Agfa PostScript Imaging Systems

AccuSet User Guide
A Guide to Your PostScript Laser Imagesetter

Contains information on:

- Operating the AccuSet
- Status Messages
- Setting Up Cassettes and Options
- Installation
- Exposure Tests

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Colophon

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Preface

Purpose

This manual describes how to operate the AccuSet™ family of image-setters. These are high performance laser imagesetters designed for optimum quality.

The AccuSet imagesetter is one component of a complete imaging system. Imaging systems can include:

- One or more different front end computers.

- One or more software applications.

- A raster image processor, referred to as a RIP. (Some AccuSet imagesetters are equipped with an internal RIP. Others use an external RIP.)

- One or more output devices (plain paper printers, imagesetters, etc.).

Audience

This manual is written for operators who will use the AccuSet image-setter regularly as a production tool. It assumes that these operators are familiar with the following:

- Operation of the front end computer.

- Operation of the programs in use on the front end computer.

- Operation of the RIP that drives the AccuSet.

Overview

Read the following to become acquainted with the contents of this guide.

Chapter 1: Getting Acquainted
Describes the features and parts of the AccuSet imagesetter. Also contains important safety instructions and laser safety information.

Chapter 2: Operating the AccuSet
Describes the basic operating procedures: starting up the AccuSet, using the control panel, loading media, imaging a job. Also includes shut down and reset procedures.

Chapter 3: Status Messages
Lists the messages that appear on the AccuSet control panel message display. Describes the meaning and corrective action.

Chapter 4: Set Up Cassettes and Options
Describes cassette parameters and how to set them up. Also describes the features controlled through the OPTION key on the control panel.

Chapter 5: Installation
Describes site and environmental requirements for best operation of the AccuSet. Contains procedures for setting up your AccuSet including how to connect the imagesetter to your imaging system, how to test the imagesetter after it is connected, and how to set up the AccuSet operating software.

Chapter 6: Exposure Tests
Provides information about the photographic processes at work when you use the AccuSet imagesetter. Describes how to use and evaluate the exposure tests that are part of the AccuSet software.

Chapter 7: Left Margin Setup
Describes how to use and evaluate a test that helps you calculate adjustments for the left margin position on the AccuSet.

How to Use This Guide

Read this guide before you begin to use your AccuSet imagesetter. This guide assumes that you are familiar with the operation of all the other parts of your imaging system.

The first three chapters contain basic information needed for daily operation of the imagesetter.

The last four chapters contain information needed less frequently.

When you first set up your AccuSet, read:

- *Chapter 1: Getting Acquainted*.
- The sections *Message Display Basics* and *Control Panel Function Keys* in *Chapter 2: Operating the AccuSet*.
- *Chapter 5: Installation*.
- A list at the end of the chapter directs you to other parts of this guide for information that enables you to complete the installation.

Typographic Conventions

This guide follows the typographic conventions listed below.

Message Display

Meaning: Represents messages that appear in the control panel message display. Also used to represent characters that you type in.

Example: The message **Reset System** appears.

KEYTOPS

Meaning: Represents the labels that appear on the control panel function keys.

Example: Press CUT to advance and cut media.

Titles and file names

Meaning: Chapter, section and document titles are italicized. Also, filenames are italicized.

Example: See *Chapter 5: Installation* for information about connecting cables.

Other Manuals

This guide is only one part of the user documentation you need as you set up and operate your imaging system. To get more information, you need to refer to other user guides and manuals, some provided by Agfa, and some from other sources.

Manuals from Agfa

For more information about software tools, fonts, calibration software, and PostScript® language as it applies to the AccuSet, refer to the manuals from Agfa, listed below. These manuals come with the AccuSet system and are designed to be used with this guide.

- *A Guide to Your RIP Hardware*
  Describes the RIPs that can drive AccuSet imagesetters. Includes information about connecting the RIP to an Ethernet® network.

- *A Guide to Your RIP Software*
  Describes the Agfa PostScript RIP software and gives information about installing this software on your imaging system. Also describes software tools specifically for use with the AccuSet. This information is presented as a user guide and may also include release notes and documentation updates.

- *AgfaType™ Collection Manual*
  Provides information about fonts.

- *PostScript Language Supplement*
  Provides information about the use of PostScript language operators with the AccuSet RIP.

Manuals from Adobe Systems Incorporated

The following books, prepared by Adobe® Systems, Incorporated, provide detailed information about the PostScript page description language. They are published by Addison-Wesley Publishing Company and can be purchased at many retail stores that sell computer software.

PostScript Language Reference Manual (The "Red Book")

PostScript Language Tutorial and Cookbook (The "Blue Book")

PostScript Language Program Design (The "Green Book")

Technical Assistance

Our PostScript Technical Assistance Center is available to Agfa customers who are covered under a warranty or Service Maintenance Agreement.

Call the Center's service dispatch telephone number, 1-800-937-7787, if you have a PostScript related problem or question. Open up a "PostScript assistance call" and a person from the Center will call you back as soon as possible. Be prepared to provide the Center with your Customer Number and the following information:

- **System Configuration:** Including front end unit, communication parameters, RIP and writing engine.

- **Software Application(s):** The software package(s) you are running and the version.

- **PostScript Error:** If there is a PostScript error, report both the error and offending command shown on your screen.

- **Copies of the File:** Be prepared to send copies of the file with applicable fonts if further investigation is needed.

Product Standards

AccuSet imagesetters meet the requirements of the following standards:

Canadian Standards Association
Standard CSA STD C22.2 No. 220-M1986 — *Information Processing and Business Equipment.*

European Standard
EN 55022 — *Limits and Methods of Measurement of ITE Class A Devices.*

European Standard
EN 60 950 — *Safety of Information Technology Equipment Including Electrical Business Equipment.*

German Standard
VDE 0871 — *Regulations for RFI Suppression of High Frequency Apparatus and Installations, Class A Devices.*

International Electrotechnical Commission
Standard IEC 825 — *Radiation Safety of Laser Products, Equipment Classification, Requirements and User's Guide.*

Underwriters Laboratories
Standard UL 1950 — *Information Technology Equipment Including Electrical Business Equipment.*

United States Code of Federal Regulations
21CFR Subchapter J — *Radiological Health.*

United States Federal Communications Commission
FCC Rules and Regulations, Part 15, Subpart B — *Class A Computing Devices.*

Chapter 1:

Getting Acquainted

Introduction to the AccuSet Imagesetter

The AccuSet imagesetter is a high-quality laser imagesetter designed for applications that require high standards of image quality and versatility.

This chapter describes the following:

- System configuration

- Features

- Parts of the AccuSet imagesetter

- RIPs that drive the AccuSet imagesetter

- Safety instructions

- Laser safety information

Please read the safety information in this chapter before you install and operate the AccuSet. See *Safety Instructions* on page 1–8 and *Laser Safety Information* on page 1–9.

Your Imaging System

Your AccuSet imagesetter is one component of a complete imaging system. Imaging systems can include:

- Front end computers running PostScript language applications software. These are used to put together text and graphics. A wide variety of hardware and software can be used.

- A raster image processor (RIP). This receives the job from the front end, reassembles it, and sends it to the AccuSet imagesetter.

- Output devices. Includes proofing devices driven from the front end computer and high-quality final production devices such as the AccuSet imagesetter, driven by their own RIPs.

Features of the AccuSet Imagesetter

The AccuSet imagesetter includes these features:

- **Wide range of imaging resolutions.**
  You can select 600, 1200, 1800, 2400, or 3000 dots per inch.
  600 dpi resolution is not available on the AccuSet 1500.

- **Memory for cassette parameters.**
  Cassette parameters include the media type, exposure values, media width, units of measurement, media remaining. The system stores the settings you enter for each cassette.

- **Center Capstan/Top Dead Center registration.**
  Use this feature for best registration when imaging multi-color jobs.

- **Daylight loading media.**
  The AccuSet imagesetter uses a reloadable supply cassette that enables you to load media without a special darkroom.

Optional Equipment

These extra-cost options are available for the AccuSet imagesetter:

- **On-line processor.**

- **Extra take-up cassettes.**

- **Extra supply cassettes.**

The on-line processor is a media processor that attaches to the AccuSet imagesetter. With an on-line processor, you can program the imagesetter to advance and cut exposed media, then send it to the processor to be developed.

AccuSet RIPs

The AccuSet imagesetter is driven by a RIP (Raster Image Processor). The RIP is a computer with two functions:

1. It interprets the data generated by the front end of your imaging system.

2. It converts this data into a form that can be used by the imagesetter.

The AccuSet imagesetter works with two types of RIPs:

1. Internal—contained within the AccuSet enclosure.

2. External—contained in an external housing and connected to the AccuSet imagesetter by a cable.

Operation of your AccuSet imagesetter is the same, no matter what type of RIP you use.

Parts of the Imagesetter

The AccuSet imagesetter is designed for ease of use. This section describes the basic components.

Main Power Switch

The main power switch is located at the rear of the imagesetter. See Figure 1.1 on page 1.5.

Media Compartment

The media compartment contains the media transport mechanism and the supply cassette.

Supply Cassette

The supply cassette holds unexposed media. You load it with bulk rolls of media that can be loaded in daylight.

Take-up Compartment

The take-up compartment contains the take-up cassette and the take-up cutter.

Take-up Cassette

The take-up cassette holds exposed media. A take-up cassette is supplied with the AccuSet imagesetter.

Take-up Cutter

Use the take-up cutter to cut media when you are ready to remove the take-up cassette to process exposed media. The cutter can be activated from either the AccuSet control panel or the front end of your imaging system.

Control Panel

Media Compartment Cover

I/O Panel

Take-up Compartment Cover

Main Power Switch

Voltage Selector Switch

Cooling Fans

Socket for Power Cord
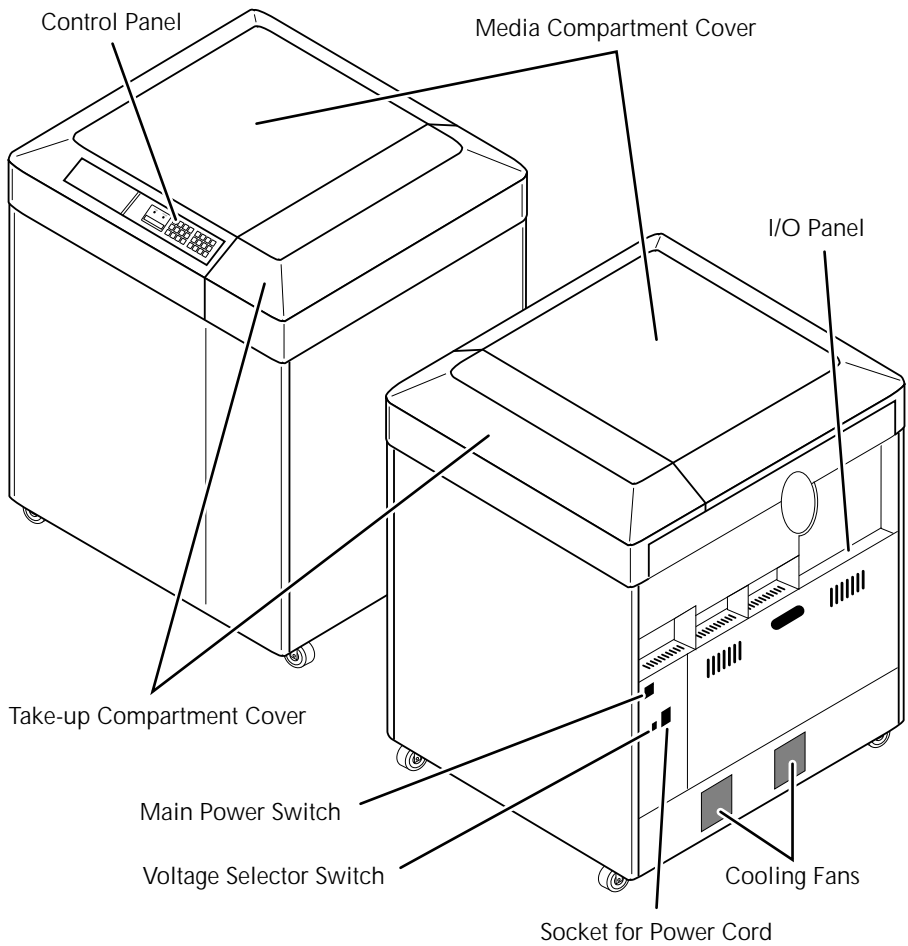
Figure 1.1. The AccuSet Imagesetter.

The Control Panel

The control panel enables you to enter commands and receive infor-mation about the status of the AccuSet. See Figure 1.2 below.

The control panel consists of:

• Two indicator lights.

• A 32-character message display.

• Twelve *function keys* for entering commands.

• Ten *number keys* for entering parameter values.

• Two *arrow keys* for moving the cursor through the message display.

• An audio beeper.
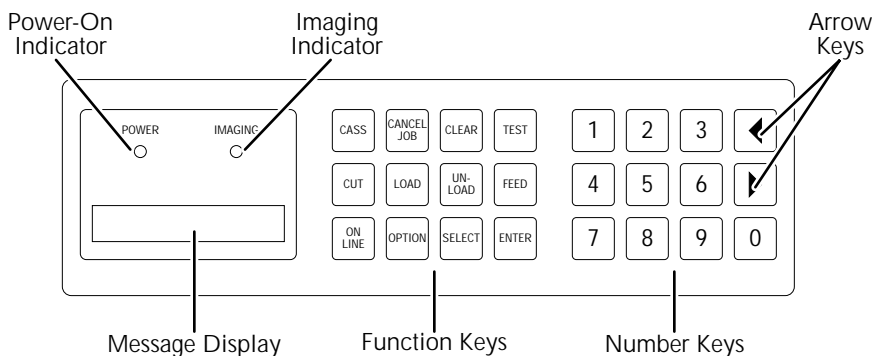
Figure 1.2. The AccuSet control panel.

Communication Ports

At the back of the AccuSet is the I/O (input/output) panel. Communication ports are mounted on this panel. These ports enable you to connect your AccuSet to your imaging system.

- If you have an internal RIP, there are five ports. See Figure 1.3.

- If you have an external RIP, there is one port. See Figure 1.4.
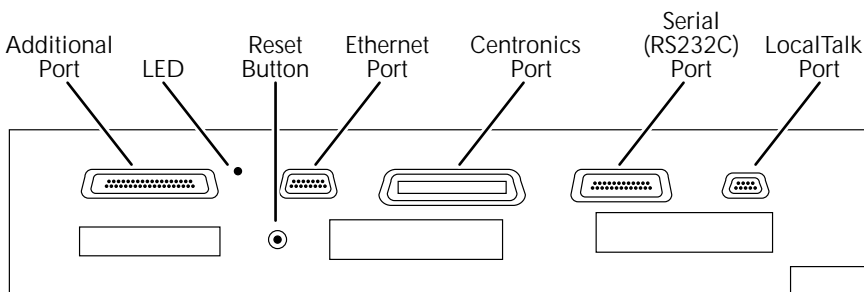
Figure 1.3. The AccuSet I/O panel for systems with internal RIPs.
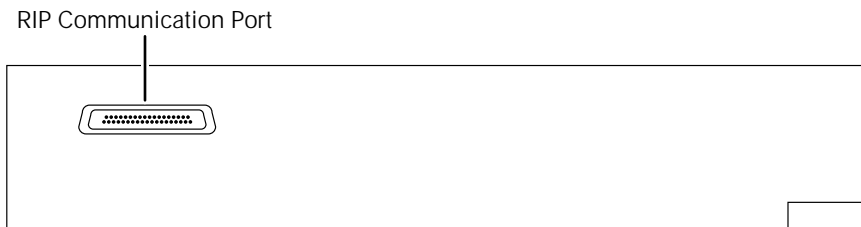
Figure 1.4. The AccuSet I/O panel for systems with external RIPs.

Safety Instructions

1. Unplug the imagesetter from the wall outlet before cleaning. Use only a damp cloth. Do not use liquid or aerosol cleaners.

2. Do not use the imagesetter in any area near water.

3. Keep all liquids off the top of the imagesetter. Never spill liquid of any kind on the product.

4. Slots and openings in the enclosure are provided for ventilation. To ensure reliable operation, these openings must not be blocked. Install the product away from the wall.

5. Make sure that the imagesetter is connected to the correct power source. This is indicated on the model tag and by the voltage selector switch. If there is any question, please consult your dealer or service representative.

6. The imagesetter must be electrically grounded to ensure conformance to safety requirements. It is provided with a 3-wire grounding type plug, which has a grounding pin. If this plug does not fit your electrical outlet, contact your electrician to replace the obsolete plug.

7. Never allow objects of any kind into the imagesetter through the enclosure vents. Objects may come in contact with hazardous voltage. This could create a risk of fire or electric shock.

8. Do not attempt to service the imagesetter yourself, except as specifically explained in this *User Guide*. Opening or removing covers may expose you to dangerous voltage and laser radiation hazards.

9. Unplug the imagesetter from the wall outlet and place a service call under the following conditions:

   — The power cord is damaged or frayed.

   — Liquid has been spilled into the imagesetter.

   — The imagesetter has been physically damaged.

   — The imagesetter does not operate normally even when operating instructions are followed.

Laser Safety Information

Do not, under any circumstances, remove the protective laser covers during operation or maintenance.

These covers bear the warning label shown in Figure 1.5 on page 1–11. Removing these protective covers will expose laser radiation which is considered hazardous by the Center for Devices and Radiological Health (CDRH).

Only trained service representatives are allowed to remove protective covers.

When protective covers are removed during service, service representatives should exercise extreme caution and follow these guidelines:

- Never allow the beam to directly enter the eye.

- Never expose other personnel.

> **CAUTION:**
> Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Under no circumstances should you attempt to service the unit. Never attempt to look at the laser beam, even if the unit appears to be nonfunctional. Never remove covers or enclosures. Doing so could result in hazardous radiation exposure.

Maximum Accessible Radiation

The maximum accessible radiation level during operation and maintenance of the AccuSet imagesetter is less than 0.39 micro watts. This classifies the AccuSet as a Class I device.

Never remove the protective covers.

Laser Classification

The AccuSet imagesetter is a Class I product. This means that you are not exposed to any hazardous laser radiation during normal operation and maintenance. The AccuSet imagesetter complies with the Code of Federal Regulations 21CFR 1040.10 and 1040.11 for Class I laser products.

Inside the AccuSet is a class IIIa laser product. This device emits laser radiation which is considered hazardous in accordance with the Code of Federal Regulations.

You are not exposed to this level of radiation as long as the protective covers remain in place.

Labeling

Various warning and compliance labels are attached to the AccuSet imagesetter.

A label with the following warnings is attached to the AccuSet image-setter in three places:

<div align="center">
DANGER
LASER RADIATION WHEN OPEN
AVOID DIRECT EXPOSURE TO BEAM
</div>

The warnings are repeated in French, German, and Spanish. A representation of the label appears in Figure 1.5 on the next page.
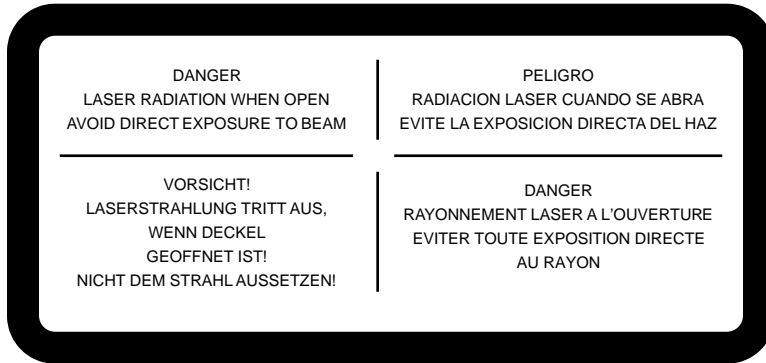
Figure 1.5. Multilingual warning label.

The laser class label is located on the rear panel. The label bears this message:

CLASS 1 LASER

The message is repeated in German.

This label indicates the class of laser radiation during operation and maintenance. This class is considered safe for operator access in accordance with the Code of Federal Regulations. A representation of this label appears in Figure 1.6, below.
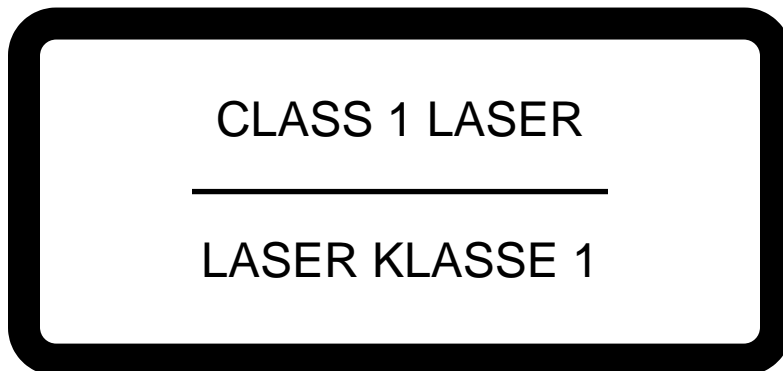
Figure 1.6. Laser class label.

The CDRH compliance label is located on the rear panel. It reads:

AGFA Division certifies that this product conforms to all applicable provisions of 21 CFR Subchapter J in effect as of the date of manufacture.

A representation of this label appears in Figure 1.7, below.
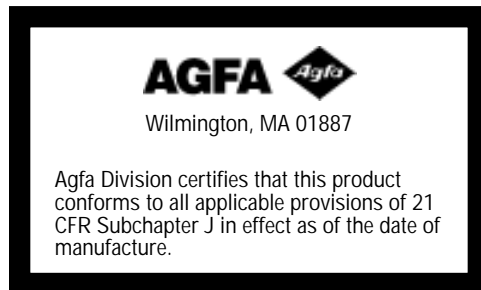
Figure 1.7. CDRH compliance label.

A laser aperture label is located inside the imager assembly, near the laser device. You cannot access this label.

A representation of this label is shown in Figure 1.8, below.
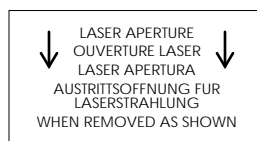
Figure 1.8. Laser aperture label that appears inside the imager assembly.

A second laser aperture label is located on the imager assembly cover. You cannot access this label.

A representation of this label is shown in Figure 1.9, below.

```
LASER APERTURE
OUVERTURE LASER
LASER APERTURA
AUSTRITTSOFFNUNG FUR
LASERSTRAHLUNG
AVOID EXPOSURE - LASER
RADIATION IS EMITTED FROM
THIS APERTURE
```
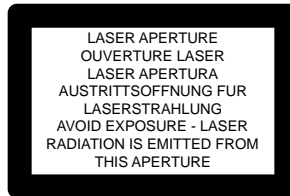
Figure 1.9. Laser aperture label that appears on the imager assembly cover.

Chapter 2:

Operating the AccuSet

Introduction

This chapter describes:

- How to start up your AccuSet.

- Features of the control panel message display.

- The control panel indicator lights.

- How to use the control panel function keys.

- The use of supply cassettes. This includes loading media into supply cassettes, how to put supply cassettes into the imagesetter, and how to remove them.

- How to use take-up cassettes.

- An overview of how to image a job.

- How to reset your AccuSet.

- How to install and use the manual cut lever.

- How to shut down your AccuSet.

How to Start Your AccuSet

Step 1: Turn on the main power switch.

- The switch is located at the rear of the unit, above the power cord.

- Press down the side of the switch labeled I.

Step 2: Wait for the message `On Line`.

- If your AccuSet uses an internal RIP, `RIP Booting` appears on the message display as it starts up.

- Do not start up the external RIP until the imagesetter displays the `On Line` message. The external RIP cannot successfully boot up until the imagesetter is on line.

Step 3: When the `On Line` message appears:

- If you have an External RIP, start it up now.

- Systems with internal RIPs are ready for use.

Step 4: Start up one or more computers that make up the front end of your imaging system.

NOTE: When you start up an AccuSet running with the `Processor` option turned on, the imagesetter automatically advances media and cuts the minimum amount required to get across the bridge.

Status Display

When you start up your AccuSet, the On Line message appears on the control panel message display. It shows the current status of the imagesetter.

```
 ①                            ②
┌──────────────────────────────┐
│ On Line         0.0'         │
│ 1200   171 PR      0         │
└──────────────────────────────┘
    ③          ④    ⑤      ⑥
```
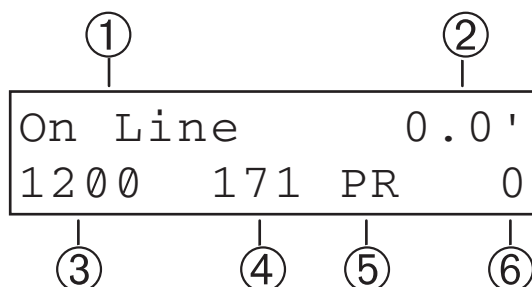
Figure 2.1. The status display.1. Imagesetter status. 2. Amount of media advanced. into the take-up cassette. 3. Current resolution. 4. Current exposure setting.5. Video mode: (Positive or Negative; Right reading or Wrong reading.6. Number of jobs imaged and completed.

NOTE: The amount of media advanced and number of jobs imaged are reset to zero any time the media is cut.

Message Display Basics

Read this section to learn about the parts of the message display.

Fields in the Message Display

Some message displays have active fields where you can change parameters that affect the way your AccuSet operates.
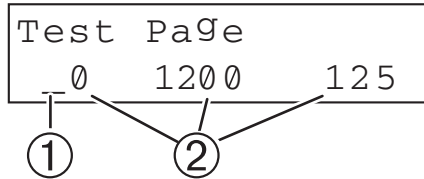
Figure 2.2. You can change parameter values when the cursor is in a field.
1. Cursor. 2. Fields.

- In some fields, type a number to change the value

- In other fields press SELECT to change the value.

Cursor Home Position

The position of the cursor affects what you can do with a control panel function.

The cursor must be in Home position to execute a command or enter changed parameters.
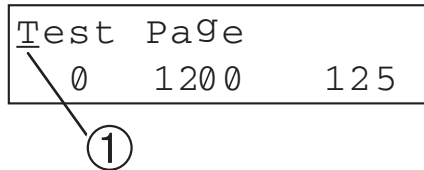
Figure 2.3. Cursor Home position.

Control Panel Indicator Lights

There are two indicator lights on the control panel.

POWER

Description: Green LED.

Function: Glows continuously when the AccuSet is on.

IMAGING

Description: Red LED.

Function: Flashes off and on when the AccuSet is on and idle, ready to accept a job.

Glows continuously when the AccuSet is busy imaging a job.

Control Panel Function Keys

This section briefly describes the control panel function keys.

ARROW KEYS

Function: Right and left arrow keys move the cursor around the message window.

Arrow keys are represented in the text by these symbols: ▶ or ◀.

Key Sequence: Press ▶ or ◀; the cursor moves in the direction of the arrow. Unless directed otherwise, use whichever is most convenient.

Number Keys (1, 2, 3, 4, 5, 6, 7, 8, 9, 0)

Function: Use to enter numbers for exposure values, media remaining amount, etc.

Key Sequence: Exact sequence varies with the procedure.

CASS

```
C0  F  1200    171
 14.0"     250.0'
```

Function: Displays the parameters for each of the ten supply cassettes.

Key Sequence: Press CASS. The message window displays cassette parameters.

Press SELECT to scroll through the ten cassette parameters.

CUT

```
Cut media
      _1.5'
```

Function: Cuts media after it advances the amount specified in the display. The maximum value you can specify is two feet.

Key Sequence: Press **CUT**.

Press ▶ then type a number to change the amount of media that is advanced.

Press ▶ to move the cursor to home position, then press **ENTER**.

NOTE: When the **Processor** option is on and you press **CUT**, the AccuSet ignores the advance amount you specify and automatically cuts just past the end of the last imaged job.

CANCEL JOB

Function: Cancels the job that is currently being processed or imaged. Has no effect on systems that use external RIPs.

Key Sequence: Press **CANCEL JOB**. When the message **Halt RIP?** appears, press **ENTER**. When the message **RIP Halted** appears, press **CANCEL JOB** then **ENTER** a second time.

SELECT

Function: Enables you to make selections within AccuSet control panel functions

Key Sequence: Within a function, press **SELECT**.

UNLOAD

Function: Feeds media back into supply cassette; releases media tension. Enables you to remove supply cassette from imagesetter with least possible media waste.

Key Sequence: Press **UNLOAD** then **ENTER**.

TEST

```
Test Page
 _0   1200    125
```

Function: Generates test pages. Results are used to adjust exposure and left margin settings. Has three fields: test page number, resolution, and exposure.

Key Sequence: Press **TEST**. Change the test page number, resolution and exposure as required. Press **ENTER** to image the test page.

FEED

```
Feed
    _1.5'
```

Function: Feeds a specified amount of media. The maximum value you can specify is two feet.

Key Sequence: Press FEED.

Press ▶ then type a number to change the amount of media that is fed.

Press ▶ to move the cursor to home position, then press ENTER.

NOTE: When the **Processor** option is on, the AccuSet is programmed to cut media so that the amount of media sent to the processor does not exceed four feet (approximately 1.22 meters) in length. Because of this, unexposed media may be advanced when you press FEED. When the Processor option is on, use CUT instead of FEED to conserve media.

ENTER

Function: Used to execute commands or put commands into effect. Commands are executed only if the cursor is positioned in the top right corner of the message display.

Key Sequence: Press another function key, or type numbers with the numeric keys, then press ENTER.

LOAD

Function: Used when loading media. Takes up slack after you manually load media.

Key Sequence: Press LOAD then ENTER.

CLEAR

Function: Erase typing errors in a number field; remove messages from the display if the message requires another control panel function to correct a problem. If you clear a message and fail to correct the problem, the message reappears.

Key Sequence: Press CLEAR.

ON LINE

Function: Switches the system between the On Line or Off Line mode. System must be On Line to receive data and image. Use Off Line when changing parameters or executing a command through the control panel.

Key Sequence: Press ON LINE.

OPTION

Function: Use to select options and define parameters that are not often changed.

Key Sequence: Press OPTION then ENTER. Options menu appears in the message window.

Supply Cassettes

To operate the AccuSet, you need to load it with media. The media supply is housed in a reloadable lightproof box called the supply cassette. This section tells you how to:

- Load media into the supply cassette.

- Put the supply cassette into the media compartment.

- Remove the supply cassette from the media compartment.

Loading the Supply Cassette

To load media into the supply cassette, follow the steps listed below.

> **CAUTION:**
> Handle the supply cassette carefully. Carry it by the handles. Always place the cassette on a flat surface.

Handles
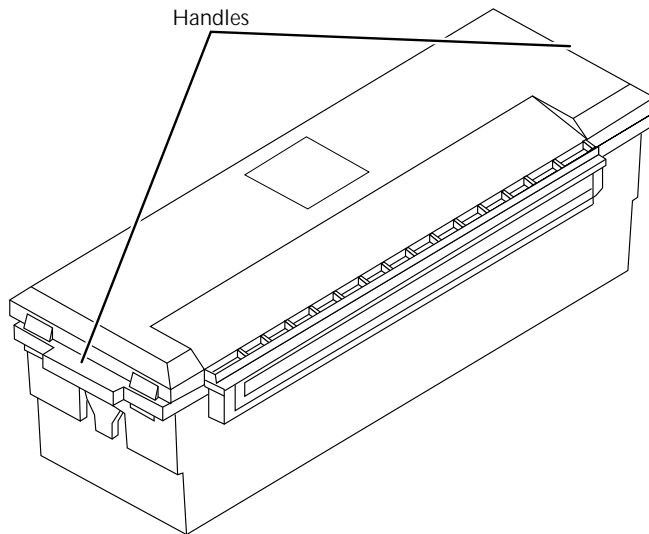
Figure 2.4. The AccuSet supply cassette.

Step 1:   Remove the supply cassette cover.

- **Place the supply cassette on a flat surface.**

- **Locate the four tabs that secure the cassette cover. They are at the left and right sides.**

- **Pull the tabs away from the cassette.**

- **Remove the supply cassette cover.**

Tabs
(Hidden from view)

Tabs

Plush Edge
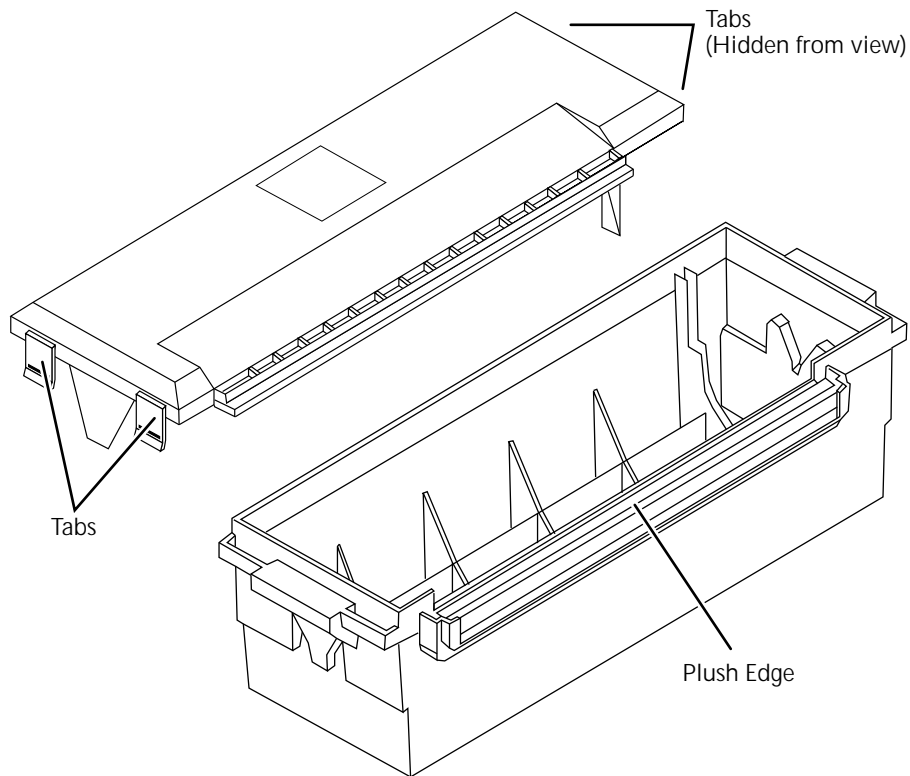
Figure 2.5. Remove the supply cassette cover.

Step 2: Remove the media spindle.

- The spindle runs down the center of the supply cassette.

- At the right end of the spindle is a wheel and media guide.

- At the left end is a spring loaded media guide.

    CAUTION:
    Always keep the media spindle horizontal. Holding it so that the shaft points straight up and down may damage the end caps.
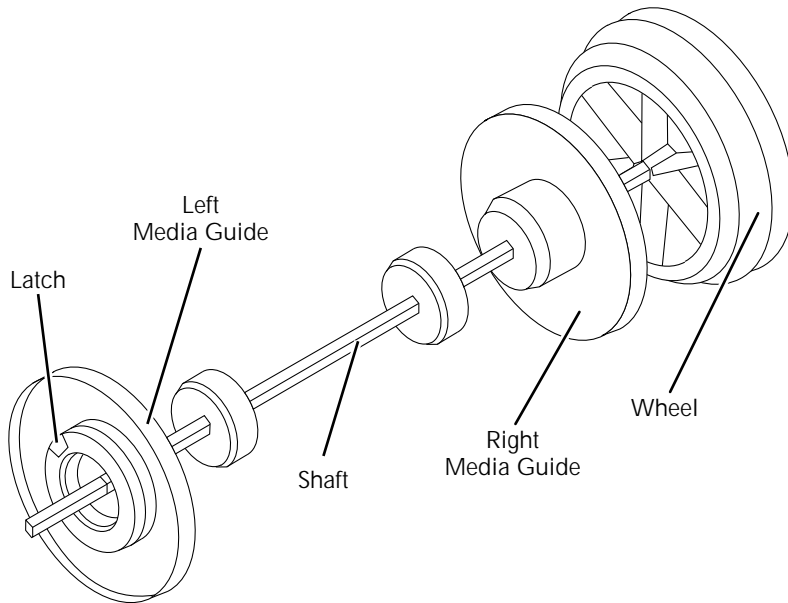
Figure 2.6. The media spindle.

Step 3: Remove the left media guide.

- Locate the latch on the left side of the media guide.

- Press the latch.

- (*Optional.*) If there is a cardboard core left on the spindle, remove it.

Step 4: (*Optional.*) If necessary, adjust the right media guide to match the size of the media.

- The shaft of the media spindle has notches that correspond to the media sizes.

- To move the right media guide, press the latch and slide media guide.

- Move the guide until it is engaged into the correct media width notch.

Step 5: Load the new roll of media onto the spindle.

- Slide the new roll of media onto the spindle.

- With the wheel on the right, keep the leading edge of the media wrapper on top towards you.

- Replace the left media guide on the spindle.

- Slide the media guide against the roll of media and push the media guide into the media roll core until the latch clicks into place.

- Check both media guides after you put the media roll on the spindle.

- Make sure that the latches are locked into position so they hold the media guides firmly in place.

NOTE: If the latches are not securely locked, the media guides can slip, leading to excessive side-to-side movement of the media roll and media jams.

Step 6: Reinsert the spindle into the supply cassette.

- Place the spindle wheel in the cut out of the cassette.

- Remove the tape from the roll of media.

- Unroll the wrapper/leader until it hangs over the plush edge of the media box by approximately two inches.

Step 7: Replace the supply cassette cover.

- Set the supply cassette so that the leader of the media faces you.

- Place the cover over the cassette and slide it to your right. This seats the internal light shield correctly.

- Pull the leader out of the cassette until you see media.

- Remove the leader from the media.

- The supply cassette is now ready to be loaded into the AccuSet media supply compartment.

Installing a Loaded Supply Cassette

After you load media into a supply cassette, or if you need to change the kind of media you are using, you need to put a new supply cassette into the media compartment.

This section describes how to put a supply cassette into the media transport compartment. Media can be loaded either with or without the take-up cassette installed. The loading procedure is also described on a label attached to the inside of the media transport cover.

Media Loading Instruction Label

Media Compartment Cover

Light Shield

Supply Cassette Holder

Upper Platen Assembly

Take-up Cassette Holder
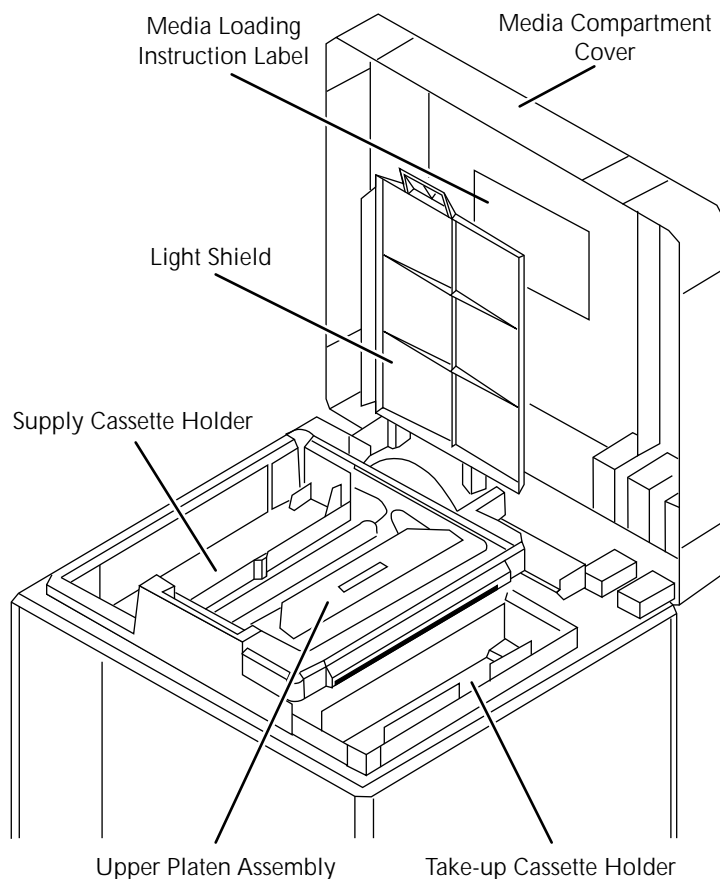
Figure 2.7. The AccuSet with the covers open.

Step 1:   Open the covers to reach the media supply compartment.

- Lift up both the take-up and media supply compartment covers.

- Raise the light shield cover so that it rests against the media transport cover.

Step 2:   Release all pressure and tensioning rollers in the media path.

- Lift the media tension arm handle to disengage the two tensioners.

- Raise the upper platen assembly by lifting the handle and raising it towards the take-up cassette.

Step 3:   Place a loaded supply cassette into the cassette holder.

- Make sure that the cassette is firmly seated, with no side-to-side movement.

- Pull out approximately eight inches of media from the supply cassette.
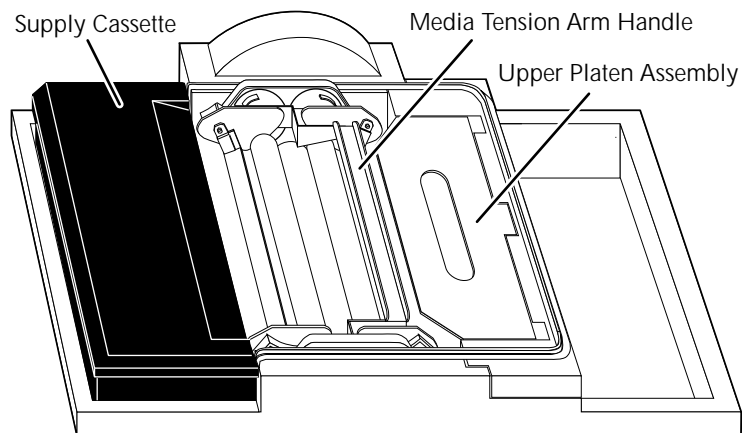
Figure 2.8. Place a loaded supply cassette in the cassette holder.

Step 4: Thread the media through the media path. The path goes:

- Over the supply tension roller.

- Under the capstan roller.

- Over the take-up tensioning roller.

- Through the slot into the take-up cassette compartment.

When in place, pull approximately two inches of media into the take-up cassette area.
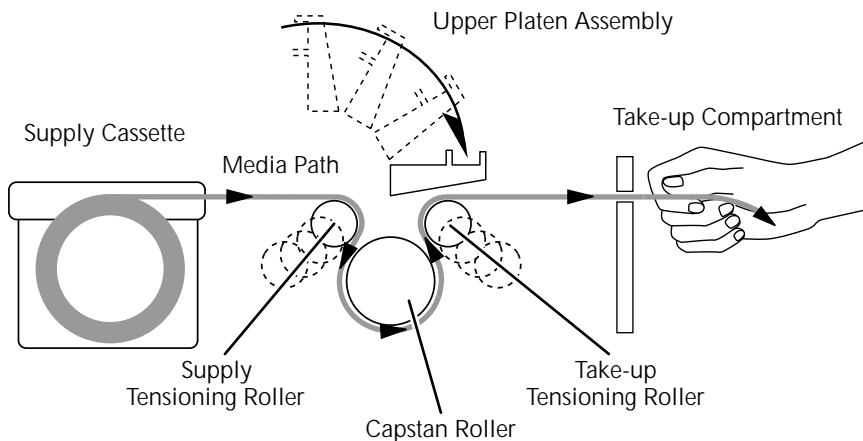
Figure 2.9. Thread the media through the media path.

Step 5: Close the pressure and tensioning rollers in the media path.

- Hold the media in place in the take-up compartment.

- Close the upper platen.

- Move the tension arm handle to its home position.

Step 6: Close the covers.

- Close the internal light shield cover firmly and make sure that it is securely closed.

- Close the media transport cover.

Step 7: Tighten and advance the media.

- If the AccuSet is on-line, press ON LINE to take it off-line.

- Press LOAD, then ENTER. This engages the two tension arms and removes any slack in the media.

- Press CUT, then ENTER. This advances the exposed media. Make sure that the specified cut amount is large enough to clear all exposed media.

  NOTE: When you press LOAD on an AccuSet running with the Processor option turned on, the imagesetter automatically advances media and cuts the minimum amount required to get across the bridge.

Step 8: Install the take-up cassette.

- Push the cassette down firmly until it clicks into place.

- Be sure the cassette is installed correctly to prevent media jams and light leaks.

- Close the take-up compartment cover.

To Remove Supply Cassettes

Step 1: Remove any exposed media from the AccuSet.

Step 2: Make sure that the AccuSet is in the off line mode.

• If not, press ON LINE.

Step 3: With the media transport cover closed:

• Press UNLOAD, then ENTER.

This feeds the media in the media transport area back to the supply cassette, leaving a leader of approximately eight inches. It also releases tension on the media.

> **NOTE:** If you haven't removed the take-up cassette, the message **Remove Cassette** appears.

Step 4: Open the take-up cassette, media transport, and the light shield covers.

Step 5: Remove the supply cassette:

• Grab the two handles on each side of the supply cassette.

• Lift the supply cassette out of the supply compartment.

> **CAUTION:**
> Carry the supply cassette only by its handles. Use both hands when you carry it. Keep the supply cassette level to reduce the chance of the media sliding from side to side. Handle the supply cassette carefully to avoid damaging the media guides.

Take-up Cassettes

The take-up cassette receives the exposed media. Each AccuSet comes with one standard cassette.

Inserting Take-up Cassettes

To insert take-up cassettes:

- Open the take-up cassette compartment.
- Line up the cassette with the cassette guides.
- Press down firmly. Make sure that the opening of the cassette is lined up with the media exit slot.

Follow these guidelines when you insert a take-up cassette. See Figure 2.10, below.

1. Push the take-up cassette down firmly when you place it in the take-up compartment.
2. Push the take-up cassette as far as possible toward the front of the AccuSet.
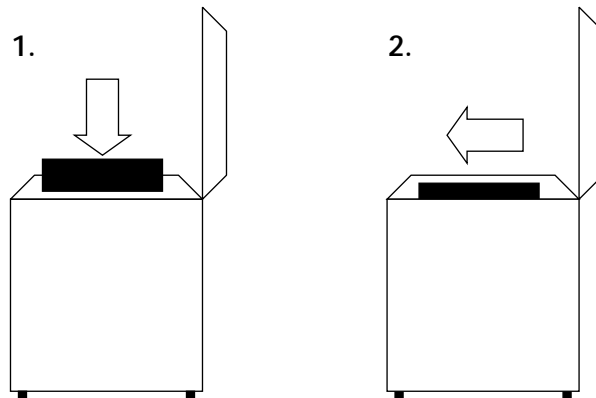
Figure 2.10. 1. Push the cassette down firmly.
2. Push the cassette toward the front of the AccuSet.

Removing Take-up Cassettes

To remove take-up cassettes:

- Open the take-up cassette compartment.
- If there is media in the take-up cassette, make sure that it has been cut.
- Grab the cassette by its handle and lift up firmly.
- Close the take-up compartment cover after you remove the cassette.
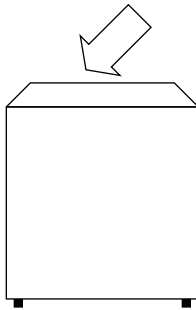
Figure 2.11. Close the take-up compartment cover after you remove the take-up cassette.

Imaging a Job

Step 1: Make sure the imaging system is up and ready.

- The front end is on.

- The RIP and imagesetter are on and ready.

- Your media processor is on.

Step 2: Send a job from the front end to the imagesetter.

- At the front end, make sure that you have selected the AccuSet as the output device.

- The message `RIP Active` on the AccuSet message display means that data is coming in from the front end. This message appears only if your AccuSet has an internal RIP.

- The message `Imaging` tells you that the job is being imaged by the AccuSet.

- When the message `On Line` appears after `Imaging`, the job is complete.

Step 3: Process the job.

- (*Optional.*) If you need to feed more than 2 feet of media after the job, press FEED then ENTER.

- Press CUT then ENTER.

- Open the take-up compartment and remove the take-up cassette.

- Process the exposed media.

Operating Hints

Unexposed media inside the AccuSet can be fogged if you leave the take-up compartment cover open for a long time. To avoid this problem, take the following precautions:

- Close the take-up compartment cover when the AccuSet is idle. (See Figure 2.11 on page 2–22.)

- Keep the take-up compartment cover closed except to insert or remove the take-up cassette.

Unexposed media may be fogged if it sits in the AccuSet for a long time. You may need to use the FEED key to advance some unexposed media out of the imagesetter before you image a job. The recommended feed amount is 1.3 feet.

Exposed media, if left in the AccuSet for a long time, can be fogged. To avoid this problem, take the following precautions:

- Advance 1.3 feet of media after the last job if you use a free-standing media processor. For example, you can add extra blank pages to the last job in a queue, or you can set up a special blank file to send after the last "real" job.

- Set the time delay value to 60 minutes or less if you use an on-line media processor. See *Chapter 4: Set Up Cassettes and Option*s for information about setting the time delay.

Resetting the AccuSet

Reset procedures enable you to clear fatal errors. A fatal error causes the system to stop or "hang up" in such a way that normal recovery procedures will not restart it.

The AccuSet has two reset procedures:

- Control panel reset, described below.

- Resetting the internal RIP, described on the next page.

These procedures enable you to reboot the system without turning the power off and on again.

Control Panel Reset

To reset the AccuSet from the control panel:

- Press OPTION, then SELECT.

- The message **RESET SYSTEM?** appears on the control panel.

- Press ENTER two times to confirm the command. This resets the AccuSet.

You can cancel a reset command when the **RESET SYSTEM?** message appears. Press any control panel function key other than ENTER.

Once you confirm the reset command, you must wait for the AccuSet to reload its operating software. This process takes 5 or 10 minutes for systems that have an internal RIP. The reset is much faster for external RIP systems.

Resetting the Internal RIP

The internal RIP is equipped with a reset button. The button is located on the I/O panel at the rear of the AccuSet imagesetter. See Figure 2.12, below.
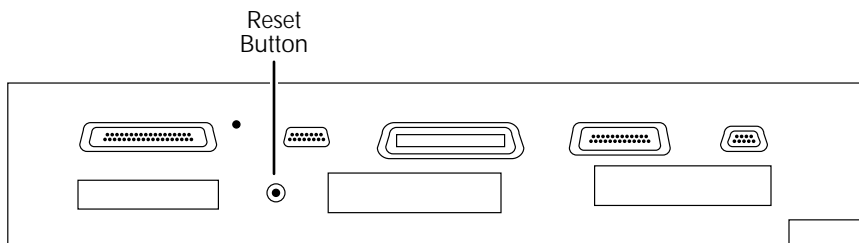
Figure 2.12. The reset button for the AccuSet internal RIP is located on the I/O panel at the rear of the imagesetter.

Clearing Cutter Jams

If the power cutter becomes jammed, use the `Clear Cut Jam` function from the OPTION menu to clear it. Follow this procedure.

Step 1: If the AccuSet is on-line, press ON LINE to take it off line. You cannot access the `Clear Cut Jam` option when the image-setter is on-line.

Step 2: Execute the `Clear Cut Jam` function.

- Press OPTION.

- Press SELECT repeatedly until the message `Clear Cut Jam` appears.

- Press ENTER. The AccuSet runs the power cutter motor to clear the jam.

Step 3: Press ON LINE to put the AccuSet back on-line.

Manual Operation of the Power Cutter

In the event of a problem with the AccuSet power cutter, you can install a manual cut lever. This enables you to operate the cutter by hand.

Manual operation of the power cutter is divided into two procedures:

1. Installing the manual cut lever in the take-up compartment.
2. Using the manual cut lever.

Installing the Manual Cut Lever

The manual cut lever is stored inside the AccuSet, attached to the imagesetter's frame. For installing the lever, a $^1/_4$" open end wrench is supplied.

This procedure describes:

• How to find and remove the wrench and lever.

• How to install the manual cut lever in the take-up compartment.

Step 1:   Remove the left side panel. See Figure 2.13 on page 2–29.

• Open the media compartment cover.

• Stand so that you face the AccuSet supply cassette.

• Pull the bottom of the left side panel away from the image-setter to release the catches that hold it in place.

• Lift the left side panel off the upper support.

• Put the panel in a safe location.

Media Compartment Cover

Supply Cassette

Light Shield

Upper Support for
Left Side Panel

Lever and
Wrench Kit

Catches for
Left Side Panel
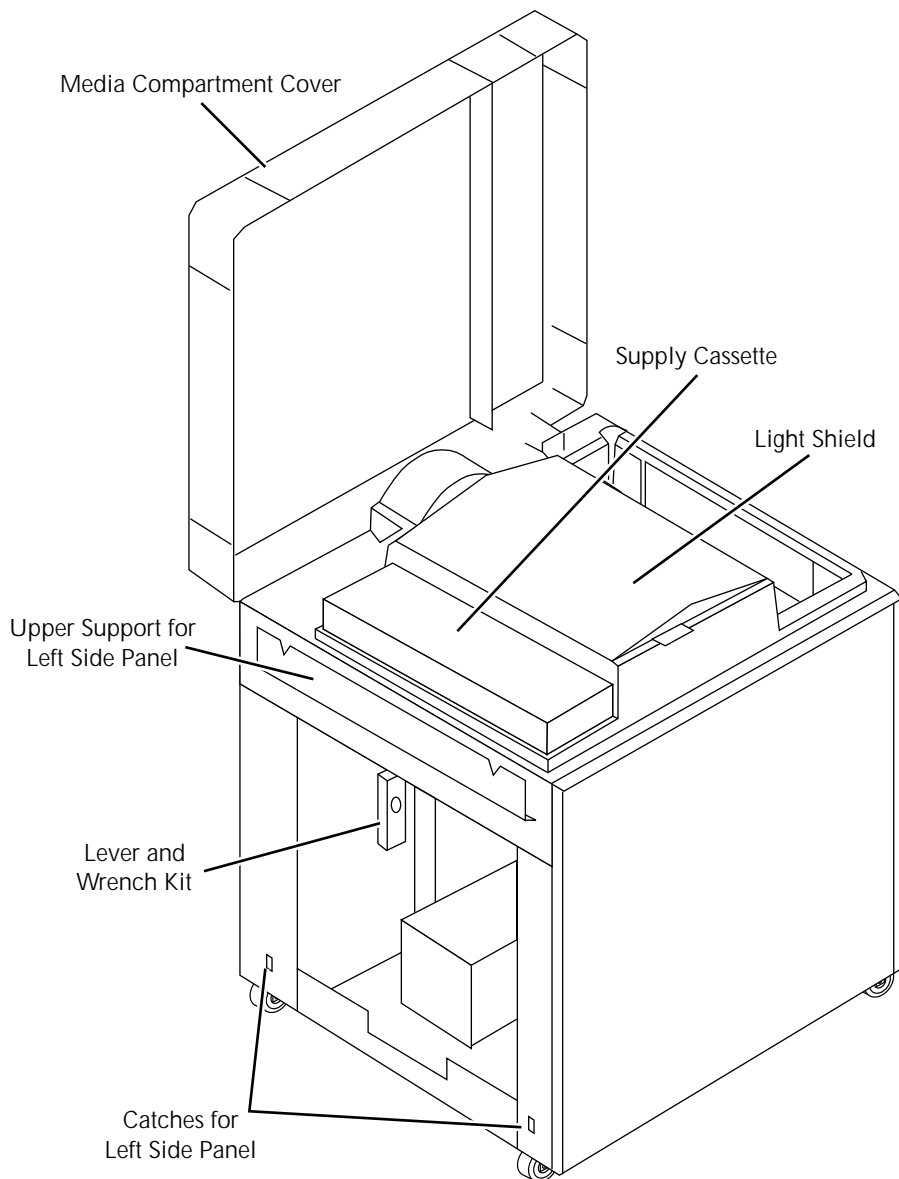
*Figure 2.13. The AccuSet with the left side panel removed. The lever and wrench are
attached to the frame. Note the locations of the catches and upper support for the left
side panel.*

Step 2: Remove the manual cut lever and wrench.

- The lever and wrench are mounted on the frame of the imagesetter.

- Remove the wing nut that holds the lever and wrench to the frame.

- Remove the wrench and lever, then replace the wing nut.

Step 3: Turn off the power cutter.

- Press ON LINE to take the AccuSet off-line.

- Press OPTION.

- Press SELECT repeatedly until the message **Power Cutter** appears.

- Press ▶ to move the cursor to the selection field.

- Press SELECT to switch the selection **Off**.

- Press ENTER to save the parameter change.

- Press ON LINE to put the AccuSet back on line.

Step 4: Remove the cutter cover.

- Unscrew the two retaining screws that hold the cover in place. These screws cannot be removed from the cover even when completely loosened. See Figure 2.14 on page 2–31.

- Lift the cutter cover out of the take-up area.
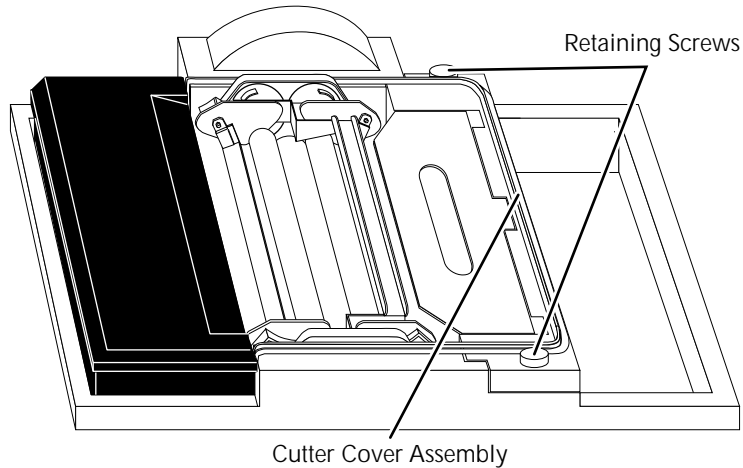
Figure 2.14. Two retaining screws hold the cutter cover in place.

Step 5: Remove the follower from the cutter shaft.

- The follower is a metal tab attached to the right end of the cutter shaft. It is part of the drive mechanism that operates the power cutter.

- Use the $\frac{1}{4}$" open end wrench to remove the screw that holds the follower to the end of the cutter shaft.

- Keep the screw in a safe place. You reuse it in the next step of this procedure.

- Remove the follower from the end of the cutter shaft and store it in a safe place. This part will be reinstalled when your service representative repairs the power cutter.

Step 6: Attach the manual cut lever. See Figures 2.15 and 2.16.

- Place the lever on the left end of the cutter shaft.

- Secure the lever with the screw removed in Step 5. Tighten the screw with the $^1/_4$" open end wrench.
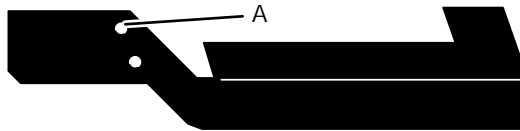
Figure 2.15. There are two holes in the manual cut lever. Attach the lever to the cutter shaft at A.

Step 7: Replace the cutter cover.

- Carefully seat the cutter cover. See Figure 2.16.

- Tighten the retaining screws to hold it in place.
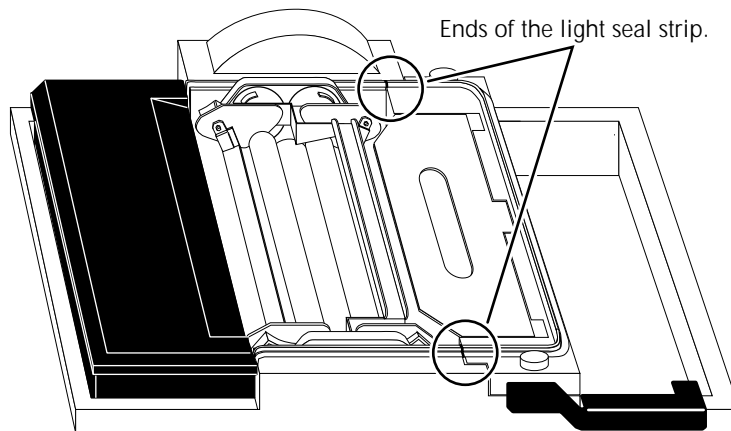
Figure 2.16. Attach the manual cut lever to the left end of the cutter shaft. Rubber strips on the edge of the media transport area and the cutter cover make a tight seal with the light shield. When you replace the cutter cover, make sure that the ends of these rubber strips are not caught under the cutter cover.

Step 8:   Replace the $^1/_4$" open end wrench.

   • Remove the wing nut, then attach the wrench to the frame.

   • Replace and tighten the wing nut.

Step 9:   Replace the left side panel.

   • Hook the panel onto the upper support. Posts on the inside of the panel match up with notches cut in the support.

   • Push the bottom of the panel so that it is held in place by the catches.

Using the Manual Cut Lever

After you install the manual cut lever, follow this procedure to use it.

Step 1: Use the FEED key to advance media into the take-up cassette.

Step 2: Cut the media.

- Lift the manual cut lever until it stops.

- Return the lever to its original or *home* position.

Step 3: Remove the take-up cassette and process the exposed media.

Manual Cut Lever in Home Position
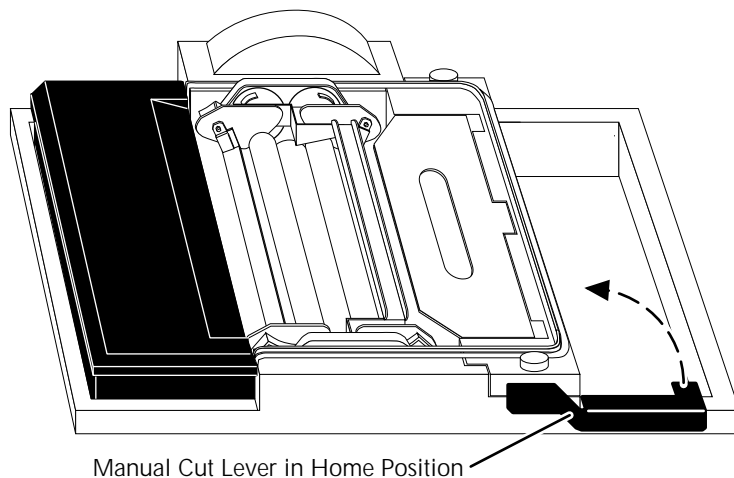
Figure 2.17. To make a cut, lift the lever until it stops. Return the lever to its original, or home, position when you are done.

Motor Cleaning

Use the `Motor Cleaning` option every time you finish a roll of media. This command runs the tensioning motors at high speed for twenty seconds to remove carbon buildup. Follow this procedure.

Step 1: Remove the supply cassette. See the procedure *To Remove Supply Cassettes* on page 2–20.

Step 2: Press ON LINE to take the AccuSet off line. You cannot access the `Motor Cleaning` option when the imagesetter is on-line.

Step 3: To execute `Motor Cleaning`:

- Press OPTION.

- Press SELECT repeatedly until `Motor Cleaning` appears on the message display.

- Leave the cursor in the home position.

- Press ENTER. The tensioning motors run for twenty seconds, then automatically stop.

NOTE: While this is running, the keypad is locked and no other functions can be performed.

Step 4: Press ON LINE to put the AccuSet back on-line.

To Cancel a Job

NOTE: The CANCEL JOB key has no effect on AccuSet systems that use an external RIP.

You can cancel a job that is being imaged. Follow this procedure:

Step 1: Press CANCEL JOB.

- The message **Halt RIP?** appears on the message display.

Step 2: Press ENTER to confirm the command.

- The message **Halt RIP?** remains as the internal RIP comes to a halt. This can take a few minutes.

- The message **Off Line RIP Halted** appears when the job has been cancelled.

  NOTE: You can stop a CANCEL JOB command. See the section *Stopping a Cancel Job Command* on page 2–37.

Step 3: Press CANCEL JOB a second time.

- The message **Restart RIP** appears on the message display.

Step 4: Press ENTER a second time to restart the RIP.

- When the RIP is ready, the message **On Line** appears.

Step 5: When the **On line** message appears, the AccuSet is ready to image jobs again.

Stopping a Cancel Job Command

You can stop a CANCEL JOB command.

When the AccuSet Is Busy

To stop a CANCEL JOB command when the AccuSet is busy, follow this procedure in place of Step 2 on page 2–36:

To stop the command, press ON LINE. This sets up a pause pending.

- When the current job is finished, the AccuSet displays the message **Off Line**.

- Press ON LINE to put the AccuSet back on line.

When the AccuSet Is Idle

To stop a CANCEL JOB command when the AccuSet is idle, follow this procedure in place of Step 2 on page 2–36

To stop the command, press any other function key on the control panel.

Shut Down Procedures

There are different shut down procedures for internal RIP and external RIP systems.

Internal RIP Systems

If your AccuSet has an internal RIP, follow this shut down procedure:

Step 1: Press CANCEL JOB.

- The message **Halt RIP?** appears on the message display.

Step 2: Press ENTER to confirm the command.

- The message **Halt RIP?** remains as the internal RIP comes to a halt. This can take a few minutes.

- The message **Off Line RIP Halted** appears when the job has been cancelled.

Step 3: Turn off the main power switch.

- The switch is located at the rear of the unit, above the power cord.

- Press down the side of the switch labeled **O**.

External RIP Systems

If your AccuSet uses an external RIP:

- To shut down the external RIP, follow the shut down procedures described in the *RIP Hardware User Guide*.

- To shut off the imagesetter, just turn the main power switch off.

Chapter 3:

Status Messages

Introduction

This chapter lists the different status messages that appear on the AccuSet message display. These messages:

- Tell you what the imagesetter is doing.

- Let you know if there is a problem.

> **NOTE:** Some messages in this chapter describe RIP functions. These messages appear only on AccuSet systems equipped with an internal RIP. External RIP status messages are described in the *RIP Hardware User Guide*.

Status Messages

The messages that appear on the control panel display show:

- The machine's operating status.
- That a system error has occurred.
- That an operator error has occurred.

Advancing Media

Meaning: Media is being advanced.

Bridge Overrun

Meaning: The length of the job to be imaged will not fit on the bridge to the on-line media processor.

Busy

Meaning: The system is imaging a job.

The number after **Busy** shows the current imaging resolution.

Cassette Full

Meaning: 50 feet or 15.2 meters of media have been fed into the take-up cassette without a cut.

Action: Press CUT and remove the cassette.

`Cutter Jam`

Meaning: The power cutter is jammed.

Action: Take the AccuSet off line. Press OPTION, then ENTER. Use the SELECT key to select **`Clear Cutter Jam`** function and press ENTER to clear the jam.

`Cutting Media`

Meaning: The media is advancing and is then cut.

`End Of Take`

Meaning: The system has completed imaging the job.

`Halt RIP?`

Meaning: Appears after you press CANCEL JOB. The internal RIP is aborting a job. If the engine has not started yet, the job will be flushed. If the engine is imaging, both the imagesetter and RIP are reset.

`Hardware Error`

Meaning: The system detected a hardware error.

Action: Press CLEAR to remove the message from the display and resend your job. If the message appears again, call Field Service.

`Imaging`

Meaning: The system is in the process of imaging a file. The media advance amount to the right of the message indicates the amount completed. The system increases this amount every tenth of a foot.

`Laser Filter Err`

Meaning: The system detected an error in the laser filter assembly.

Action: Reset the AccuSet. If this does not clear the error, call for service.

`Loading Media`

Meaning: Tension is being applied to the media.

`Media Error`

Meaning: There is a problem in the media transport area.

Action: Take the AccuSet off line. Press CLEAR to clear the message. Open the media transport covers and internal light shield. Look for obstructions in the media path. Make sure that the take-up cassette is seated properly. Reload the media.

If the AccuSet is on line, pressing CLEAR does not permanently clear the **`Media Error`** message. After one second, the message reappears.

`Media Low`

Meaning: The media remaining in the supply cassette is less than the amount specified through the Alarm menu.

Media Motor Err

Meaning: The system detected an error in the operation of the media transport system.

Action: Reset the AccuSet. If this does not clear the error, call for service.

Media Present

Meaning: You have tried to execute the motor cleaning function without first removing the media.

Action: Remove the media and continue the motor cleaning function.

Missed Brkpoint

Meaning: The RIP sent more data than it specified.

Action: Reset the AccuSet from the control panel. Process the job that generated the error; check to make sure that it is complete. If you cannot clear the error, call for service.

No Cassette

Meaning: There is no take-up cassette in the take-up compartment.

Action: Put a take-up cassette into the take-up compartment. It there is a take-up cassette in the compartment, make sure that it is properly seated.

No Power Cutter

Meaning: You have tried to use the power cutter and it is turned off.

Action: Either perform the cut manually, or turn the power cutter on.

Off Line

Meaning: You have pressed ON LINE at the AccuSet control panel. The imagesetter is idle, ready to receive instructions that you key in from the control panel.

On Line

Meaning: The AccuSet is idle, ready to receive data from the front end.

The number after **On Line** shows the amount of media remaining in the supply cassette.

If your AccuSet has an internal RIP, this means both the writing engine and RIP are ready.

If your AccuSet has an external RIP, this means that the writing engine is ready.

NOTE: For external RIP systems, the AccuSet must display this message before the RIP can boot up.

Out Of Media

Meaning: The system sensed a loss of tension on the media. This is an indication that no media is present.

Action: Take the AccuSet off line. Press **CLEAR** to remove the message, then reload media.

If the AccuSet is on line, pressing **CLEAR** does not permanently clear the **Out Of Media** message. After one second, the message reappears.

NOTE: When the AccuSet runs out of media, it automatically feeds the end of the roll to the take-up area. If your AccuSet is equipped with an online processor, a small piece of media might remain in the area under the platen. Remove and discard this piece when you replace the supply cassette.

Pause Pending

Meaning: You pressed **ON LINE** while the AccuSet was imaging a job. When the job is done, the system will go off line.

Print Test Page

Meaning: The AccuSet is imaging a test page controlled by the **TEST** key.

Processor Comm

Meaning: There is a problem with the communication link between the AccuSet and the bridge to the on-line processor.

Action: Press **CLEAR** to remove the message, then reset the bridge. If this does not clear the error, call for service.

Processor Error

Meaning: The optional on-line media processor is reporting an error. The AccuSet cannot image jobs or advance media until you clear this error

Action: Press **CLEAR** to remove the message. Check your on-line processor and correct the problem.

Processor NotRDY

Meaning: The optional on-line processor is not on line.

Action: Press **CLEAR** to remove the error message. If necessary, turn the processor on. If your system is not equipped with an on-line processor, turn off the **Processor** function under **Option**.

Processor TmOut

Meaning: There is a problem with the communication link between the AccuSet and the bridge to the on-line processor.

Action: Press **CLEAR** to remove the message, Then reset the bridge. If this does not clear the error, call for service.

Remove Cassette

Meaning: The take-up cassette was not removed after the last cut.

Action: Remove the cassette and put in an empty take-up cassette.

RESET SYSTEM?

Meaning: You are about to reset the AccuSet. Appears after you press **OPTION SELECT**.

Action: To confirm your intention to reset the imagesetter, press **ENTER** two times.

To cancel the reset, press any other control panel function key before you press **ENTER** the second time.

Restart RIP

Meaning: This prompts you to restart the RIP when you are using the **CANCEL JOB** key.

Actions: Press **ENTER** to get AccuSet to restore the RIP.

RIP Active

Meaning: The AccuSet is processing a PostScript file. This message appears only on systems equipped with an internal RIP.

RIP Boot Error

Meaning: The internal RIP in the AccuSet did not complete its startup sequence within 20 minutes. Normally, startup takes approximately 5 or 10 minutes.

Action: The AccuSet is on line and can be used without the internal RIP. If communication with a RIP is required, restart the AccuSet. If you are unable to clear the message, call for service.

RIP Booting

Meaning: You have started the AccuSet; the imagesetter is loading its operating software. This message occurs only on systems with an internal RIP.

RIP Halted

Meaning: Job processing by the RIP has stopped because you cancelled a job from the AccuSet control panel.

Action: Press **CANCEL JOB** a second time. When the message **Restart RIP** appears, press **ENTER.**

Spin Vacuum Error

Meaning: An error condition was detected in the AccuSet 1500 spin motor vacuum system.

Action: Try resetting the system or cycling the power off then on. If the error returns, call for service.

Storing Values

Meaning: The values in the Cassette message display are being stored as current settings for the system

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Unloading Media

Meaning: The media is being rewound into the supply cassette. A small leader will extend from the cassette for later reloading.

To Clear Messages

When the AccuSet is off line, press **CLEAR** to remove messages from the control panel display.

Chapter 4:

Set Up Cassettes and Options

Introduction

This chapter describes:

- How to change exposure, media type, amount of media remaining settings by changing cassette parameters.

- How to set up and use the features controlled through the OPTION key on the control panel.

Cassette Parameters

The AccuSet enables you to define up to ten cassettes. For each cassette, you can set values for five different parameters:

- Cassette number.

- Exposure.

- Media width.

- Media type.

- Amount of media remaining.

- Positive or negative output.

- Right reading or wrong reading output.

Why Define Cassette Parameters?

If you define and use cassette parameters, you can change a group of parameters on the AccuSet just by changing the cassette number in the cassette screen. Consider these advantages:

- Save time by not having to key in a new set of parameters.

- Reduce the chances of operator error.

- Easy tracking of media left in a cassette.

An Example

Consider this example:

> A shop uses three different types of media and frequently needs to change between them. Cassette 1 is for film, cassette 2 is for paper, and cassette 3 is for plate material. When changing supply cassettes, an operator goes to the AccuSet control panel and changes the cassette number. The AccuSet reads the stored values from memory.

About Exposure and Resolution Settings

You set exposure values for the AccuSet through the cassette parameters. Because of the way the AccuSet creates images, each resolution requires a different exposure setting. An exposure value is linked to each resolution setting.

You change the AccuSet imaging resolution from the front end of your system.

- In some cases, you can specify the resolution through the front end application.
- If you cannot specify resolution through the front end application, use the Agfa Software Tools that come with your AccuSet.

The AccuSet changes the exposure value to match the resolution setting sent from the front end. Here is a description of the process:

1. A resolution setting is sent from the front end to the RIP.
2. The RIP processes the command and sends it to the AccuSet.
3. The AccuSet changes its resolution setting.
4. The AccuSet checks the current cassette parameters and sets the exposure to the value linked to the specified resolution.

Keep this description in mind as you follow the procedure in *How to Define Cassette Parameters* which begins on page 4–4. You set the exposure value in Step 4 on page 4–5.

How to Define Cassette Parameters

Follow this procedure to change cassette parameters.

Step 1: Access the cassette parameters.

- If the AccuSet is on-line, press ON LINE to take it off-line. You cannot change parameter settings when the imagesetter is on-line.

- Press CASS. The control panel display changes to show the values set for the current cassette. See Figure 4.1, below.

- When the cassette parameters first appear on the control panel display, the cursor is under the C in the top left corner.

- To move the cursor through the different fields of the display, press either the left arrow (◄) or right arrow (►) key on the control panel.

```
 1.    2.  3.      4.          5.
   \    |   |       |           |
  ┌─────────────────────────────┐
  │ C0  F  1 2 0 0    1 7 1      │
  │ 1 4 . 0 "    2 5 0 . 0 '  PR │
  └─────────────────────────────┘
    |       |       |      |   | \
   6.      7.      8.     9.  10. 11. 12.
```
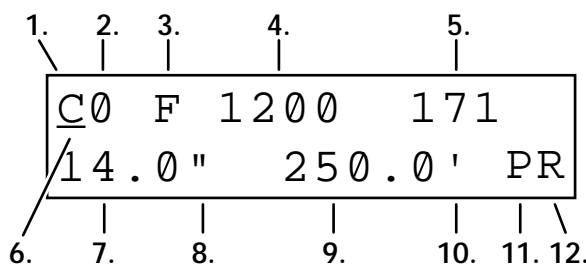
Figure 4.1. Cassette Field Parameters. 1. Cassette field. 2. Cassette number. 3. Media type. 4. Resolution. 5. Exposure value. 6. Cursor. 7. Media width. 8. Units of measurement. 9. Media remaining. 10. Units of measurement. 11. Positive or negative image. 12. Right or wrong reading image.

Step 2: Select the cassette number.

- Use either arrow key to put the cursor under the **C** in the message window.

- Press **SELECT** to change the cassette number.

- There are ten choices:

    0, **1**, **2**, **3**, **4**, **5**, **6**, **7**, **8**, or **9**.

- Each time you press **SELECT**, the cassette number changes; the information that appears in the display also changes.

Step 3: Select the media type.

- Move the cursor to the Media Type field.

- Press **SELECT** to change media type.

- There are three choices:

    P (Paper)
    F (Film)
    Z (Plate Material)

Step 4: Set the exposure value in dots per inch.

- Move the cursor to the Resolution field.

- Press **SELECT** to change the resolution.

- There are five choices:

    600 (This value is unavailable on the AccuSet 1500.)
    1200
    1800
    2400
    3000

- Move the cursor to the Exposure field.

- Use the number keys. Type the value for the exposure setting.

- Exposure values can range from **0** to **255**.

- Repeat as required for each resolution setting that you intend to use.

Step 5: Set the media size.

- Move the cursor to the Media Size field.

- Press **SELECT** to change media size.

- There are five choices:

10	(inch)	**25.4**	(cm)
11	(inch)	**27.9**	(cm)
12	(inch)	**30.5**	(cm)
13.3	(inch)	**33.8**	(cm)
14	(inch)	**35.6**	(cm)

Step 6: Set the unit of measure.

- Move the cursor to the Unit of Measure field.

- Press **SELECT** to change the unit of measure.

- There are two choices:

    " (tenths of an inch)
    c (centimeters)

- Each time you press **SELECT**, you switch between the two choices.

```
C0  F 1200   171
35.6c    76.2m PR
```

Figure 4.2. Cassette Field Parameters. This example shows the values for media width and media remaining displayed in metric units.

- As you change the unit of measure, the system automatically calculates and displays the new values.

Step 7:   Set the media remaining amount.

- Move the cursor to the Media Remaining field.

- This field displays the amount of media left on the current roll.

- Use the number keys. Type the value for the amount of media left.

- The AccuSet calculates how much media it uses for each job, then subtracts it from the media remaining value at the end of the job.

Step 8:   Set the two video modes.

- Move the cursor to the first video mode field.

- This field shows whether the imagesetter will create positive or negative output.

- Press SELECT to change the mode.

- There are two choices:

  N (negative)
  P (positive)

- Each time you press SELECT, you switch between the two choices.

- Move the cursor to the second video mode field.

- This field shows whether the imagesetter will create right reading or wrong reading output.

- Press SELECT to change the mode.

- There are two choices:

  R (right reading)
  W (wrong reading)

- Each time you press SELECT, you switch between the two choices.

Step 9:   Store the cassette values.

- Check the values that you see on the message display.

- Move the cursor under the C at the top left corner of the message display.

- Press ENTER.

- The message **Storing Values** appears on the message display.

- The parameters for that Cassette Number are the current settings for the system.

Changing Cassettes

To change cassette values when you put a different cassette in the AccuSet, follow steps 1, 2 and 9 in the procedure *How to Define Cassette Parameters* beginning on page 4–4.

Option Parameters and Functions

This section describes the functions that you use and control through the OPTION key on the AccuSet control panel. These functions control:

- Parameters that you rarely change.

- Features that you don't need to use every day.

For More Information...

> The section *Using the Option Key* on page 4–17 explains how to set up these parameters.

Clear Cut Jam

Function: Clears cutter jams. Can be used only after a **Cutter Jam** error.

Key Sequence: Press ENTER.

Action: Resets the cutter motor. If the AccuSet cannot reset the motor, the **Cutter Jam** error appears again.

Power Cutter

Function: Turns the AccuSet power cutter off or on.

Key Sequence: Press SELECT; toggles on or off. Press ENTER to save.

Action: This enables you to turn the power cutter off so that you can cut media manually if the power cutter breaks down.

```
Center Capstan
```

Function: For best registration when imaging multi-color jobs.

Key Sequence: Press SELECT; toggles on or off. Press ENTER to save.

Action: Returns the capstan roller to the same starting position at the end of each job.

NOTE: When `Center Capstan` is on, the AccuSet uses up to five inches of media as it aligns the capstan roller.

```
Left Margin
```

Function: Adjusts the position of the left margin.

Key Sequence: Type a number to specify left margin, then press ENTER.

For More Info... See *Chapter 7: Left Margin Setup* and *How to Set Up Options* on page 4–18.

Processor

Function: Indicates the presence of an on-line processor. Sets time delay for automatic advance and cut. Sets minimum and maximum media amounts that the on-line system can accept. The minimum media amount determines how much media is advanced before a cut can be made.

Key Sequence: Press **SELECT** to toggle on or off. Use arrow and number keys to enter time delay and media amounts. Press **ENTER** to save.

For More Info... See the section *Processor Settings* on page 4–15.

Alarm

Function: Specifies a media remaining amount to be used as a warning threshold.

Key Sequence: Use number keys to enter the threshold media remaining amount, then press **ENTER**.

Action: If the media remaining amount at the end of a job is equal to or below the warning threshold, **Media Low** appears on the message display. This warns that there may not be enough media to complete the next job, but does not keep you from imaging another job.

RIP Comm Switch

Function: Specifies the communication format between the front end and RIP.

Key Sequence: Press **SELECT** to scroll through the selections. Press **ENTER** to save. Selections are:

> **Serial**
> **Test Page**
> **Appletalk**
> **Centronics**
> **TCP/IP**

Action: Functions only on AccuSet imagesetters equipped with internal RIPs.

For More Info… See *Execute the RIP Comm Setting Test Page* on page 5–12, *Selecting a Communication Protocol* on page 5–14, and *RIP Communication Settings* on page 4–16.

Media Type

Function: Adjusts the AccuSet for different types of media.

Key Sequence: Press **SELECT** to switch between **Agfa** and **Non-Agfa**. Press **ENTER** to save.

Action: Different types of media have different photographic properties. This function adjusts the AccuSet to get the best results from different types of media.

Language

Function: Specifies the language used to display status messages on the control panel.

Key Sequence: Type a number to specify the status message language, then press ENTER. Choices are:

> **0** (English)
> **1** (Spanish)
> **2** (German)
> **3** (French)
> **4** (Italian)

Motor Cleaning

Function: Removes carbon buildup from the tensioning motors. Use every time you finish a roll of media.

Key Sequence: Press ENTER.

Action: Runs the motors at high speed for 20 seconds, then automatically stops. **Motor Cleaning** will not work if there is media in the imagesetter.

NOTE: While the **Motor Cleaning** option runs, the AccuSet control panel is "locked." This means that you cannot enter commands until the motors stop running.

Planning Your Option Settings

This section describes how to:

- Select an `Alarm` value.

- Select media feed and time delay values for the `Processor` function.

- Choose the correct communication protocol for the `RIP  Comm Switch` function.

> **NOTE:** The `RIP  Comm  Switch` function can be used only by AccuSet systems with internal RIPs.

Read through this section before you set up your options.

Alarm Settings

The `Alarm` function enables you to specify a media remaining amount to be used as a warning threshold.

Definitions

- **media remaining amount:** the amount of media left in the current supply cassette at the end of a job.

- **warning threshold:** the media remaining amount that sets off a `Media Low` warning on the message display.

How the Alarm Works:

1. At the end of a job, the AccuSet checks the media remaining amount.

2. If this amount is equal to or below the warning threshold, `Media Low` appears on the message display.

3. The warning means that there may not be enough media to complete the next job.

4. The warning does not keep you from imaging another job.

5. The AccuSet stops imaging only when it is out of media.

Processor Settings

> **NOTE:** The on-line processor is an extra-cost option available for AccuSet imagesetters. Leave the **Processor** function off unless you have an on-line processor attached.

The **Processor** function enables you to:

- Indicate that an on-line processor is attached to your AccuSet.

- Specify a time delay for an automatic cut and feed after a job is completed.

- Specify the shortest piece of media that can be fed to the on-line processor.

- Specify the longest piece of media that can be fed to the on-line processor.

Time Delay for Automatic Cut and Feed

You can program your AccuSet to advance the last job that you have imaged, cut the media, and feed it to the processor. A programmable timer, part of the AccuSet operating software, controls this feature. Here is how it works:

1. The advance, cut, and feed timer starts at the end of every job.

2. If nothing happens at the imagesetter before the timer's waiting period ends, the last job is advanced, cut and fed through the bridge that connects the imagesetter and the on-line processor.

3. Any action at the imagesetter stops the timer. This includes pressing any key on the AccuSet control panel, or the arrival of any new data from the RIP (either jobs or downloaded tools).

4. The timer automatically restarts when the AccuSet is on-line again and the imagesetter detects that the last job imaged has not been fed out.

Time Delay Values

- Specify time delay from 1 to 99 minutes in one-minute increments.

- To turn the feature off, specify a time delay of 0.

Media Feed Values

For best results, use these settings:

	Minimum	Maximum
Rapline 51/20 OLP with Media Buffer	0.9' (27cm)	6.9' (210 cm)
Rapline 26 OLP with Bridge	1.3' (40 cm)	4.0' (122 cm)

RIP Communication Settings

The **RIP Comm Switch** adjusts the AccuSet internal RIP so that it can recognize the data it receives from the front end. The setting you choose for your RIP must correspond to the type of communication protocol that your front end uses.

For More Information…

> Refer to *A Guide to your RIP Hardware* for information about selecting the correct communication setting for your imaging system. Also see the sections *Front End Connections for an Internal RIP System* and *Execute the RIP Comm Switch Test Page* in *Chapter 5: Installation, in this manual.*

Using the Option Key

This section describes how to access the functions that you use and control through the OPTION key on the AccuSet control panel. These functions control:

- Parameters that you rarely change.

- Features that you do not need to use every day.

This section tells you how to:

- Access the OPTION functions.

- Set parameters for the OPTION functions.

Saving or Executing Options

You can save the settings you change or execute an option function at any time while you are working with the options:

- Return the cursor to the home position.

- Press ENTER.

This saves changes or executes the function for the option that currently appears in the message display.

How to Set Up Options

This procedure describes how to set up the Options functions for your AccuSet. The procedure goes through each function, in order. If, as you use your AccuSet, you decide to change some, but not all of these settings, you can return to this procedure and skip over the unneeded steps.

Step 1:   Access the Options functions.

- If the AccuSet is on-line, press ON LINE to take it off-line. You cannot access these functions if the imagesetter is on-line.

- Press OPTION, then ENTER.

- The message **Clear Cut Jam** appears.

Step 2:   To execute a **Clear Cut Jam**:

- Leave the cursor in the home position.

- Press ENTER to execute the command.

- Press SELECT. The message **Power Cutter** appears.

Step 3:   To change the **Power Cutter** setting:

- Move the cursor to the selection field.

- Press SELECT. Your choices are **On** or **Off**.

- Return the cursor to home position.

- Press ENTER to save the current setting.

- Press SELECT. The message **Center Capstan** appears.

Step 4: To change the **Center Capstan** setting:

- Move the cursor to the selection field.

- Press SELECT. Your choices are **On** or **Off**.

- Return the cursor to home position.

- Press ENTER to save the current setting.

- Press SELECT. The message **Left Margin** appears.

Step 5: To change the **Left Margin** setting:

- Move the cursor to the media width field.

- Press SELECT to choose a media width.

- Move the cursor to the margin adjust field and type a number to specify the left margin setting. Valid settings range from 0 to 61.

- To determine the left margin adjust setting, follow the procedure described in *Chapter 7: Left Margin Setup*.

- Return the cursor to home position.

- Press ENTER to save the current setting.

- Press SELECT. The message **Processor** appears.

Step 6: To activate the **Processor** and set time delay and media feed values:

- Move the cursor to the on/off selection field.

- Press SELECT. Your choices are **On** or **Off**.

- Move the cursor to the minimum feed value field. Type a number. This value can range from 1.5 to 4.0 feet (40 to 122 cm).

- Move the cursor to the maximum feed value field. Type a number. This value can range from 1.5 to 4.0 feet (40 to 122 cm).

- Move the cursor to the time delay field. Type a number.

- Move the cursor to the minimum feed value field. Type a number.

- Move the cursor to the maximum feed value field. Type a number.

- Return the cursor to the home position.

- Press ENTER to save the current settings.

- Press SELECT. The message **Alarm** appears.

Step 7: To change the **Alarm** setting:

- Move the cursor to the selection field.

- Use the number keys to type a number. This is the threshold media remaining amount.

- Return the cursor to the home position.

- Press ENTER to save the current setting.

- Press SELECT. The message **RIP Comm Switch** appears.

Step 8: To change the **RIP Comm Switch** setting:

- Move the cursor to the selection field.

- Press **SELECT** until the communication protocol you need to use for your imaging system appears. Your choices are:

  Serial
  Test Page
  Appletalk
  Centronics
  TCP/IP

- Return the cursor to the home position.

- Press **ENTER** to save the current setting.

- Press **SELECT**. The message **Media Type** appears.

Step 9: To change the **Media Type** setting:

- Move the cursor to the selection field.

- Press **SELECT**. Your choices are **Agfa** or **Non-Agfa**.

- Return the cursor to the home position.

- Press **ENTER** to save the current setting.

- Press **SELECT**. The message **Language** appears.

Step 10: To change the **Language** setting:

- Move the cursor to the selection field.

- Type a number to specify the language used by the message display. Your choices are:

  0 (English)
  1 (Spanish)
  2 (German)
  3 (French)
  4 (Italian)

- Return the cursor to the home position.

- Press **ENTER** to save the current setting.

- Press **SELECT**. The message **Motor Cleaning** appears.

Step 11: To execute **Motor Cleaning**:

- Leave the cursor in the home position.

- Press **ENTER** to execute the command.

NOTE: Motor cleaning takes twenty seconds. During this time, the keypad is locked and no other functions can be performed.

- Press **SELECT**. The message **Center Capstan** appears.

Step 12: This completes one circuit through the AccuSet **OPTION** functions and parameter settings.

- Press **SELECT** to go through the functions again to check the settings.

- Press **ON LINE** to resume imaging operations.

Chapter 5:
Installation

Introduction

This chapter contains information about how to install your AccuSet imagesetter and connect it to your imaging system.

- Site requirements. These are the electrical specifications and space requirements.

- Environmental requirements. The proper temperature, humidity and altitude ranges for operating, shipping, and storing your AccuSet.

- Pre-installation checklist. This is the final checklist to review before you set up your AccuSet.

- How to connect your AccuSet to your imaging system.

- How to test your AccuSet once it is installed and connected.

- How to set up different parts of the AccuSet operating software.

Site Requirements

Before you install and operate your AccuSet imagesetter, make sure that your shop meets the requirements described in this section.

> **CAUTION:**
> For operator safety and best performance, it is crucial that you meet the requirements described in this section.

Work Space

For safe operation and easy maintenance:

• Set up your AccuSet imagesetter in an area large enough to allow easy access to all sides of the unit.

• If your AccuSet uses an external RIP, leave additional floor space.

• Place your AccuSet in a clean area.

Keep in mind the following specifications as you set up the work space for your imaging system.

AccuSet Imagesetter General Specifications

Weight	325 lbs.
Dimensions (HxWxD)	38 3/4 x 32 x 29
BTU Rating	754 BTU/Hr.

Electrical Service

Make sure that the electrical supply in your shop meets the following requirements before you install and operate your AccuSet imagesetter.

Electrical Requirements

AC Power Range	100 to 240 VAC
AC Plug Type (NEMA)	5-15 R 2 Pole (for US and Canada)
AC Plug Type (Int.)	EU258 IPCEA
Max. Draw Amps	3.75 Amps at 90 VAC
Nominal Draw Amps	3.0 Amps at 115 VAC, 1.5 Amps at 230 VAC
Electrical Rating	5-2.5 Amps, 50-60 Hz
Watts Max.	220 Watts

The power supply used in the AccuSet is a switching power supply. Power consumption is calculated by multiplying the volt/amps by a factor of .6.

Environmental Requirements

Temperature, humidity, and altitude affect the operation of your AccuSet imagesetter. For best results, operate your AccuSet imagesetter in a place where temperature and humidity are kept within the limits described in this section.

Standard Operating Environment

If the jobs you run are mostly text and line art, install and operate your AccuSet imagesetter in a place that meets these specifications.

Standard Operating Environment

Temperature	65 to 85 degrees F
Humidity	35% to 85% non-condensing
Altitude	To 8,000 feet

Special Environment for Color Work

Stricter control of the operating environment is required when you run color separations. Temperature and humidity changes affect the registration of color jobs.

If you use the AccuSet to produce color separations, operate it in a controlled environment that meets these requirements.

Color Separation Operating Environment

Temperature	70 ± 3 degrees F
Humidity	55% ± 5%
Altitude	To 8,000 feet

Shipping and Storage

If you need to store your AccuSet or ship it, make sure that it is kept in areas that are within these specifications.

Shipping and Storage Environment

Temperature	-30 to 160 degrees F
Humidity	10% to 95%
Altitude	Shipping: To 35,000 feet
	Storage: To 14,000 feet

Pre-Installation Checklist

Review this checklist before you set up your AccuSet imagesetter.

When Your AccuSet Is Delivered...

- **Count the packages you receive.**
  When your equipment is delivered, make sure that you receive the number of packages called out on the shipper's bill of lading.

- **Check for damage.**
  Check all packages thoroughly for damage.

- **If you find damage or packages are missing...**
  If you find damage to any packages, or if a package is missing, make a note on the shipper's bill of lading and notify the Traffic Department at Agfa.

- **The shipper will move the crated equipment.**
  Have the carrier place the AccuSet in the area where the system is to be installed.

- **Check again before you sign for the shipment.**
  Before you sign the carrier release form, count the packages again and check one more time for hidden damage.

Review Your Site

Prior to unpacking, inspecting, or installing the equipment, review your site to make sure that you have met these prerequisites:

- A dedicated electrical line exists.

- The dedicated line is earth grounded.

- 15 Amp fuse or circuit breaker is installed for the dedicated line.

- A NEMA 5-15 R receptacle/EU258 IPCEA is installed.

- There is correct voltage and grounding at the receptacle.

- Environmental controls have been set up to meet the environmental requirements.

Unpack the Equipment

- Open all cartons, remove the contents, and check the items received against the order forms, invoices, and shipping documents.

- Record any back order, missing, or incorrect items on the service report and notify the Regional or Area office of any discrepancies.

- Refer to unpacking procedures.

- Visually inspect each item for damage.

- Notify the Regional or Area office if you discover any damage.

The Next Step...

When you have verified these prerequisites, you are ready to install your equipment.

Making Connections

After you unpack your AccuSet imagesetter and place it in your shop, you are ready to:

- Connect connect your internal RIP system to your front end.

- Connect your external RIP system to the AccuSet.

- Connect, then plug in the power cord.

Front End Connections for an Internal RIP System

If your AccuSet imagesetter has an internal RIP, you need to connect your front end to the correct communication port. These are also called communication *channels*.

> **NOTE:** The communication setting that you make through the **RIP Comm Switch** must correspond to the communication port that connects your front end to the internal RIP.

There are three different communication formats that your AccuSet internal RIP can use.

Comm Setting	Description
Centronics	Specify **Centronics** when you use the Centronics port to connect an IBM® PC® or PC compatible to your AccuSet internal RIP.
Serial	Specify **Serial** when you use the RS232C port to connect a PC or PC compatible to your AccuSet internal RIP
Appletalk	Specify **Appletalk** when you use the LocalTalk® port to connect computers using the AppleTalk® communication protocol to your AccuSet internal RIP. This can be a PC (or PC compatible) equipped with a LocalTalk interface card or a Macintosh.

For More Information...

Refer to your RIP hardware *User Guide* for more information about the communication channels that connect your internal RIP AccuSet to your front end. The RIP hardware *User Guide* also describes the conditions for using more than one communication protocol at the same time.

NOTE: As you refer to your RIP hardware *User Guide*, use Figure 5.1, below, to locate the different communication ports.

Ethernet Connection to the AccuSet Internal RIP

Use the Ethernet port to connect front ends running EtherTalk® or TCP/IP using the lpr protocol. Attach the Ethernet transceiver cable to the 15 pin plug in this port.

The Ethernet port on the AccuSet internal RIP is active when you specify `Centronics`, `Serial`, or `Appletalk` as the `RIP Comm Switch`. The Ethernet port is inactive only when you specify `Test Page` as the active communication setting.

For More Information...

Refer to your RIP hardware *User Guide* for more information about Ethernet connections. It includes information about Thinnet, Thicknet, and 10 Base T networks.
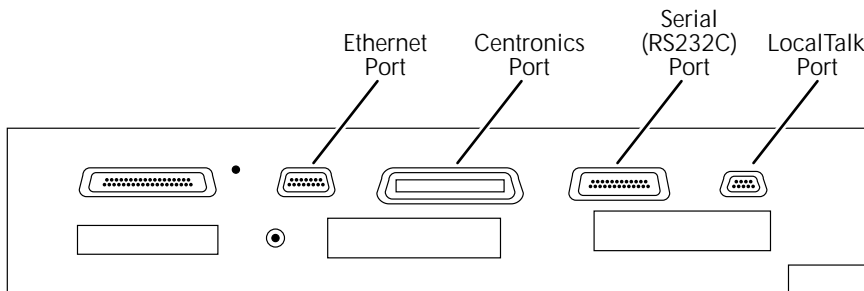

Figure 5.1. The AccuSet I/O panel for systems with internal RIPs.

Connecting an External RIP System

If your AccuSet imagesetter has an external RIP, you need to connect the RIP to your front end, then connect the RIP to your AccuSet.

To connect your AccuSet to an external RIP:

- Attach one end of the 37 pin imagesetter cable to the imagesetter port on your external RIP.

- Attach the other end of the imagesetter cable to the RIP communication port on the I/O panel at the back of your AccuSet. See Figure 5.2, below.

RIP Communication Port

Figure 5.2. The AccuSet I/O panel for systems with external RIPs.

For More Information…

Refer to your RIP hardware *User Guide* for information about selecting communication channels and connecting your external RIP to an Ethernet network.

Connect the Power Cord

- Locate the power cord and the power receptacle at the back of the AccuSet.

- Connect the power cord to the power receptacle.

- Plug the power cord into its dedicated electrical outlet.

Testing the Installation

After you set up your cables, test the operation of your imaging system.

Starting Up the Imaging System

The steps described in this procedure are used for the initial test of your AccuSet imagesetter when you set it up.

Step 1: Turn on the main power switch.

- The switch is located at the rear of the unit, above the power cord.

- Press down the side of the switch labeled **I**.

Step 2: Wait for the message `On Line`.

- As the AccuSet starts up, a series of codes appears on the message display.

- Initial startup takes about nine minutes.

- Do not start up the external RIP until the imagesetter displays the `On Line` message. The RIP cannot successfully boot up until the imagesetter is on line.

Step 3: When the `On Line` message appears:

- If you have an external RIP, start it up now.

- Systems with internal RIPs are ready for use.

Step 4: Start up one or more computers that make up the front end of your imaging system.

Load Media

Procedures for loading media are described in *Chapter 2: Operating the AccuSet*. The section *Supply Cassettes*, which begins on page 2–11, contains the procedures *Loading the Supply Cassette* and *Installing a Loaded Supply Cassette*.

Execute the RIP Comm Switch Test Page

The AccuSet has a basic test page written into its operating software. Use this test page to make sure that the RIP and the imagesetter are properly connected.

- If you have an external RIP, refer to the RIP manual for the procedure to execute this test.

- If you have an internal RIP, follow the procedure described below.

Step 1: Take the AccuSet off line.

- Press ON LINE.

- The message **Off Line** appears in the control panel message display.

Step 2: Access the RIP communication setting.

- Press OPTION then ENTER.

- The message **Wrong Reading** appears.

- Press SELECT repeatedly until the message **RIP Comm Switch** appears.

Step 3: Execute the test page.

- Press either arrow key to move the cursor to the description field.

- Press **SELECT** repeatedly until `Test Page` appears.

- Press either arrow key to move the cursor to its home position.

- Press **ENTER**.

- Turn the AccuSet power switch off, then on.

- The AccuSet images a set of three test pages as it restarts.

Step 4: Process and evaluate the test page.

- When the test page has been imaged, press **CUT**, then **ENTER**. The AccuSet advances the imaged media into the take-up cassette and cuts it.

- Remove the take-up cassette from the take-up compartment and process the exposed media.

NOTE: In order to image jobs sent from your front end, the AccuSet must be set up with the `RIP Comm Switch` set to a selection other than `Test Page`. The setting must correspond to the communication port that connects your front end to the internal RIP.

Selecting a Communication Protocol

After successfully testing the installation, you must set the RIP to receive data from the front end of your imaging system.

The **RIP Comm Switch** must be set so that the AccuSet internal RIP can recognize data received from the front end. The setting you choose for the RIP must correspond to the type of communication protocol that the front end uses.

To determine which communication setting to use for your internal RIP system, see the section *Front End Connections for an Internal RIP System* on page 5–8.

For More Information...

> **R**efer to *A Guide To Your RIP Hardware* for information about internal and external RIP systems.

How to Adjust the RIP Comm Setting

The RIP Comm setting specifies the communication protocol between your RIP and front end.

- If you have an external RIP, refer to the RIP manual.

- If you have an internal RIP, follow the procedure described below.

Step 1: Find out what type of communication setting you need to receive data from the front end of your system. The settings you can choose on the AccuSet are **Appletalk**, **Centronics**, **TCP/IP**, or **Serial**.

Step 2: Take the AccuSet off line.

- Press **ON LINE**.

- The message **Off Line** appears in the control panel message display.

Step 3: Access the RIP communication setting.

- Press OPTION, then ENTER.

- The message **Wrong Read** appears.

- Press SELECT until the message **RIP Comm Switch** appears.

Step 4: Select a communication setting.

- Press either arrow key to move the cursor to the description field.

- Press SELECT until the correct communication setting appears.

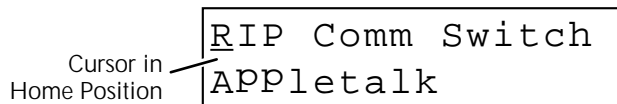- Press either arrow key to move the cursor to its home position, under the **R** in **RIP Comm Switch**. See the figure below.

```
┌─────────────────────┐
│RIP Comm Switch      │
│APPletalk            │
└─────────────────────┘
```
Cursor in Home Position

Figure 5.3. Message display with RIP Comm Switch function.

- Press ENTER. The AccuSet stores this new setting.

Step 5: Reset the AccuSet.

- Turn off the AccuSet. Press the side of the power switch labeled **O**.

- Turn on the AccuSet. Press the side of the power switch labeled **I**.

- When the system restarts, it uses the new communication setting.

Other Setup Operations

After you perform the setup and testing operations described in this chapter, but before you use your AccuSet imagesetter for production work:

1. **Run exposure tests.**

    See *Chapter 6: Exposure Tests*.

2. **Run a left margin test.**

    See *Chapter 7: Left Margin Setup*.

3. **Set up Cassette parameters.**

    Cassette parameters control exposure settings.

    You also use cassette parameters to set media width, type of media, media remaining, and units of measurement.

    See the sections *Cassette Parameters* and *How to Define Cassette Parameters* in *Chapter 4: Set Up Cassettes and Options*.

4. **Set up the AccuSet options.**

    The options that affect output from your system are: Center Capstan, Wrong Reading, Alarm, RIP Comm Switch, Processor, Language, and Left Margin.

    See the sections *Using the Option Key* and *How to Set Up Options* in *Chapter 4: Set Up Cassettes and Options*.

    Run calibration tests.

5. **If your front end or spooler does not require the TCP/IP communication protocol, turn it off.**

    The factory default settings for both internal and external RIPs have the TCP/IP protocol turned on.

    Turning off the TCP/IP protocol shortens the time required for your system to start up.

    The procedure for turning off the TCP/IP protocol is described in your RIP software *User Guide*.

Chapter 6:

Exposure Tests

Introduction

This chapter describes how to determine optimum exposure settings for the AccuSet. It also provides basic information about photography as an introduction for new customers and as a review for experienced pre-press operators.

The AccuSet laser image recorder produces high-resolution type and graphic images such as tints, degradees, and halftones. The highest quality printed results are achieved when type and graphics are imaged on silver based media (film, paper, and direct-plate material). To attain the quality that the AccuSet can deliver, you need to use the optimum exposure setting for your imaging medium.

Before you begin production, execute and evaluate exposure tests. To maintain high quality standards, you should periodically repeat this procedure, just as anyone using traditional color production methods would run a control strip through a processor. Guidelines in this chapter explain when to repeat the test page.

Importance of Optimum Exposure

To get the best possible results from your laser image recorder, you need to satisfy these two conditions:

1. The developed photographic image has adequate density.
2. The developed photographic image has been given the optimum exposure.

There are many variables in the photographic process. Strict control of the process improves the quality of the output. The more variables you eliminate from the process, the easier it is to control.

Definitions

It is important that you understand these photographic terms before you proceed.

density: The darkness of a photographic image. It is expressed as a number. The higher the number, the darker the image.

developing: The chemical process that makes an image appear on exposed photographic material.

exhaustion: The reduction of the strength of photographic developer solutions.

exposure: The amount of light that reaches the photographic medium. The AccuSet enables you to control exposure by increasing or decreasing the intensity of the light from the laser.

fixing: The chemical process that dissolves the unexposed, undeveloped silver in the photographic material. Without fixing, the photographic material would eventually turn completely black.

photography: The process of using light to record images on light-sensitive material. The AccuSet uses light from a laser to create images on film, plate material, or paper.

processing: The combination of developing, fixing, and washing photographic images.

replenishment: The automatic replacement of the developer solution in a mechanical processor. The developer needs to be replenished because it loses its strength, or becomes exhausted.

washing: The rinsing of chemical residues from the photographic material after developing and fixing. This helps preserve the image.

About Density

The density of photographic images is affected by exposure and development.

This means:

- As you change the amount of light that falls on the photographic material, you change the density of the processed image.

- As you change developing conditions (i.e. processor speed, developer temperature) used to process the photographic material, you change the density of the processed image.

About Developing

Development of the photographic image is affected by:

- The length of time the photographic material is in the developer. (This is controlled by the processor speed.)

- The temperature of the developer.

- The rate at which the developer is replenished.

Changes to any of these elements affect the density of the processed medium.

Manufacturers of photographic media test their products to determine the optimum developing conditions. These optimum settings are selected because they yield the highest quality results. For optimum image quality, it is recommended that you follow the manufacturer's specifications for processing media. This information is generally provided on a data sheet packaged with each roll of media.

About Replenishment

Photographic developer becomes exhausted from these two factors:

1. The amount of time the developer is exposed to air.
2. The total area of media processed.

Exposure to Air

Some of the ingredients of the developer mix with the oxygen in the air. This process is called oxidation, and it weakens the developer. The longer the developer sits in a processor, the more exhausted it becomes, unless it is replenished by a high daily work flow.

Replenishment rates that compensate for exposure to air are built into most processors. This is referred to as an anti-oxidation or AOX function. For more information, consult the user documentation for your processor or the manufacturer.

Area Processed

Some of the chemical ingredients of the developer are used up in the chemical reaction that creates the photographic image. The more media you process, the more the developer becomes exhausted.

Replenishment rates for the amount of media processed are controlled by a specific developer replenishment setting on the processor. On some processors, you can adjust this rate; others require adjustment by a service representative. Consult the user documentation for your processor.

Film requires higher amounts of replenishment than paper because it contains more silver. When you use both film and paper daily in your production environment, it is recommended that you set your processor to the replenishment rate for film. Under-replenishment for film will not produce adequate working density. Over-replenishment for paper does not harm the end result.

About Exposure

Exposure is the amount of light that hits the media. You can set the exposure on your AccuSet to values from 0 to 255. As you increase the exposure value, you increase the amount of light that reaches the medium.

Underexposure

Underexposure occurs when not enough light hits the medium. The dark areas of the medium do not become dense enough. They appear gray instead of black.

Overexposure

Overexposure occurs when too much light hits the medium. The dark areas of the medium are dense enough, but the edges between light and dark areas become unsharp.

When text is overexposed, the counters of lowercase letters appear too small. When screens (tints, degradees, and halftones) are overexposed, the dots that make up the screen pattern become too large. This makes the screen pattern appear too dark. Type and screens, when overexposed, appear filled in.

Optimum Exposure

When your medium is correctly exposed, the dark areas of the processed photographic image are dense enough and type and screens have the correct weight.

Guidelines for Quality

The use of the test page to maintain quality levels is based on the assumption that you:

- Process your photographic medium strictly according to the manufacturer's specifications.
- Adjust the exposure setting on your AccuSet to fine-tune the density of your output.

By following these guidelines, you systematically control the variables associated with developing photographic materials. This leaves exposure as the one variable to fine-tune the density of your output.

Consistency

To maintain quality standards, consistent processing of your medium is essential. Consistent processing means that you follow the same procedure every day.

The process of imaging and evaluating the test page is based on the assumption that you consistently process your media to the manufacturer's specification. This means:

- Use the correct chemicals for the medium.
- Set your processor to the correct speed and temperature.
- Use the correct replenishment rate for the medium.
- Follow the manufacturer's guidelines for maintaining the processor.

It is essential that you follow these guidelines. By doing so, you can expect to consistently attain the high-quality type and graphics that your AccuSet laser image recorder can produce.

The Test Page Files

Two exposure test page files are part of the AccuSet software. Use them as tools to evaluate exposure settings.

> **NOTE:** When you use an on-line processor, the AccuSet automatically advances, cuts, and feeds an imaged test page to the processor.

Test Page 1, Exposure Array

Function: Used to evaluate and select the best exposure setting for different combinations of imagesetter resolution and media.

Description: A series of 20 bands made up of 50% and 100% tints. Each band is imaged at a different exposure.

You specify the imaging resolution and the exposure value for the first band when you execute Test Page 1. The AccuSet increases the exposure setting by three units after it images each band.

For example, if you specify an exposure of 100 for the first band, the last band is imaged at 157.

See Figure 6.1 on page 6–8.
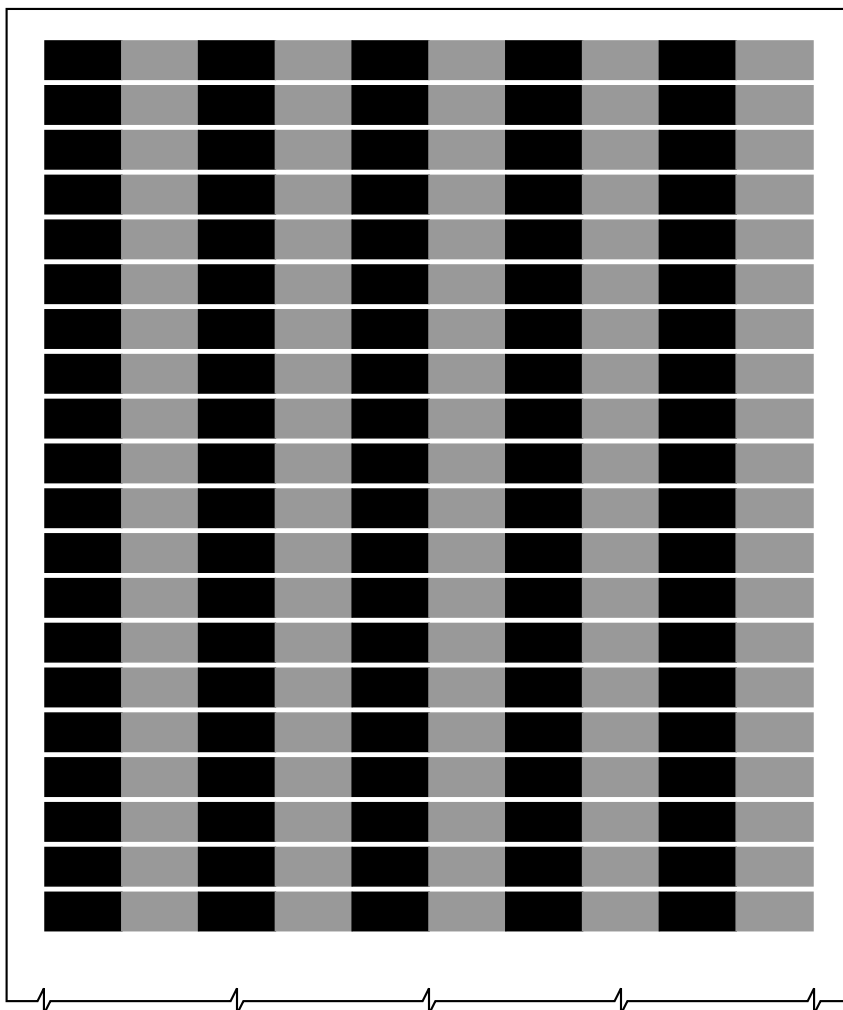
Figure 6.1. Test Page 1. Alternating 50% and 100% tint patches, one half inch wide, running the full width of the media. Imaged at twenty different exposure settings.

Test Page 2, Exposure Check

Function: Used to evaluate a specific exposure setting.

Description: A single band made up of 50% and 100% tints. The band is imaged at one exposure setting.

You specify the imaging resolution and exposure value when you execute Test Page 2. See Figure 6.2, below.
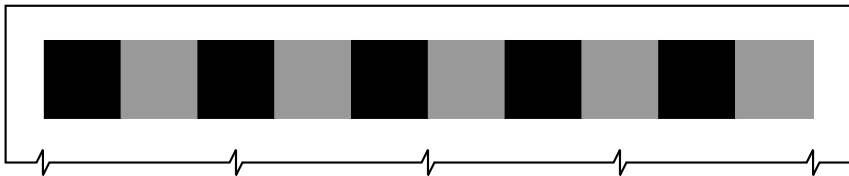
Figure 6.2. Test Page 2. Alternating 50% and 100% tint patches, one inch wide, running the full width of the media. Imaged at one exposure setting.

When to Execute a Test Page

Use the information in this table to determine which test page to use.

Condition	Test Page
When you first use a new imaging medium. (For example, when you first change from paper to film.)	1: Exposure Array
When you change emulsion batches. (The product label attached to each case and each roll of Agfa photographic media is stamped with a number that identifies the emulsion batch.)	1: Exposure Array
When you load a new roll of media or when you replace the chemicals in your media processor.	2: Exposure Check
When you change processing conditions. (New processor, different type of chemistry, and so on.)	1: Exposure Array
At some regular interval (daily, or every other day) to ensure quality control.	2: Exposure Check

> **NOTE:** Run separate exposure tests for each resolution setting. The optimum exposure varies for each.

Running Exposure Tests

Follow these steps when you execute a test page to check exposure:

1. Execute a test page from the AccuSet control panel.

2. Process the media.

3. Evaluate your results.

4. Set the exposure value.

How to Image an Exposure Test Page

Follow these instructions to image a test page:

Step 1: Make sure that the AccuSet is off-line, then press **TEST**. The message display changes. See the figure below.
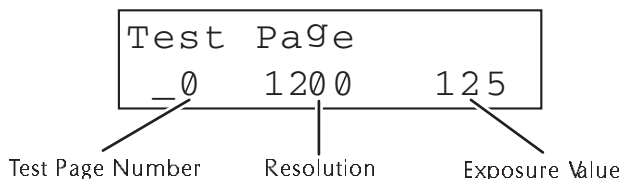
Figure 6.3. This control panel message display enables you to execute test pages.

Step 2: Select a test page.

- Press ▶ to move the cursor to the first field.

- Type the number of the test page you want to image. Refer to the table on page 6–10 to select a test page.

Step 3: Select the resolution.

- Press ▶ to move the cursor to the second field.

- Press **SELECT** to change the resolution. Each time you press **SELECT**, the resolution setting changes. Stop when you see the resolution that you want to use.

Step 4: Set the exposure value.
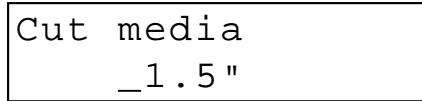
- Press ▶ to move the cursor to the third field.

- Type the number you want to use for the exposure value.

- If you are imaging Test Page 1, the value you specify is used as the starting exposure.

- If you are imaging Test Page 2, the value you specify is the only exposure setting used.

Step 5: Execute the test page.

- Press ▶ to move the cursor back to home position.

- Press **ENTER**. The message **Print test page** appears on the display.

- The AccuSet images the test page using the resolution and exposure value that you specified.

- When the AccuSet finishes the test page, the **Test page** display returns. You can execute more test pages, or you can proceed to the next step.

Step 6:   Cut the media.

   • Press CUT. The message display changes.

```
Cut media
      _1.5"
```

Figure 6.4. When you cut media, the current default media feed appears on the second line of the message display.

   • The **Cut media** display shows the current default media feed. This is the amount of media the AccuSet automatically feeds before it makes a cut.

   • To use the default media feed, make sure that the cursor is in home position, then press ENTER.

   • To change the amount of media fed, press ▶. This moves the cursor to the media feed field.

   • Type in the amount of media you want to feed, then press ▶. This moves the cursor back to the home position.

Step 7:   Process the exposed media and evaluate the results.

   • Follow the recommendations in the section *Guidelines for Quality* on pages 6–6.

   • See the section *Evaluating Test Pages* which begins on page 6–14.

Evaluating Test Pages

After you process the exposure test page, you need to evaluate it to determine which test exposure is the best for your purposes. To do this, use a densitometer.

About Densitometers

There are two types of densitometers.

Transmission Densitometer

Function: A transmission densitometer is used to measure the density of photographic film. It measures how much light passes through the film.

Purpose: Use for evaluating film.

Reflection Densitometer

Function: A reflection densitometer is used to measure the density or light absorption of a photographic or printed image. It measures how much light is reflected by the photographic paper or press print.

Purpose: Use for evaluating paper.

Criteria for Evaluation

The optimum exposure meets two requirements:

1. The 100% tint regions have adequate density, approximately 3.9.

2. The 50% tint region shows a density as close as possible to .30, the ideal reading for this tint.

An exposure that gives adequate density will most likely give a 50% tint region that is too dense. Use calibration software on your front end to correct tint reproduction.

Evaluation Procedure: Film

Follow this procedure to evaluate film output with a transmission densitometer.

Step 1: Calibrate your transmission densitometer. Use a density calibration patch of known opacity or similar calibration gray scale.

Step 2: Measure the density of the solid black tint region in each step of the test page. Find the exposure steps that have a density of 3.9 or greater.

Step 3: In the steps that have densities of 3.9 or greater, measure the 50% tint regions to find which exposure gives the best tint reproduction.

Step 4: The step that has both adequate density and the best tint reproduction is the optimum exposure.

Evaluation Procedure: Paper

Follow this procedure to evaluate paper output with a reflectance densitometer.

Step 1:   Calibrate your reflection densitometer. Use a reflectance calibration patch or reflectance calibration gray scale.

Step 2:   Measure the density of the solid black tint region in each step of the test page until you find an exposure that yields a density of approximately 1.6.

Step 3:   Evaluate the tint regions. The step that has both adequate density and the best tint reproduction for your application is the optimum exposure.

Set the Exposure

After you evaluate a test page and determine the optimum exposure for each combination of media and resolution, you need to set the exposure values. Read the section *Cassette Parameters*, which begins on page 4–2. Follow the procedure *How to Define Cassette Parameters*.

Chapter 7:

Left Margin Setup

Introduction

This chapter describes how to adjust the left margin of the AccuSet. This adjustment changes the position that the imagesetter uses to begin its imaging pass at the left side of your finished image.

Why Adjust the Left Margin?

By adjusting the left margin, you change the place where the AccuSet begins to image. You may want to adjust the left margin for the following reasons:

- To compensate for variations in front end software. Software programs may vary slightly where they place the left edge of the image.

- Personal preference. As your end requirements vary, you may want more or less blank space at the left edge of your finished jobs.

Test Page 0: the Left Margin Array

Test Page 0, Left Margin Array

Function: Used to adjust the position of the left margin.

Description: A series of vertical lines (called *hash marks*) spaced .013" apart. Each mark is labeled with a number. See Figure 7.1 on the page 7–3.

When to Use the Left Margin Test

Image a left margin test array under the following circumstances:

* When you first set up your imaging system.
* When you need to change your imaging system.

```
                    | − − − − 1
                     | − − − − 2
                      | − − − − 3
                       | − − − − 4
                        | − − − − 5
                         | − − − − 6
                          | − − − − 7
                           | − − − − 8
                            | − − − − 9
                             | − − − − 10
                              | − − − − 11
                               | − − − − 12
                                | − − − − 13
                                 | − − − − 14
                                  | − − − − 15
                                   | − − − − 16
                                    | − − − − 17
                                     | − − − − 18
                                      | − − − − 19
                                       | − − − − 20
                                        | − − − − 21
                                         | − − − − 22
                                          | − − − − 23
                                           | − − − − 24
                                            | − − − − 25
                                             | − − − − 26
                                              | − − − − 27
                                               | − − − − 28
                                                | − − − − 29
                                                 | − − − − 30
                                                  | − − − − 31
                                                   | − − − − 32
                                                    | − − − − 33
                                                     | − − − − 34
                                                      | − − − − 35
                                                       | − − − − 36
                                                        | − − − − 37
                                                         | − − − − 38
                                                          | − − − − 39
                                                           | − − − − 40
                                                            | − − − − 41
                                                             | − − − − 42
                                                              | − − − − 43
                                                               | − − − − 44
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                                                                  | − − − − 47
                                                                   | − − − − 48
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                                                                     | − − − − 50
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                                                                        | − − − − 53
                                                                         | − − − − 54
                                                                          | − − − − 55
                                                                           | − − − − 56
                                                                            | − − − − 57
                                                                             | − − − − 58
                                                                              | − − − − 59
                                                                               | − − − − 60
                                                                                | − − − − 61
```

Figure 7.1. Test Page 0.

How to Image a Left Margin Test

Follow these instructions to image a left margin test:

Step 1: Make sure that the AccuSet is off-line, then press **TEST**. The message display changes. See the figure below.

```
Test Page
_0   1200     125
```

Test Page Number   Resolution   Exposure Value
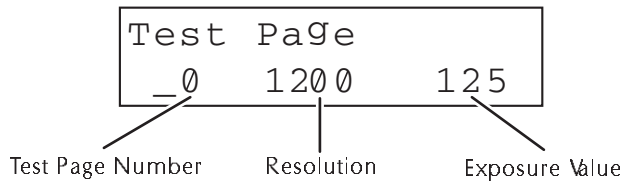
Figure 7.2. This control panel message display enables you to execute test pages.

Step 2: Select a test page.
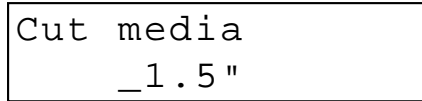
- Press ▶ to move the cursor to the first field.

- Type the number **0**.

Step 3: Execute the test page.

- Press ▶ to move the cursor to the home position.

- Press **ENTER**. The message **Print test page** appears on the display.

- The AccuSet images test page 0 at 1200 dpi and the currently specified exposure setting.

- When the AccuSet finishes the test page, the **Test page** display returns. You can execute more test pages, or you can proceed to the next step.

Step 4: Cut the media.

- Press CUT. The message display changes.

```
Cut media
      _1.5"
```

Figure 7.3. When you cut media, the current default media feed appears on the second line of the message display.

- The **Cut media** display shows the current default media feed. This is the amount of media the AccuSet automatically feeds before it makes a cut.

- To use the default media feed, make sure that the cursor is in home position, then press ENTER.

- To change the amount of media fed, press ▶. This moves the cursor to the media feed field.

- Type in the amount of media you want to feed, then press ▶. This moves the cursor back to home position.

Step 5: Process the exposed media and evaluate the results.

- See the section *Evaluating a Left Margin Test* on page 7–6.

Evaluating a Left Margin Test

To evaluate a left margin test:

• Locate the vertical bar closest to the left edge of the media.

• Note the number of that bar.

• Enter that value in the Left Margin selection under the Option key.

How to Set the Left Margin Value

The procedure for setting the left margin value is described in *Chapter 4: Set Up Cassettes and Options*. See the section *How to Set Up Options* on page 4–18.

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