, and the narrow section of the frame on the left.

- ① Open the upper cover.
- ② Hold the standard tray with the wide section of the frame on the right, and place the pin on the left underside of the frame into the notch in the tray table. Press the left side of the standard tray into the tray table recess, and then press in the right side. Make sure that the standard tray is resting securely in the recesses in the tray table.

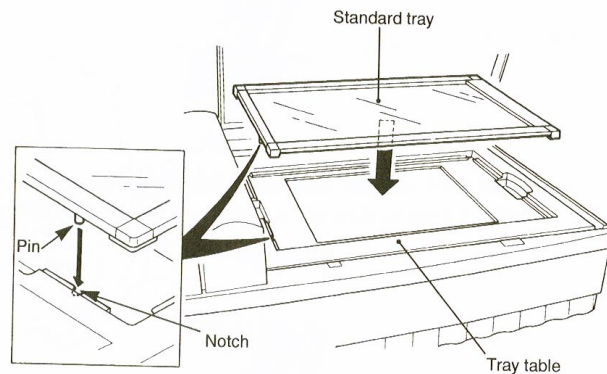


Fig. 3-16

CAUTION!

- If the standard tray is installed with the left and right sides reversed, the pin on the underside of the standard tray will ride on the tray table and prevent the standard tray from mating correctly with the tray table. Optimum results will not be obtained if the FT-S5000 is operated in this condition.
- Since the standard tray is easily scratched, avoid allowing it to come in contact with items other than the original, masking sheets, and transparent original retaining plate.
- Avoid touching the standard tray at areas other than the frame. Fingerprints on the tray will degrade the scanned image. If the tray becomes soiled with fingerprints or other matter, clean it as explained in Chapter 6 "2.1. Cleaning the Standard Tray."
- Do not attempt to disassemble the standard tray as it will adversely affect the precision of the assembly. Avoid placing hard or heavy items on the tray frame as they may cause damage, which will adversely affect the quality of the scan.
- Avoid applying excessive pressure to the standard tray when installing it and when using the FT-S5000.

NOTE

The standard tray should be removed in the reverse procedure from installation.

Installing the White Reference Unit

- ① Hold the white reference unit so that the handle is on the right side and insert it into the opening on the left side of the tray table. At this time, slide the left end of the magnet on the bottom of the white reference unit along the left side of the opening. Then push down the handle of the white reference unit and lock it into place.
- ② Press on the top of the white reference unit until the bottom is touching against the tray table. Make sure that there is no gap between the bottom of the white reference unit and the surface of the tray table.

CAUTION! Never touch the white film surface of the magnet for it is very easily scratched and easy to make dirty. If the white film becomes dirty, the output quality will be adversely affected.

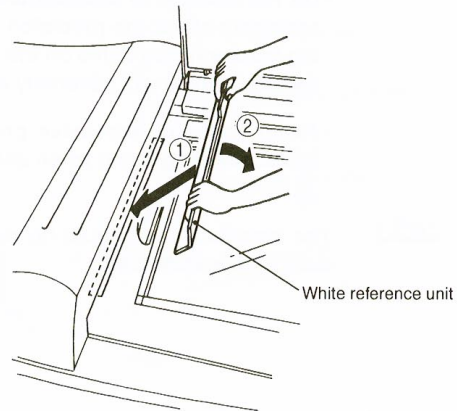


Fig. 3-17

- ③ Close the upper cover.

3. Connecting the Power Cable

! WARNING

Make sure that the AC power outlet that you are connecting the FT-S5000 to is properly grounded (resistance to ground of less than 100 Ω). If necessary, have a qualified electrician check this for you.

! CAUTION

Before connecting the power cable, make sure that your on-site power supply voltage matches that listed to the left of the AC power cable connector on the back of the FT-S5000. Contact your nearest Dainippon Screen sales office or agency if these specifications do not agree.

- ① Make sure that the power switch (located on the left side of the FT-S5000) is set to \bullet and that the power is turned off.

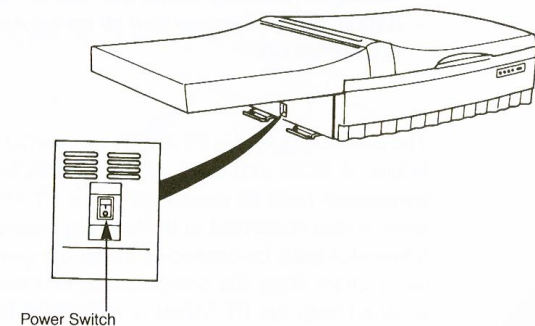


Fig. 3-18

- ② Connect the power cable to the AC power cable connector on the back panel.

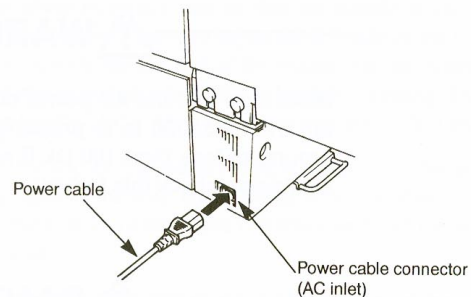


Fig. 3-19

- ③ Plug the other end of the power cable into the AC power outlet.

4. Connecting the FT-S5000 to the Host Computer

This is to be done by an agent of Dainippon Screen or by the administrator of the equipment.

CAUTION

Before connecting the power cable, make sure that the FT-S5000, host computer and all computer peripheral devices are turned off.

The connecting of the FT-S5000 to your host computer is explained below. A SCSI active terminator (hereafter referred to as a SCSI terminator) must be connected to the FT-S5000, unless other equipment is also connected to the host computer, in which case the SCSI terminator must be connected to the component at the far end of the daisy chain from the computer. In this case, the SCSI terminator supplied with the FT-S5000 is recommended. Never use more than two SCSI terminators as it may lead to faulty operation.

- The high-impedance SCSI cable should not be more than 6 m (19.7 ft) in length (use of a longer cable may result in faulty operation).
- The SCSI ID number is set to "6" when the FT-S5000 is shipped.
- The SCSI ID number can be changed at the rotary SCSI ID setting switch located on the back panel by using a small screwdriver or similar tool.

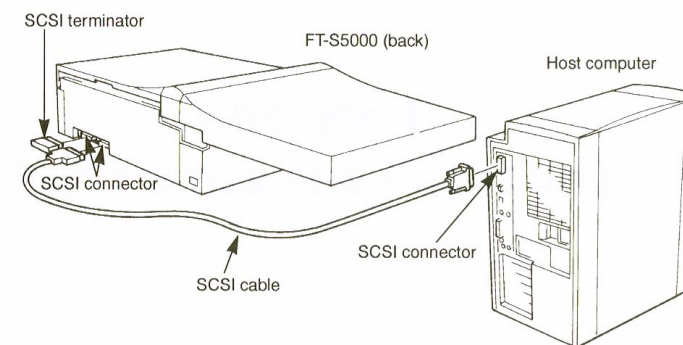


Fig. 3-20

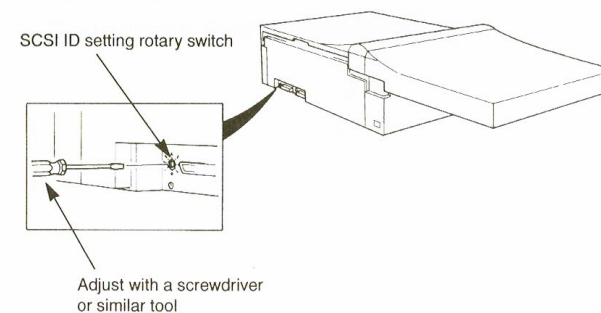


Fig. 3-21

Chapter 4

Part Names and Functions

1. External Appearance
2. Internal Construction
3. Display Panel
4. Back Panel
5. Cautionary Points for Handling

1. External Appearance

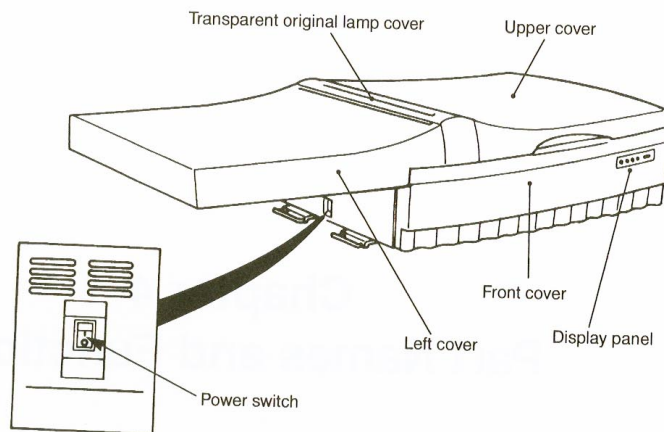


Fig. 4-1

Upper Cover

The upper cover opens to allow placement of the original for scanning.

Front Cover

The front cover opens to allow removal of the shipping plate and replacement of the reflective original lamps. For more details, refer to Chapter 6 "4. Replacing the Reflective Original Lamps."

Transparent Original Lamp Cover

This cover opens to allow replacement of the transparent original lamp. For more details, refer to Chapter 6 "3. Replacing the Transparent Original Lamp."

Left Cover

The left cover protects the tray table. The left cover is packed in the accessories case when the FT-S5000 is shipped and is normally not removed once installed.

Display Panel

The display panel is used for displaying the operating status of the FT-S5000, performing the overview scanning function, and stopping the FT-S5000 during an operation. For more details, refer to "3. Display Panel."

Power Switch

This switch turns the FT-S5000 on and off. For more details, refer to Chapter 5 "1. Start Up and Shut Down."

2. Internal Construction

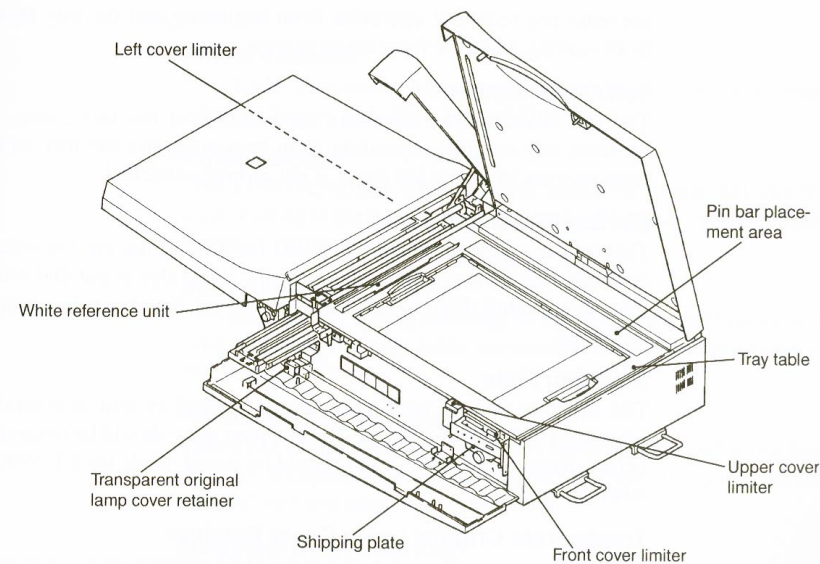


Fig. 4-2

Tray Table

The tray table holds the standard tray as well as the other accessory trays. It moves during the scanning operation.

White Reference Unit

The white reference unit prevents light diffusion and corrects for CCD sensitivity when scanning a reflective original. For more details, refer to Chapter 6 "2.3 Cleaning the White Reference Unit."

Upper Cover Limiter

The upper cover limiter monitors the position of the upper cover. It prevents any scanning operation from beginning and the tray table from moving when the upper cover is open.

Front Cover Limiter

The front cover limiter monitors the position of the front cover. It prevents any scanning operation from beginning and the tray table from moving when the front cover is open.

Left Cover Limiter

The left cover limiter monitors the position of the left cover. It prevents any scanning operation from beginning and the tray table from moving when the left cover is not properly attached.

Pin Bar Placement Area

This area has a ridge on the FT-S5000 for placing the pin bar when scanning line art and other such originals. This ridge is parallel with the sub-scanning direction to allow you to set the originals against this ridge.

Shipping Plate

The shipping plate is used to secure the optical system in position when the FT-S5000 is shipped. The shipping plate should be removed before using the FT-S5000, and should be stored inside the FT-S5000 when not used.

Transparent Original Lamp Cover Retainer

This retainer is used to secure the transparent original lamp cover and reflective lamp unit. Loosening the lock screw will allow removal of the retainer for replacing the transparent and reflective original lamps.

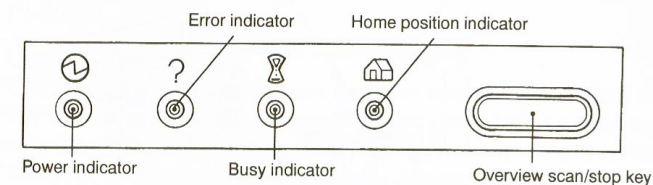
3. Display Panel

Fig. 4-3

Power Indicator

This LED illuminates when power is turned on. For more details, refer to Chapter 5 "1. Start Up and Shut Down."

Error Indicator

This LED illuminates when an error condition is detected. An error code relating to the type of error detected will appear on the computer screen.

Busy Indicator

This LED flashes during scanning. If you open the upper cover at this time, scanning or tray table movement will stop immediately to ensure safety.

Home Position Indicator

This LED illuminates when the tray table has stopped at its home position. By opening the upper cover at this time, you can set the original and perform other such operations.

Overview Scan/Stop Key

Pressing this key when the FT-S5000 is not scanning puts the unit into the overview mode. Pressing the key while the FT-S5000 is scanning stops the scanning operation.

4. Back Panel

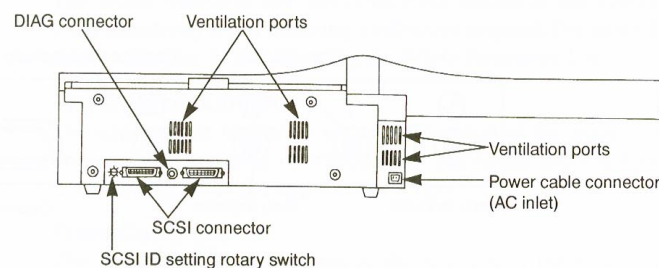


Fig. 4-4

SCSI ID Setting Rotary Switch

The SCSI ID of the FT-S5000 is set here. This is set to "6" at the time of shipment.

SCSI Connector

This is the port for the SCSI cable from the host computer.

Ventilation Ports

The ventilation ports allow hot air to exit the FT-S5000.

DIAG Connector

This is a maintenance connector. This is not used for normal FT-S5000 operation.

Power Cable Connector (AC Inlet)

This is the connector port for the power cable.

5. Cautionary Points for Handling

Always be aware of the cautionary points listed below when using the FT-S5000.

Upper Cover

Closing the upper cover activates the upper cover limiter to allow the tray table to move. The upper cover must be closed before executing a scan. Be careful not to apply excess pressure when opening or closing the cover, as this could cause irreparable damage to it. Never open the upper cover while a scan is in progress as the scanning operation will terminate.

Transparent Original Lamp Cover

The transparent original lamp cover is held in position by the transparent original lamp cover retainer. Do not remove this original retainer nor apply excessive force to it as it may cause irreparable damage. Always make sure to release the retainer before the transparent original lamp cover.

Front Cover

The front cover should only be opened when preparing the FT-S5000 for transport or when replacing a lamp. Open the cover by pulling it out at the recesses provided on both sides. After closing the front cover, make that the magnetic latches securely catch by gently pressing on both sides of the cover. Never close the front cover with the transparent original lamp cover retainer in its released position. Do not open the front cover while a scan is in progress as the scanning operation will be terminated.

Transparent Original Lamp Cover Retainer

The transparent original lamp cover retainer should only be released in order to replace a lamp. To release the retainer, open the front cover and release the retainer with the lock screw. Make sure that the lock screw is in the designated locking position when locking the retainer. Never attempt to close the front cover with the retainer released as it may result in irreparable damage.

Reflective Lamp Unit

Be careful not to touch the reflective lamp unit unless you are replacing a lamp. The reflective lamp unit cannot be completely removed from the FT-S5000. While the reflective lamp unit is extended out, do not apply force upwards, downwards, or sideways to the unit. Irreparable damage may result.

Tray Table

Do not apply pressure to the tray table nor attempt to move it manually as it may damage the drive mechanism.

Standard Tray

Since the standard tray is easily scratched, only the original, masking sheets, and the transparent original retaining plate should be brought into contact with it. For more details regarding cleaning the standard tray, refer to Chapter 6 "2.1 Cleaning the Standard Tray."

Masking Sheet

Do not bend or fold the masking sheet.

Transparent Original Retaining Plate

The transparent original retaining plate is easily scratched, so do not bring it into contact with items other than the standard tray, original, and masking sheet. For more details, refer to Chapter 6 "2.2 Cleaning the Transparent Original Retaining Plate."

White Reference Unit

Do not touch the white film face on the white reference unit as it can be easily scratched and soiled. Any damage or soil on the white film face will degrade the scanned image. For more details, refer to Chapter 6 "2.3 Cleaning the White Reference Unit." The unit must be replaced if the white film face is damaged or permanently soiled. If you require the white reference unit, contact your Dainippon Screen sales office or agency.

Ventilation Ports

Do not place any items near the ventilation ports. Blockage of the ventilation ports will cause internal temperatures to rise which may result in irreparable damage to the FT-S5000. Always have at least 50 cm (19.7 inches) between the ventilation ports on the sides and rear and their respective neighboring walls to assure adequate ventilation and room for maintenance.

CD-ROM Disk Handling

A CD-ROM scanning program installer disk is included with the FT-S5000. Pay attention to the following points when handling the disk.

- Do not touch the recorded surface of the disk (the side that has no printing on it). Fingerprints and other types of foreign matter on the recorded surface may not only cause erroneous signal transfer, but may also lead to mold formation on the disk.
- Do not allow developing agents, paint thinner, alcohol, or other solvents to come into contact with the disk.
- To prevent physically distorting the disk, do not place objects on top of it.
- Do not bend or flex the disk. Bending or flexing will distort the disk and cause it to damage your CD-ROM drive.
- Do not use the disk in excessively dirty or dusty environments as signal transfer integrity may be adversely affected.
- Always keep the disk in its case when not using it.
- Do not place the disk in places where it may be exposed directly to light sources or high temperatures.

Chapter 5 Operation

1. Start Up and Shut Down
 - 1.1 Start Up Procedure
 - 1.2 Shut Down Procedure
2. Mounting the Original

! WARNING

The AC power outlet that the FT-S5000 is connected to must be grounded with a resistance of less than 100 Ω . Have a certified electrician verify that your power outlet meets this specification.

1. Start Up and Shut Down

1.1 Start Up Procedure

- ① Turn the power switch on (I).
The tray table automatically moves to its home position and all indicators on the display panel begin flashing.
- ② The power indicator begins to illuminate steadily and the other indicators turn off. This indicates that the FT-S5000 is ready for operation.

NOTE

It takes about 30 minutes for the FT-S5000 to fully warm up after being turned on.

1.2 Shut Down Procedure

- ① Turn off the power switch (O).
- ② Close all of the covers.
- ③ Put away all equipment and tools that were used.
- ④ Clean the FT-S5000.
- ⑤ Inspect the FT-S5000 as explained in Chapter 6.

NOTE

If you want to stop the FT-S5000 during a scanning operation, press the STOP key and open the upper cover. This will cause the tray table to stop its traverse.

2. Mounting the Original

- ① Check that the power and home position indicators are lit and that the error and busy indicators are not illuminated.

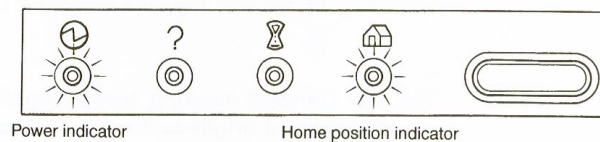


Fig. 5-1

- ② Carefully raise the upper cover to its fully opened position.

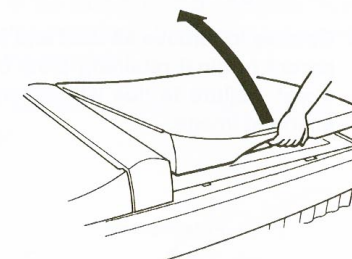


Fig. 5-2

- ③ Mount the original according to one of the procedures outlined below depending on the type of original.

Mounting Transparent Originals

- ① Attach the appropriate size masking sheet to the transparent original retaining plate. The masking sheet is covered by a protective sheet. This sheet must be removed before the masking sheet is initially used. Attach the adhesive side of the masking sheet to the transparent original retaining plate.

The transparent original retaining plate has one nonglare side (a rough surface) to prevent Newton rings. The masking sheet is to be attached to this nonglare surface. If it is difficult to tell which surface is the nonglare surface, hold the retaining plate up to a fluorescent lamp, or other light in the room, and the side that has a dull look is the nonglare side and the side that has a shiny look is not.

NOTE

The four standard masking sheets supplied are for nine 35-mm transparent originals, four 6 × 7 transparent originals, one 4 × 5 inch transparent original, or three 35-mm film strips. Refer to Chapter 8 "Optional Accessories" if you intend to use other types of masking sheets or transparent original retaining plates.

CAUTION!

Be sure to remove all dust and foreign matter from the transparent original retaining plate before attaching the masking sheet. Failure to do so will adversely affect the quality of the scanned image.

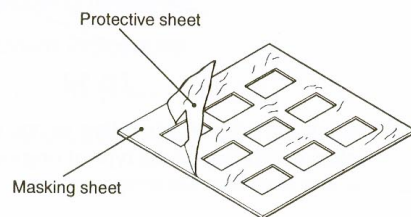


Fig. 5-3

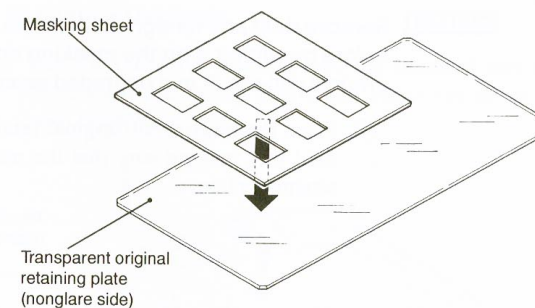


Fig. 5-4

- ② With the base side of the original facing up, lay the original on the opening of the masking sheet with the image centered in the opening.
- ③ Attach the original to the masking sheet with cellophane tape.

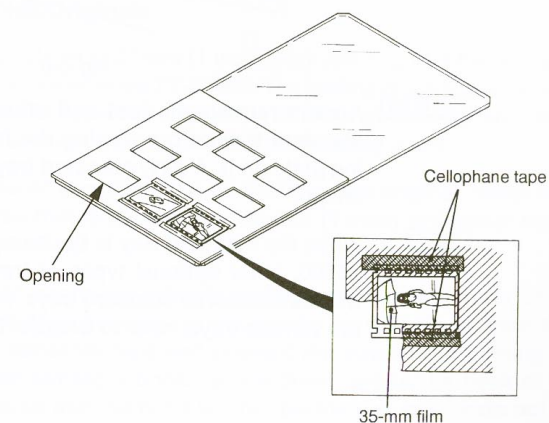


Fig. 5-5

CAUTION!

Remove dust and foreign matter from the transparent original before mounting it on the masking sheet. A dirty transparent original will result in a degraded scanning image.

- ④ Place the transparent original retaining plate onto the standard tray making sure that the masking sheet is below the retaining plate.

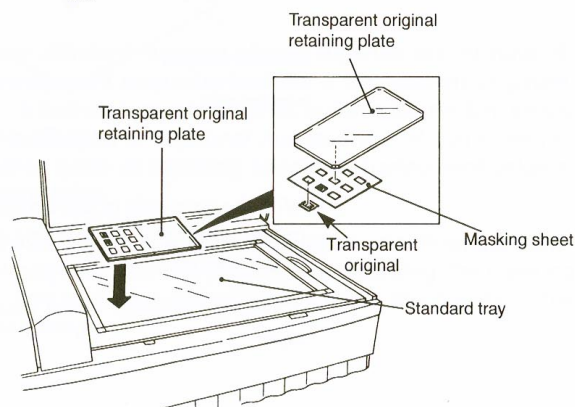


Fig. 5-6

CAUTION!

Always remove all dust and other foreign matter from the standard tray before placing the transparent original retaining plate on it. A dirty standard tray will degrade the scanned image.

NOTE

While the standard tray is the one normally used with the FT-S5000, other optional types of trays can also be utilized as well as additional standard trays. For more information about the various trays, refer to Chapter 8 "Optional Accessories."

Loading Reflective Originals

- ① Lay the reflective original onto the standard tray with the picture surface facing down, and attach the art to the tray with cellophane tape.

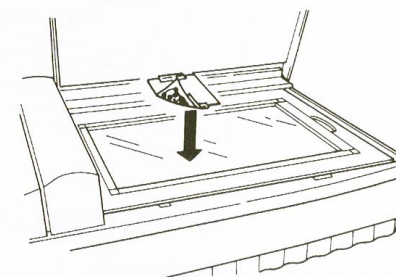


Fig. 5-7

CAUTION!

Always remove all dust and other foreign matter from the reflection original and standard tray before loading the original. Dirt and dust will adversely affect the scanned image.

Loading Thick Originals

Originals up to 25 mm (1 inch) thick and 2 kg (4.4 lbs) in weight can be placed in the FT-S5000. The loading procedure is the same as that for reflective originals, with the original being taped to the standard tray with the picture surface facing down.

CAUTION!

- To avoid damaging the FT-S5000 or the original, never scan media that is thicker than 25 mm (1 inch) or heavier than 2 kg (4.4 lbs).
- When scanning a book, make sure that the cover of the book does not become caught inside the unit. To prevent this, use adhesive tape and prevent the cover from coming up. When setting a book upside down, press the back of the book so that the book will not buckle upwards or do not set the book.

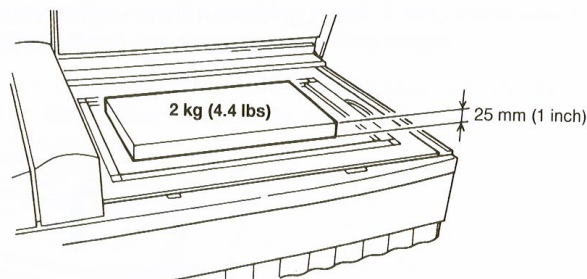


Fig. 5-8

NOTE

Optional sheets are available for scanning reflective originals. Contact your Dainippon Screen sales office or agency for more information on purchase procedures and usage.

- ④ Close the upper cover carefully after the original is loaded into the FT-S5000.

CAUTION

To avoid the possibility of personal injury, never release the upper cover before it is in the fully closed position.

CAUTION!

A defective upper cover damper can lead to accidents. Check the effectiveness of the damper when you first set up the FT-S5000 and remember it for reference later. Contact your Dainippon Screen sales office or agency if you feel that the upper cover dampening action is not sufficient (or that it has weakened since the time of installation).

Chapter 6 Inspection and Part Replacement

1. Inspection and Repair Procedures

2. Normal Cleaning Procedures

2.1 Cleaning the Standard Tray

2.2 Cleaning the Transparent Original Retaining Plate

2.3 Cleaning the White Reference Unit

FT-S5000 Maintenance Inspection Table

3. Replacing the Transparent Original Lamps

4. Replacing the Reflective Original Lamps

5. Consumable Parts

6. Disposal and Disassembly of the FT-S5000

6.1 Disposing of the FT-S5000

6.2 Disposing of Consumable Parts

1. Inspection and Repair Procedures

The FT-S5000 should be inspected periodically to insure the superior scanning performance of which it is capable. (Refer to the "FT-S5000 Maintenance Inspection Table" for further information.) Perform the recommended maintenance procedures on a periodic basis to insure optimum performance from the FT-S5000 in normal use. Make sure that you understand the warranty conditions as they relate to inspection and maintenance.

WARNING

Since repairing the FT-S5000 can be dangerous and also requires special tools and skills, never attempt to repair the FT-S5000 yourself. Always contact your Dainippon Screen sales office or agency if you feel that a repair is needed.

2. Normal Cleaning Procedures

WARNING

Always turn the power off before cleaning the FT-S5000.

2.1 Cleaning the Standard Tray

Always keep the standard tray clean in order to assure the maximum quality in your scans. If the standard tray becomes dirty, clean it with cylinder cleaner solution and a special cleanup cloth which are available from Dainippon Screen. To clean, lightly wipe the upper and lower surfaces of the standard tray with the cleanup cloth moistened in cylinder cleaner. If cylinder cleaner is not available, a soft cloth moistened with an ethyl alcohol distillate, diluted to at least half its normal strength, can be used.

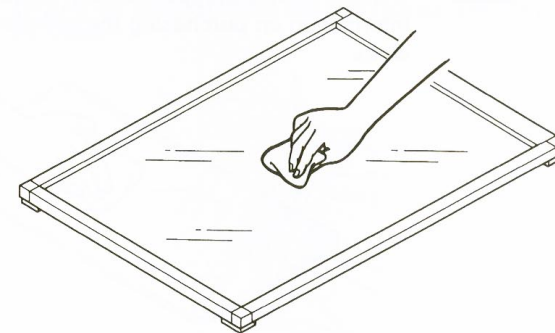


Fig. 6-1

NOTE

Contact your Dainippon Screen sales office or agency for information on purchasing the cylinder cleaner and cleanup cloth.

2.2 Cleaning the Transparent Original Retaining Plate

The transparent original retaining plate must be kept clean to assure a high-quality scanned image. Clean the transparent original retaining plate with cylinder cleaner solution and a special cleanup cloth which are available from Dainippon Screen. Lightly wipe the upper and lower surfaces of the retaining plate with the cleanup cloth moistened in cylinder cleaner. If cylinder cleaner is not available, a soft cloth moistened with an ethyl alcohol distillate, diluted to at least half its normal strength, can be used.

NOTE

Contact your Dainippon Screen sales office or agency for information on purchasing the cylinder cleaner and cleanup cloth.

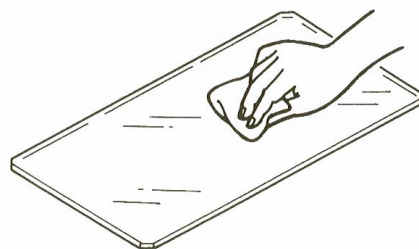


Fig. 6-2

2.3 Cleaning the White Reference Unit

Since the image quality deteriorates if the white film surface of the white reference unit becomes soiled, it should be inspected for cleanliness everyday before using the FT-S5000.

- ① Check that the FT-S5000 is in its standby mode. The power and home position indicators should be illuminated with the error and busy indicators off.

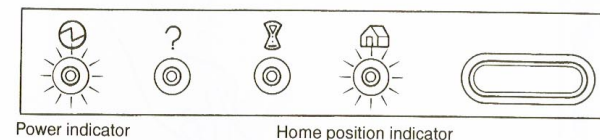


Fig. 6-3

- ② Open the upper cover.
- ③ Holding the white reference unit by its handle, remove it from the FT-S5000.

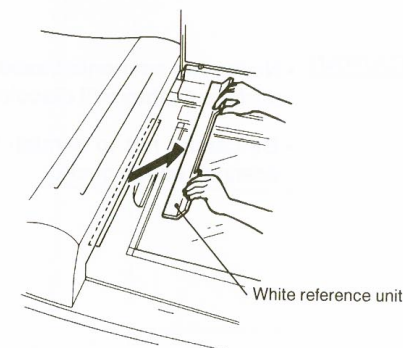


Fig. 6-4

- ④ Clean the white film surface by gently wiping it with a soft cloth moistened in glass cleaner or similar substance. Do not spray glass cleaner or other cleaning agents directly on the white film surface. Finish wiping with a clean dry cloth.

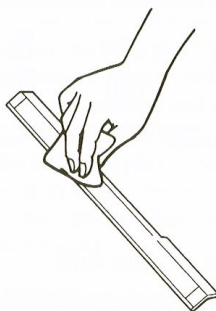


Fig. 6-5

CAUTION!

- Never use ammonia-based solvents to clean the white film surface as they will discolor it.
- Be careful not to scratch the surface as this will degrade scanned image quality.

FT-S5000 Maintenance Inspection Table

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Standard tray	Lightly wipe upper and lower surfaces with cleanup cloth and cylinder cleaner.	When necessary	○																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Transparent original retaining plate	Lightly wipe upper and lower surfaces with cleanup cloth and cylinder cleaner.	When necessary	○																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
White reference unit	Wipe white film surface with a soft cloth moistened in glass cleaner. Do not apply glass cleaner or other agents directly to white film surface. Finish wiping with a clean dry cloth.	Before operating	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

1. Read the FT-S5000 User's Manual (Hardware Volume) carefully.
2. After performing an inspection, place a check in the circle for that day of the month.
3. Make a copy of this form for every month the FT-S5000 is used.

3. Replacing the Transparent Original Lamps

CAUTION

The lamps remain hot for a period of time after the FT-S5000 is turned off. Allow sufficient time for the lamps to cool down before attempting to replace them.

- ① Confirm that the power switch is turned off and then open the front cover.

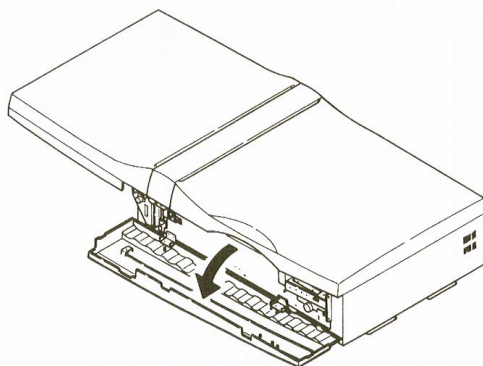


Fig. 6-6

- ② Loosen the lock screw on the left side of the front frame and lower the transparent original lamp cover retainer.

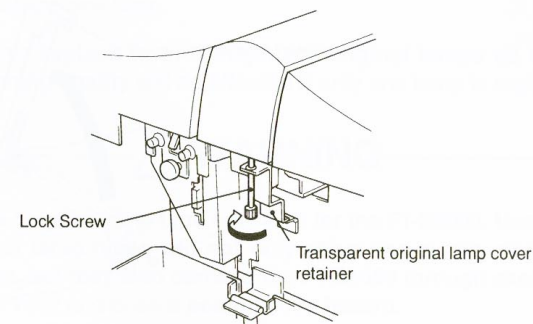


Fig. 6-7

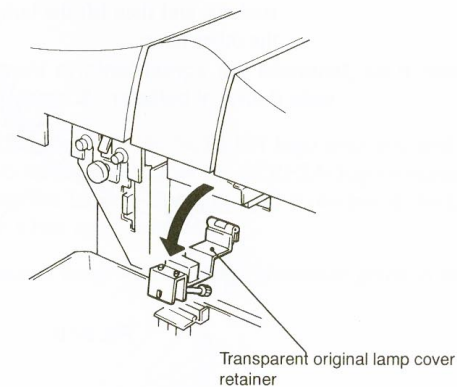


Fig. 6-8

- ③ Open the transparent original lamp cover by pushing the cover up until the stays lock at the rear of the FT-S5000 lock the cover in its open position.

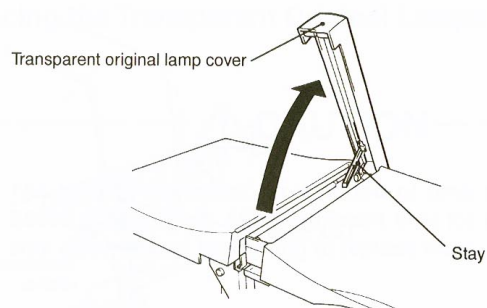


Fig. 6-9

- ④ Remove one of the transparent original lamps by grasping both ends of the lamp and rotating it so the pins on the end clear the sockets, and then lift the lamp out. Then repeat the procedure for the other lamp.

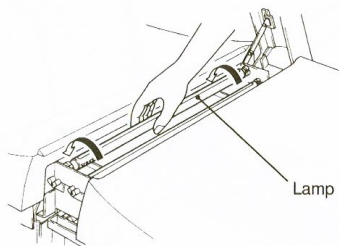


Fig. 6-10

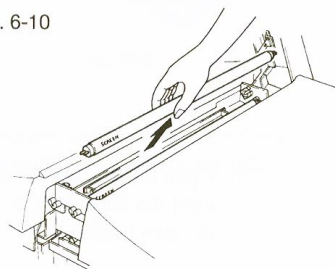


Fig. 6-11

- ⑤ Install the new lamp.

NOTE

Always replace both transparent original lamps as a set. Scanning quality will be affected if only one lamp is replaced.

⚠ WARNING

- Use only the lamp type specified for the FT-S5000. Use of other lamp types will not only affect the quality of the scan, but may also damage the FT-S5000 through excessive heat and pose a potential fire hazard.
- Do not use a specified lamp in equipment other than the FT-S5000 as it may lead to equipment damage and potential fire hazard.

NOTE

The transparent original lamps are identical, so it does not matter which lamp is installed in which side.

Hold the new lamp with the SCREEN logo near you and insert the lamp into its sockets so that the SCREEN logo remains visible. Then turn the lamp to the right until it reaches its lock position with the silver tape facing up.

- ⑥ Install the second lamp with the same procedure given in step ⑤.

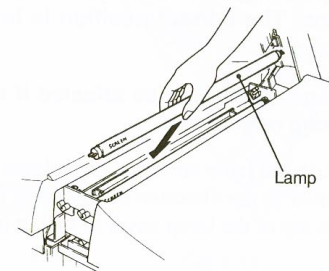


Fig. 6-12

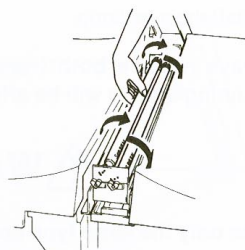


Fig. 6-13

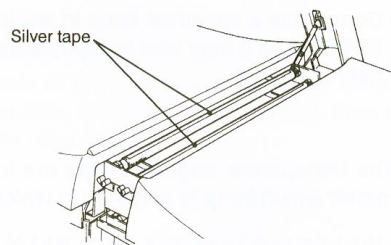


Fig. 6-14

NOTE

After inserting the lamp into the sockets with the **SCREEN** logo facing out, the lamp can be inserted in one of two positions. The correct position is indicated by the silver tape facing up.

CAUTION!

Image quality will be affected if the lamp is installed in the wrong orientation.

- ⑦ Push the lamp cover stay to release the lock and gently lower the cover in the direction of the arrow in Fig. 6-15. Then press down on top of the lamp cover to lock it in its closed position.

CAUTION!

Be sure to support the transparent original lamp cover when releasing the stays. Never allow the cover to drop suddenly when you release the stay for it may break the lamp.

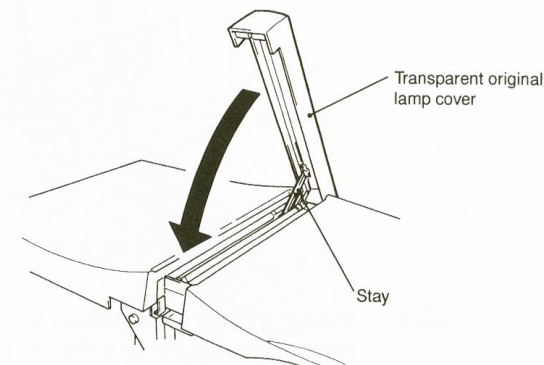


Fig. 6-15

- ⑧ Lift up the transparent original lamp cover retainer and lock it in position with the lock screw.

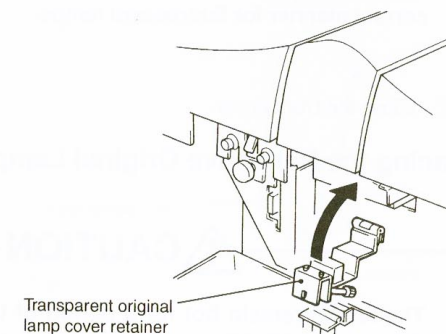


Fig. 6-16

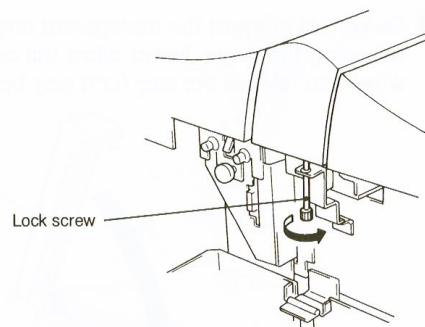


Fig. 6-17

NOTE

The front cover will not close unless the transparent original lamp cover retainer is locked in position. Always check that the retainer is tight before attempting to close the front cover.

CAUTION

Consult a specialist to dispose of the old lamp in the correct manner for fluorescent lamps.

- ⑨ Close the front cover.

4. Replacing the Reflective Original Lamps

CAUTION

The lamps remain hot for a period of time after the FT-S5000 turns off. Allow sufficient time for the lamps to cool down before attempting to replace them.

- ① Check that the power switch is turned off and then open the front cover.

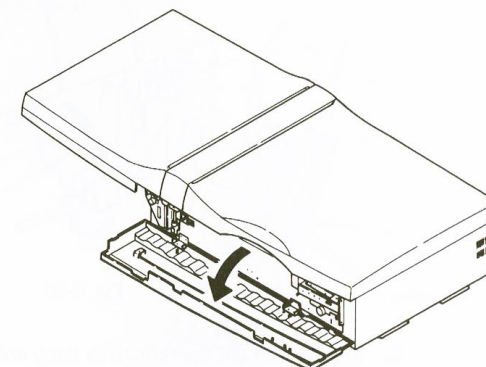


Fig. 6-18

- ② Loosen the lock screw on the left side of the front frame and lower the transparent original lamp cover retainer.

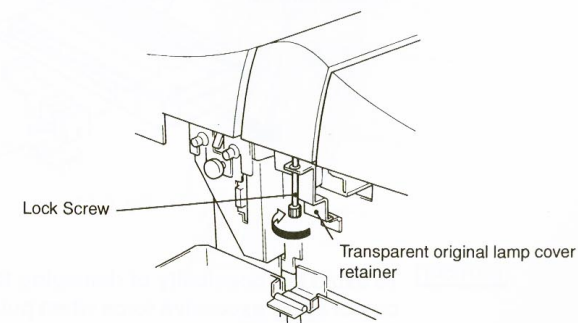


Fig. 6-19

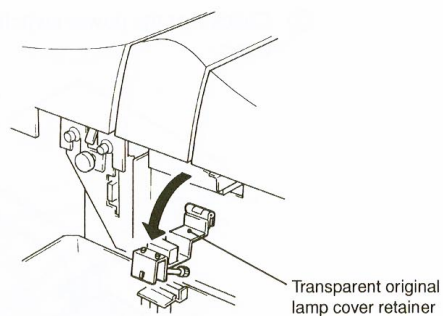


Fig. 6-20

3. Slowly pull out the reflective lamp unit.

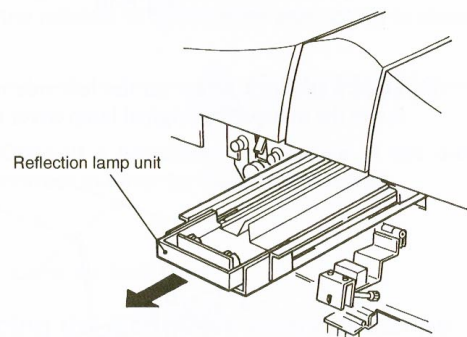


Fig. 6-21

CAUTION! To avoid the possibility of damaging the reflective lamp unit, do not apply excessive force when pulling it out.

NOTE A stopper is provided to prevent the reflective lamp unit from falling out of the FT-S5000. Pull the unit out until it contacts the stopper.

- ④ Remove each of the reflective original lamps by grasping both ends of the lamp and rotating it until the pins on each end to clear the sockets.

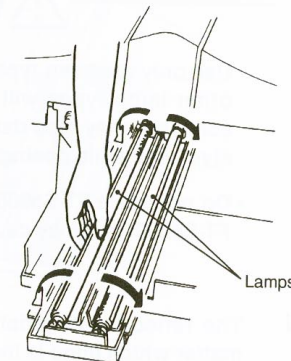


Fig. 6-22

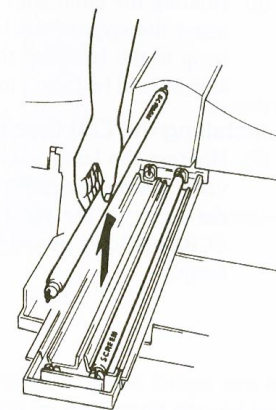


Fig. 6-23

NOTE Always replace both reflective original lamps as a set. Scanning quality will be affected if only one lamp is replaced.

- ⑤ Install the new lamps.

! WARNING

- Use only the lamp type specified for the FT-S5000. Use of other lamp types will not only affect the quality of the scan, but may also damage the FT-S5000 through excessive heat while posing a potential fire hazard.
- Do not use a FT-S5000 lamp in equipment other than the FT-S5000 as it may cause equipment damage or a fire.

NOTE

The reflective original lamps are identical, so it does not matter which lamp is installed in which side.

Installing the Right Side Lamp

- ⑥ Holding the lamp with the SCREEN logo near you and visible, insert the ends of the lamp into the socket grooves. Rotate the lamp to the left until the lamp clicks into place. The SCREEN logo should be facing inside toward the opposite lamp.

Installing the Left Side Lamp

- ⑦ Holding the lamp with the SCREEN logo away from you and visible, insert the ends of the lamp into the socket grooves. Rotate the lamp to the right until the lamp clicks into place. The SCREEN logo should be facing the inside toward the opposite lamp.

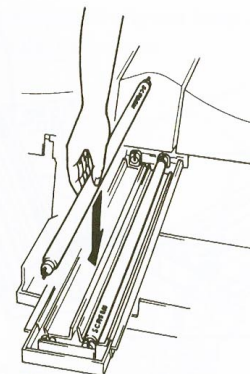


Fig. 6-24

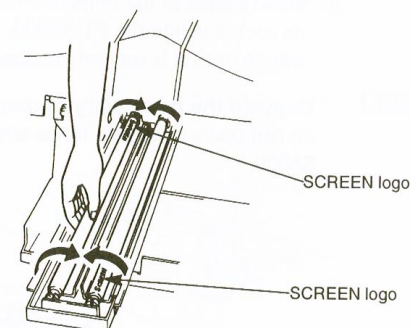


Fig. 6-25

NOTE

When both reflective original lamps are installed correctly, the SCREEN logos on the lamps should be facing each other on the inside. Scanned image quality will be affected if the lamps are not installed in this position.

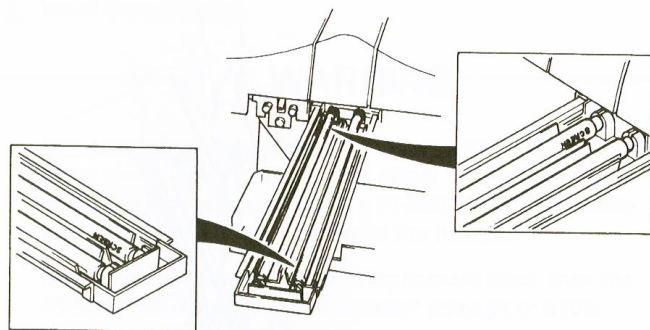


Fig. 6-26

- ⑧ Slowly push in the reflective lamp unit until it inserts firmly into its socket inside the FT-S5000. Be sure to insert the lamp all the way in until it is securely connected.

NOTE

To avoid the possibility of damaging the reflective lamp unit, do not use excessive force when pushing it back into the FT-S5000.

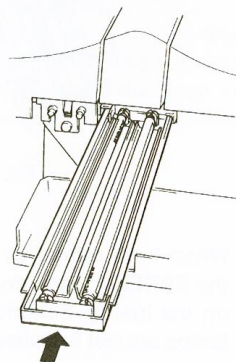


Fig. 6-27

- ⑨ Lift up the transparent original lamp cover retainer and lock it in position with the lock screw.

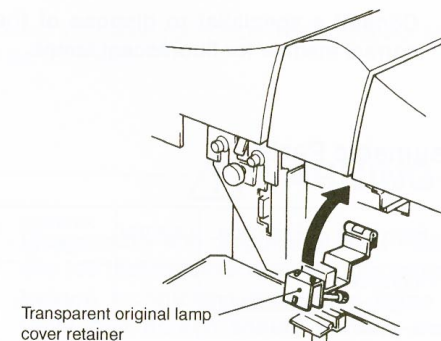


Fig. 6-28

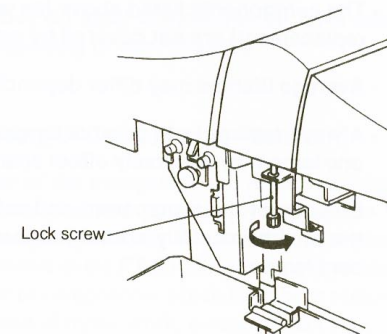


Fig. 6-29

- ⑩ Close the front cover.


NOTE

The front cover will not close unless the transparent original lamp cover retainer is locked in position. Always check that the retainer is tightly secured before attempting to close the cover.

! CAUTION

Consult a specialist to dispose of the old lamp in the correct manner for fluorescent lamps.

5. Consumable Parts

Part name	Part code	Quantity	Average lifetime	
Fluorescent lamp 2 lamps per set	70583838-00	2	2,000 hrs	

NOTE

- The components listed above (as well as labor fees for their replacement) are not covered by warranty.
- Average lifetime may differ depending on your situation.
- Always replace both original lamps as a set. Replacing only one lamp may adversely effect scanned image quality.
- Dispose of the transparent and reflective original lamps in the environmentally sound manner prescribed for fluorescent lamps.

6. Disposal and Disassembly of the FT-S5000

6.1 Disposing of the FT-S5000

Contact your Dainippon Screen sales office or agency when disposing of the FT-S5000.

! WARNING

- Disassembly and disposal of the FT-S5000 is a dangerous job that requires special tools and procedures. Only trained technicians that have taken a course from Dainippon Screen should perform these procedures. Contact a Dainippon Screen sales office or agency regarding this.
- Obey all local environmental laws and guidelines when disposing of the FT-S5000.

6.2 Disposing of Consumable Parts

Dispose of the transparent and reflective original lamps in the environmentally sound manner prescribed for fluorescent lamps by consulting a specialist. Besides the fluorescent lamps, there are no components in the FT-S5000 which pose an environmental hazard. To dispose of components which have been removed from the FT-S5000 as a result of repair work, please contact your Dainippon Screen sales office or agency or dispose of the components in the normal manner utilized for machine parts.

Chapter 7 Maintenance Tool

1. Calling Up the Maintenance Tool
2. Self Diagnostic
3. Sensor
4. Calibration
5. Scanner Setting
6. Moving the Tray Table and Optical Unit
7. Downloading the Firmware
8. EEPROM Backup/Restore
9. Acquiring the Scanner Log

The maintenance tool is a tool used by the host computer to perform routine maintenance on the FT-S5000. The maintenance tool can be used to detect specific problem areas, check sensor operation, and calibrate the FT-S5000.

The functions of the maintenance tool are listed below.

- Self diagnostic function
- Sensor operation check
- Calibration
- Scanner setting
- Movement of tray table and optical unit
- Firmware downloading
- EEPROM backup and restoration
- Acquiring the Scanner Log

NOTE

The maintenance tool must be installed into your host computer before it can be called up.

1. Calling Up the Maintenance Tool

The maintenance tool is installed into your host computer in a folder titled "FT-S5000 Maintenance." Double click on the "FT-S5000 Maintainer" file inside this folder to call up the tool. The maintenance tool initial screen shown below appears.

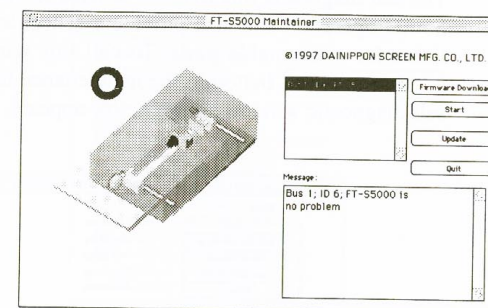


Fig. 7-1

The maintenance tool initial screen shows all of the FT-S5000s that are connected to your host computer. Select the FT-S5000 that the maintenance will be performed on and click on the **Start** button. The maintenance menu window shown below appears.

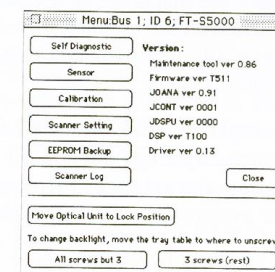


Fig. 7-2

The maintenance menu window contains the available functions such as the self diagnostic, sensor, and calibration functions. These functions are explained below.

2. Self Diagnostic

The self diagnostic function can be used to find problem areas in FT-S5000 operation and also provide a schedule showing replacement times for consumable parts. To call this window up, click on the **Self Diagnostic** button in the maintenance tool menu window. The self diagnostic window shown below appears.

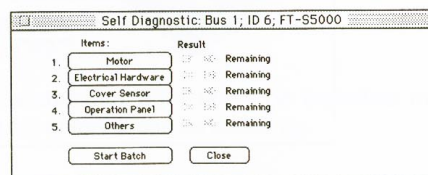


Fig. 7-3

Select the desired self diagnostic item as explained here. The various self diagnostic items are categorized and the buttons for the various categories are displayed in the self diagnostic window when it first opens. Click on the button for the desired category and the list of the self diagnostic items for that category appears. Choose the desired self diagnostic item.

For example, to check on the FT-S5000 internal data transfer operations, click on the **Electrical Hardware** button. The window shown in Fig. 7-4 appears showing the "Memory Test" and "Data Transfer" items. For this explanation, we shall click on a "Data Transfer" item.

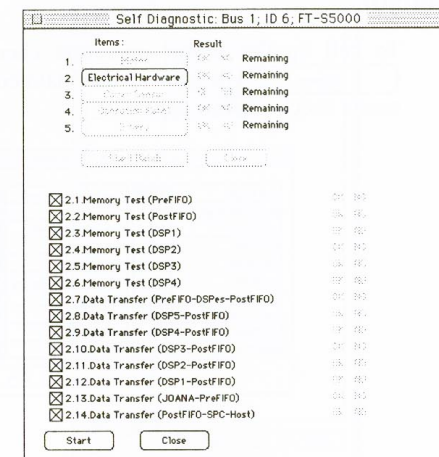



Fig. 7-4

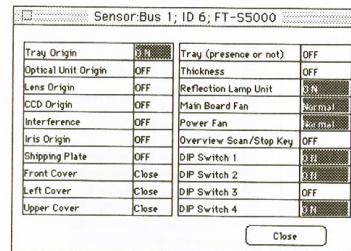
There are numerous data transfer functions that can be checked. If you want to check the data transfer between the third DSP and PostFIFO, then click on the item labeled "2.10. Data Transfer (DSP3-PostFIFO)." An ☒ appears in the checkbox for the item that you selected. Then click on the **Start** button to diagnose the checked items. The result of the diagnostics is displayed to the right of the checked items with either a "OK" or "NG" (for "No Good").

If an "OK" is displayed next to a diagnostic category at the top of the window, it denotes that all items in that category are operating correctly. If an "NG" is displayed, it indicates that at least one fault is detected. If a "Remaining" is displayed, it indicates that at least one item in that category has not been diagnosed.

Click on the **Close** button to close the self diagnostic window. If the **Close** button is clicked after one of the self diagnostic categories is clicked, the item list for that category will close and the screen will return to its original display immediately after being opened.

3. Sensor

To call up the sensor operation check window, click on the  button in the maintenance menu window. The sensor check window appears.



Sensor-Bus 1; ID 6; FT-S5000			
Tray Origin	ON	Tray (presence or not)	OFF
Optical Unit Origin	OFF	Thickness	OFF
Lens Origin	OFF	Reflection Lamp Unit	ON
CCD Origin	OFF	Main Board Fan	Normal
Interference	OFF	Power Fan	Normal
Iris Origin	OFF	Overview Scan/Stop Key	OFF
Shipping Plate	OFF	DIP Switch 1	ON
Front Cover	Close	DIP Switch 2	ON
Left Cover	Close	DIP Switch 3	OFF
Upper Cover	Close	DIP Switch 4	ON


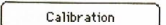


Fig. 7-5

This window informs you, for example, if the upper cover is closed by displaying "Close" next to the "Upper Cover" item.

4. Calibration

The FT-S5000 is calibrated using the maintenance tool together with a commercially available calibration sheet. Execute the following procedure to calibrate the FT-S5000.

Set the calibration sheet in the FT-S5000. The mounting procedure for the calibration sheet is different for transparent and for reflective calibration. Mount the calibration sheet as described in Chapter 5 "2. Mounting the Original." Click on the  button in the maintenance menu window. The trimming window shown in Fig. 7-6 appears.

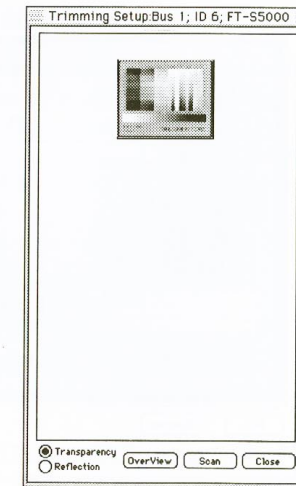



Fig. 7-6

An overview of the calibration sheet image is shown in the trimming window. In the trimming window, the calibration sheet scanned first in the overview scanning mode is automatically trimmed. If this image is not trimmed as desired, use the computer mouse to edit the trimming frame to obtain the desired area. The trimming frame is correct if it matches the outline of the calibration sheet. When the trimming operation is completed, click on the  button.

At this time a file dialog box appears for you to specify a LAB calibration data file. After you select a data file, the scanned image will be shown in the calibration window. When completed, the register marks are automatically detected and the calibration frames are automatically set. If the register marks were not detected or the setting of the calibration frames is incorrect, set them with the computer mouse. As shown in Fig. 7-7, the correct calibration frame setting can be verified by the register marks at the upper left and the lower right corners being overlapped by the calibration frame, and by each patch frame not extending out of each image patch of the calibration sheet image.

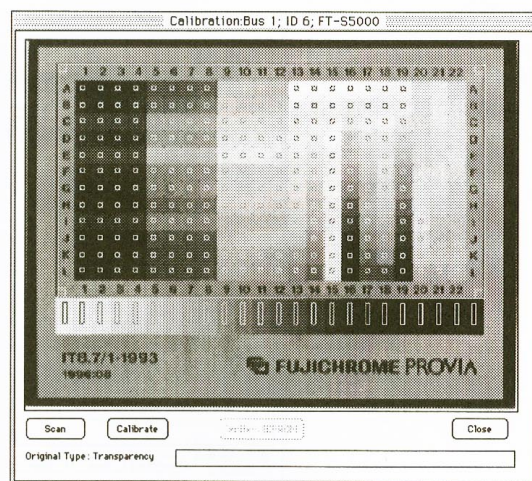


Fig. 7-7

Once the calibration frame setting is established, click on the **Calibrate** button to execute the calibration operation.

When the calibration operation is completed, the compensation accuracy, which denotes the average color difference (ΔE), will be displayed. A successful calibration is defined as the average color difference being less than 1.2 for transparent originals, and less than 1.7 for reflective originals.

Once the calibration is completed, click on the **Write->EEPROM** button to write the data derived from the calibration into the EEPROM for the FT-S5000.

5. Scanner Setting

By setting the FT-S5000, you can select the operations for the default mode. In the default mode, the revising of the overview images is performed. The procedure for setting the scanner is explained below. Click on **Scanner Setting** button in the maintenance menu window. The window for setting the scanner appears.

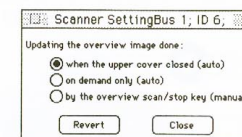


Fig. 7-8

Select the "Updating the overview image done" radio button that you desire. For "when the upper cover closed (auto)," overview images are automatically revised. For "on demand only (auto)," overview images will not be revised by closing the upper cover, but revised when their revision is requested by the software installed in the host computer. For "by the overview scan/stop key (manual)," no automatic revision of overview images is performed. They are revised only when the overview scan/stop switch is pressed. "When the upper cover closed (auto)" is set when the FT-S5000 is shipped from the factory.

6. Moving the Tray Table and Optical Unit

The tray table must be moved to its origin when replacing parts or transporting the FT-S5000. Also, the optical unit must be moved to its secured position when transporting the FT-S5000. To move the tray table to its origin, click on the **Tray Table to Origin** button in the maintenance menu window. To move the optical unit to its secured position, click on the **Optical Unit to Lock Position** button in the maintenance menu window.

7. Downloading the Firmware

If you want to use a new version of the FT-S5000 firmware, that firmware must be downloaded into the FT-S5000. The downloading procedure is explained below. First, click on the **Firmware Download** button in the maintenance tool initial screen.

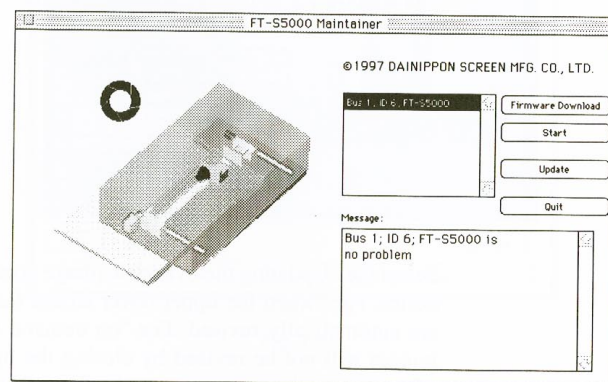


Fig. 7-9

A file dialog box appears. Click on the [Open] button and open the firmware file. Then click on the [Download] button in the confirmation dialog box. The dialog box shown below appears during the download operation. Be careful not to turn off the FT-S5000 while this dialog box is displayed.

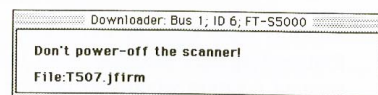


Fig. 7-10

When the download is completed, a dialog box will appear to inform you. After the download is completed, the FT-S5000 will automatically reset itself.

8. EEPROM Backup/Restore

The correctional data which is applied to the gamma and hard programming data in the FT-S5000 is held in the EEPROM. This data must be backed up before a circuit board is removed, and restored to the FT-S5000 after the circuit board is replaced. The EEPROM backup operation is explained below. First click on the **EEPROM Backup** button in the maintenance tools menu. The window shown below appears.

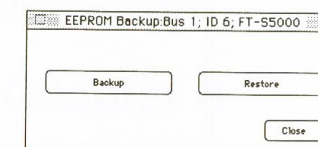


Fig. 7-11

Click on the **Backup** button. The save dialog box appears for you to set the file for saving the EEPROM data. The default filename is "EEPROM <serial number>" with the actual serial number of the FT-S5000 appearing within the brackets.

To restore the data back to the FT-S5000, click on the **Restore** button in the window above. A file dialog box appears. Then select the file where the EEPROM data is saved.

9. Acquiring the Scanner Log

The FT-S5000 stores a scanning log from the time it is turned on. The size reserved for this log is only 128 kB, so when the log exceeds this size, the oldest entries are erased. You can retrieve the log information stored by the FT-S5000 using the procedure given below.

Click on the button in the maintenance menu window. The window shown in Fig. 7-12 appears.

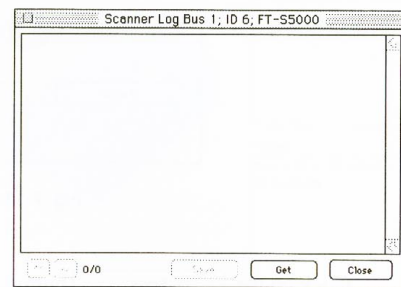


Fig. 7-12

Click on the button to display the log information stored by the FT-S5000 in the text area. Since one displayed page holds 32 kB, if the log stored in the FT-S5000 is larger than this, it will be displayed across several pages. The newest page will be displayed, so, if necessary, click on the and buttons to move to the desired page. To save the log as a text file, click on the button. Since the log is saved as a text file, it can then be opened by any normal text editor.

Chapter 8 Optional Accessories

Various optional accessories are available for use with the FT-S5000. Contact your Dainippon Screen sales office or agency if you would like to purchase any of these accessories.

Combination Tray Set

The combination tray can hold any combination of up to six glassless, oil, or plastic resin holders. It consists of one combination tray, four non-glass trays for the FT-S700, one plastic resin holder, and three different masking sheets for use with the plastic resin holder.

Glass Tray Set

The glass tray set is a tray for line art originals and is made of glass. The upper surface of the line art glass tray and the surface of the tray table are flat for handling large sized originals.

Reflection Original Retaining Sheet

This rubber sheet is used to hold thicker reflective original pieces on the table.

Resin Holder

This 4 × 5 inch plastic resin sandwich-type film holder is used with the combination tray. Used with its own masking sheets, the holder prevents film and original from buckling during scanning.

Resin Holder Masking Sheets

This six-piece set, consisting of three different types of masking sheets to mask 35-mm, 4 × 5 inch, and 6 × 7-cm films. Sheets are indexed through the locating pins on the plastic resin holder which makes it easy to set the position of the scanning art. Also protects against light diffusion around the image area.

35-mm Oil Holder

This oil holder uses an oil envelope to hold 35-mm films and eliminates the possibility of scratching the emulsion surface. Mounts to the combination tray.

6 × 7-cm Oil Holder

This oil holder uses an oil envelope to hold 6 × 7-cm films to eliminate the possibility of scratching the emulsion surface. Mounts to the combination tray.

Masking Sheet Set (for 35-mm, 4 × 5 inch, and 6 × 7-cm)

This set of six of each of the three types of masking sheets is for use with the standard tray.

Masking Sheet Set (for 35-mm film strips)

This set of three masking sheets is used to hold 35-mm film strips and mounts to the standard tray.

Transparent Original Retaining Plate

This set of three transparent original retaining plates uses the same retainer plate design as the one supplied with the FT-S5000 as a standard accessory. Use of multiple retainer plates allows the originals to be mounted more quickly into the FT-S5000.

Angular Loading Bar

Used with the standard tray, the angular loading bar serves as a guide to allow originals to be mounted at any desired angle.

Pin Bar Set

Used with the pin bar, the pin bar sheet set is used to position the original on the table. (The pin bar is included in the pin bar set.)

Glassless Holder

Used with the combination tray, the FT-S700 is a non-glass holder for transparent originals of 35-mm, 35-mm (projection film), 4 × 5 inch, and 6 × 7-cm sizes.

Standard Tray

This is the same tray which is supplied with the FT-S5000 as a standard accessory. Using multiple standard trays and preparing one while the other is being scanned can increase scanning efficiency.

Chapter 9 Technical Information

1. Specifications
2. External Dimensions

1. Specifications

Model designation:	FT-S5000
Scanning method:	3-line; 8,000-element CCD
Scanning media:	Transparent and reflective originals, positive and negative films, line art originals, thin 3-dimensional items
Maximum original size:	340 × 530 mm (13.4 × 20.9 inch) (non-line art mode, up to A2 size) 330 × 530 mm (13.0 × 20.9 inch) (line art mode)
Maximum original thickness:	25 mm (1 inch) including retainer
Light source:	Fluorescent lamps
Optical resolution:	589 to 5,300 dpi (non-line art) 1,200 dpi, 2,000 dpi (line art)
Input resolution:	20 to 12,000 dpi (non-line art) 1,200 dpi, 2,000 dpi (line art)
Maximum original density:	3.6D
Running speed:	36 scans per hour (35-mm original at 400%)
Scanning speed:	20 msec/line (non-line art mode) 7 msec/line (line art mode)
Output:	RGB 16/8 bit/ch (DS standard) CMYK, grayscale, bitmap
Interface:	SCSI II, TWAIN, Photoshop Plug-In, Macintosh OS, Windows NT and Windows 95 (future availability)

Functions:	Automatic Original Position Recognition Batch Scanning Negative Auto Range On-the-fly Scanning Background Scanning Next Generation AI
Recommended computer:	Power Macintosh 9600/200 160 MB RAM memory or more 3 GB of open hard disk space
Power requirements:	95 to 125 V AC or 180 to 255 V AC 50/60 Hz single phase • 2.0 A/0.2 kW at 100 V AC (Rush: 40 A/Starting: 2.0 A) • 1.0 A/0.2 kW at 200 V AC (Rush: 60 A/Starting: 1.0 A)
Ground:	Less than 100Ω
Heat discharge:	170 kcal/680 BTU
Noise:	Less than 70 dB(A)
External dimensions:	W D H 1,412 × 676 × 321 mm (55.6 × 26.6 × 12.6 inch)
Weight:	73 kg (161 lbs)
Recommended power cable:	PI-H05VV-F-C6061 (250 V, 6 A, 3 × 0.75 m ²)
Operating environment:	• 23±5°C (73.4±9°F) (no sudden changes) • 50 to 70% humidity (no condensation) • Table capable of holding sufficiently more than the 73 kg (161 lbs) weight of the FT-

S5000 and with a surface area much larger than that of the FT-S5000

- Level surface with vibration not exceeding:
1 Gal (0 to 20 Hz)
5 Gal (more than 20 Hz)
- 50 cm (19.7 inch) space between FT-S5000 and peripheral structures
- No dust, steam, and gasses

Standard accessories: Standard tray, masking sheet, transparent original retaining plate, SCSI terminator

Available drivers: Macintosh driver set w/SCSI cable
Windows driver set w/SCSI cable

Optional accessories: Combination tray set
Glass tray set
Reflective original retaining sheets
Resin holder
Resin holder masking sheets
35-mm oil holder
6 × 7-cm oil holder
Masking sheet set (35-mm, 4 × 5 inch, and 6 × 7-cm)
Masking sheet set (for 35mm film strips)
Transparent original retaining plate
Angular loading bar
Pin bar set
Glassless holder
Standard tray
Line art original retaining plate

2. External Dimensions

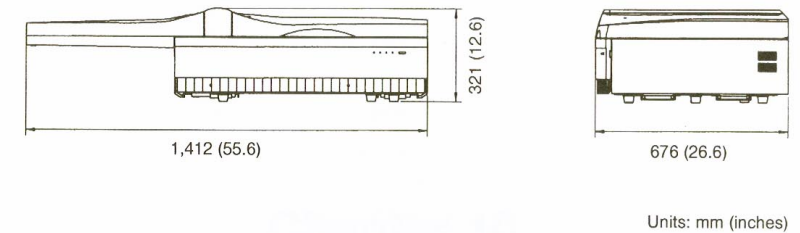


Fig. 9-1

Chapter 10

Moving the FT-S5000 After Installation

When you need to move the FT-S5000 after the initial installation, always be sure to re-install the shipping plate that was attached to the FT-S5000 during original shipment.

Before moving the FT-S5000:

- ① Secure the optical unit as described in Chapter 7, "Maintenance Tools."
- ② Turn off the power and remove the power cable.
- ③ Re-pack the FT-S5000 into its original case in the reverse packing order as explained in the unpacking instructions given in "Unpacking the FT-S5000" of the Start-up Manual (page 1).

Chapter 11 Appendix

1. Cautionary Points for Scanning Line Art Originals

2. Troubleshooting

2.1 Dialog Box When an Error Occurs

2.2 Error Message List

1. Cautionary Points for Scanning Line Art Originals

The scan quality for line art originals is affected by the temperature inside the unit. Scan line art originals after turning on the FT-S5000 and leaving it for more than 30 minutes for it to reach a stable temperature. Only begin scanning after you have verified that the temperature is stable.

2. Troubleshooting

2.1 Dialog Box When an Errors Occurs

When an error occurs, a dialog box like that shown below appears.

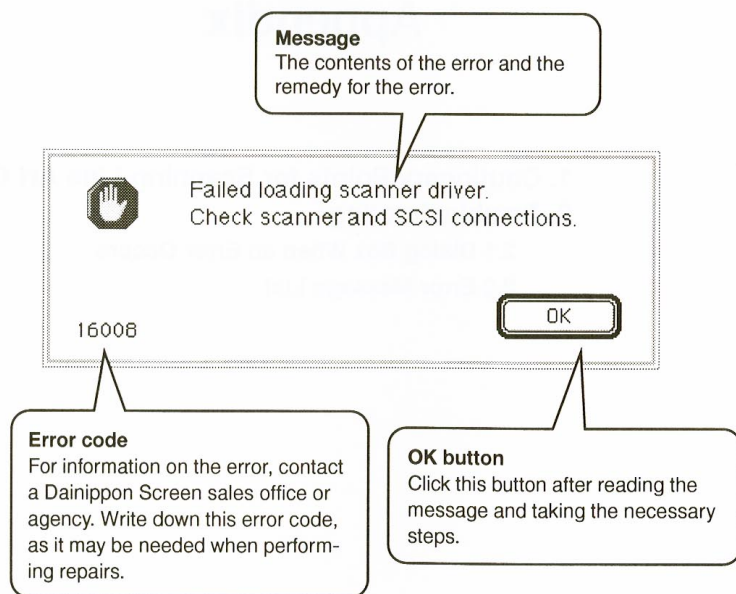


Fig. 11-1

2.2 Error Message List

The following list explains the contents of the error messages and the remedy for the errors.

NOTE

If an error that is not included in the list occurs, reboot the Macintosh and restart the FT-S5000. Then repeat the operation again. If this does not solve the error, contact your nearest Dainippon Screen sales office or agency.

■ Driver Errors

- 1001** Scanner is in use by another application.
Remedy: Quit the other application that is using the scanner. If the error still occurs, restart the Macintosh.
- 1002** Scanner not ready.
Remedy: Wait for the busy indicator LED on the scanner to turn off (or for the home position indicator LED to turn on) and try the operation again.
- 1003** Scanner not found. Check scanner and SCSI connections.
Remedy: Verify that the scanner is turned on and verify the condition of the SCSI cables.
- 1004-5** Unsupported firmware version.
Remedy: Upgrade the driver and firmware with the latest versions.
- 1006** Scanner is in error condition. <XXXX>
Remedy: Turn off the scanner and then turn it back on again. If the same problem occurs, take down the 4-digit code (<XXXX>) and contact a Dainippon Screen sales office or agency.
- 1006** Light intensity is low. Lamp replacement required.
Remedy: Replace the original lamp.

- 1006** Light intensity is low. Check the white reference unit and the original lamps.
Remedy: Verify the orientation of the white reference unit and original lamps. If the error still occurs, replace the original lamps.
- 1006** Scanning error: Could not detect line art reference line cut.
Remedy: Verify that the an original or dirt is not cutting the line art reference line.
- 1006** Scanner initialization error: Left cover is open.
Remedy: Close the left cover.
- 1006** Scanner error: Electrical board cooling fan stopped.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1006** Scanner error: Power cooling fan stopped.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1006** Scanner initialization error: Front cover is open.
Remedy: Close the front cover.
- 1006** Scanner error: Thickness sensor detected original.
Remedy: Remove the original.
- 1006** Scanner initialization error: Upper cover is open.
Remedy: Close the upper cover.
- 1006** Scanner error: Could not detect reflective lamp unit.
Remedy: Insert the reflective lamp unit.
- 1008** Can't run FT-S5000 Driver when virtual memory is enabled. Disable virtual memory in memory control panel and restart Macintosh.
Remedy: Turn off virtual memory.

- 1009** Scanner is in download mode. Scanning functions not available in this mode.
Remedy: Set the DIP switch No. 1 of the scanner to OFF and reset the scanner.
- 1010** Hardware interrupt detected. Process canceled by operator.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1011** Cannot start scanning while upper cover is open.
Remedy: Close the upper cover and restart.
- 1100** Scanner initialization error.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1101** Scanner initialization error: Upper cover is open.
Remedy: Close the upper cover and reset the scanner.
- 1102** Scanner initialization error: Left cover is open.
Remedy: Close the left cover and reset the scanner.
- 1103** Scanner initialization error: Front cover is open.
Remedy: Close the front cover and reset the scanner.
- 1104** Scanner initialization error: Optical unit lock sensor enabled.
Remedy: Remove the shipping plate and reset the scanner.
- 1105** Scanner initialization error: Controller board fan not moving.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.

- 1106** Scanner initialization error: Power source fan not moving.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1107** Scanner initialization error: Could not download program to DSP1.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1108** Scanner initialization error: Could not download program to DSP2.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1109** Scanner initialization error: Could not download program to DSP3.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1110** Scanner initialization error: Could not download program to DSP4.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1111** Scanner initialization error: Could not download program to DSP5.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.

- 1112** Scanner initialization error: DSP4 capability negotiation failed.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1113** Scanner initialization error: DSP5 capability negotiation failed.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1114** Scanner initialization error: DSP3 capability negotiation failed.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1115** Scanner initialization error: JOANA communication failed.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1116** Scanner initialization error: Could not write to Flash PROM.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1117** Scanner initialization error: Could not reset sub-scan motor.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.

- 1118** Scanner initialization error: Could not reset CCD, Lens motor.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1119** Scanner initialization error: Could not reset main-scan motor.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1120** Scanner initialization error: Could not reset iris motor.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1121** Scanner initialization error: Could not adjust iris for overview.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1122** Scanner initialization error: Could not execute DSP command (overview shading / dark level sampling).
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1123** Scanner initialization error: Could not verify DSP command (overview shading / dark level sampling).
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1124** Scanner initialization error: Could not execute DSP command (overview shading / white level sampling).
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.

- 1125** Scanner initialization error: Could not verify DSP command (overview shading / white level sampling).
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1126** Scanner initialization error: Could not calculate overview shading data.
Remedy: Turn off the scanner and then turn it back on again. If the problem persists, contact a Dainippon Screen sales office or agency.
- 1500** Driver error: Disk error.
Remedy: Verify that the FT-S5000 Prefs folder is in the Preferences folder of the Macintosh. If it is not, reinstall the software.
- 1501** Driver error: Disk error.
Remedy: Delete unnecessary files from the hard disk of the Macintosh.

■ Driver Warnings

- 9001** Upper cover was opened. Current preview is invalid if original layout was modified.
Remedy: If the position of the original has altered, cancel the scan and re-perform the prescanning.
- 9002** Could not select scanner at new SCSI ID. Old SCSI ID will be restored.
Remedy: Verify that the scanner for modifications is turned on and that the SCSI cables are properly connected.
- 9504** Invalid pre-gamma table. (Linear gamma applied.)
- 9505** Invalid out-gamma table. (Linear gamma applied.)
- 9506** Could not detect focus point. (Default focus applied.)

9507 Could not setup line art scanning. (Default parameters applied.)
Remedy: Verify that the an original or dirt is not cutting the line art reference line.

9601 Scanning without reflective lamp unit will cause flares in scanned image.
Remedy: Insert the reflective lamp unit.

9602 Light intensity is low. Transparent original lamps replacement recommended.

9603 Light intensity is low. Reflective original lamps replacement recommended.

■ Plug-in Errors

16002 An integer between XX and YY is required.
(Y-Y: The set value is displayed)

16003 A value between XX and YY is required. Closest value inserted.
(XX-YY: The set value is displayed)

16004 This plug-in requires Adobe Photoshop 3.0™ or later functionality.
Remedy: Install Adobe Photoshop 3.0.5 or later.

16005 This plug-in is incompatible with this version of the host program.
Remedy: Install Adobe Photoshop 3.0.5 or later.

16006 You will lose one or more setup information after closing this window.

16007 Closing this window will force this plug-in to quit.

16008 Failed loading scanner driver. Check scanner and SCSI connections.

Remedy: Verify that the scanner for modifications is turned on and that the SCSI cables are properly connected.

16009 You need MacOS 7 or later to run this plug-in.
Remedy: Install Mac OS 7.5.3 or later.

-108 Not enough memory to execute this operation.
Remedy: Quit the application and increase its allocated memory in the [Preferred size] setting.

16012 This plug-in is incompatible with this version of the FT-S5000 Driver.
Remedy: Change the plug-in and driver with their newest versions.

16013 This plug-in requires FT-S5000 Driver ver. 1.0 or later functionality.
Remedy: Change the plug-in and driver with their newest versions.

16014 You will lose current setup information after you make this change.

16015 No trimming information!
Remedy: Specify the trimming.

16016 OpenTransportLib not found!
Remedy: Verify that the OpenTransport is installed.

16017 FT-S5000 Driver not found!
Remedy: Install the driver.

16018 Driver is in use by another application.
Remedy: Quit all applications other than the one operating the scanner.

- 16019** FT-S5000 Driver is incompatible with this version of the FT-S5000 Firmware.
Remedy: Upgrade the driver and firmware with the latest versions.
- 16022** This file is incompatible with this version of the FT-S5000Plug-in.
- 16023** This field is fixed when Line Art is selected. Click the 'More...' button to change this field.
Remedy: Change the resolution by clicking on the 'More...' button, changing the resolution setting of the line art tab, and clicking on the [Set] button.

Desktop Flatbed Scanner

FT-S5000

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