English

User's Guide

Flextight 343

English

Flextight 343 User's Guide, Part No 70030051, revision A.

Printed in Denmark.

English

Table of Contents

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Hardware Reference - Flextight 343

This manual provides important information about using your Flextight 343 scanner.

Topics include:

- Important warnings and restrictions
- System requirements
- Diagrams of the front panel, rear panel, and internal structure of the Flextight 343 scanner
- Installation instructions
- Environmental requirements
- Electrical requirements
- Operating instructions
- Maintenance advice
- Disposal instructions
- Technical specifications
- Declarations of FCC and CE regulation conformity

English

Warnings and Restrictions

- Read all of the included documentation before attempting to install and use the scanner.
- Do not touch the originals and/or the original holder while scanning.
- Do not start scanning or previewing until an original holder with an original has been mounted.
- The original holder is only to be mounted or removed when the drum is in the load position.
- When you turn on the scanner, the drum will roll to the load position, if it is not there already. Do not touch the scanner while the drum is rotating.
- Do not place your fingers or any other object into the scanner while it is connected to power.
- Before servicing or opening the scanner, the power supply must be disconnected from the mains (unplugged). It is not sufficient simply to press the on/off button.
- Install the scanner in a location where children can not get to it. It contains small openings and moving parts that can cause injury.

System Requirements

Below are the basic hardware requirements for the PC or Macintosh system to which the scanner is to be connected.
For information about the processor, operating system, RAM and harddisk requirements please refer to the “Software Reference” manual, that comes with the **FlexColor** software.

- Screen resolution of 800 x 600 pixels with true colors (24-bits).
- Mouse or other pointing device.
- FireWire interface

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Front Panel

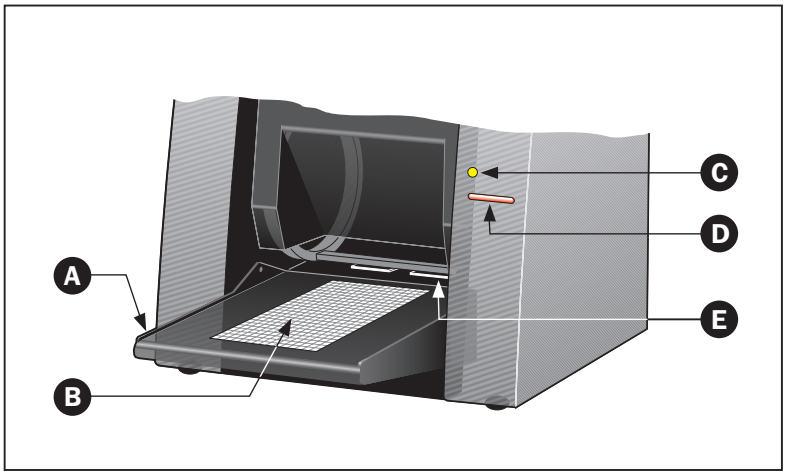

Figure 1: Front panel features of Flextight 343

A **Feed Table:** place original holders here for scanning. The table can be folded up to keep dust from entering the scanner and to keep it out of the way.

B **Light Area:** for viewing originals. The grid helps you to align the originals.

C **Indicator light:** The indicator can light up in 3 different colors indicating the following:
Green (Power/Ready) - remains lit when ready to scan. Flashes when first installed to indicate that firmware must be loaded (it will be loaded automatically when you run **FlexColor**).
Yellow (Motor Drive) - when drum is repositioning.
Red (Scanning) - when scanning. Do not touch the scanner while the indicator is red. If the light is flashing when not scanning, then an error has occurred - please contact your Flextight dealer for assistance.

D **Power Switch:** press to turn the unit on/off.

E **Original Holder Clasp:** all original holders slide into a slot here and are held in place by magnets.

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Back Panel & Connectors

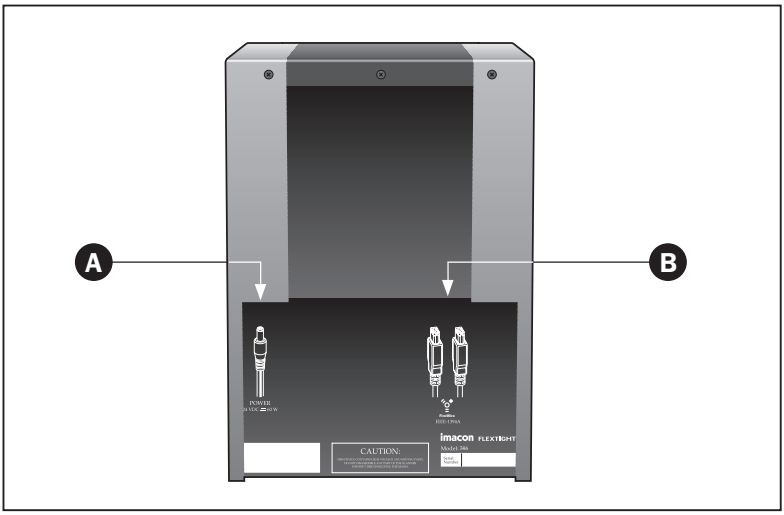

Figure 2: Back panel features of Flextight 343

A **Power Cable Socket:** plug the power cable into this socket.
B **FireWire Interface Sockets:** plug a FireWire cable (max. 6 m) here and connect it to your computer. You can use the second plug to connect another device (hard disk, printer etc.) to the FireWire chain.

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Cut-Away View

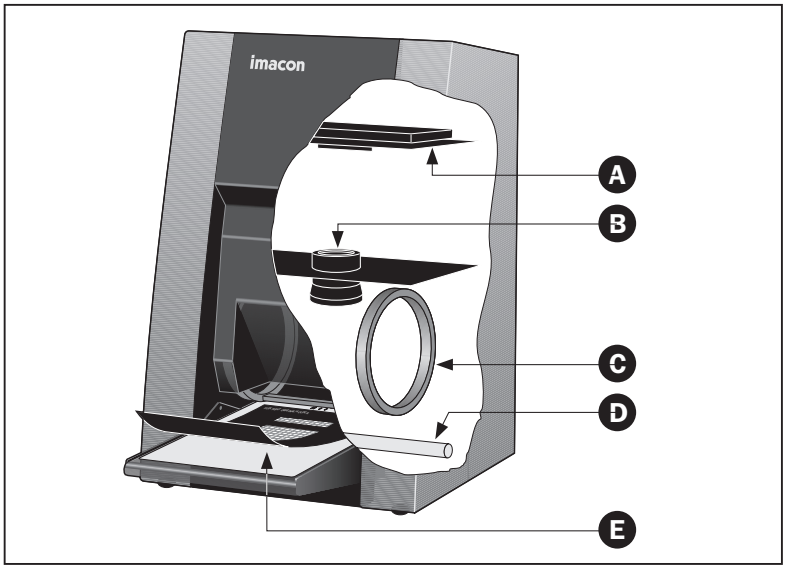

Figure 3: Cut-away view of Flextight 343

A **CCD Plate:** this platform contains the light sensor.
B **Optics:** focuses the image of the original on the CCD.
C **Drum:** rotates the original into the scanner and steps it past the CCD line of focus.
D **Light Tube:** illuminates the transparent originals. The tube also provides the light for the feed table.
E **Original Holder:** an original holder is shown mounted and with the magnetic top layer held open.

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Setting up the Scanner

Environmental Requirements

Set up the scanner in a location that fulfils the following requirements:

- Keep the scanner away from sources of heat, such as direct sunlight or a radiator. Warm temperatures will degrade the quality of your scans - for best results, work in a cool environment.
- The scanner must be operated away from sources of strong electromagnetic interference. Although the scanner complies with all regulations governing electromagnetic immunity and Hasselblad has taken every reasonable step to make the unit immune to electromagnetic interference, it is still a precision electronic device so strong radio waves can interfere with your scans.
- The surface on which the scanner is placed must be stable and free from vibrations. If the scanner is shaken or moved while scanning, your results may be affected.
- If the scanner has been in a colder environment (e.g. outside or in storage) just before you set it up in a warmer room, then wait about two hours before using it - otherwise, condensation may form, which will prevent the scanner from operating correctly.
- Avoid using the scanner in areas where there is a high level of dust.
- To prevent dust from getting into the scanner, always close the feed table when the scanner is not in use.

Electrical Requirements

The Flextight 343 power supply requires a mains voltage of between 100 and 240 V AC at a frequency of 50 to 60 Hz. This is within the normal wall-socket power standards of most countries. Do not attempt to use Flextight 343 with any power source outside the specified range.

The scanner and all devices attached to the scanner (computer, monitor, and FireWire devices, etc.) must be grounded (i.e. use a three-point electrical connection).

Note that the power supply may emit a low hissing sound when plugged in but not connected to the scanner. This is normal and will not damage the power supply or scanner.

Installation Procedure, FireWire Interface

1. Place the scanner on a table near your computer with the front facing away from you. Make sure that the location you choose meets all environmental - and electrical requirements as described on page 10.

2. When using a FireWire interface connection, it is not necessary to switch of your computer and other connected units. Connect a FireWire cable from one of the FireWire connectors on your scanner (see "Back Panel & Connectors" on page 8) to either the computer's FireWire connector or to a free FireWire connector on any other FireWire device already connected to your computer.

3. Connect the round connector from your power supply to the round power supply socket on the back of the scanner.

4. **IMPORTANT:** Make sure that the wall socket you are planning to use meets the electrical requirements outlined earlier.
   Plug the Flextight 343 power supply into a wall socket. Note that the power supply may emit a low buzzing sound when plugged in. This is normal and will not damage the power supply or scanner.

5. Turn the scanner around so that the front is facing you.

6. Your system is assembled. Turn on your computer and install the **FlexColor** image scanning software.

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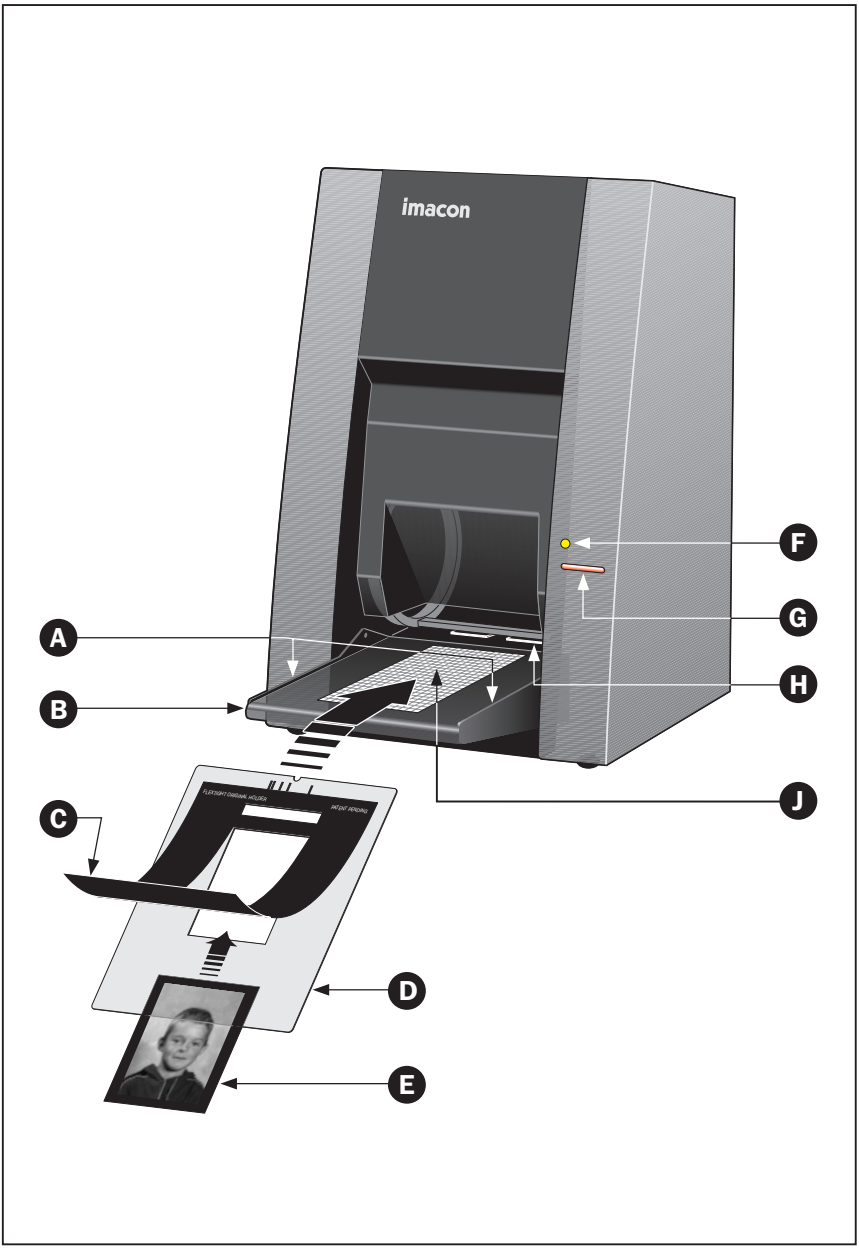

Figure 4: Operating the Flextight 343 scanner

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Operating the Scanner

(See Figure 4 opposite).

1. It is assumed that the scanner and **FlexColor** software have been properly installed.
2. Pull the feed table **(B)** down to scan position.
3. Press the power button **(G)** on the front of the scanner to switch it on. The indicator light **(F)** button will start flashing green, indicating that no firmware has been downloaded yet. It will be downloaded automatically later when you first run the **FlexColor** program.
4. Turn on your computer and launch the **FlexColor** program. The indicator light **(F)** will stop flashing indicating that firmware has been downloaded to the scanner.
5. Select the original holder **(D)** that matches your original.
6. Place the original holder with the slotted tab facing into the scanner. The flexible magnetic layer **(C)** must face upwards and the holder must fit between the guides **(A)** on both sides of the feed table.
7. Slide the holder gently into the original holder clasp **(H)** at the scanner entrance. It will slip about ½ cm (1/4 inch) into it. Do not press too hard. It slips in very easily and is held in place by a pair of magnets. To remove the holder, simply pull it gently backwards.
8. Lift the magnetic layer **(C)** of the original holder and place your original **(E)** with the emulsion side up. The original must completely fill the hole with no edges showing and with a minimum overlap of 2mm along each edge. Also, no edges of the original must extend past the outer edges of the holder. Use the grid in the light area **(J)** of the feed table **(B)** to help line up the image.
9. Lay the top layer of the holder down flat over the original. The top layer **(C)** is magnetic, which will hold the original in place.
10. Go to your computer and follow the directions given in the **FlexColor** software manual to take a preview, make settings, and take the final scan.

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Resolutions

True Optical Resolutions

The table below shows the true optical resolutions (in ppi) available with each of the original holders. When scanning at one of the resolution settings listed, one pixel in the scanner's image sensor corresponds exactly to one pixel in the final image. If you use a resolution setting other than those listed, then interpolation (resizing) must be applied.

Original	Resolutions (PPI)					
	Max.	½	1/3	1/4	1/6	1/12
24 x 36	3200	1600	1067	800	533	267
36 x 24	3200	1600	1067	800	533	267
60 x 60	3200	1600	1067	800	533	267
60 x 90	3200	1600	1067	800	533	267
60 x 120	3200	1600	1067	800	533	267

Table 1: True Optical Resolutions

To avoid activating the resizer, select a zoom setting that gives one of the results listed in Table 1. When resizing is applied, the scans take longer and image quality is slightly reduced. The impact on the image quality will vary according to the amount of interpolation required and the contents of your original.

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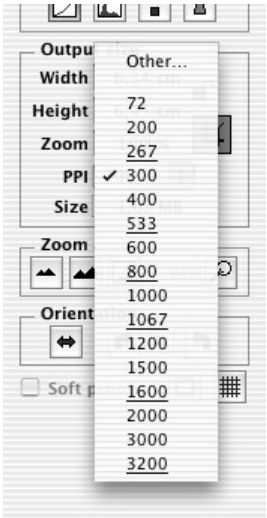
Example: For an output resolution of 300 ppi, take the true resolution shown in Table 1, divide by 300 and multiply by 100%. Enter the result in the **Zoom** field in the main **FlexColor** window.

Original	Zoom Setting					
	Max. Resolution	½ Res.	1/3 Res.	1/4 Res.	1/6 Res.	1/12 Res.
24 x 36	$\frac{3200}{300} x100\%$ = 1067%	533%	356%	266%	178%	89%
36 x 24	1067%	533%	356%	266%	178%	89%
60 x 60	1067%	533%	356%	266%	178%	89%
60 x 90	1067%	533%	356%	266%	178%	89%
60 x 120	1067%	533%	356%	266%	178%	89%

Table 2: Zoom settings for true optical resolution at 300 ppi output

Note that when the **Zoom** field is set to an appropriate value for the selected original size (as shown in the table above), then the **PPI** pop-up menu shows an underline beneath each setting that will result in a scan taken with a true resolution (no interpolation).



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The Light Tube

Orientation of the Light Tube

Flextight 343 contains a light tube that illuminates your originals while scanning. The light tube is fitted with a reflective sleeve, which must be aligned correctly inside the scanner. The sleeve helps direct the light to achieve maximum illumination of the original. When you replace the light tube, you must make sure the sleeve is aligned correctly.

Sometimes the sleeve is glued into place when the scanner is first shipped from the factory, but when you replace a light tube, the sleeve will not be glued; it will be tight so that it can not slip freely, but you will be able to rotate it manually if you try. The correct orientation of the sleeve is shown in Figure 5.

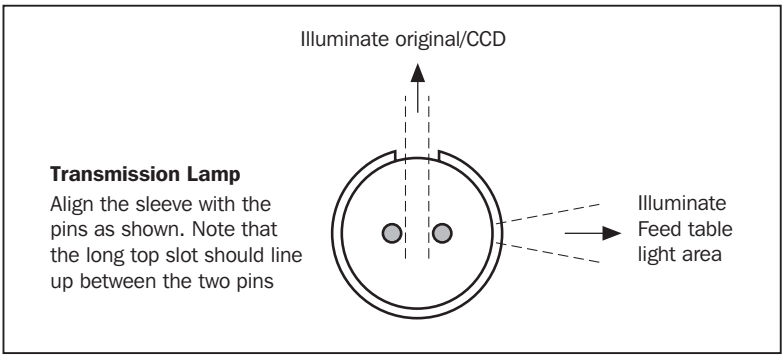

Figure 5: Light tube sleeve alignment as seen from the left side of the scanner

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Replacing the Light Tube

If your scans are suddenly coming out black (or all white if you are scanning negatives), then the light tube may be defective or misaligned.

Follow procedure below to replace a tube:

1. Get the appropriate replacement light tube (ask your Flextight dealer or see specification in "Technical Specifications" on page 20).
2. Turn off and unplug the scanner from the primary power supply.
3. **IMPORTANT:** Let the light tube cool down for app. 10 minutes before proceeding.
4. Lay the scanner down on its back, with the bottom facing you.
5. Use a 2.5 mm allen key to remove the screws located at each of the four corners of the bottom panel (see Figure 6), then remove the bottom panel.

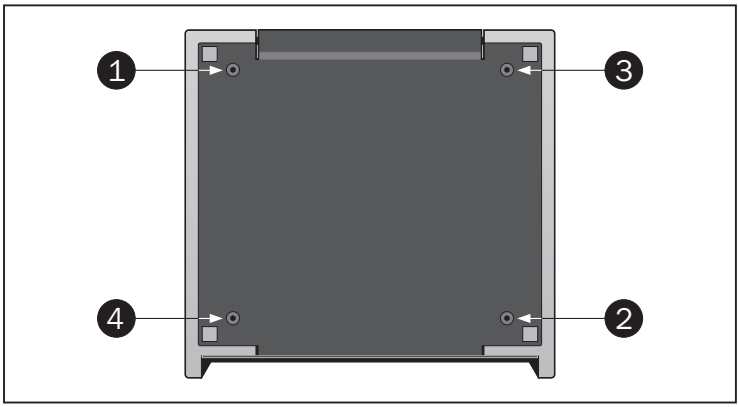

Figure 6: To remove the bottom panel, remove the four screws at the positions shown. The numbers indicate the order in which they should be tightened when panel is replaced.

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6. The light tube is clearly visible, as shown in Figure 7. Hold each end of the light tube between your thumb and index finger. Rotate the light tube until it comes free and pull it away from the scanner. Note that the light tube sockets allow the tube to be rotated all the way around, but they click into position at each quarter turn. The light tube is locked in place in all but one of these four positions, so you may need to try up to three positions before the light tube comes free.

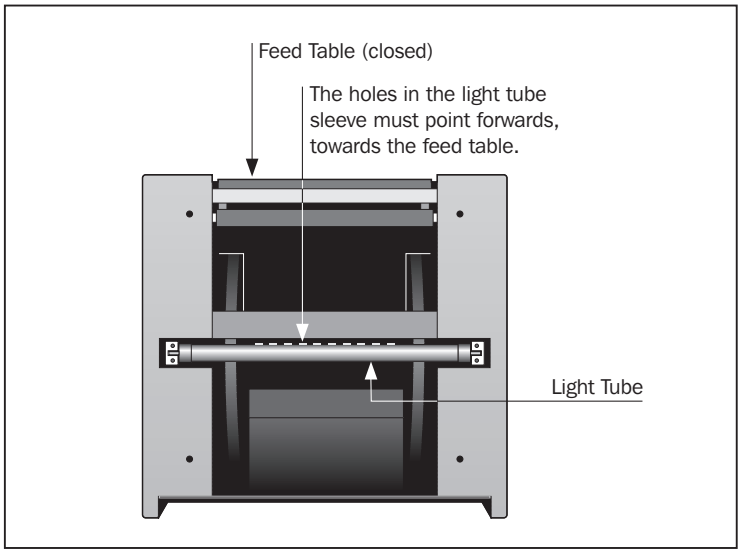

Figure 7: Bottom view of the scanner with the bottom panel removed

7. Install a new light tube following the reverse of the procedure you used when removing it. Make sure the sleeve is aligned correctly with the scanner as shown in Figure 5. Rotate the light tube and/or adjust the sleeve as necessary.

8. Replace the bottom panel by holding it in place and tightening the screws in an opposite-diagonal sequence (e.g. top-left, bottom-right, top-right, bottom-left) as indicated in Figure 6.

9. Turn on the scanner and check function of the new tube.

Cleaning the External Surface of the Scanner

If the external surface of the scanner becomes dirty, then clean it with a damp cloth. Be careful not to get any moisture inside the scanner or on any of the connectors. Do not use alcohol or other solvents.

Disposal

If you need to dispose of the scanner, it must be delivered to an authorized waste plant for electronics equipment.

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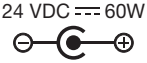
Technical Specifications

Power Connector:

24 VDC ⎓ 60W



Power Consumption
Max. 60 W during operation

Power Requirements
100-240V AC, 1.3A, 50-60Hz

Interface to Computer
FireWire (IEEE 1394)

Front Panel
One multifunction switch (on/off switch) and status light

Drum Force
1kg (2.2lbs)

Operating Environment
Operating Temperature: 10 - 35°C (50 - 95°F)
Recommended Working Temperature: 10 - 25°C (50 - 77°F)
Relative Humidity: 20 - 80% RH (no condensation)

Storage Environment
Temperature: 0 - 50°C (32 - 122°F)
Relative humidity: 20 - 80% RH (no condensation)

Originals
Transparencies from 35mm to 60x180 mm, < 1mm thick

Light Tube
OSRAM L6W/25 Universal White

Dimensions

Height:	400 mm (15.7")	
Width:	265 mm (10.4")	
Depth:	245 mm (9.6")	(feed table closed)
	370 mm (14.6")	(feed table in scan position)

Weight
7 kg (15.5 lbs)

FCC Notice

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

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CE - Declaration of Conformity

HASSELBLAD A/S
HEJREVEJ 30
DK - 2400 COPENHAGEN NV
TELEPHONE +45 7026 0800
TELEFAX +45 7026 0900
REG./VAT NO. 18635445

HASSELBLAD
www.hasselblad.com

Declaration of conformity

Application of Council Directives: ..... 89/336/EEC amended by 92/31/EEC, 93/68/EEC. 91/157/EEC. C73/23/EEC amended by 93/68/EEC.

Standards to which Conformity is declared: EN61000-6-1 2001, EN61000-6-3 2001 and EN60950:2000.

Manufacturer: ..... Hasselblad A/S
Hejrevej 30
DK-2400 Copenhagen NV/
Denmark

Type of Equipment: ..... Desktop CCD scanner

Model name: ..... Flextight 343

The undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

Place ..... Copenhagen NV

Date ..... September 12th, 2004

Full name ..... Christian Poulsen

Position ..... CEO

Signature