

Scitex Graphic Arts

Dolev 800/800V

User Guide



OPEN TO A WORLD OF COLOR



IMPORTANT NOTICE

This documentation is delivered subject to the following conditions and restrictions:

This documentation contains proprietary information of Scitex Corporation, Ltd.

Such information is hereby supplied solely for the purpose of assisting explicitly and properly authorized users of the Response series of Scitex systems in the proper operation of Scitex equipment.

Without the express prior written permission of Scitex, no part of the contents hereof may be used for any other purpose, disclosed to any person or firm, or reproduced by any means. The text and drawings herein are for the purposes of illustration and reference only.

The specifications on which they are based are subject to change without notice.

Document No. 771-8A636C
Catalog No. 399Z8A636C
Copyright © 1996 by
Scitex Corporation Ltd.

First edition: May 1993

Second edition: July 1993

Third edition: July 1996

Note: This equipment complies with the requirements in Part 15 of FCC Rules for a Class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take whatever steps are necessary to correct the interference. This product has been classified as CLASS 1 LASER PRODUCT, according to standard IEC 825-1.

Trademarks

Scitex, the Scitex logo, Dolev, Dolev 800, Dolev 800V, Scitex Class Screen, FULLtone, GeometricDOT and Scitex Imposition are trademarks of Scitex Corporation Ltd. and may be registered in certain jurisdictions.

Other company, brand, product and service names are trademarks or registered trademarks of their respective holders.

TABLE OF CONTENTS

About This User Guide

SAFETY PRECAUTIONS

Installation Safety Precautions	1
Setting the Line Voltage Selector	1
Selecting the Power Supply Cord	2
General Safety Precautions	3
Disconnecting from the Mains Supply	3
Lithium Battery	3
Connecting to Peripherals	4
Interlocks	4
Laser Safety Precautions	5
Laser Precaution Labels	7

1 INTRODUCTION TO DOLEV 800/800V

Imagesetter Front View	1-2
Imagesetter Rear View	1-5
Startup	1-7
Shutdown	1-10
Reset Button	1-10
Control Panel	1-11
LCD Display	1-12
Soft Keys	1-13
Menus	1-14
Operator Buttons	1-16
Imagesetter Specifications	1-18

2 MEDIA MANAGEMENT

The Supply Cassettes	2-4
Unloading the Supply Cassette	2-4
Mounting Media onto the Supply Cassette	2-6
Loading the Supply Cassette into the Imagesetter	2-9
Set Loading (Automatic Media Loading)	2-11
Performing Set Loading via the Control Panel	2-11
Cassette Sign In	2-13
Performing Cassette Sign In via the Control Panel	2-13
The Output Cassette	2-14
Unloading the Output Cassette	2-14
Developing Film (without an Inline Processor)	2-15
The Punch System	2-16
Punch System Design and Operation	2-17
Removing Stuck Film from the Imagesetter	2-18

3 RES-INTENSITY CALIBRATION

Calibration Workflow	3-2
1 Preparing Exposure Strips	3-3
2 Setting an Exposure Resolution for the Strips	3-7
3 Exposing the Strips	3-7
4 Measuring the Density on the Exposed Strips	3-8
5 Recording New Laser Intensity Values	3-9
6 Saving the New Laser Intensity as a Standard	3-12

I INDEX

ABOUT THIS USER GUIDE

This guide describes the options available with the Dolev 800/800V imagesetter. The Dolev 800/800V imagesetter is a high-speed large-format internal drum output device. The large exposure format is convenient for tradeshops and printers. In addition, the Dolev 800/800V imagesetter supports the preparation of plate-ready separation films using the Scitex Imposition feature.

Safety Precautions warns against laser and electrical hazards.

Chapter 1, **Introduction to Dolev 800/800V**, introduces the imagesetter, and explains how to start it up and shut it down.

In addition, the Control Panel is described in detail, and the imagesetter specifications are listed.

Chapter 2, **Media Management**, explains how to unload the supply cassette, load film into it, and load it back into the imagesetter.

The media setup functions are explained (these may be accessed via menus on the workstation or via the Control Panel).

The remaining parts of this chapter describe how the media is exposed, ejected into the output cassette and developed.

The last section explains how to remove stuck media.

Chapter 3, **Res-Intensity Calibration**, explains how to guarantee high quality exposures using a unique laser intensity for each plotting resolution.

Documentation Conventions

<i>References</i>	References to other sections of this document or to other documents are printed in italics. For example: Refer to <i>Chapter 3, Res-Intensity Calibration</i> .
<i>User Interface Elements</i>	Forms, windows, lists, and other named user interface elements are printed in italics. For example: The <i>Utilities</i> menu.
Software Functions	Named functions which you activate directly via software are printed in bold. For example: Select Inten. Strips from the <i>Expose</i> menu.
System Messages	Messages generated by the software or operating system are printed in sans serif type. For example: End of Film.
<keyboard key>	Keyboard keys are printed between angle brackets. For example: Press < X >.
□ Followed by text...	A square-shaped bullet precedes a note for your attention.
◆ Followed by text...	A diamond-shaped bullet precedes an action you perform.
● Followed by item...	A dot-shaped bullet precedes a listed item.

- Throughout the book, the term **film** refers to **all** exposure media.

Related Documentation

-  For information on Scitex impositioning, refer to the *Scitex Imposition User Guide, Document No. 771-8B122*.
-  For further technical information, refer to the *Dolev 800 Technical Manual, Document No. 772-8A368*.
-  For further information on error messages, refer to the *Dolev 800 Troubleshooting guide, Document No. 771-8F486*.
-  For further information on the punch system, refer to the *Dolev 800 Punch System Technical Manual, Document No. 771-8S082*.

SAFETY PRECAUTIONS

Read this chapter carefully before installing, operating, or maintaining the Dolev 800/800V imager.

Installation Safety Precautions

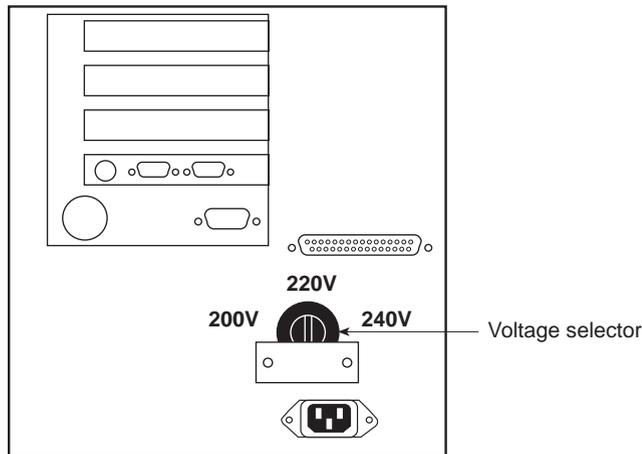


Installation must be done by authorized service personnel only.

CAUTION ! To avoid the risk of fire, no connections to the supply are to be made before setting the line voltage selector !

Setting the Line Voltage Selector

The *Line Voltage* selector is located on the outside of the *Standard controller* box located behind the right side door of the imager.



The selector is set at factory to 220V. The setting of the selector switch must match the line voltage at your site.

To establish matching, proceed as follows:

- ◆ Make sure that the *Master circuit breaker* and the *On/Off* switch are both switched off.
- ◆ Measure the line voltage at the wall outlet.
 - The measured line voltage should suit the nominal line voltage at your country.
 - ◆ If the measured line voltage is in the range 180V - 209V, set the selector to **200**.
 - ◆ If the measured line voltage is in the range 210V - 229V, verify that the selector switch is set to **220**.
 - ◆ If the measured line voltage is in the range 230V - 254V, set the switch to **240** or **250** (as marked on the selector).

Selecting the Power Supply Cord

Dolev 800/800V is supplied **without** a power supply cord.

To select a cord, proceed as follows:

- ◆ **In the United States and Canada**

Use a UL-listed/CSA-certified cord set that includes a flexible cord of type SJ, SJE, SJO, SJO0, SJT, SJTO, SJTOO, S, SE, SO, SOO, ST, STO, or STOO, with minimum 16 AWG, three (3) conductors. The cord set must include a parallel blade grounding type attachment plug (min. 12 Amp), and an IEC 320 type appliance coupler.
- ◆ **In Europe**

Use only a three (3) conductors HAR-type cord. The cord set used must be approved for the country in which the equipment is installed. The cross section of the conductor must be at least 1.25 mm² and the cord set must include a grounding type attachment plug and an IEC 320 type appliance coupler.

General Safety Precautions

Disconnection from the Mains Supply

Dolev 800/800V is equipped with a *Master circuit breaker*, located at the lower rear part of the imagesetter, and an *On/Off* switch, located near the Control Panel at the front part of the imagesetter.

To achieve complete disconnection from the mains supply, the *Master circuit breaker* must be disconnected (switched to **0** position).

CAUTION ! Switching off only the On/Off switch leaves several circuits of the imagesetter energized.

Lithium Battery

The Dolev 800/800V contains a Lithium battery in the CPU board.

The battery should be replaced by qualified service personnel. The battery must not to be replaced by the user.

CAUTION ! Danger of explosion if battery is incorrectly replaced !

- ◆ Replace only with the same or equivalent type recommended by the manufacturer.
- ◆ Dispose of the used batteries according to the manufacturer's instructions.

Connecting to Peripherals

The Dolev 800/800V is intended to be connected to other equipment via optical fibers connected to the Data Unit.

CAUTION ! Connecting the Dolev 800/800V to other equipment via electrical interface violates safety standards and is therefore forbidden !

Interlocks

Upon opening a side door or taking out the loading assembly:

- Interlock switches are designed to disconnect power from the laser and motors.

CAUTION ! Some accessible wiring, however, may remain energized if the Master circuit breaker is not switched off.

- You are forbidden, under any circumstances, to defeat any of the interlock switches.
- You are forbidden, under any circumstances, to open covers that need a screwdriver or any other tool to do so.
- Even while interlocks are **not** defeated, refrain from touching exposed or singly insulated wires.

Laser Safety Precautions

DANGER ! Even brief exposure of the eyes to the laser beam or its reflections may cause permanent loss or permanent degradation of eyesight.

CAUTION ! Use of controls and/or adjustments, or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

The Dolev 800/800V imagesetter is installed and serviced exclusively by specialized technicians trained in the proper procedures for working with and adjusting the laser beam power and its optical path.

You are allowed to perform only one (1) maintenance procedure, that is, to remove film (supply media) stuck on the inside of the imagesetter drum area. For details, please refer to *Chapter 2, Media Management, Removing Stuck Film from the Imagesetter*.

Upon opening a side door or taking out the loading assembly:

- Interlock switches are designed to disconnect power from the laser and motors.

CAUTION ! Some accessible wiring, however, may remain energized if the Master circuit breaker is not switched off.

- You are forbidden, under any circumstances, to defeat any of the interlock switches.
- You are forbidden, under any circumstances, to open covers that need a screwdriver or any other tool to do so.
- Even while interlocks are defeated, refrain from touching exposed or singly insulated wires.

While the Imagesetter is switched on and the interlocks are defeated:

- There is power present in the electrical, optical and mechanical assemblies.
DANGER ! Electrical and mechanical hazards exist !

- Up to **5** milliwatt of laser power at a wavelength of approx. 650 nm may be present in the *Output optical* connector of the *Static optics* assembly, *Dynamic optics* assembly, *optical fibers*, *optical fibers* connectors, and on the inside of the imagesetter drum.

- Up to **10** milliwatt of laser power at the same wavelength may be present inside the *Static optics* assembly.
DANGER ! This laser radiation is hazardous to the eye and skin !

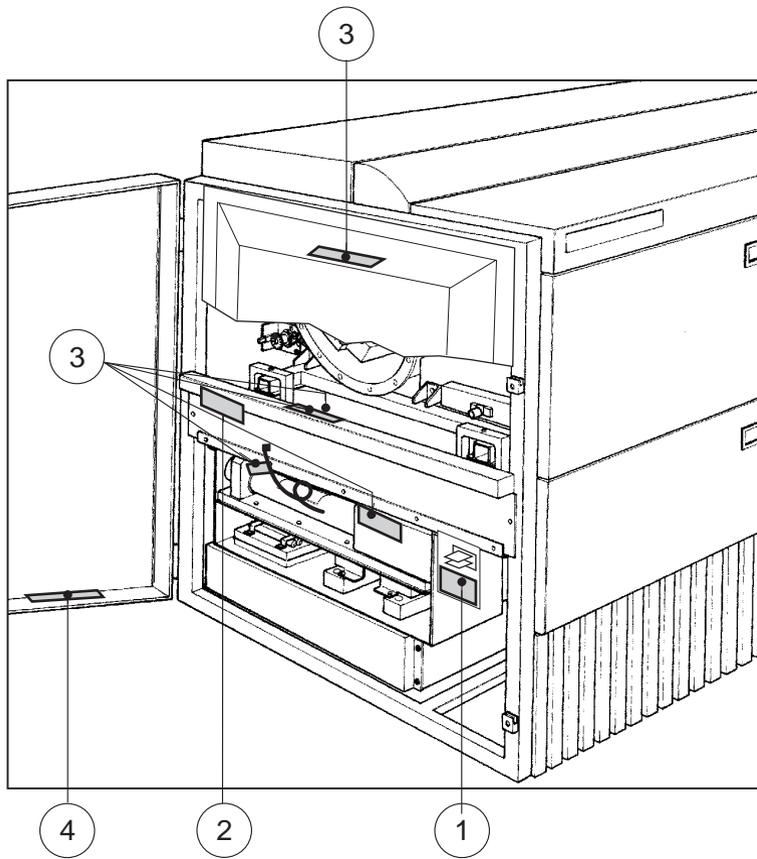
Avoid exposure to the beam and its reflections !

Laser Precaution Labels

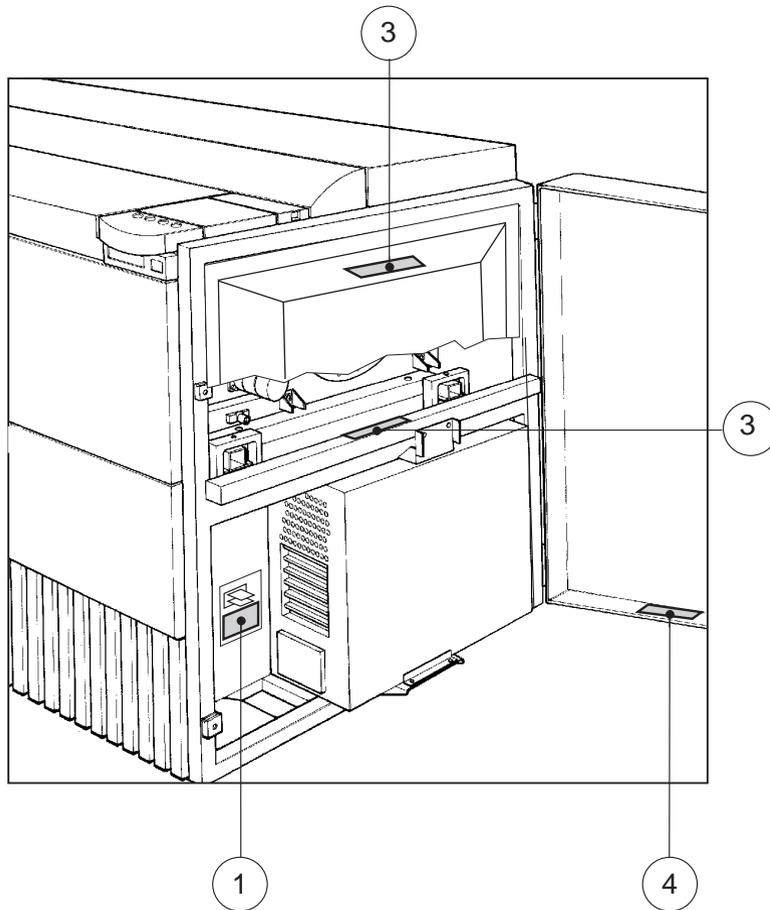
The following pages show the locations of the laser warning signs. Please notify Scitex service personnel if any of them are damaged.



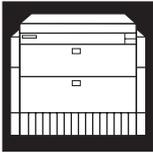
Laser precaution labels



Laser precaution labels: left side view



Laser precaution labels: right side view



The Dolev 800/800V imagesetter is a high-speed large-format internal drum output device. The large exposure format is convenient for tradeshops and printers.

The imagesetter uses laser optics to output onto film, paper, or polyester plates. Dolev 800/800V does not require computer experience to operate. During normal use, once exposure starts, there is no need for operator intervention since all functions are performed automatically.

The Dolev 800/800V handles high-volume film output of color and black-and-white pages of text and graphics, and processes this data to produce high-quality film output.

Media can be exposed in single or multiple runs continuously, without operator intervention.

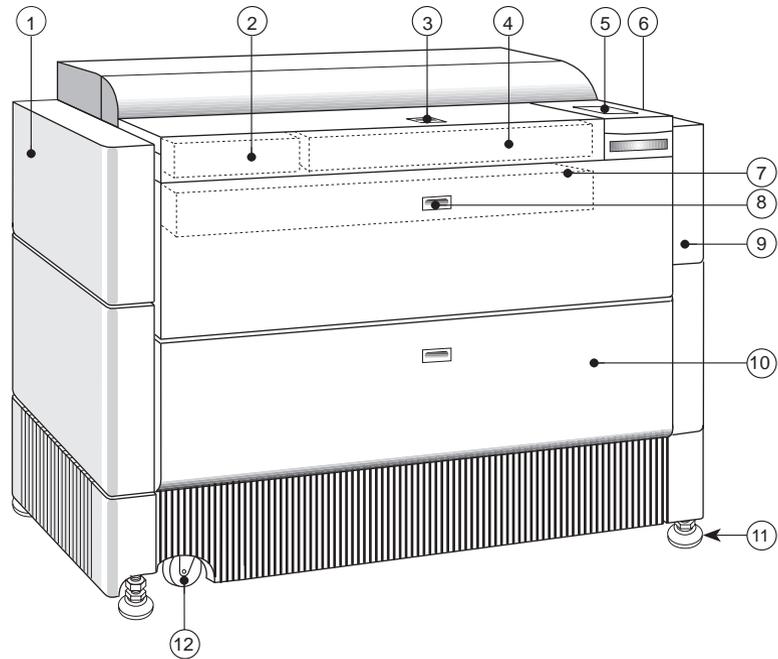
Procedures for film exposure are controlled by the Dolev 800/800V microcontroller.

A punch option allows you to define customized registration marks. This function is especially important when preparing film for impositioning.

The film is automatically cut, exposed and unloaded into a removable output cassette. At the completion of a work session, the cassette is taken to a film processor for development. An optional internal conveyor and inline processor can be used for continuous film development.

The Dolev 800/800V changes the way images for plate-imposition are prepared. Instead of using time consuming step-and-repeat machines, Dolev 800/800V prepares plate-ready separation films to copy directly to plate. Files are transferred from the workstation to the imagesetter and exposed to the film. The film is then transferred to the plate department.

Imagesetter Front View



Imagesetter front view

1 Left service door

This door allows access to the drum area. You may open this door to clear media stuck in the drum area (for details, see the *Laser Safety Precautions* chapter). Service engineers access the electronics and optomechanics via the service doors.

2 Small supply cassette (#3)

This is a 12" wide cassette suitable for film widths 10" and 12".

3 Supply cassette compartment door

The small (#3) and medium (#2) supply cassettes are loaded via this door.

4 Medium supply cassette (#2)

This is a 20" wide cassette suitable for film widths 10", 12", 14", 16", 18", and 20".

5 Control Panel

Film loading and most basic operations are performed via the Control Panel.

In addition, a *Reset* button is located on the right side of the Control Panel.

6 On/Off switch

The imagesetter is turned *on/off* using this power switch.

7 Large supply cassette (#1)

This is a 33" wide cassette suitable for film widths 10", 12", 14", 16", 18", 20", 22", 24", 26", 28", 30", 32", 33" and 34".

8 Large cassette door

The large supply cassette (#1) is loaded via this outer door.

Note: Another *inner* door is located behind this *outer* door.

9 Right service door

This door allows access to the drum area. You may open this door to clear media stuck in the drum area (for details, see the *Laser Safety Precautions* chapter). Service engineers access the electronics and optomechanics via the service doors.

10 Output cassette door

The output cassette is located behind this door. Exposure media can be output either to the output cassette or to an inline processor.

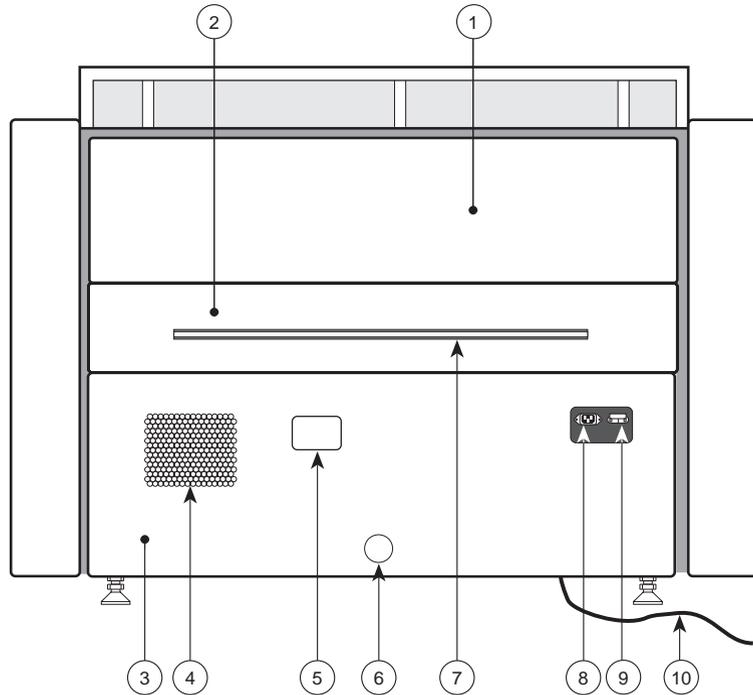
11 Adjustment legs

Four (4) adjustment legs are used to level the imagesetter. Before moving the unit, unlock the legs.

12 Wheels

Four (4) wheels allow easy positioning of the imagesetter. Once the machine is in place, the adjustment legs are locked into position and the wheels are ineffective.

Imagingetter Rear View



Imagingetter rear view

- 1** Upper service panel
This panel may be removed by a service engineer only.
- 2** Conveyor installation panel
This panel is removed when connecting an inline conveyor to a processor.
- 3** Lower service panel
This panel may be removed by a service engineer only.

4 Air inlet

The imagesetter should be kept at least 70 cm from the wall.

5 Pressure inlet panel

Hidden from view are five (5) flexible pressure hoses connected to the manifold inlets. They are labeled: Punch Rod In, Punch Rod Out, Slug, Unit In, and Unit Out. The connection to the pneumatic tube is visible from the outer side of the imagesetter.

6 Vacuum outlet

The imagesetter should be kept at least 70 cm from the wall.

7 Connection to inline processor

The inline processor is an option for the Dolev 800/800V. When the processor is connected, the outer service panel is removed. The conveyor port cover is disassembled during inline conveyor installation.

8 Power inlet

The power cord is connected here.

9 Master circuit breaker

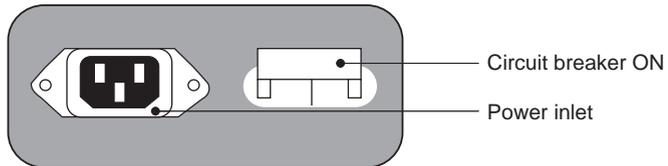
During normal operation, do **not** shut down the power from the *Master circuit breaker*. In case a power surge or some other electrical problem has shorted power to the imagesetter, this breaker may shut down the machine (that is, it will be in the **DOWN** position); to turn *on* the power, pull the breaker *upwards*.

10 Fiber optics cable

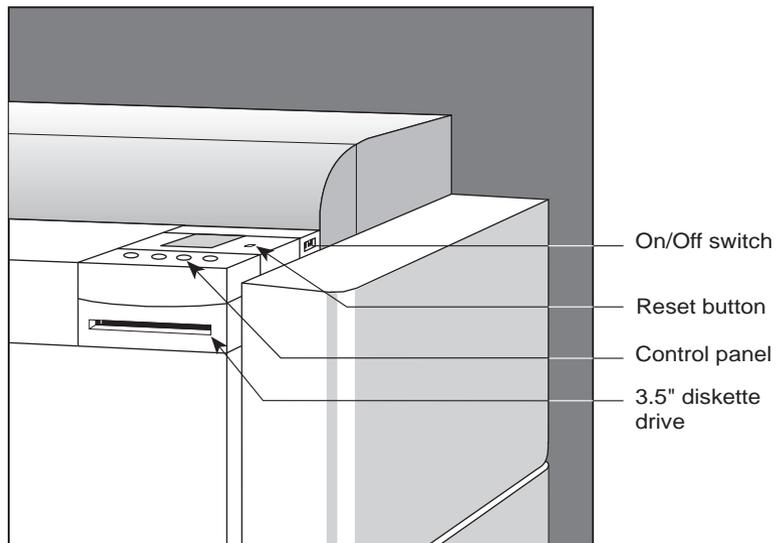
This cable connects the Dolev 800/800V Data Unit to the SFLM board of the Host.

Startup

Before proceeding, check that the *Master circuit breaker* (no. 9 in the *Imagetsetter rear view* above) is UP (that is, in the ON position).

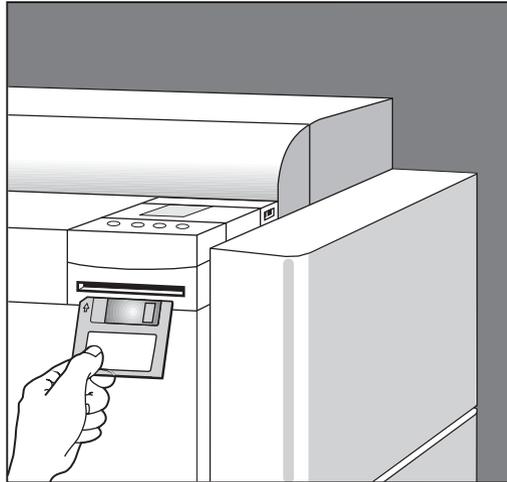


Master circuit breaker



Under normal operation, proceed as follows:

- ◆ Insert the floppy diskette into the 3½" diskette drive.



- ◆ Press the *On/Off* switch to turn *on* the imagesetter.

The floppy reloads information needed for normal operations, and the following messages appear on the Control Panel:

Panel Selftest
Panel Tests passed
Load Panel Program
Startup 0 . . . 12
Standby

- The numbers (0 . . . 12) represent the initialization tests. This information is helpful if the imagesetter hangs during startup, since it provides the service engineer an immediate indication of the stage at which the problem occurred.
- ◆ Wait 15 minutes for the laser system to warm up before exposing your first film.

If, after pressing the On/Off switch, the Control Panel does not show any messages, proceed as follows:

- ◆ Press the *On/Off* switch to turn **off** the imagesetter.
- ◆ Pull the *Master circuit breaker* **down** (that is, to the **OFF** position).
- ◆ Check that the power cord is plugged into the wall outlet/electrical strip on one end, and to the imagesetter on the other.
- ◆ Check that a current is reaching the outlet (that is, there has **not** been a short circuit).
- ◆ Pull the *Master circuit breaker* **up** (that is, to the **ON** position).
- ◆ Check that the floppy diskette is in the diskette drive.
- ◆ Press the *On/Off* switch to turn **on** the imagesetter.

Shutdown

Under normal conditions, leave the Dolev 800/800V operational at all times (that is, you do **not** need to turn *off* the power overnight).

If you intend to leave the imagesetter idle for 48 hours, turn off the imagesetter:

- ◆ Press the *On/Off* switch to turn **off** the imagesetter.
 - During normal operation, do **not** shut down the power using the *Master circuit breaker*. In case a power surge or some other electrical problem has shorted power to the imagesetter, the circuit breaker may shut down the machine (that is, it will be in the **DOWN** position); to turn **on** the power, pull the circuit breaker *upwards*.

Reset Button

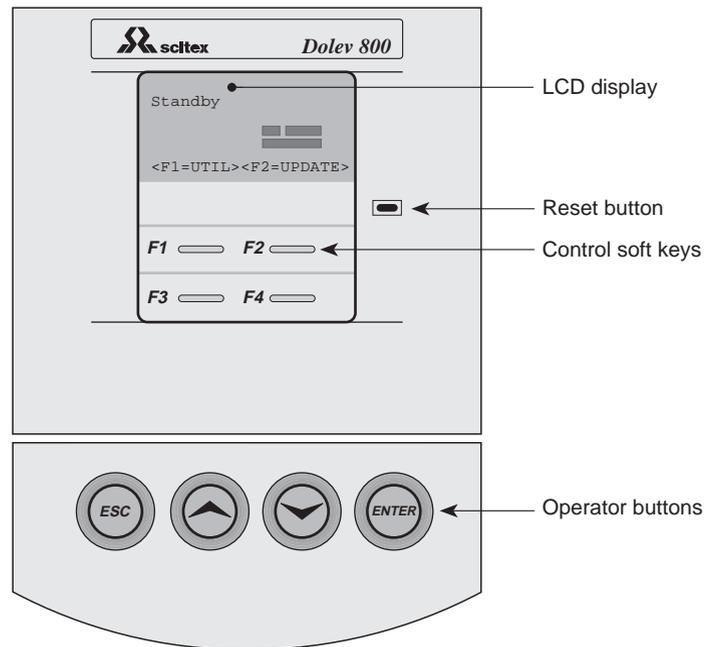
The *Reset* button is located on the right side of the Control Panel.

- ◆ In case of a software error (that is, when the Control Panel or the imagesetter are **not** responding to commands), depress the *Reset* button to resume work.
- Depressing the *Reset* button does **not** help in case of “media jam” or “media out”.

Control Panel

The Control Panel is located on the right front edge of the imager.

The Dolev 800/800V sends status and error messages to the host workstation and to the Control Panel.



Control Panel

The Control Panel consists of the following:

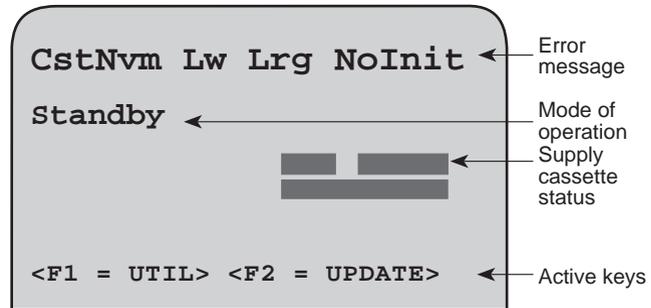
- LCD display
- Reset button (as explained *above*)
- Four (4) soft keys
- Four (4) operator buttons

LCD Display

The Control Panel LCD contains may display messages, status icons, or menus/screens which handle Dolev 800/800V operations.



Dolev 800



Sample LCD display

Error Message

This area displays the last status message for any error that occurred.

Mode of Operation

This area indicates the current mode of operation of the imagesetter.

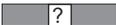
If the imagesetter is ready to expose, this area indicates Standby. Other modes include: Load Media, Busy and Plotter not ready.

During exposing, this area displays the percentage of exposure already completed.

Supply Cassette Status

This area displays icons which represent the various states of the small, medium, and/or large cassette(s).

The following icons may appear:

Full		Empty	
Partially Full		Missing	

Active Keys

This area indicates the soft keys currently active and their related functionality.

For further details, see *Soft Keys* below.

Soft Keys

Four (4) soft keys appear on the Control Panel: F1 F2 F3 F4

These keys are called **soft** since the same key may perform different activities at different stages of work. The activity currently related to the soft key is indicated on the LCD display (see *LCD Display:Active Keys* below).

◆ Press a key to access a menu and/or perform actions.

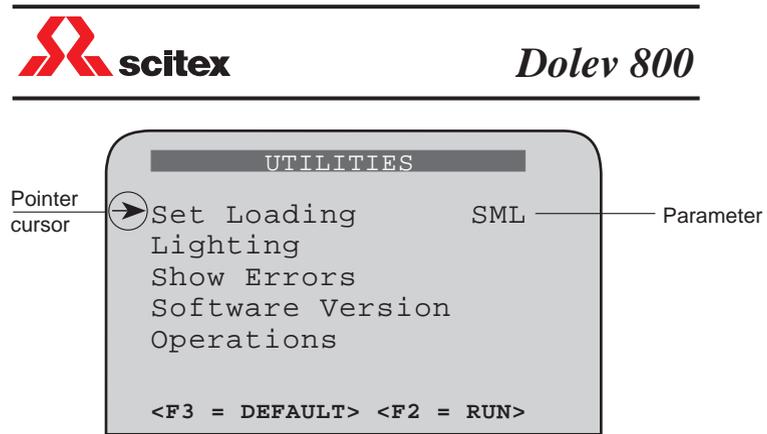
Examples:

- Pressing **F1** (UTIL) displays the *Utilities* menu.
- Pressing **F2** (UPDATE) displays the Cassettes menu.
- Pressing **F3** (DEFAULT) returns to the system default option.

Menus

After you press the relevant soft key, a menu of options appears.

For example: Following startup, pressing the **F1** soft key (UTIL) displays the *Utilities* menu.



The Utilities menu

Parameter

This area displays the values/choices available for the *active* option (see *Pointer cursor* below).

For example: After activating **Set Loading**, the *pointer* cursor moves to the *Parameters* field so you can choose the cassette size. Press the relevant operator button to toggle **SML** to *MED* or *LRG*. For further details, refer to *Operator Buttons* below.

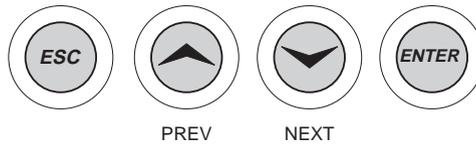
Cursors

The following cursors may appear on the LCD display:

Example of cursor and function	Type of cursor	Explanation
→ Set Loading	Pointer cursor (active option)	The <i>pointer</i> cursor indicates the active option (for example, Set Loading). After you activate the option (by pressing ENTER), the <i>pointer</i> cursor moves to the right, to the Parameter area.
^Machine Settings	Down arrow cursor	This cursor indicates that the current menu includes additional options on the next screen. Press the relevant operator button (NEXT) to scroll the menu down.
^Restart Plotter	Up arrow cursor	This cursor indicates that the menu includes additional options on the previous screen. Press the relevant operator button (PREV) to scroll the menu up.

Operator Buttons

Four (4) operator buttons are located on the bottom part of the Control Panel.



The functionality related to these physical buttons is fixed throughout the different stages of work.

□ The operator buttons are relevant only when the imagesetter is **not** in the middle of an operation.

◆ Press an operator button to perform the following action:

ESC returns to the previous screen.

PREV moves the cursor to the menu option above the current. When setting a parameter, press this button to toggle the choices or increase numerical values.

NEXT moves the cursor to the menu option below the current. When setting a parameter, press this button to toggle the choices or decrease numerical values.

ENTER selects the option to which the cursor is currently pointing.

Using the Control Panel in case of failure:

- ◆ Access the *Utilities* menu.
- ◆ Press the **NEXT** operator button and access **Diagnostics**.
- ◆ Insert the 3½" floppy diskette into the drive and press the **F2** soft key (RUN) to activate the *diagnostics* program.
- ◆ The diagnostics program helps to isolate the problem. Depending on the nature of the problem, either perform the indicated troubleshooting or consult a Scitex Service Engineer.

📖 For further information on error messages, refer to the *Dolev 800 Troubleshooting guide, Document No. 771-8F486*.

Imaging Specifications

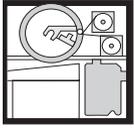
Physical Dimensions	Dolev 800	Dolev 800V
Size (W x D x H)	1,650 x 1,000 x 1,230 mm (65" x 39" x 48")	
Weight	550 kg (1,210 lbs.)	

Technology	Dolev 800	Dolev 800V
Structure	Internal drum, monochrome laser raster imagesetting	
Light Source	Laser Diode 650 nm Light Power: 5 milliwatts	
Spot Size (variable with Intensity)	17 microns nominal	
Raw Imaging Speed at full format		
@ 1,270 dpi	52.1 cm ² /second (485 in ² /minute)	89.3 cm ² /second (831 in ² /minute)
@ 2,540 dpi	21.8 cm ² /second (202 in ² /minute)	37.2 cm ² /second (346 in ² /minute)
Accuracy (on film)	Absolute: ±0.001" (±25 microns) relates to absolute pattern dimension	
Repeatability (on film)	±0.001" (±25 microns) relates to a dimension of the same pattern printed on the same machine, one after the other, under the same environmental conditions	
Spinner	Ball bearing	Air bearing

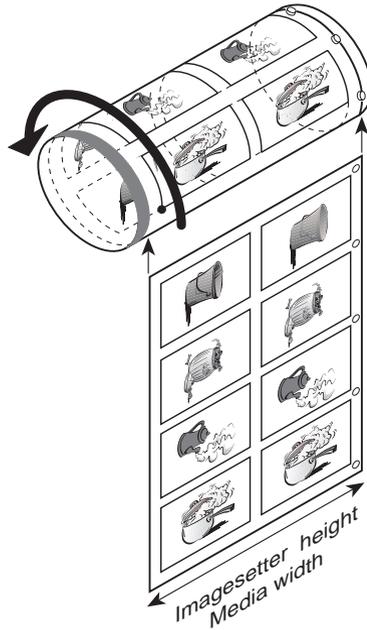
Image Features	Dolev 800	Dolev 800V
Maximum Net Image Area	812 x 1,117 mm (32" x 44")	838 1,117 mm (33 x 44")
Page Formats Capability	A4 x 8 (210 x 297 mm) A2 x 2 (420 x 594 mm) B4 x 8 (250 x 353 mm) B2 x 2 (500 x 707 mm)	A3 x 4 (297 x 420 mm) A1 x 1 (594 x 841 mm) B3 x 4 (353 x 500 mm) B1 x 1 (707 x 1000 mm)
Resolution	60 to 140 p/mm continuously variable (1,524 to 3,556 dpi)	50 to 160 p/mm continuously variable (1,279 to 4,064 dpi) Optional lower and higher resolutions
Screen Technology	Scitex Class Screen which includes the conventional dot shapes (round, square, diamond, gravure, and composite), FULLtone (stochastic), GeometricDOT and High Definition	
Screen Frequency	50 to 625 lines/inch (2 to 24.6 lines/mm)	
Screen Angles	User-selectable from a variety of preset angles	
Inline Processor	Optional	
Press Formats Capability	Heidelberg GTO, MO, SM 72, SM 74, SM 102; Man Roland 100, 200, 600; Komori 26, 28, 44	
Registration System	Optional Bacher & Stausser Std LTD or according to customer specifications (up to 10 holes)	

Media & Related Features	Dolev 800	Dolev 800V
Media Types	Medium to high-contrast red sensitive film, paper or polyester plates Thickness: 4 mil (.004") or 7 mil (.007")	
Media Width	254 to 838 mm selectable every 50 mm (10" to 33" selectable every 2")	254 to 863 mm selectable every 50 mm (10" to 34" selectable every 2", and 33")
Media Length	450 mm to 1,200 mm (18" to 47")	420 mm to 1,200 mm (15" to 47")
Film Thickness	4 or 7 mil	
Loading/Unloading	Fully automatic, daylight, choice of loading from three (3) cassettes, cutting, dual unload to cassette or to Inline Processor	
Loading Cassette	Three (3) different cassettes up to 12", 20", and 33" for rolls (including daylight film)	Three (3) different cassettes up to 12", 20", and 34" for rolls (including daylight film)
Loading Length	61 m (200 ft) for 4 mil (0.004") thickness 30 m (100 ft) for 7 mil (0.007") thickness Optional use of two (2) large cassettes	
Unloading Cassette	Accumulating cut sheet type, capacity: 12 sheets	
Media Transport	Automatic continuous web feed film vacuum-held on inner-drum surface	

Environment	Dolev 800	Dolev 800V
Electrical Requirements	200/220/240 VAC, $\pm 10\%$ Europe: Single Phase, 50/60 Hz ± 2 Hz. U.S. and Japan: Two Phase, 50/60 Hz ± 2 Hz. Less than 3000 VA.	
Operating Environment	Lighting:	Daylight operation; no direct sun
	Temperature:	22°C ± 2 °C
	Relative Humidity:	55% $\pm 5\%$ RH
	Audible Noise:	< 55dbA
	Cleanliness:	Standard work area
	Heat Dissipation:	8,000 BTU/hour



The Dolev 800/800V imagesetter accepts film, paper or polyester plates. The media is loaded onto a supply cassette and inserted into the imagesetter. You can select one of three supply cassettes: a small (12 in.), medium (20 in.) or large (33 in.) cassette.



You access the media setup functions by moving through a tree-like series of menus on the host computer screen. All the functions can also be accessed through the imagesetter Control Panel.

The Dolev 800/800V has an automatic media setup mechanism. Once the supply cassette is inserted, performing the *Set Loading* procedure (via the Control Panel or the workstation) starts film loading.

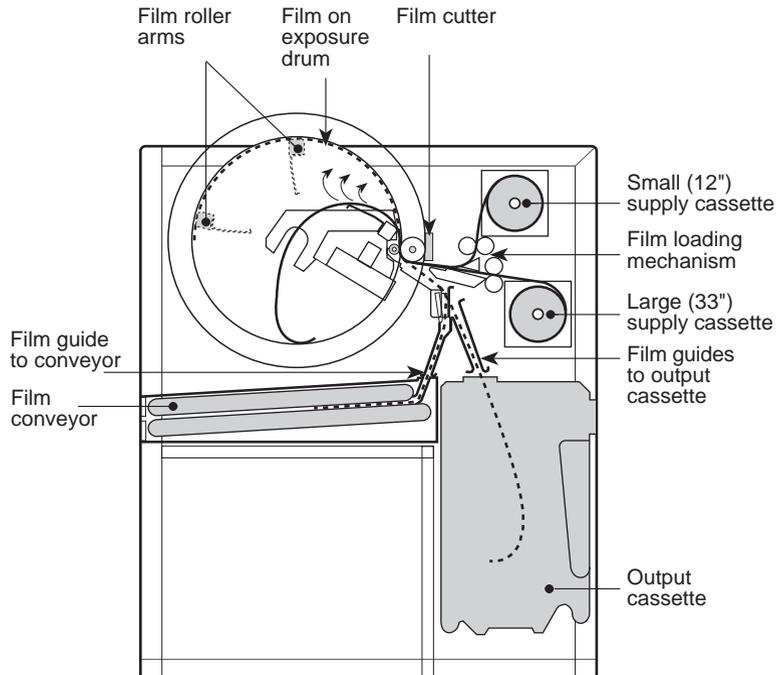
The media is pulled between a set of rollers onto the exposure drum. The media is cut, and a vacuum system ensures that the media is held down on the inner drum surface.

During setup, the imagesetter cuts and ejects the first piece of media. This is done since a small piece of media was exposed to light when the cassette was carried from the darkroom.

The next step is to expose the media. You choose the file, the file resolution, and layout (these topics are covered in the user guide of the relevant host workstation).

The media is exposed and ejected. The ejected media is sent to the output cassette, or to an optional inline processor.

The following figure shows the media path in the imagesetter.



Dolev 800/800V media path (left-side view)

□ Since the *medium* cassette is located to the right of the *small* cassette, it is **not** seen in the figure.

The Supply Cassettes

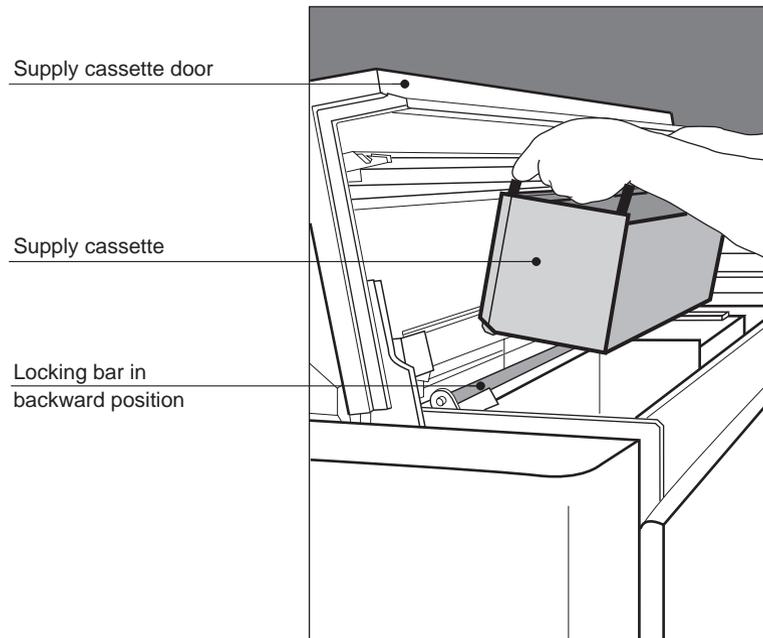
The three (3) Dolev 800/800V supply cassettes are used with medium to high contrast red sensitive lith or line film, paper, or polyester plates.

The steps you follow when loading new exposure media:

- Unloading the supply cassette and taking it to the darkroom.
- Mounting media onto the supply cassette.
- Loading the supply cassette into the imagesetter.
- Performing **Set Loading** and **Cassette Sign In**.

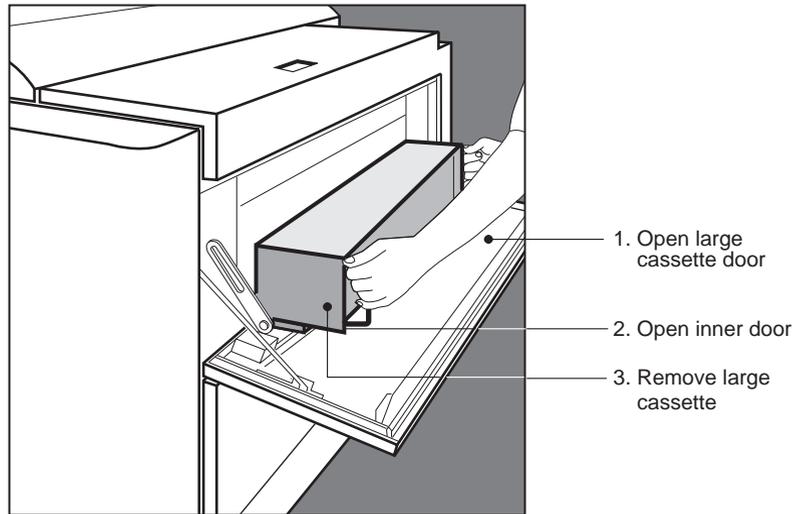
Unloading the Supply Cassette

- ◆ To unload either the **small** (12 in.) or **medium** (20 in.) cassette, open the *Supply cassette compartment* door, and push back the locking bar.



- ◆ Remove the cassette and take it to the darkroom.

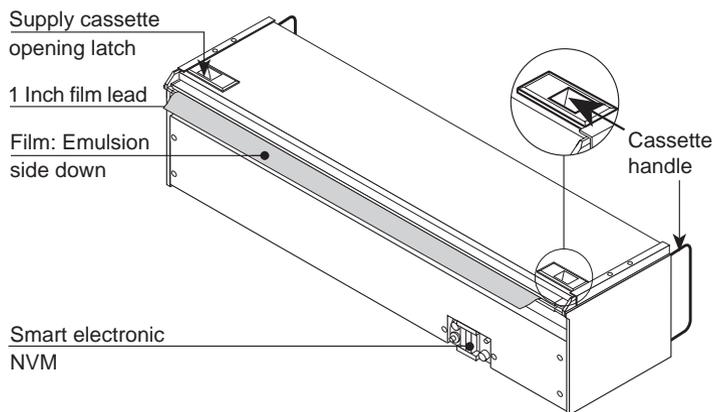
- ◆ To unload the **large** (33 in.) cassette, open the *Large cassette* door (located on the front on the imagesetter) and then open the additional **inner** door.



- ◆ Remove the cassette and take it to the darkroom.

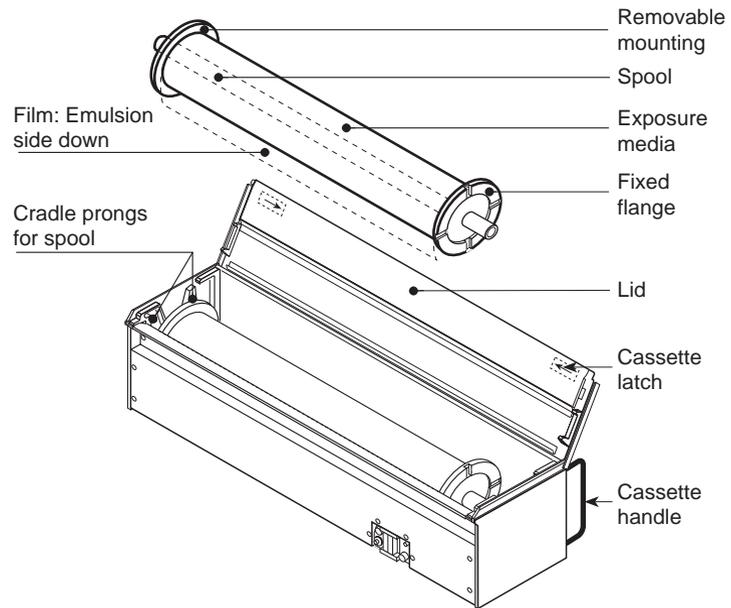
Mounting Media onto the Supply Cassette

- ◆ Check that the film you intend to load on the cassette is in the darkroom before you lock the door and turn *off* the lights.
 - Caution:** Dolev 800/800V requires a bright cyan light source for film development. Do **not** use red or yellow illumination!
- ◆ Close and lock the door to the darkroom.
- ◆ Turn **on** the bright cyan light.
- ◆ Two (2) latches secure the cassette lid. To open the supply cassette, push the latches horizontally toward the center of the cassette, and pull up the lid until it is in a resting position.



- ◆ Grasp the outer surface of both flanges and lift the film spool out of the supply cassette.

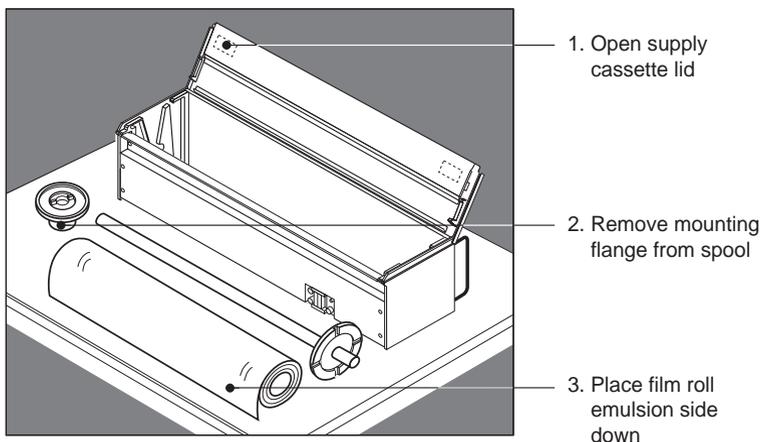
Two (2) flanges are attached to the spool, namely the *fixed* flange and the *removable* flange.



- ◆ Twist the *inner* rim of the *removable* flange and, using the supplied tool, remove it from the spool.

□ If the cassette contains a film roll, remove it from the spool. Place any unexposed film in a film case or container, and mark it.

- ◆ Place the new roll of film on the table. Note the film position: rolled away from the cassette, emulsion down.



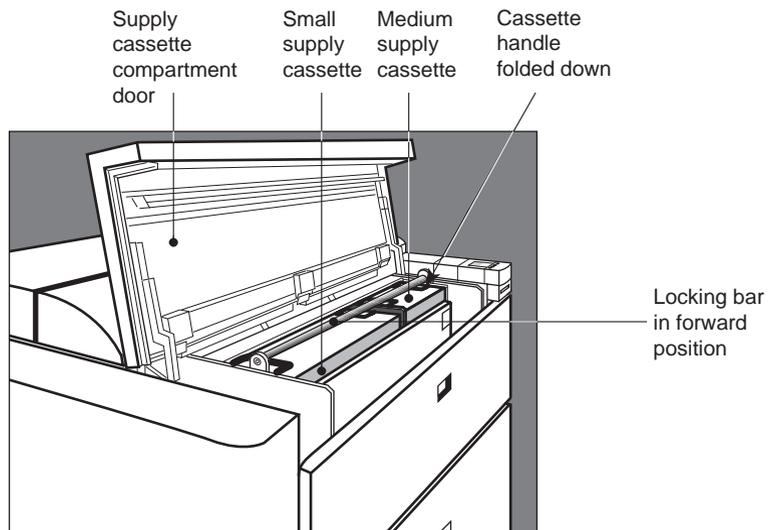
- ◆ Grasp the spool by the *fixed* flange, and insert the spool through the film roll (film emulsion down).
- ◆ Place the *removable* flange onto the spool, and twist it to tighten it on the spool.
- ◆ Lower the spool into the cassette, so that its ends fit between the prongs of the cradle.
- ◆ Allow approximately 1 inch of film to stick out, over the edge of the cassette. **Note:** If too much film sticks out, cut the excessive part (do **not** push it back).
- ◆ Check that the film is straight (that is, parallel to the cassette lid), and shut the cassette lid.

Loading the Supply Cassette into the Imagesetter

□ Before leaving the darkroom, and loading the cassette, double-check that you have protected any unexposed film.

To load a small or medium cassette:

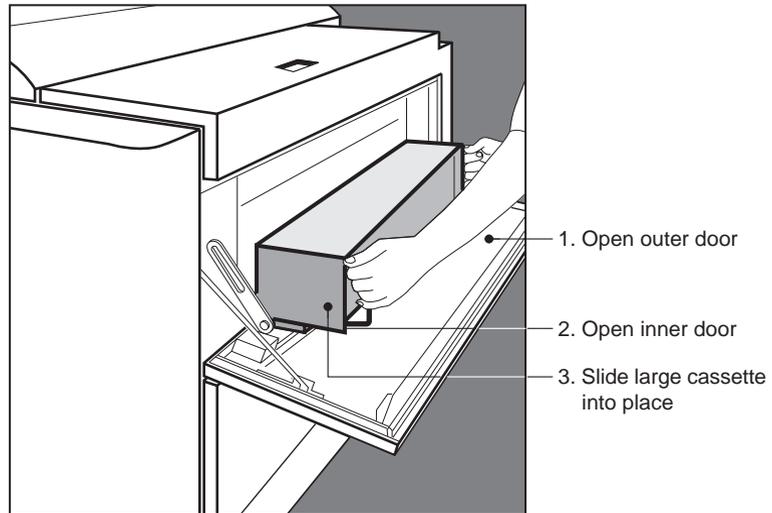
- ◆ Open the *Supply cassette compartment* door, and push back the locking bar.
- ◆ Load the cassette so that the film extends from the bottom of the cassette toward the rear of the imagesetter (that is, away from you).
- ◆ Fold down the cassette handles. Pull the locking bar forward.



- ◆ Close the *Supply cassette compartment* door.

To load the large cassette:

- ◆ Open the *Large cassette* door (located on the front on the imagesetter) and then open the additional inner door.
- ◆ Place the cassette on the inner door and slide the cassette into place.



- ◆ Fold down the cassette handles and close the inner cassette door.
 - ◆ Close the *Large cassette* door.
- At this stage you need to perform the *Set Loading* and *Cassette Sign In* procedures described below.

Set Loading (Automatic Media Loading)

The *Set Loading* procedure assists you during the loading process. During loading, the section of media exposed to light must be cut. **Set Loading** automatically loads a minimum length of media onto the drum, cuts the exposed media, and ejects it into the output cassette.

You must then unload and discard the length of film that was exposed to light. Do this before you begin your first exposure.

Set Loading may be performed via the Control Panel (as explained *below*), or via the host workstation.

Performing Set Loading via the Control Panel

- ◆ At *Standby*, press the **F1** soft key (UTIL).

The *Utilities* menu appears. The *pointer* cursor points to **Set Loading**.

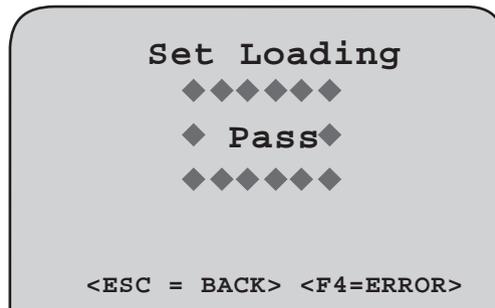
- ◆ Press the **ENTER** operator button.
- ◆ Press the **NEXT** operator button to toggle the **SML** in the *Parameter* area to **MED** or **LRG** as desired.
 - To cancel the selection, press the **ESC** operator button.
- ◆ Press the **ENTER** operator button to confirm the selection of the desired supply cassette.

The *pointer* cursor returns to the menu, and a beep indicates that the cassette was selected.

. . . cont'd.

- ◆ Press the **F2** soft key (RUN) to begin film loading from the supply cassette.

When loading is completed successfully, the following appears on the Control Panel:



- The Control Panel is explained in detail in Chapter 1.
- ◆ Press the **ESC** operator button to return to the *Utilities* menu, or the **F4** soft key (ERROR) to see a list of errors (if such exist).
- ◆ Press the **ESC** operator button twice to return to Standby.

After performing Set Loading (via the Control Panel or the host workstation), proceed as follows:

- ◆ Open the *Output cassette* door, and slide out the output cassette.
- ◆ Open the output cassette, remove the exposed film, and dispose of the film.
- ◆ Put the output cassette back in the imagesetter. You are now ready to expose film on the imagesetter.
- For a detailed explanation, refer to the *Output Cassette* section below.

Cassette Sign In

Whenever you load a new supply cassette into the imagesetter, you must *Sign In* the cassette.

Cassette Sign In records the type of media, manufacturer, batch number, and the length of media on the cassette.

The information is used to automatically select the correct exposure values for your specific media type. It is very important that you provide as much information as possible about the cassette media. Once you record this information, it is stored on the cassette and used during media exposure.

Cassette Sign In may be performed via the Control Panel (as explained *below*), or via the host workstation.

Performing Cassette Sign In via the Control Panel

- ◆ At Standby, press the **F2** soft key (UPDATE).
The *Cassettes* menu appears.
- ◆ Update the required parameters (for example, cassette size, media type, media thickness):
 - ◆ Select the cassette you are registering: **Medium**, **Small**, **Lower** or **Upper** (*Lower* and *Upper* refer to the large cassette).
 - ◆ Select the media type: film, paper, or polyester plate.
 - ◆ Select the media thickness: 4 mil or 7 mil. **Note:** The media catalog number contains the code for the media thickness.
 - ◆ Register the initial length of the media on the cassette. If the cassette contains less than a full roll of film, modify the length in the *Parameter* area.
 - ◆ Select the vendor (manufacturer).
- ◆ Press the **F2** soft key (RUN).
- The Control Panel is explained in detail in Chapter 1.

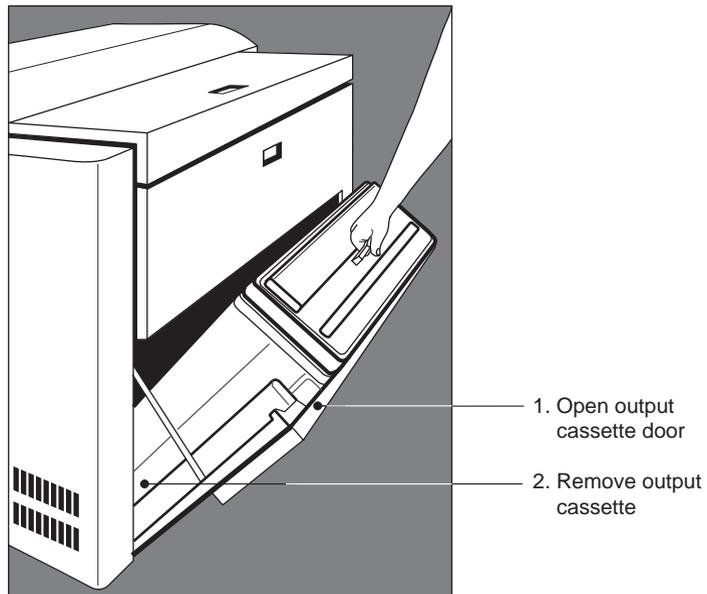
The Output Cassette

□ The imagesetter may output film to an output cassette, or through an internal conveyor directly to a processor. The following explanations describe the output cassette only.

The output cassette is track mounted on the imagesetter door. If the cassette is installed, the film is ejected into the cassette.

Unloading the Output Cassette

- ◆ Press the lever on the imagesetter *Output cassette* door, and open the door.
- ◆ Grasp the cassette by its handle, and pull the cassette towards you to remove it.



Developing Film (without an Inline Processor)

Caution: Do **not** open the output cassette until you are in the developing area and the door is LOCKED.

- ◆ Carry the output cassette to a darkroom which is equipped with a bright cyan light.
- ◆ Close the developing room door and lock it. Turn **on** the cyan light.
- ◆ To open the output cassette, press the three (3) fasteners on the front of the cassette and open the cassette lid upwards.
- ◆ Remove the exposed films one at a time, and feed each piece of film into the processor.
 - You may find one (1) narrow strip of film in the cassette (that is, less than 4 inches wide). This is the piece of film that was exposed to light when a new supply cassette was loaded onto the imagesetter. Dispose of this waste film.
- ◆ Depending on your processor, you receive a signal from the processor when you are allowed to feed each subsequent film. When you have fed the last film into the processor and received the signal that the feed is complete, you may unlock the door.
 - Be sure to check the bottom and sides of the cassette carefully for any film that may have slid into the base of the cassette.
- ◆ Load the output cassette back into the imagesetter, and close the output cassette door.

The Punch System

Scitex offers a leading edge, customer-defined punch system for the Dolev 800/800V.

The punch system is used by printers to eliminate the need for mounting film to carrier sheets, manual registration and punching.

A maximum of 10 punch assemblies can be installed in the imagesetter width direction, on the right flange of the Dolev 800/800V drum.

To assist Scitex and the customer in the punch system definition, the *Punched Film Layout* form has been prepared. The customer and the Scitex engineer should complete all requested values on this form.

□ Since numerous configurations are available and some restrictions exist (such as, minimum hole distances, hole size, and hole placement relative to the exposed area), Scitex assists in the punch system definition. This ensures that all details regarding the customer's punch system are transmitted to the local Scitex experts.

Scitex then prepares a confirmation drawing for customer approval. This drawing is subsequently used by the Scitex engineer to actually install the punch system.

□ Although filling the form is not a pre-requisite for ordering a punch system, the system can not be installed without the customer-approved confirmation drawing supplied by Scitex.

Punch System Design and Operation

The moving part of the punch assembly is the *unit*. It can be either at the OUT position or at the IN (that is, punching) position.

The moveable cutting blade of the punch is the *rod*. Like the unit, It can be either at the OUT position or at the IN position.

Both rod and unit are activated by air cylinders. There are two (2) double-action air cylinders (not spring-activated) per punch assembly. The punch system therefore requires a continuous, external air pressure supply for operation.

An additional operation of every punch assembly is the ejection of used film slugs from the system. Three (3) blasts of compressed air are used to achieve this. **Note:** This operation is performed following the film punch, and before moving the punch rod to its OUT position. The film slugs are collected into a large black hose, located near the unloading cassette. You should empty this hose two (2) to four (4) times per month.

The following describes a typical punching sequence:

1. Unit IN → brings unit to punching position
2. One (1) sec. delay → allows pressure stabilization
3. Rod IN → executes film punch
4. One (1) sec. delay → allows pressure stabilization
5. Three (3) blasts of air → ejects used film slugs
6. One (1) sec. delay → releases pressure completely
7. Rod OUT → returns to OUT position
8. One (1) sec. delay → allows pressure stabilization
9. Unit OUT → returns unit to OUT position

Removing Stuck Film from the Imagesetter

The only maintenance procedure you are allowed to perform is removing film (supply media) stuck on the inside of the imagesetter drum area.

Please refer to the *Safety Precautions* chapter for details on laser and other safety precautions before proceeding.

To remove film stuck in the Imagesetter, proceed as follow:

- ◆ Switch **off** the imagesetter, using the *Master circuit breaker* at the *lower rear* side of the imagesetter.
- ◆ To access the inside of the imagesetter drum area, open the left or right service door, or both side doors (to do so, unscrew the thumb screw(s) accessible from the *Unloading cassette* compartment).
- ◆ Locate the black protective cover on each side of the imagesetter drum.
- ◆ Unfasten the two (2) capture screws that secure the cover to the frame of the imagesetter.
- ◆ Remove the cover and store it on a clean surface.
- ◆ Clear the film stuck in the machine.
- ◆ Replace the side covers; secure the side covers with their thumb screws.
- ◆ Close the side door(s); secure the side door(s) with their screws.



To guarantee high-quality exposures, a unique laser intensity is required for each plotting resolution.

- If the laser intensity is too low, the exposure is too light and quality is lost (that is, black areas are **not** uniform, and thin lines and small text may disappear).
- If the laser intensity is too high, thin lines may become too thick and small text may be covered. In addition, the life of the laser is shortened.

Each type of film requires a **unique** laser intensity. Each film manufacturer has slightly different specifications for various types of film. If you switch to a new type of film, you must expose several strips of film and check the density to ensure that the exposure is still of the same high quality. You must check which laser intensity on the imagesetter yields your desired exposure results.

This chapter describes how to calibrate laser intensity via the host workstation.

Calibration Workflow

To calibrate laser intensity, perform the following steps for each exposure resolution:

- 1 Preparing exposure strips.
- 2 Setting an exposure resolution for the strips.
- 3 Exposing the strips.
- 4 Using a densitometer to measure the density on the exposed strips of film. Write down on paper the intensity used to expose the best black strip of film at **each** resolution.
- 5 Recording the new laser intensity values. Enter the intensity for each plotter resolution into the *Resolution Intensity Table*.
- 6 Saving the new laser intensity as a standard (Default).

1 Preparing Exposure Strips

In this step you use automatic functions to create exposure strips.

On the Host Workstation:

- ◆ Access the *Remote* mode of the imagesetter.

The *Util Main* screen appears.

```
NVM  Film  Expose  Functions  UppdateCstNVM  Exit

Esc - Cancel    ^E - Quit
```

- ◆ Select **Expose** from the *Util Main* screen.

The *Expose* menu opens.

```
Internal  Pattern  ..
Intensity Strips ..
```

- ◆ Select **Intensity Strips** from the *Expose* menu to define the parameters for the generation of the intensity strip.

The *Intensity Strips* form appears.

Start Value :	2000	[1000]
End Value :	10230	[5000]
Step Inten :	800	[500]
Strip Height :	5	[20]
Strip Width :	100	[700]
Cassette ^ :	SML	[SML]
Move Carriage ^ :	Yes	[Yes]
Load Media ^ :	Yes	[Yes]
Resolution :	100.00	[100.00]
Spinner Speed :	13800	[13800.00]
Height Offset	0.00	[0.00]
Width Offset	0.00	[0.00]
Data Frequency	25.0	[25.00]
SSP number	0	[0]

Enter the following values in the Intensity Strips form:

- ◆ **Start Value** [range is 300 - 4000; default is 1000]
Enter the value of the first intensity strip (for example, 2000).

- ◆ **End Value** [range is 1000 - 11000; default is 5000]
Enter the value of the last intensity strip (for example, 10230).

- ◆ **Step Inten** [range is 100 - 4000; default is 500]
Enter the value of the gap between intensity strips (for example, 800).

- ◆ **Strip Height** [range is 10 - 1000; default is 20]
Enter the height of the intensity strips (in mm) (for example, 5).

- ◆ **Strip Width** [range is 0 - 1180; default is 700]
Enter the width of the intensity strips (in mm) (for example, 100).

- ◆ **Cassette** [toggle field; default is SML]
Toggle to the size of cassette currently used.

- ◆ **Move Carriage** [toggle field; default is Yes]
Toggle this field to **Yes** to use *exposing* mode (that is, **not** simulation mode).

- ◆ **Load Media** [toggle field; default is Yes]
Toggle this field to **Yes** to load film into the imagesetter (that is, **not** simulation mode).

- ◆ **Spinner Speed** [range is 3000.00 - 14000.00; the default is 13800.00]
Enter the speed of the spinner in RPM (for example, 13800.00). **Note:** This resolution-dependent field affects the quality of the exposure.

- ◆ **Data Frequency** [range is 12.00 - 33.00; default is 25.00]
Enter the frequency used to transfer the data (for example, 25.00).

- ◆ **SSP number** [range is 0 - 500; default is 0 (none)]
Enter **0** for the number of lines after which the plotter performs *stop spiral*.

2 Setting an Exposure Resolution for the Strips

- ◆ **Resolution** [range is 30.00 - 200.00; default is 100.00]

Enter one (1) resolution (in mm and equal in height and width) per exposure (for example, 100.00). After you expose the strip, repeat the entire procedure for each resolution.

If you wish to use **Half Resolution**, set the *Half Res* field (in the Exposure Format on the Host) to **Yes** and begin the exposure process from the beginning.

- ◆ **Height Offset** [range is 0.00 - 900.00; default is 0.00]

Enter the distance in height between the origin of the imagesetter and the start of the strips exposure.

- ◆ **Width Offset** [range is 0.00 - 1180.00; default is 0.00]

Enter the distance in width between the origin of the imagesetter and the start of the strips exposure.

The film offset in height and width can be left at 0,0.

3 Exposing the Strips

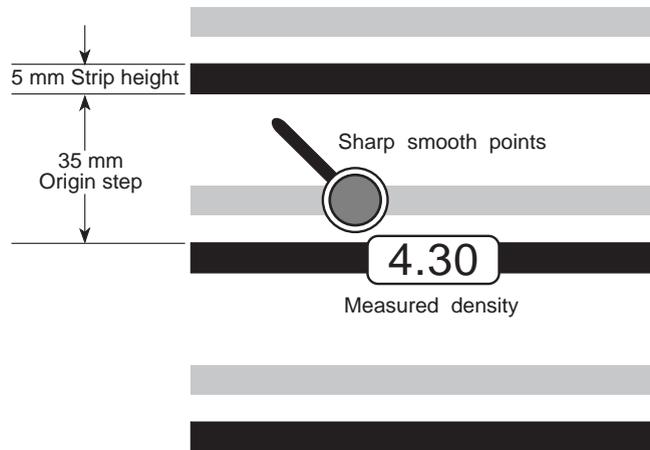
- ◆ Press <F6> (**Done**).

The *Service* screen appears. It indicates the status of the OMC and CRI, the messages, and the active task. You may press <P> to display the *Expose Parameters* window, or <Enter> to exit to the *Util Main* screen.

- ◆ Develop the film strips.

4 Measuring the Density on the Exposed Strips

- ◆ Place the exposed film on a light table.
- ◆ Use a densitometer to find the density of the darkest area on the film. The reading must be between **4.2 and 4.4** (or as recommended by the film manufacturer).
- ◆ To find which exposed strip has the best density, look at the light strip that is exposed together with the black strip. Ideally, the transparent area should be 0%, and the black area should be 100%.
 - The shape on the gray strip, whether it is a dot or line, must be smooth, sharp, and of high quality. When you find a gray strip with these qualities, you find the desired density on the black strip with which it is paired.



- ◆ Write down the laser intensity that yields the best density.

5 Recording New Laser Intensity Values

- ◆ Select **NVM** from the *Util Main* screen.

After approximately 10 seconds, the *NVM Main* screen appears.

```
Util  NVM(Dskt)  NVM(CRI)  Operations  Exit

Esc - Cancel  ^E - Quit
```

- ◆ Select **NVM(CRI)** from the *NVM Main* screen to update the *Operator* tables which are loaded on the CRI board (that is, used by the Imagesetter).

The *NVM(CRI)* menu appears.

```
Operator Tables > Res/Int Tables >      1 ..  
                                           2 ..  
                                           .  
                                           .  
                                           10 ..  
  
Service Tables >  
Factory Tables >
```

- ◆ Select **Operator Tables** from the *NVM(CRI)* menu to update the values of a *Res/Int* table.
- ◆ Select **Res/Int Tables** and the desired table (in the range 1 - 10), for example, select 1.

The following form appears.

```
Material^:          Film      [Film]  
Vendor^:           None      [None]  
Media Thickness^:  4         [4]  
  
1 ..                      Page 0  
  
Resolution   Inten(12.5 Mhz)  Inten(25.0 Mhz)  
40 [80]      1500[1500]      3000[3000]  
50 [100]     1500[1500]      3000[3000]  
60 [120]     1500[1500]      3000[3000]  
70 [140]     1500[1500]      3000[3000]
```

Modify the values for the active table, as follows:

- ◆ **Material** [toggle field; default is *Film*]
Leave this field as **Film**.

- ◆ **Vendor** [toggle field; default is *None*]
Leave this field as **None**.

- ◆ **Media Thickness Media Thickness** [default is 4]
Leave this field as **4 mil**.

- ◆ Enter the new intensity value for the relevant resolution and data frequency, or press <**Enter**> to use the current values.
- ◆ After pressing <**Enter**> on the last field, the next page of the active *Res/Int* table appears (for example, Page 1 of Table 1).
- ◆ Press <**F6**> (**Save NVM**) to save the table onto the CRI board.

6 Saving the New Laser Intensity as a Standard (Default)

To set the new laser intensity to be the standard value you use every day:

- ◆ Press <Esc> until you access the *NVM Main* screen.
- ◆ Select **Operations** from the *NVM Main* screen to handle *NVM* tables.

The *Operations* menu appears.

- ◆ Select **Save Tables to Disk** to copy the *NVM* tables from the CRI board to a diskette.

A progress indicator appears while the tables are being saved.

The values on the *Res Intensity* tables are saved.

- ◆ Press <Ctrl> <E> to exit *Remote* mode.

Symbols

<F7> key 3-9

A

Accuracy 1-18
Active keys
 Control panel 1-13
Air inlet 1-6
Air pressure 1-6
 Punch 2-17
Angles 1-19

B

Battery 3
Beam 5
Beep 2-11
Black strip 3-2, 3-8
Buttons
 Control panel 1-16
 Reset 1-10

C

Calibration 3-1, 3-2
Cassette 1-13, 2-3, 2-13
 Intensity strip 3-5
Cassette compartment
 door 2-4
Cassette handles 2-9
Cassette lid 2-6, 2-8, 2-15
Cassette Sign In 2-4, 2-10,
 2-13
Cassette size 2-13
Cassettes 1-20, 2-1, 2-4
 Menu 1-13
 Supply Cassette 1-2, 1-3
Circuit breaker 1-6
Class Screen 1-19
Cleanliness 1-20
Control panel 1-3, 1-8 to
 1-17, 1-13, 2-1, 2-11 to 2-13
Control soft keys 1-13
Conveyor 1-6
Conveyor installation panel
 1-5
CRI board 3-9, 3-12,
 1-18
Cursor 1-14, 2-11
 Control panel 1-15
 Down arrow 1-15, 2-11
 Pointer 1-15
 Up arrow 1-15
Cut 2-2, 2-11
Cyan light 2-6, 2-15

D

- Darkroom 2-4 to 2-6, 2-9, 2-15
- Data frequency 3-6
- DEFAULT Soft key 1-13
- Densitometer 3-2, 3-8
- Density 3-8
- Diagnostics 1-17
- Dimensions 1-18
- Diskette 1-8, 1-9, 1-17
 - NVM 3-12
 - Drive 1-8, 1-9
- Dispose of film 1-18, 2-12, 2-15
- Door
 - Large cassette 1-3
 - Left service 1-2
 - Output cassette 1-4
 - Right service 1-4
 - Service 2-18
 - Upper compartment 1-3
- Down arrow cursor 1-15
- Drive (floppy) 1-17
- Drum area 2-2, 2-18

E

- Eject 2-2, 2-11
- Electrical power 1 to 2
- Electrical requirements 1-20
- Emulsion down 2-8
- End value 3-5
- ENTER button 1-16, 2-11
- Error messages 1-12
- Error soft key 2-12
- ESC button 1-16, 2-11, 2-12
- Expose (Util) 3-3
- Expose menu 3-3

- Exposing mode 3-5
- Exposure
 - Format 1-1
 - Media 2-1
 - Resolution 3-7
 - Speed 1-1, 1-18
 - Strips 3-3

F

- F1 soft key 1-13, 2-11
- F2 soft key 1-13, 2-12, 2-13
- F3 soft key 1-13
- F4 soft key 1-13, 2-12
- Failure 1-17
- Fasteners 2-15
- Fiber optics cable 1-6
- Film 3-1
 - Development 2-15
 - Film roll 2-7
 - Offset 3-7
 - Slugs 2-17
 - Spool 2-7
 - Strips 3-7
 - Thickness 1-20
 - Widths 1-2, 1-3
- Fixed flange 2-7, 2-8
- Flange 2-7
- Floppy diskette 1-8, 1-17
- Format 1-1, 1-19
- Frequency 1-19
 - Data transfer 3-6
- Front view 1-2
- FULLtone 1-19

G

Gap (Strips) 3–5
GeometricDOT 1–19
Gray strip 3–8

H

Half res field 3–7
Half resolution 3–7
Heat dissipation 1–20
Height offset 3–7
HeNe laser 1–18
Hose (Punch slugs) 2–17
Host 1–6
Humidity 1–20

I

Image area 1–19
IN position (Punch) 2–17
Initialization 1–8
Inline conveyor 1–5
Inline processor 1–1, 1–5,
1–6, 1–19, 2–2, 2–15
Inner door 2–5, 2–10
Intensity 3–1
Intensity strips
Expose menu 3–3
Form 3–4, 3–5
Interlock 4 to 5
Internal conveyor 1–1, 2–14

K

Keys (Control panel) 1–13

L

Labels (Laser) 7 to 9
Large cassette door 1–3, 2–5,
2–10
Large supply cassette 1–3
Laser 5 to 9
Laser intensity 3–1, 3–2, 3–9,
3–12
Latches 2–6
LCD display 1–11, 1–12
Left service door 1–2
Left side view 8
Legs (Imagesetter) 1–4
Length of film 1–20
Light 1–20, 2–6, 2–15
Light source 1–18
Line voltage 1
Lithium battery 3
Loading 2–10
Load media (Intensity strip)
3–6
Loading (Supply cassette)
2–4, 2–9
Loading/unloading 1–20
Loading assembly 4, 5
Locking bar 2–4, 2–9
Lower (cassette) 2–13
Lower service panel 1–5, 1–18

M

- Main switch 2
- Manufacturer 2-13
- Master circuit breaker 2, 1-6, 1-7, 1-9, 1-10, 2-18
- Material (Res-intensity) 3-11
- Media 2-1, 2-2, 2-4
 - Height 1-20
 - Length 2-13
 - Path 2-3
 - Res-intensity 3-11
 - Thickness 2-13
 - Transport 1-20
 - Types 1-1, 1-20, 2-13, 3-1
 - Width 1-20
- Medium supply cassette 1-3, 2-13
- Menu
 - Control panel 1-12, 1-14, 1-16
 - Utilities 1-14
- Messages 1-12, 1-18
- Mode of operation (Control panel) 1-12
- Mounting (Supply) 2-4, 2-6
- Move carriage 3-5

N

- Next button 1-16, 1-17, 2-11
- Noise 1-20
- NVM
 - Main screen 3-9, 3-12
 - Menu 3-9
 - Mode 3-9
 - Tables 3-12
- NVM(CRI) 3-9
 - Menu 3-10

O

- On/off switch 1-3, 1-8 to 1-10
- Operating environment 1-20
- Operations menu 3-12
- Operator buttons 1-11, 1-16
- Operator tables 3-9, 3-10
- Optical fibers 6
- Optical path 5
- Option (Control panel) 1-16
- OUT position (Punch) 2-17
- Output cassette 2-2, 2-11, 2-12, 2-14, 2-15
- Output cassette door 1-4, 2-12, 2-14

P

Page formats 1-1, 1-19, 1-20
Parameter (Control panel)
 1-14
Plate 1-1,1-20
Pointer cursor 1-14, 1-15,
 2-11,
Power cord 2, 1-6, 1-9
 Inlet 1-6
 Surge 1-6
Precaution labels (laser) 7 to 9
Pressure (Punch) 2-17
Pressure hoses 1-6
Pressure inlet panel 1-6
PREV button 1-16
Processor 1-6, 1-19, 2-15
Prongs 2-8
Protective cover 2-18
Punch 1-1, 1-6, 1-19, 2-16
Punch form 2-16

R

Radiation 5
Rear view 1-5
Registration 1-19, 2-16
Remote mode 3-3, 3-12
Removable flange 2-7, 2-8
Repeatability 1-18
Res Intensity tables 3-12
Res/Int table 3-10, 3-11
 Default 3-12
Reset button 1-3, 1-10, 1-11
Resolution 1-19, 3-2, 3-7,
 3-11
Right service door 1-4
Right side view 9
Rod (Punch) 2-17
Rod IN/OUT 2-17
Roll of film 2-8
Rollers 2-2
RUN soft key 2-12, 2-13

S

- Safety 1 to 9
- Save tables to Disk 3-12
- Save tables to NVM 3-11
- Screen 1-19
- Screws 2-18
- Selftest 1-8
- Service door 2-18
- Set Loading 1-14, 2-1, 2-4, 2-10 to 2-12
- SFLM board 1-6
- Shutdown 1-6, 1-10
- Sign In 2-4, 2-10, 2-13
- Simulation mode 3-5
- Size 1-18
- Slugs 2-17
 - Punch 2-17
- Small cassette 2-13
- Soft keys 1-11
 - Control panel 1-13
- Specifications 1-18
- Speed 1-18
- Spinner speed 3-6
- Spool 2-7, 2-8
- Spot size 1-18
- SSP number 3-6
- Standby (message) 1-12, 2-11, 2-12, 2-13
- Start value 3-5
- Startup 1-7 to 1-9
- Static optics assembly 6
- Status of cassettes 1-13
- Step Inten 3-5
- Stop spiral 3-6
- Strip height/width 3-5
- Strips 3-2, 3-7, 3-8

- Structure 1-18
- Stuck media 1, 5, 1-2, 1-4, 2-6, 2-7, 2-9, 2-11, 2-18
- Supply cassette status
 - Control panel 1-13
- Supply cassettes 2-4
 - Door 1-3, 2-9
 - Large 1-3
 - Medium 1-3
 - Small 1-2

T

- Temperature 1-20
- Thickness (film) 1-20
- Tool 2-7
- Troubleshooting 1-17, 2-12, 2-18, 3-1

U

- Unit (Punch) 2-17
- Unit IN/OUT 2-17
- Unloading 2-5
 - Output 2-14
 - Supply 2-4
- Unloading cassette 1-20
- Up arrow cursor
 - Control panel 1-15
- UPDATE soft key 1-13
- Upper cassette 2-13
- Upper compartment door 1-3
- Upper service panel 1-5
- UTIL Soft key 1-13, 1-14, 2-11
- Util
 - Main screen 3-3
 - Mode 3-9
 - Utilities menu 1-14, 1-17, 2-11, 2-12

V

- Vacuum outlet 1-6
- Vendor 2-13
 - Res-intensity 3-11
- Voltage 1 to 3

W

- Warning signs 7
- Weight 1-18
- Wheels 1-4
- Width offset 3-7
- Workstation 1-2, 2-1, 2-11, 2-12, 2-13, 3-1, 3-3