KODAK DRYVIEW 5800 Laser Imager
and
CARESTREAM DRYVIEW 5850 Laser Imager

User's Guide

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1   Overview

DRYVIEW 5800 and 5850 Laser Imagers

The 5800 and 5850 Laser Imagers are continuous-tone laser imagers with an internal photothermographic film processor. Heat, rather than photo chemicals, is used to develop the film. The Laser Imagers receive digital images from medical image source devices (modalities) over a network. The format that the Imager accepts is DICOM.

The Laser Imagers print images on KODAK DRYVIEW Laser Imaging Film. Each film package contains 100 sheets of film. The Imagers can accept any type and size of film as described in Chapter 5 of this manual.

Intended Use

The KODAK DRYVIEW 5800 Laser Imager provides high quality hard copy film output from digital imaging source modalities for use in medical imaging diagnosis and referral. Electronic image information signals are managed and transformed optically to expose KODAK DRYVIEW media. The system is intended for use with a variety of digital modalities including, but not limited to, CT (Computerized Tomography), MR (Magnetic Resonance) and CR (Computed Radiology) for diagnostic use by medical radiologists and communications to referring physicians and their patients.

The CARESTREAM DRYVIEW 5850 Laser Imager is intended to provide high-resolution hard copy images from digital imaging source output signals. The device is intended for use with KODAK DRYVIEW media including DVM (DRYVIEW Mammography Films). The imager will interface with a variety of digital modalities, including, but not limited to, CR (Computed Radiology), DR (Digital Radiology), CT (Computerized Tomography), MRI (Magnetic Resonance Imaging), and FFDM (Full Field Digital Mammography). The images are to be used for medical diagnosis and referral to physicians and their patients.

How the Laser Imagers Work

The Imagers are network printers connected on a network along with one or more medical imaging devices. They print images sent over the network from medical imaging devices or workstations sending images concurrently.

5800 or 5850 Laser Imager
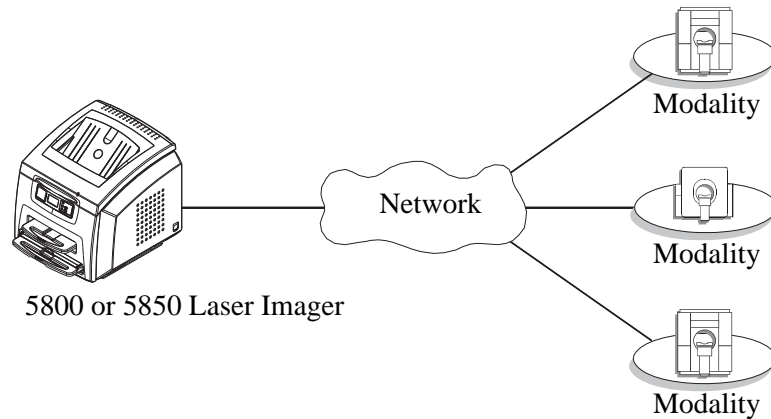
The Imagers have hard-disk storage for a large number of digital images. As images arrive, they are stored on the hard disk and placed in a print queue (sequenced for printing) based on time of receipt and priority. Because the Imagers can store images, they can continue to accept incoming print jobs even when the film cartridge is empty or the Imager is temporarily unable to print. Images that require a different film size or film type than is currently in the Imager are placed in a separate "waiting for media" queue and a code on the Local Panel reminds the operator to change film.

During normal operation, the Imager requires very little operator attention. The Imager prints automatically in response to print requests from the associated image devices. Information sent along with print requests, such as film size, density and priority, control the print operations. Main operator responsibilities include loading film and monitoring for malfunctions.

System Components
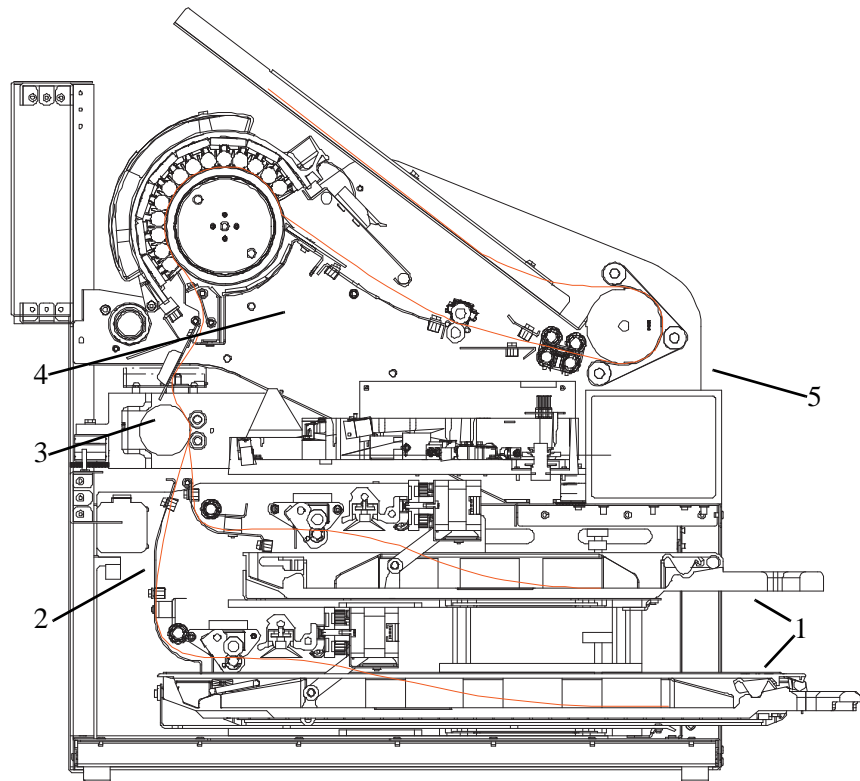
1. **Film trays.** Your Imager is configured with two film trays. Each film tray holds a different size of DRYVIEW Laser Imaging Film. Both film trays must be installed in order for the Imager to operate.

2. **Film feed transport**. The film feed transport orients and centers the film while moving the film from the film tray to the imaging portion of the Imager.

3. **Film imaging**. The optics module writes the image onto the film while the film is moved through the exposure transport area.

4. **Film processor**. The film processor uses heat to develop the image written onto the film by the laser in the optics module.

5. **Local panel**. The local panel contains the display screen.

Print Sequence

When the Imager receives a print request, it determines the requested film size and type and then it selects the appropriate film tray.

Each time the Imager receives a print request, the following print sequence occurs:
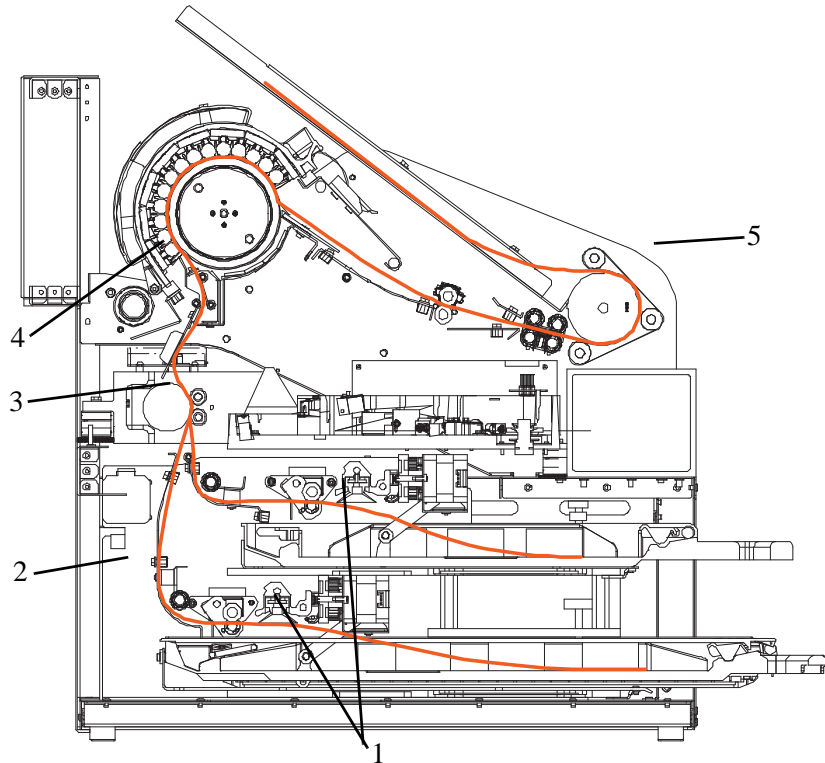
1. Suction cups in the pickup area lift a single sheet of film out of the tray and feed the film into the transport rollers.

2. The transport rollers move the film up into the registration transport area, where film registration takes place.

3. As the film moves through the exposure transport, the optics module writes the image onto the film, then moves the film into the film processor.

4. As the film passes over the processor drum, the heat generated by the drum develops the film.

5. The film transport rollers move the exposed film to the exit area.

Automatic Image Quality Control

An internal densitometer is a key element in the Automatic Image Quality Control (AIQC) process. The densitometer enables the Imager to automatically adjust image processing parameters to produce the best image. The Imager adjusts these parameters each time it prints a calibration film.

A calibration film is printed when:

- The film tray is inserted in the Imager with film of a new lot number.
- A calibration film is requested from the local panel or web portal.
- A film tray is inserted into the Imager for which a current calibration is not stored.

Agency Compliance

See the Safety Manual for the KODAK DRYVIEW 5800 Laser Imager and CARESTREAM DRYVIEW 5850 Laser Imager, 2G0734.

User Guide Conventions

The following special messages emphasize information or indicate potential risks to personnel or equipment.

NOTE: Notes provide additional information, such as expanded explanations, hints, or reminders.

IMPORTANT: *Important notes highlight critical policy information that affects how you use this guide and this product.*

⚠️**CAUTION:**
Cautions point out procedures that you must follow precisely to avoid damage to the system or any of its components, loss of data, or corruption of files in software applications.

DANGER: **Danger identifies procedures that you must follow precisely to avoid injury to yourself or others.**

⚠️ **LASER WARNING:**
Laser warnings warn personnel that access to laser radiation is possible and all personnel must avoid direct exposure to the beam.

2 Using and Maintaining the Imager

Operator Control of the Imager

During normal operation, the Imager receives and automatically prints images sent by modalities over a network. Very little operator control is required. The main responsibilities of the operator are described in the following section, along with overview information about using the Imager.

Turning Imager Power ON and OFF
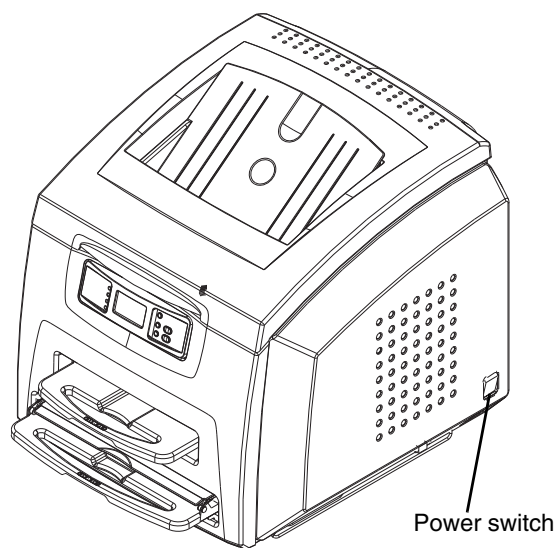
Power switch

There is a power switch located at the back right of the Imager.

In the event of a power loss, the Imager shuts down. Films in process will not be completed and will remain where they are located in the Imager.

The Imager will restart after power is restored. After self-test, the Imager clears any films in process and automatically reprints any films that were in process when power was interrupted.

Local Panel and Display Screen

Local Panel / Display Screen
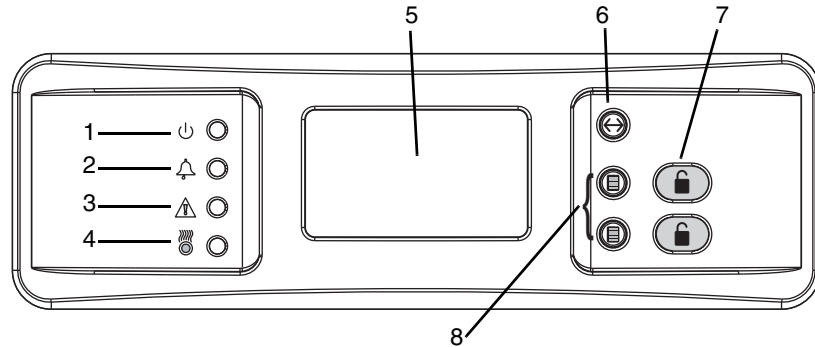
1   **Ready LED**. This LED, when steady on indicates that the Imager is ready for printing. When flashing, the Imager is processing and printing films. When unlit, the Imager is not ready to print.

2   **Error LED**. When lit, this LED indicates that the Imager has an error. An error code appears on the display screen.

3   **Attention LED**. When lit, this LED indicates a condition that requires attention, such as "out of film". The Imager can still process and print films from unaffected film trays.

4   **Warming LED**. When lit, this LED indicates that the Imager is warming up. A timer is also shown on the display screen indicating the amount of time, in minutes, before the Imager reaches operating temperature.

5   **Display screen**. Displays codes and icons that indicate the status and operating condition of the Imager.

6   **Menu Selection Button**. In Menu Selection Mode, you can work with menus on the Display Screen, and the functionality of buttons on the right side of the Local Panel change. To enter Menu Selection Mode, press and hold the Menu Selection Button (#6 on the graphic above) for 5 seconds. The following screens are available:

  •   Test Print screen: Select a test print (only SMPTE is available for 5800 Imager. Other prints are available for mammography quality control for the 5850 Imager.)

  •   Maintenance Reset screen: Reset maintenance items such as reset print counts, jobs to delete, etc.).

7   **Unlock buttons**. Used to unlock the film trays. Note that the trays will not unlock unless a film saver is installed in trays that have film.

  Note: These buttons are used to select or cancel when in Menu Selection Mode. See the Icons table on page 2-4.

8   **Calibration buttons**. Initiate a manual film calibration for upper and lower film trays.

  NOTE: These buttons are used to move up or down in a menu when in Menu Selection Mode. See the Icons table on page 2-4.

Display Screen Icons

Icon	Description
	This icon indicates that film calibration is required. The Imager is unable to print jobs from this tray until a successful calibration occurs.
	This icon indicates that a door is open on the Imager.
	This icon indicates an error with the film tray. An error code will also be shown on the display screen. The film tray cannot be used until the error is corrected.
	This icon indicates that you should insert the film saver into the film tray.
	This icon appears when the film fails calibration and indicates that the Imager has been placed in manual mode.
	This icon indicates that the DICOM network connection to the Imager is offline.
	This icon indicates that a film tray is not installed. Both film trays must be installed in order for the Imager to operate.
	This icon indicates that preventive maintenance is due.
	This icon indicates that one or more jobs are present in the Unprintable Job Queue.
	This icon indicates that the film saver must be removed from the film tray.
	This icon indicates that a reset of the print counts to preventive maintenance is due.
	This icon indicates there are prints in the queue that are waiting to be deleted.

Icon	Description
	This icon indicates that a user-initiated system restart is in process.
	This icon indicates that the Imager has been placed in service mode.
	This icon indicates that the Imager is warming up. The amount of time remaining until the Imager reaches operating temperature is also shown on the display screen.

Icons in Menu Selection Mode

The following icons appear on the Display Screen when you are in Menu Selection Mode. These icons represent the changed functionality of the buttons on the right side of the Local Panel.

While in Menu Selection Mode, press the button (#6 in the graphic on page 2-2) to display the Test Print or Maintenance Reset screen.

These icons indicate that the buttons shown by #8 in the graphic on page 2-2 have changed functionality. Rather than being used as Calibration buttons, you now use these buttons to move up or down in the menu on the Display Screen.

This icon indicates that the button shown by the upper #7 in the graphic on page 2-2 is no longer an Unlock button. Instead, use the button to select the currently highlighted menu item.

This icon indicates that the button shown by the lower #7 in the graphic on page 2-2 is no longer an Unlock button. Instead, use the button to cancel the selection.

Web Portal

The Web Portal is your interface to additional functions on the Imager. In the Web Portal, you can view and manage the Imager's connections over the network, configure features, view and correct error messages and general status, etc.

After you have accessed the Web Portal, you can check the status of the Imager and check the media and status of the film trays.

With a user account, you can log on to the Web Portal to perform more advanced functions such as:

- Setting up and working with network configuration for the imager and connected image sources.
- Retrieving logs, statistics, and system status.
- Performing diagnostic utilities, including backup and restore.

Levels of User Access

IMPORTANT: *For information about creating user accounts, refer to the Web Portal Help system.*

There are four levels of user access to the Imager.

Level 1: Operator - Activities include printing, clearing of some errors, and removing film jams and deleting jobs. A password is not required for this level of access.

Level 2: Key Operator - Activities include printing, clearing of some errors, removing film jams, performing minor setup, and deleting jobs. Access to Level 2 requires a Level 2 ID and password.

Level 3: Local Service - Local Service providers are Carestream Health trained and certified self-maintenance customers. Level 3 First Call Service provides access to all Level 1 and 2 features and functions. In addition, First Call activities include preventive maintenance with the ability to reset some imaging parameters. Access to Level 3 requires a Level 3 ID and password.

Level 4: Full Service - Full Service providers are Carestream Health Field Engineers, Technical Support staff, and certified service partners. Level 4 Full Service requires licensing for a specified period. Full Service providers have access to all Level 1, 2, and 3 service features. The providers can also access the laser imager through a service computer or through a remote computer connected to the network. Access to Level 4 requires a Service ID and password.

Accessing the Web Portal

To access the Web Portal you will need a desktop or laptop computer that is connected to the network.

1. On a desktop or laptop computer, start WINDOWS Internet Explorer.

2. In the address field, type: **http://**<IP address>

   Note: <IP address> is the IP address of the Imager.

3. Click **Go**.

   The main window for the Web Portal appears.
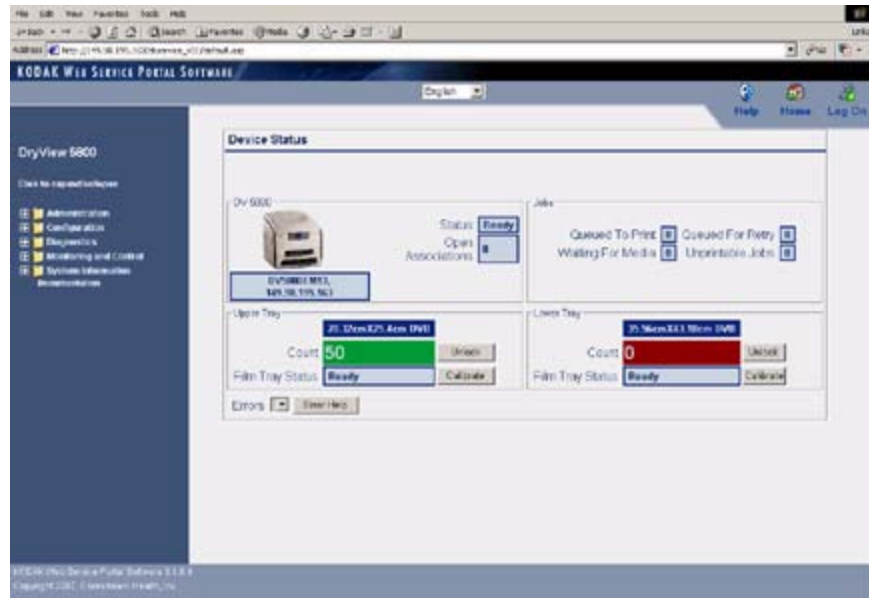
The center panel displays the screens where you view and perform tasks. On-line help is available by selecting "Documentation" from the left panel. The left panel displays links to all other screens.

To log on to the Web Portal as a Level 2 or Level 3 user, do the following.

1. Click the Log On icon.

   The following window appears.
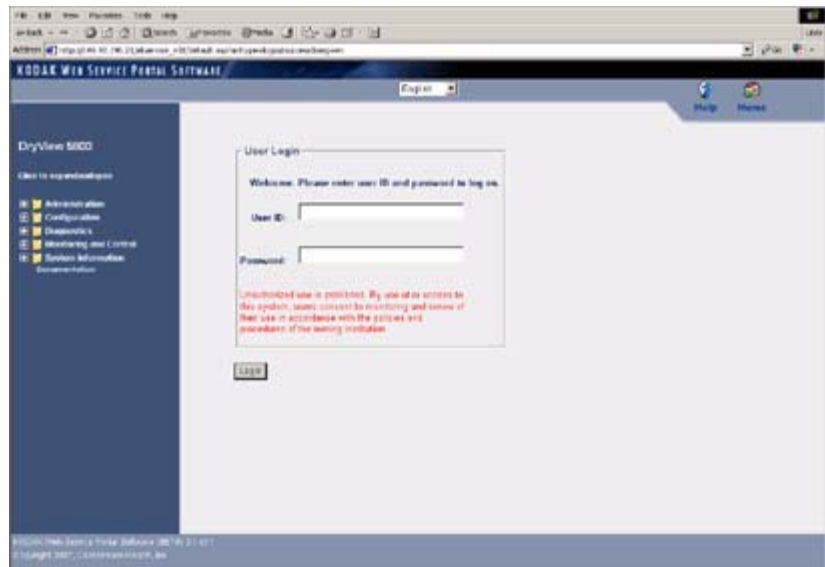
2. Enter your User ID and password.

NOTE: The Imager comes with a default User ID and password for Level 2 and Level 3 users.

- for Level 2: User ID = **KeyOperator**; Password = **DV5800**
- for Level 3: User ID = **LocalService**; Password = **DV5800**

NOTE: The password is the same for the 5800 and 5850 Laser Imagers.

3. Click **Login**.

   The items on the left side of the display will differ according to your level of access.

Operations

Unloading and loading the Film Tray

IMPORTANT: *Leave the Imager powered on while loading or unloading the film tray.*

When 100 sheets of film have been used, a 0 film count appears on the display screen.

1. Press the "unlock" button on the local panel to release the film tray.

2. Remove the film tray from the Imager.

Film insert

3. Remove the old film insert from the tray and discard in a manner suitable to local ordinances.

NOTE: Before loading a new package of film, clean any particles from the inside surface of the film tray, including the ramp and top edge of the tray.

Bag holder

Film
package
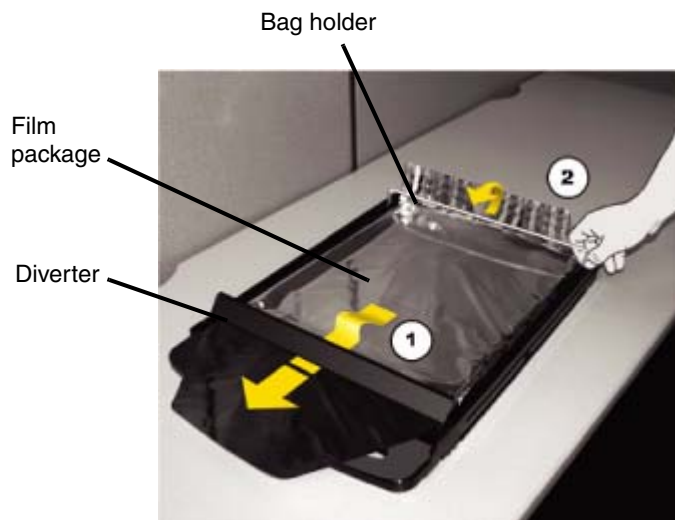
Diverter

4. Pull the diverter (plastic bar) and bag holder (silver bar) into the up
    position.

5. Press the new film package down in the tray with the label facing up.

6. Pull the front flap of the film package forward and place it under the
    diverter (1).

7. Set the back end of the film package under the bag holder (2).

8. Press down firmly using both hands so the film package sits flat
    against the bottom of the tray.

Bag holder

9. Swing the bag holder of the film tray back in place.
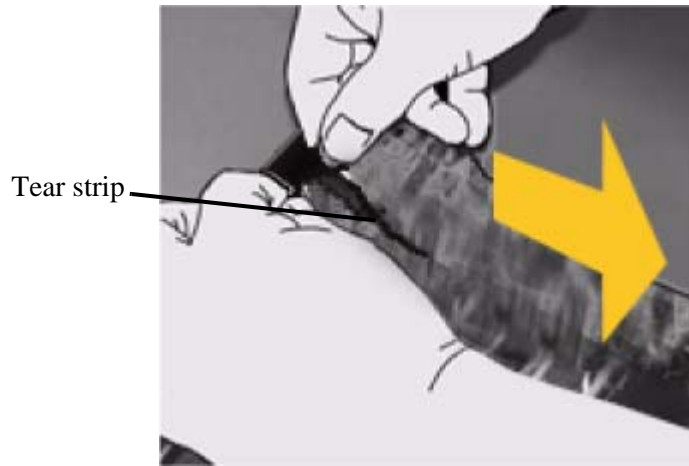
Tear strip

10. Remove the tear strip from the plastic bag.
11. Swing the diverter of the film tray back in place.

IMPORTANT: *Do not install the Film Saver onto the film tray.*

12. Slide the tray back into the Imager slot.

Plastic bag

13. To remove the plastic bag so the Imager can access the film, pull the plastic bag tail firmly and smoothly. The entire film bag will slide out.

Inserting the Film Saver and Removing the Film Tray

A film saver must be inserted into a film tray before:

- the hood is opened.
- any panel on the Imager is removed.
- a film tray with film in it is removed.

1. Insert the film saver as shown below.

2. If the film tray has not been unlocked, press the "unlock" button on the local panel.

NOTE: The film tray must be removed within 30 seconds after pressing the "unlock" button. Otherwise, the film tray will re-lock automatically.

3. Remove the film tray as shown below.
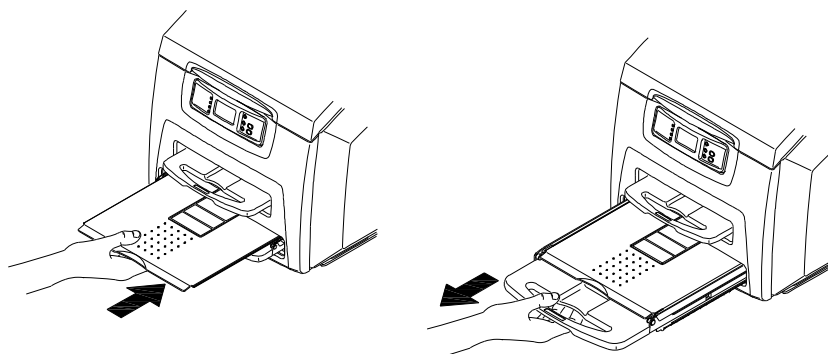
H221_0002BC

Inserting the Film Saver

Note: The film saver can be stored under the film tray until required.

Removing Print Jobs From the Unprintable Jobs Queue

When there are jobs in the unprintable jobs queue that can not be printed, condition code 20703 and an icon show on the display screen. To remove these jobs from the print queue, do the following.

1. Press and hold the Menu Selection Button for 5 seconds. Release the button and the Test Print Menu displays.

2. Press and release the Menu Selection Button again to display the Error Reset Menu.

3. Check that the 20703 error is highlighted on the display screen, then press the Enter button.

The icon and condition code are cleared, and the display screen returns to normal operation.

Calibration Prints

Imager calibration is performed by printing a calibration print. A calibration print has a step wedge pattern with a series of 26 stripes of increasing optical density. The only purpose of a calibration print is to calibrate the Imager. The Imager prints a calibration print when:

- A manual film calibration is requested.
- A film tray containing film with new sensitometric characteristics (speed, contrast) is loaded.
- A film tray for which a current calibration is not stored is inserted into the Imager.

You can discard all calibration prints.

Running a Calibration Print

You may occasionally have to request that the Imager print a calibration print to calibrate the Imager. You may be asked to do this if you call for service. You should also run a calibration print if a "Not Calibrated" status message appears on the Web Portal Home screen, or if a calibration error code (2x-624, 2x-631, or 2x-632) appears on the display screen.

To request a calibration print from the local panel, press the calibration button for the applicable film tray (see "Local Panel / Display Screen").

To request a calibration print from the Web Portal:

1. Access the Web Portal (see "Accessing the Web Portal").
2. Click **Calibrate**, for the applicable film tray.

Calibration Failure

Occasionally, the Imager may fail calibration and will notify the operator with an error code on the display screen and a code and message on the Web Portal. The most common cause is a film-related problem. Depending on the cause, the Imager may be able to continue operating, but would display the "manual mode" icon.

Working with Quality Test Prints

The Imager can print an internally generated density test print with a SMPTE pattern. Density test prints can be used as a quality assurance tool to verify the uniformity of films printed by the Imager. The 5850 Laser Imager provides additional test prints for mammography quality control.

You can request a test print at the Imager or from the Web Portal.

Requesting a Test Print at the Imager

1. At the Imager, press the Setup button for approximately 5 seconds. The Test Print menu displays.
2. Select the desired test print, and press the Enter button to initiate the test print.
3. Select **Cancel** to exit from the Test Print menu.

Requesting a Test Print at the Web Portal

1. Access the Web Portal (see "Accessing the Web Portal").
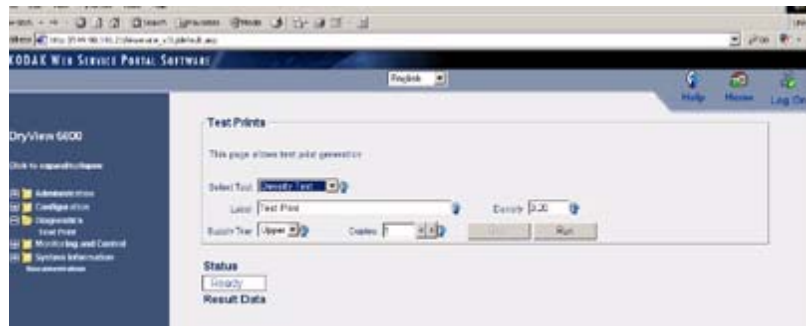
2. Select **Diagnostics>Test Print**.
3. For "Select Test," use the drop-down menu to select the desired test. For example, for the SMPTE pattern, select **Density Test**.
4. Enter an optional label to be printed on the test film.
5. Enter the desired density (0.1 to 3.2).
6. Use the drop-down menu to select the film tray.
7. Select the number of copies to be printed.
8. Click **Run**.

Operator Maintenance

Changing the Charcoal Filter

⚠ **CAUTION:**

In the U.S., exhausted charcoal filters are considered to be non-hazardous waste according to the US Environmental Protection Agency Resource Conservation Recovery Act (RCRA). Municipality owned and licensed solid waste management facilities are an appropriate disposal option. Contact your local or state solid waste authorities to determine if additional disposal requirements apply. In other regions, contact local or regional solid waste authorities for proper disposal guidance.

The preventive maintenance filter must be changed every 7,500 films. When it is time to replace the filter, condition code 20449 and an icon show on the display screen.

1. Remove the film trays see ("Inserting the Film Saver and Removing the Film Tray").

2. Turn the Imager OFF.

Hood

Charcoal filter
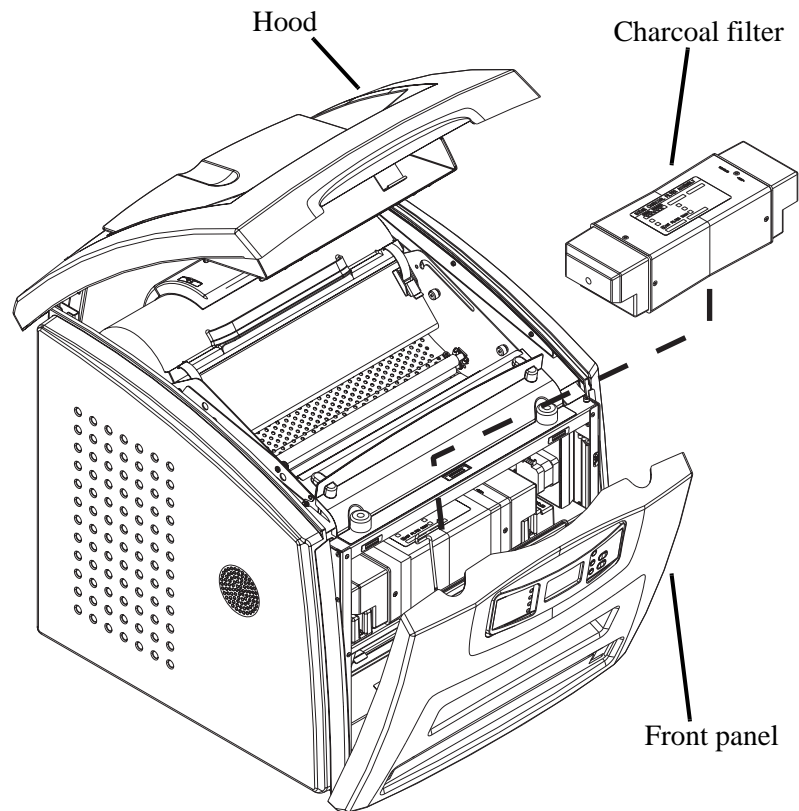
Front panel

3. Raise the hood.

4. Pull the front panel forward.

5. Remove the charcoal filter by lifting it up and pulling it forward.

6. Install a new charcoal filter.

7. Close the front panel.

8. Close the hood.

9. Install the film trays.

10. Remove the film savers.

11. Turn the Imager ON.

12. Wait for the Imager to complete the start-up routine.

13. Clear the preventive maintenance icon and condition code.

    a. Press and hold the Menu Selection Button for 5 seconds. Release the button and the Test Print menu displays.

    b. Press and release the Menu Selection Button again to display the Error Reset menu.

    c. Check that the 20449 error is highlighted on the display screen, and press the Enter button.
        The icon and condition code are cleared, and the display screen returns to normal operation.

3   Troubleshooting

Error and Alarm Indications

The Imager can detect errors and other conditions that require operator action. These errors or abnormal conditions are reported on the display screen and on the Web Portal in the form of condition codes and messages.

DICOM Printer Status Messages

In response to a DICOM printer N-GET status request from a modality, a printer status message and a printer status info message are returned to the requesting SCU. Every error has an associated printer status info message. If more than one error exists when a printer N-GET request is received, a status message is sent in response according to an established priority. The following table shows the DICOM printer status and printer status info.

Table 3-1: DICOM Printer Status Messages

Printer Status	Printer Status Info	Printer Status	Printer Status Info
FAILURE	ELEC DOWN PRINTER DOWN PROC DOWN	WARNING	BAD SUPPLY MGZ CALIBRATION ERR CHECK PRINTER COVER OPEN EMPTY MEDIASZ MEDIATP FILM JAM FILM TRANS ERR PRINTER BUSY PROC INIT PRINTER INIT PRINTER OFFLINE

Printer Status Messages

The following table describes how the local panel and Web Portal indicate printer status to the user.

Table 3-2: Printer Status Messages

Printer Status	Local Panel	Web Portal Display	DICOM Status	Description
Any Film Supply Open	• Ready LED off • Display is blanked for open tray • Status code: 20702	Not Ready	WARNING / COVER OPEN	At least one of the film trays is not inserted and latched into place.
Door Open	• Ready LED off • Attention LED on • Status code: 20701	Hood Open	WARNING / COVER OPEN	The Imager hood is open or one of the side panels may be off. The Imager is not "Ready."
Failed	• Ready LED off • Error LED on • Error code shown	Failed	See Condition Code	An error has occurred that prevents printing.
Imager Unlock Requested	• Ready LED off • Unlock LED flashing for the requested film tray	Not Ready	n/a	The printer will complete any prints in progress prior to unlocking a film tray for removal.
Offline	• Ready LED off • Attention LED on • Status code: 20704	Printing Disabled	WARNING / PRINTER OFFLINE	The printer has been disabled and does not have a network connection.
Printing	• Ready LED flashing	Printing	NORMAL	The Imager is currently printing films.
Ready	• Ready LED on display shows count, type, and size for each film tray	Ready	NORMAL	The Imager is online and the Processor has reached operating temperature.
Self-test	• Ready LED off • the Display shows the Carestream logo	Self-test	WARNING / PRINTER INIT	This occurs when power is first applied to the Imager.
Service Mode	• Ready LED off • Attention LED on Status code: 20700	Service Mode	WARNING / PRINTER OFFLINE	The service switch is enabled. The Imager is not "Ready."

Table 3-2: Printer Status Messages (Cont'd)

Printer Status	Local Panel	Web Portal Display	DICOM Status	Description
Warming	• Ready LED off • Warming LED on • Number of minutes until warm shown	Warming=xx	WARNING / PROC INIT	The Processor is warming up and will not be ready to print for xx minutes.

Film Tray Status Messages

The following table describes how the local panel and Web Portal indicate film tray status to the user.

Table 3-3: Film Tray Status Messages

Film Tray State	Local Panel	Web Portal Display	Description
Failed	• Attention LED on • Status code: 21000 (upper), 23000 (lower) • Unlock button LED on • Cal button LED flashing • Tray info area displays icon for this state	Failed	An error has occurred that affects normal operation. This film tray is currently not useable and requires user intervention.
Calibrating	• Attention LED on • Status code: 21001 (upper), 23001 (lower) • Unlock button LED on • Cal button LED off • Tray info area displays film type, size, and count	Calibrating	A calibration is in progress for this film tray.
Film Covered	• Attention LED on • Status code: 21003 (upper), 23003 (lower)	Film is Covered	Either the film bag or film saver is still on and must be removed before the film tray can be used.
Film Tray Empty	• Unlock button LED on • Cal button LED off • Tray info area displays film type, size, and count	Empty and/or sheet count of 0	A film tray is inserted, but the sheet count is 0.

Table 3-3: Film Tray Status Messages (Cont'd)

Film Tray State	Local Panel	Web Portal Display	Description
Manual Mode	• Attention LED on • Status code: 21002 (upper), 23002 (lower) • Unlock button LED on • Cal button LED off • Tray info area displays film type, size, and count		The film in this film tray does not meet AIQC standards. However, the user has selected "Manual Mode," so it will be used as if it is "Ready."
No Film Tray	• Unlock button LED on • Cal button LED off • Tray info area displays icon for this state	Invalid Film Tray	There is a film tray in the film supply but it does not contain a liner/RF tag.
Ready	• Unlock button LED on • Cal button LED off • Tray info area displays film type, size, and count	Normal Tray Info	The film tray is ready for use.
Requires Calibration	• Attention LED on • Status code: 21001 (upper), 23001 (lower) • Unlock button LED on • Cal button LED off • Tray info area displays film type, size, and count	Requires Calibration	The film tray must be calibrated before the Imager can print from it.
Supply Open	• Ready LED off • Unlock button LED off • Cal button LED off • Tray info area blank	No Film Tray	There is no film tray inserted. Both trays must be inserted in order for the Imager to operate.
Unlock Pending	• Ready LED off (or blinking if active print) • Cal LED off (or blinking if active calibration) • Unlock button LED blinking • If the film tray requires a cover, the status code is: Status code: 21004 (upper), 23004 (lower)	Unlock Requested	An "Unlock" has been requested but has not started because of one of the following: • films are still moving through the Imager • the film tray contains film but has not been covered with a film saver Once the conditions for unlock is met, film tray can be removed.

Job Manager Status Messages

The following table describes how the local panel and Web Portal indicate job status to the user.

Table 3-4: Job Manager Status Messages

Job Manager Status	Display Screen	Web Portal Display	Description
Active	n/a	Shows how many jobs having this status are queued.	The Imager is accepting DICOM job requests and film is available for all current jobs.
No Media	• Attention LED on • Required media size is displayed	Shows how many jobs having this status are queued.	The Imager is accepting DICOM job requests but film of the correct size and type is not available for at least one current job.
Offline	• Ready LED on • Status code: 20704	Imager Offline	The Imager will not accept any DICOM job requests.
Unprintable jobs queued	• Status code: 20703	Shows how many jobs having this status are queued.	The Imager has queued jobs that can never be printed and should be deleted by the user.

Condition Codes

Condition codes are shown on the display screen in the order in which they are generated. If there is more than one code associated with the current condition of the Imager, the first code is shown on the display screen for 6 seconds, while other codes in the list are displayed for 3 seconds as the list is cycled. The LEDs on the left side of the local panel will be on whenever there is a condition code of that type.

Table 3-5: Condition Codes

Code	Web Portal Message	User Action
01004	MIM Core: Internal Software Error	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
04200	MIM Core: Disk Full	1. Delete jobs in the "Unprintable jobs" queue. 2. Load requested film type for jobs in the "Waiting for media" queue. 3. If the error persists, call for service.
06400	MIM Core: Image Page Error	1. Delete jobs in the "Unprintable jobs" queue. 2. Resend the print job from the image source. 3. If the error persists, call for service.
06410	MIM Core: Image Rendering Error	1. Delete jobs in the "Unprintable jobs" queue. 2. Resend the print job from the image source. 3. If the error persists, call for service.
06411	MIM Core: Image Data Error	1. Delete jobs in the "Unprintable jobs" queue. 2. Resend the print job from the image source. 3. If the error persists, call for service.
06420	MIM Core: Internal Software Error	1. Delete jobs in the "Unprintable jobs" queue. 2. Resend the print job from the image source. 3. If the error persists, call for service.
06430	MIM Core: Internal Software Error	1. Delete jobs in the "Unprintable jobs" queue. 2. Resend the print job from the image source. 3. If the error persists, call for service.
10001	MIS: Internal Software Error	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.

Table 3-5: Condition Codes (Cont'd)

Code	Web Portal Message	User Action
10003	MIS: Image Buffer Error	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
10015	MIS: Database Error	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
10910	MIS: MCS Communication Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
20004	USB Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
20154	MCS: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
20156	Incompatible Software Versions Installed	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
20209	Laser Imager Opened During Self Test	1. Close the hood or the open cover. 2. Shut down the Imager, then start the Imager. 3. If the error persists, call for service.
20449	none	1. Change the charcoal filter. 2. Press and hold the Menu Selection Button for 5 seconds. Release the button and the Test Print menu displays. 3. Press and release the Menu Selection Button again to display the Error Reset menu. 4. Check that the 20449 error is highlighted on the display screen, and press the Enter button. The icon and condition code are cleared, and the display screen returns to normal operation.
20701	none	1. Close the hood or the open cover.
20702	none	1. Install the missing film tray.
20703	none	1. Press and hold the Menu Selection Button for 5 seconds. 2. Press and release the Menu Selection Button again to display the Error Reset menu. Delete the jobs in the Unprintable Jobs Queue.

Table 3-5: Condition Codes (Cont'd)

Code	Web Portal Message	User Action
20705	none	1. Press and hold the Menu Selection Button for 5 seconds. Release the button and the Test Print Menu displays. 2. Press and release the Menu Selection Button again to display the Error Reset Menu. 3. Check that the 20703 error is highlighted on the display screen, then press the Enter button.
20706	none	1. Turn the Imager power OFF.
20915	Internal Image Data Transfer Failed	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
20919	Internal Image Data Render Failed	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
21000 or 23000	none	None. The film tray requires attention due to an error. The specific error is reflected by a separate code.
21001 or 23001	none	None. The film tray needs calibration before it can be used.
21002 or 23002	none	None. The film tray is operating in "manual mode," which means the image quality is not within the normal range.
21003 or 23003	none	1. Remove the film saver or the film bag.
21004 or 23004	none	1. Install a film saver before removing the film tray.
21116 or 23116	Film Jam in Area 1: xxxxx Supply	See "Film Jam - Code 2x-116".
21118 or 23118	xxxxx Supply: Internal Hardware Failure	1. Cover the film tray with the film saver. Remove the tray from the Imager. 2. Re-insert the film tray and remove the film saver. 3. If the error persists, call for service.
21119 or 23119	xxxxx Supply: Internal Hardware Failure	1. Cover the film tray with the film saver. Remove the tray from the Imager. 2. Re-insert the film tray and remove the film saver. 3. If the error persists, call for service.

Table 3-5: Condition Codes (Cont'd)

Code	Web Portal Message	User Action
21122 or 23122	xxxxx Supply: Internal Hardware Failure	1. Cover the film tray with the film saver. Remove the tray from the Imager. 2. Take the film tray to a dark room and remove the film saver. Verify that the film is lying flat. Replace the film saver. 3. Re-insert the film tray and remove the film saver. 4. If this error repeats, try a new film pack. 5. If the error persists, call for service.
21125 or 23125	xxxxx Supply: Internal Hardware Failure	1. Cover the film tray with the film saver. Remove the tray from the Imager. 2. Re-insert the film tray and remove the film saver. 3. If the error persists, call for service.
21126 or 23126	Film Jam in Area 1: xxxxx Supply	See "Film Jam - Code 2x126".
21130 or 23130	xxxxx Supply: Internal Hardware Failure	1. Cover the film tray with the film saver. Remove the tray from the Imager. 2. Re-insert the film tray and remove the film saver. 3. If the error persists, call for service.
21131 or 23131	xxxxx Supply: Internal Hardware Failure	1. Cover the film tray with the film saver. Remove the tray from the Imager. 2. Re-insert the film tray and remove the film saver. 3. If the error repeats, shut down the Imager, then start the Imager. 4. If the error persists, call for service.
21139 or 23139	xxxxx Supply: Unable to Identify Film Pack	1. Try a different film pack. 2. If the error persists, call for service.
21145 or 23145	xxxxx Supply: Unsupported Film Type	1. The Imager has not been configured to use this film type. 2. Try a different film type or reconfigure the Imager. 3. If the error persists, call for service.
21146 or 23146	xxxxx Supply: Unsupported Film Size	1. The Imager has not been configured to use this film size. 2. Try a different film size or reconfigure the Imager. 3. If the error persists, call for service.

Table 3-5: Condition Codes (Cont'd)

Code	Web Portal Message	User Action
21624 or 23624	xxxxx Supply: Film Calibration Failure	1. Try calibration again, or try a different film pack. 2. If the error repeats, shut down the Imager, then start the Imager. 3. If the error persists, call for service.
21631 or 23631	xxxxx Supply: Film Calibration Failure - Dmin Outside Target	1. The minimum density of the film is too high. Calibration results for this film are outside the normal range, but will still be used. 2. If you do not wish to use these calibration results, perform a new calibration on this film or try another film pack.
21632 or 23632	xxxxx Supply: Film Calibration Failure - Dmax Outside Target	1. The maximum density of the film is lower than the target density. Calibration results for this film are outside the normal range, but will still be used. 2. If you do not wish to use these calibration results, perform a new calibration on this film or try another film pack.
25922	RF Tag: Internal Diagnostic Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
25931	RF Tag: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
26325	Film Jam in Area 2	See "Film Jam - Code 26325".
26326	Film Jam in Area 2 or 3	See "Film Jam - Codes 26326 or 26543".
26543	Film Jam in Area 3	See "Film Jam - Codes 26326 or 26543".
26544	Film Jam in Area 3	See "Film Jam - Code 26544".
26931	Film Transport: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
26933	Film Transport: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27123	Optics: Internal Hardware Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27601	Optics: Calibration Failed	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.

Table 3-5: Condition Codes (Cont'd)

| Code	Web Portal Message	User Action
27604	Optics: Calibration Failed	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27607	Optics: Calibration Failed	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27611	Optics: Internal Hardware Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27646	Optics: Internal Hardware Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27650	Optics: Internal Hardware Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
27931	Optics: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28154	Processor: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28155	Processor: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28501	Processor: Internal Hardware Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28509	Processor Warm-up Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28510	Processor: Internal Hardware Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28551	Processor Heater Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28554	Processor Over Temperature	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
28931	Processor: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
29154	Densitometer: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.

Table 3-5: Condition Codes (Cont'd)

Code	Web Portal Message	User Action
29924	Densitometer: Internal Diagnostic Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
29925	Densitometer: Internal Diagnostic Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
29926	Densitometer: Internal Diagnostic Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
29927	Densitometer: Internal Diagnostic Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
29931	Densitometer: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
36931	Local Panel: Internal Communications Failure	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.
36935	Local Panel: No Communications from MCS	1. Shut down the Imager, then start the Imager. 2. If the error persists, call for service.

Clearing Film Jams

⚠️ **CAUTION:**
   Shutting off power to clear a film jam is not required.
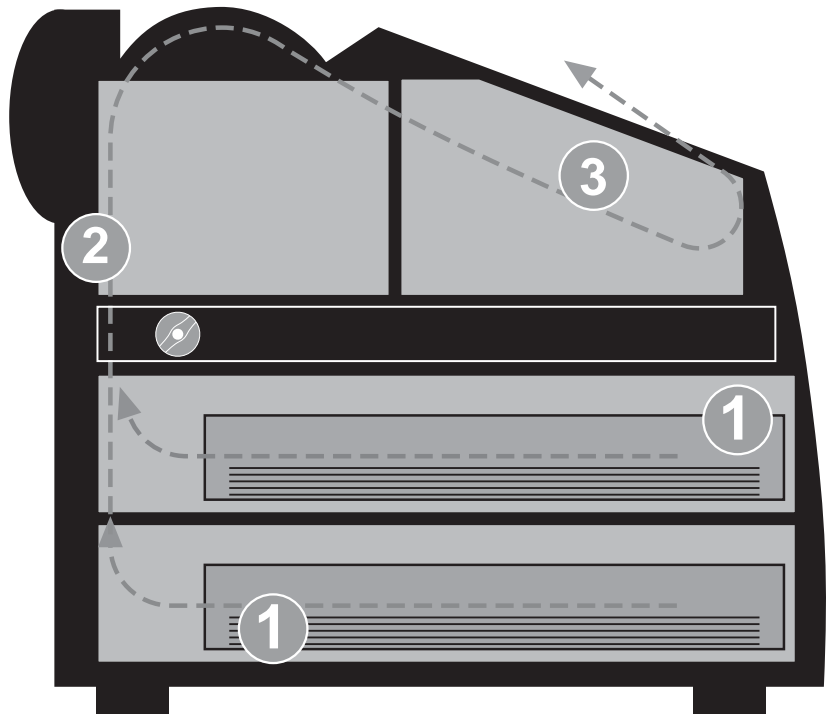
Jam Areas and Film Path

Film Jam - Code 2x-116

1. Remove the film trays (see "Inserting the Film Saver and Removing the Film Tray").
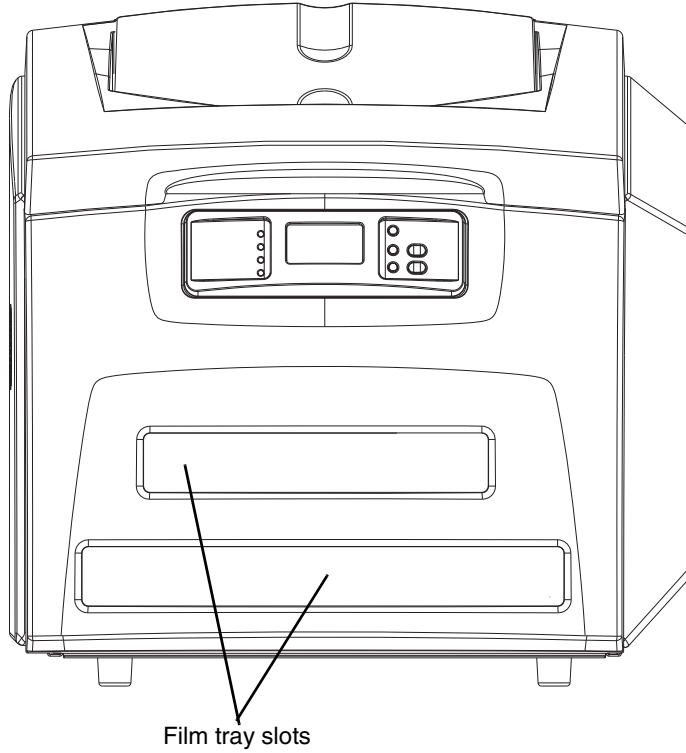
Film tray slots

2. Remove any misplaced films from Area 1. This area can be accessed through the film trays slots.

NOTE: If the film is not accessible from the front of the Imager, continue with Step 3.
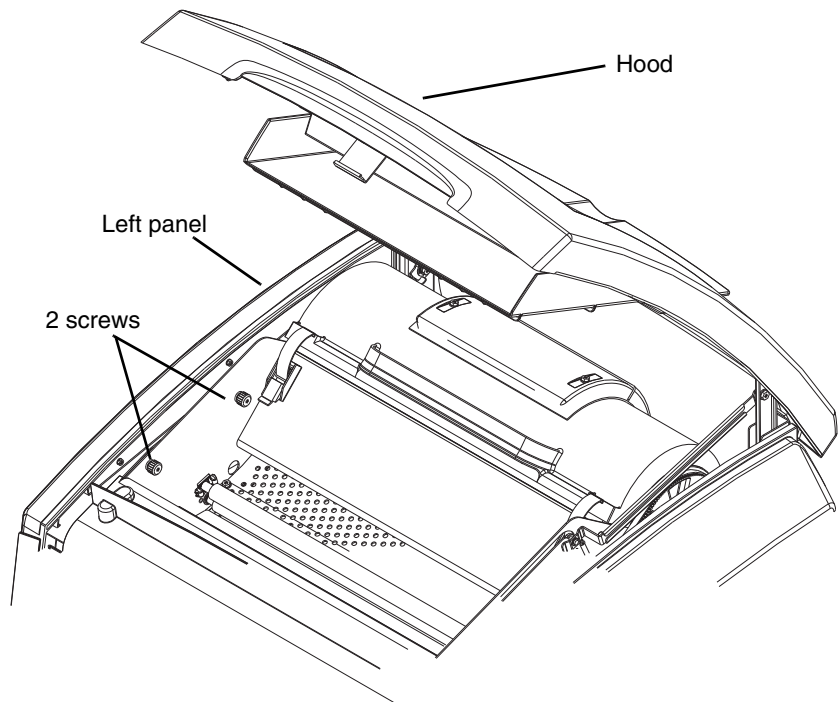
3. Open the hood.
4. Loosen the 2 screws and remove the left panel
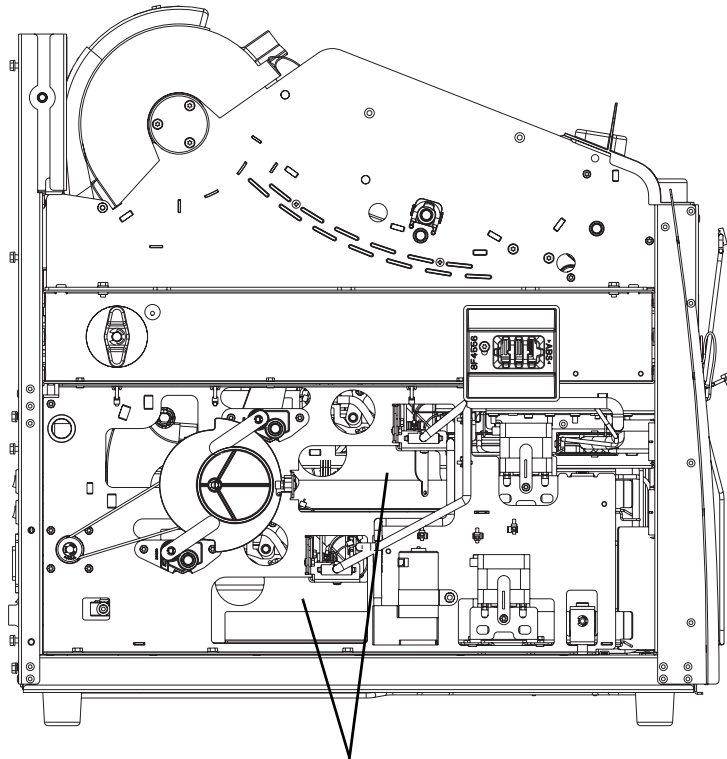
Pickup access areas

5. Remove any misplaced films seen in the pickup access areas.

6. If Area 1 did not contain misplaced films, take the film trays to a dark room and remove the film saver. Remove any misplaced films and cover the tray with the film saver.

7. Set the left panel in place and tighten the 2 screws.

8. Close the hood.

Film Jam - Code 2x126

1. Remove the film trays (see "Inserting the Film Saver and Removing the Film Tray").
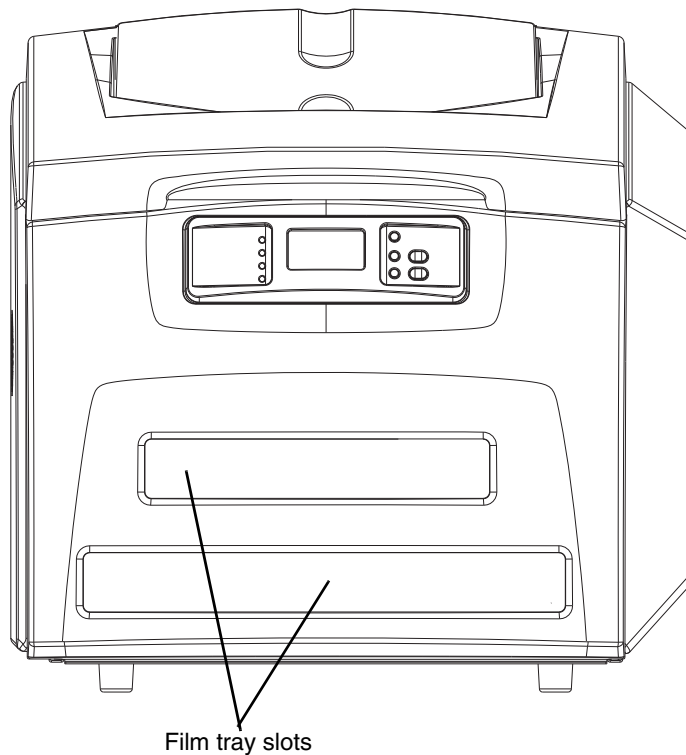
Film tray slots

2. Remove any misplaced films from Area 1. This area can be accessed through the film trays slots.

3. If Area 1 did not contain misplaced films, take the film trays to a dark room and remove the film saver. Remove any misplaced films and replace the film saver.

4. If misplaced films were not found in the tray, open and close the Imager hood. Wait 2 minutes for misplaced films to emerge from the Imager.

   If misplaced films were never located and this error recurs on the next film, continue with Step 5.

Hood
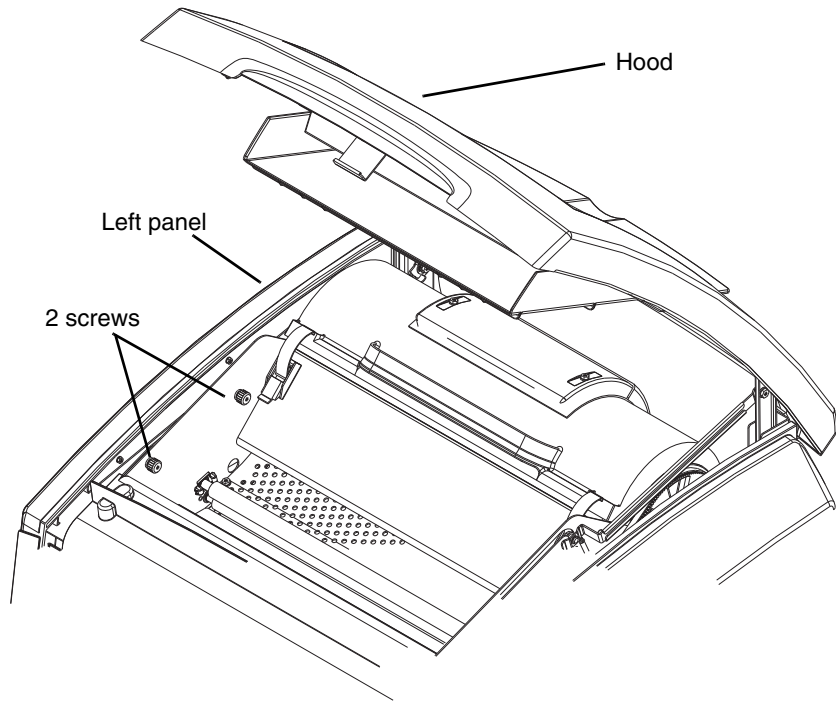
Left panel

2 screws

5. Open the hood.

6. Loosen the 2 screws and remove the left panel.

Pickup access areas
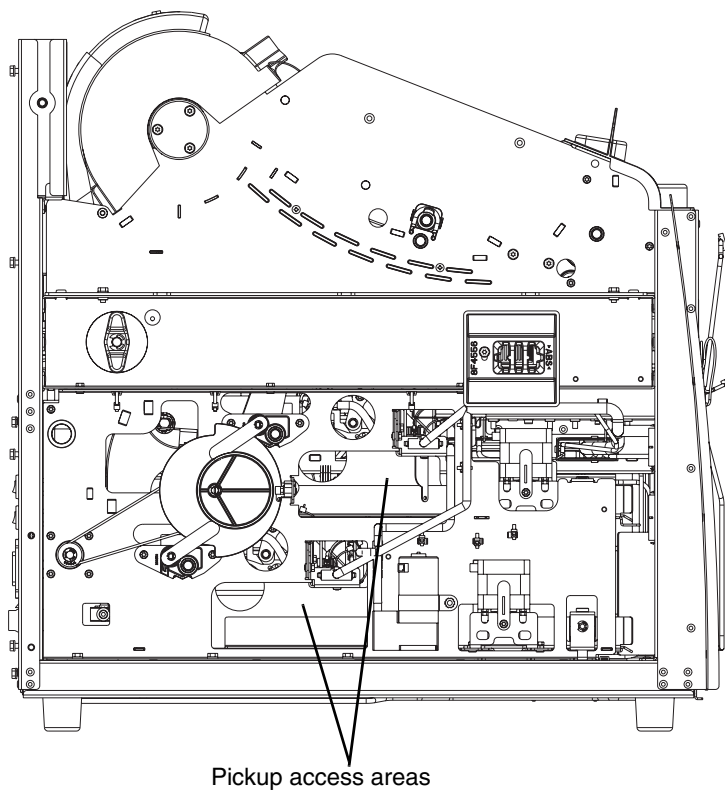
7. Remove any misplaced films seen in the pickup access areas.

8. Set the left panel in place and tighten the 2 screws.

9. Close the hood.

Film Jam - Code 26325

IMPORTANT: If this error occurred at the same time as 2x-126, follow the instructions for "Film Jam - Code 2x126".

1. If this error occurred alone, open and close the hood to clear the error.

2. If this error repeats, restart the Imager.

Film Jam - Codes 26326 or 26543

Hood

Drum cover
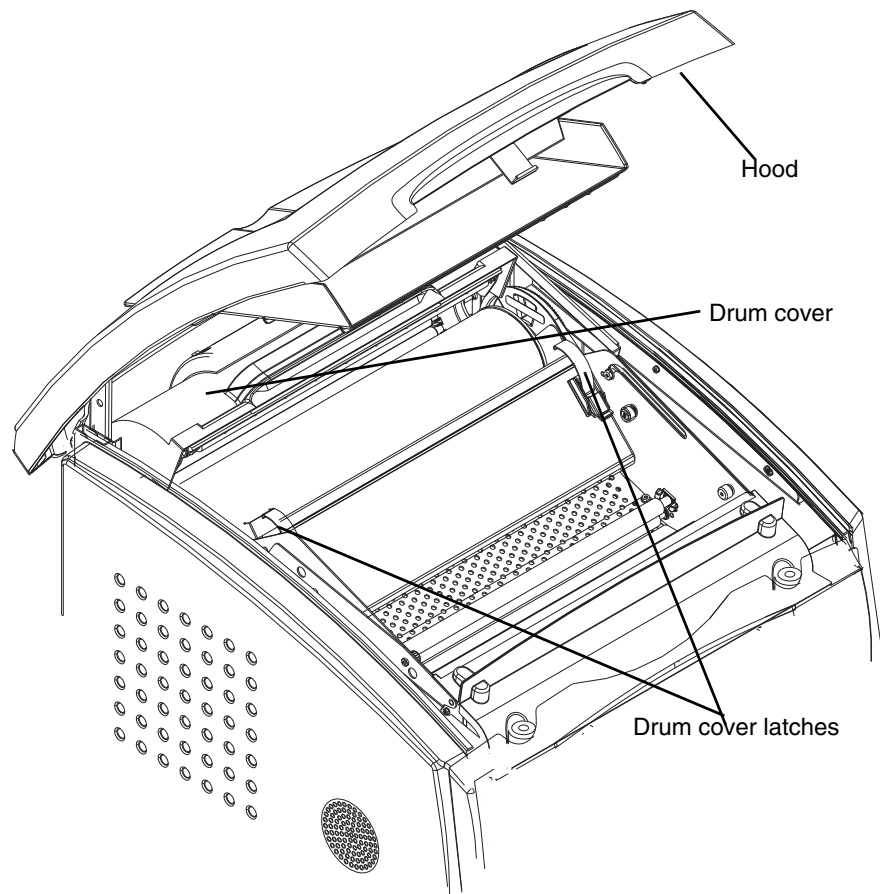
Drum cover latches

1. Open the hood.

2. Remove any misplaced films.

⚠ **CAUTION:**
   Hot surface.

3. Undo the drum cover latches and lift the drum cover.

4. Carefully remove any films found in the drum area.

5. Close the drum cover and secure the cover latches.

    If the film was not found in the drum area, continue with Step 6.
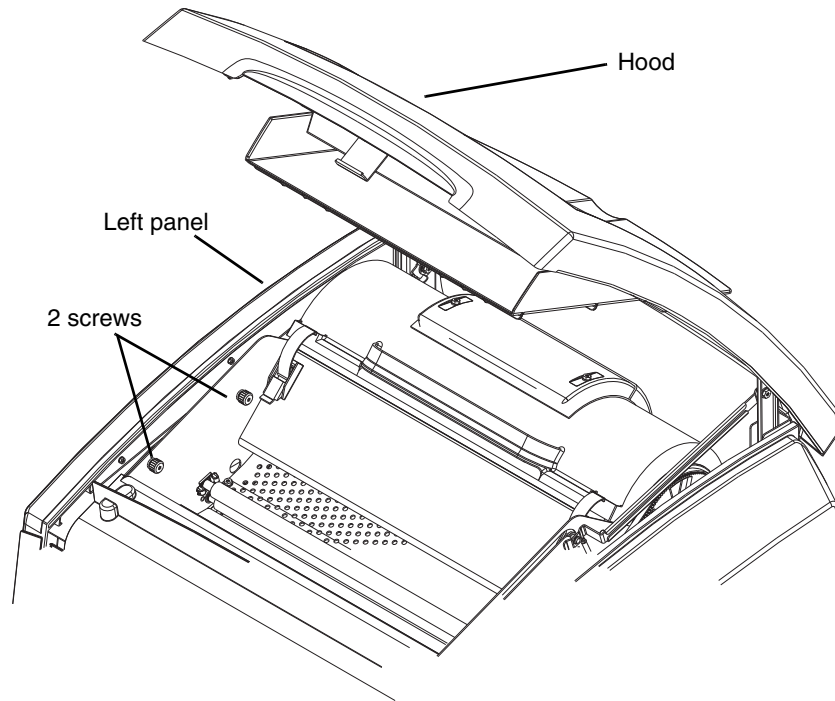
6. Open the hood.

7. Loosen the 2 screws and remove the left panel.
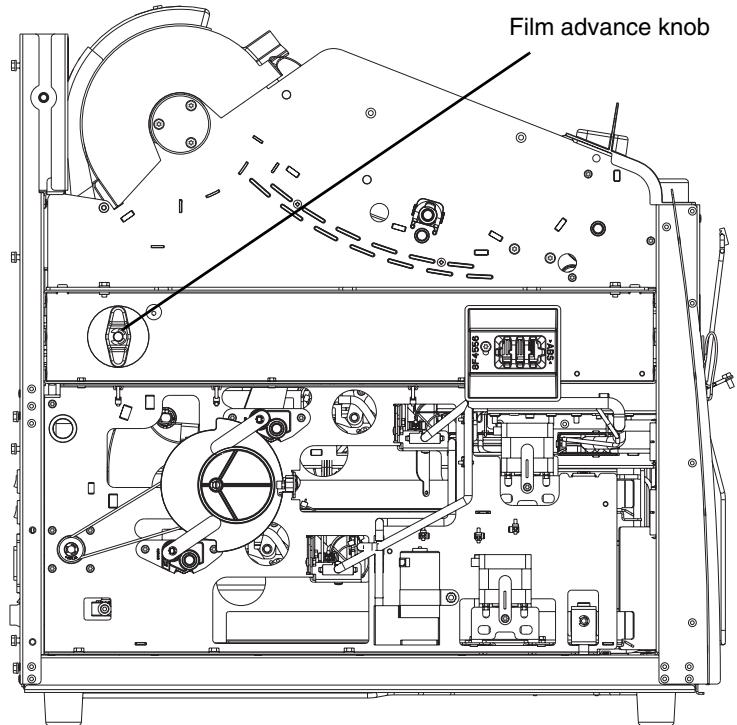
Film advance knob

8. Use the manual advance knob to move the film through the processor.

9. Set the left panel in place and tighten the 2 screws.

10. Close the hood.

   If film was not previously removed, the misplaced films will emerge from the IMAGER within 2 minutes.

Film Jam - Code 26544

1. Remove any films jammed in the imager film exit.

2. Open the hood and remove any films in Area 2.

3. Close the hood.

Calling for Support

If you cannot correct a condition and need help, call for support. Have the following information ready when you call:

- Model Number: 5800 or 5850
- K-Number
- Condition code and message if they are shown on the display screen and Web Portal

4   Film Technical Information

General Description

This section describes the characteristics of DRYVIEW Laser Imaging Film, not the operation of the Laser Imager. DRYVIEW Laser Imaging Film is a high-resolution, infrared-sensitive, photothermographic film designed specifically for the family of DRYVIEW Laser Imagers. DRYVIEW Laser Imaging Film is packaged in daylight-load packages and is available in blue, clear, and mammography film types.

Spectral Sensitivity

DRYVIEW Laser Imaging Film is infrared sensitive and has been sensitized to the infrared laser diode of DRYVIEW Laser Imagers. When handled according to instructions on the daylight-load film package, safelights are not needed. If you remove undeveloped film from the daylight-load package, you will need a darkroom setting and a green safelight.
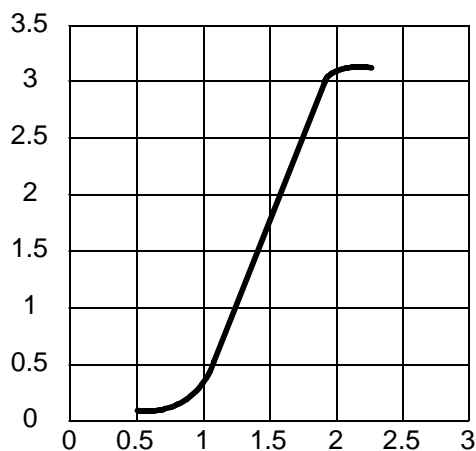
Relative Log Exposure (Example)

Image Quality

DRYVIEW Laser Imaging Film delivers diagnostic-quality, continuous-tone images along with sharp alphanumerics and optimum contrast. This high-quality, silver-based film provides health care providers with the same diagnostic information they are accustomed to viewing — including the spatial resolution, contrast, and grey levels. Because it is a totally dry imaging process, there is no image quality variability due to "wet" chemistry.

Environmental Impact

Tests show that DRYVIEW Laser Imaging Film is not considered hazardous to the environment. As a result, you can develop, recycle, and dispose of film with less impact on the environment than if you were using wet-developed silver halide films.

DRYVIEW Laser Imaging Film US Environmental Regulations Comparison				
	Wet Silver Halide			DRYVIEW Film
	Developer	Fixer	Wash	Film	Film
Product Regulations				
OSHA MSDS	Required	Required	Not required	Not required	Provided
DOT	Hazardous	Hazardous	No limits	No limits	No limits
Use permits	Local	Local	None	None	None
Disposal* Regulations				
EPA	Hazardous	Hazardous	No	No	No
DOT	Hazardous	Hazardous	No	No	No
Note: There is no SUPERFUND liability with DRYVIEW Laser Imaging Film.				
* State and local laws vary. Consult appropriate regulations or authorities prior to disposal.				

Storing and Handling Undeveloped Film

To achieve consistent results up to the expiration date indicated on the film package, DRYVIEW Laser Imaging Film must be stored in a cool, dry place (41° to 77°F / 5° to 25°C) and protected from radiation and chemistry fumes.

The film can withstand short-term temperature spikes (up to 95°F/35°C) for several hours during transit without any significant effect on film quality or performance. Transit temperatures above 95°F/35°C will gradually diminish shelf life.

Handling Developed Film

Handling DRYVIEW Laser Imaging Film requires reasonable care. Spills, humidity, and other moisture typically have no significant effect on developed films. However, prolonged exposure to intense light or excessive heat (130°F/54.4°C) for more than 3 hours may cause some gradual darkening of images. Leaving films in vehicles in hot climates for extended periods of time is not recommended.

For best results, store film in sleeves when not being reviewed. DRYVIEW Laser Imaging Film can be left on a light box for more than 24 hours; in extreme cases in which light boxes are exceptionally hot (120° F/49°C), Carestream Health, Inc. recommends removing them prior to 8 hours of continuous exposure.

Take care when using spotlight viewing for more than 30 seconds because temperatures near the light source may exceed 180° F/82.2°C. Use in slide projectors is not recommended due to the high temperatures generally found in these devices.

With DRYVIEW technology, a small amount of final development occurs when the film exits the laser imager and is initially exposed to ambient or view-box lighting. This is virtually undetectable and has no effect on image quality (i.e., typically 0.02 change in density). This small density increase is uniform and permanent upon full exposure of the film under normal handling conditions (i.e., room light or view box).

Archiving Developed Film

DRYVIEW Laser Imaging Film has been tested and can be archived for more than 100 years when stored at American National Standards Institute (ANSI) recommended storage conditions (77°F/25°C). Developed films may be stored at higher temperatures; however, that may reduce the number of years the film can be stored. For example, storing films at a constant elevated temperature of 90°F/32.2°C may reduce archive capability to 30 years.

Exposing to Moisture

DRYVIEW Laser Imaging Films typically withstand humidity, spills and other forms of water without any significant effect on image quality or film integrity. If needed, film can be cleaned with a clean, damp cloth.

Dissipating Odor

DRYVIEW technology eliminates virtually all unpleasant odors. While some low-level odors are produced during the development process, they pose no known adverse health risks. Processing odor levels are further reduced by a non-hazardous, recyclable filter in the laser imager. This filter traps most low-level odors and prevents them from dissipating into the work environment. To help maintain optimum performance, the filter requires periodic replacement. DRYVIEW Laser Imagers require no special venting.

Dissipating Heat

DRYVIEW Laser Imagers use controlled heat to develop DRYVIEW Laser Imaging Film. The heat has virtually no effect on the air temperature of the work area. The amount of heat dissipated into an area during a day is typically less than the heat generated by two to four 100-watt light bulbs.

Recycling Film

According to the Environmental Protection Agency (EPA) standards, DRYVIEW Laser Imaging Film is not considered hazardous and requires no special disposal procedures. However, the film does contain silver and polyester that may be recovered by using one of several recycling processes.

5 Specifications

Location

Equipment Specifications

	Unpacked	**Packed**
Height	62 cm (24 in.)	95 cm (37 in.)
Width	62 cm (24 in.)	81 cm (32 in.)
Depth	66 cm (26 in.) without film trays 76 cm (30 in.) with film trays	106 cm (42 in.)
Weight	70 kg (155 lbs)	147.4 kg (325 lbs)

Operating Space Requirements

The following is the minimum space required around the Imager to perform normal operator functions. Service functions will require more space.
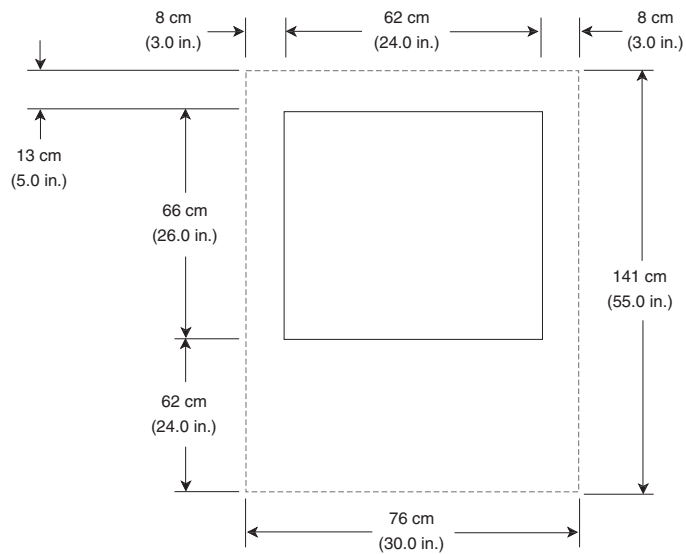
H221_0016HC

Other Location Considerations

Additional factors that influence where the Imager is located include proximity to patients, flammable materials, liquids, and other equipment.

⚠ **CAUTION:**
This equipment is not contained in a sealed cabinet. Do not use this equipment in locations where it can come in contact with liquids, including body fluids.

IMPORTANT:

- This equipment is intended to connect to other medical devices. Only an authorized Service Provider of Carestream Health products or Customer Qualified Service Personnel may install this equipment.
- Do not locate the Imager within 2 m (6.56 ft.) of where a cell phone will be used, even if the cell phone is separated from the equipment by a wall.
- Do not locate the Imager within 4 m (13.12 ft.) of a microwave oven. Electromagnetic radiation from a microwave oven is only an issue if, after the oven door is closed and latched, the seal does not maintain an electromagnetic tight fit between the oven door and the oven main housing. Determining if the seal has an electromagnetic tight fit requires special detection equipment.
- Do not locate the Imager in the presence of flammable anesthetics, oxygen, or nitrous oxide. The Imager does not have a gas-sealed electronics enclosure and could ignite any flammable or explosive gases present in the Imager's environment.
- Do not locate the Imager in close contact with MRI devices due to possible high magnetic fields near an MRI unit. The magnetic field in the area where the Imager is installed must be less than 50 Gauss.

1.83 m (6 ft.)
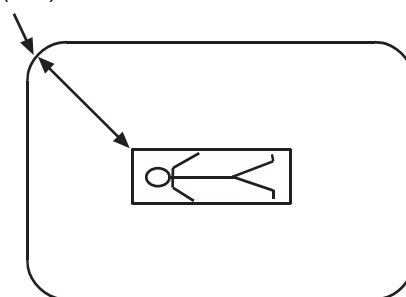
- Do not locate the Imager closer than 1.83 m (6 ft.) from a patient bed or chair.
- Do not locate the Imager in a room that is in direct sunlight.
- Do not substitute or modify any part of the Imager without prior written approval of Carestream Health.

Environmental Requirements

Temperature
- Operating: 15° to 33° C (59° to 91° F)
- Storage: -40° to 60° C (-40° to 140° F)

Relative Humidity
- Operating: 20% to 80% RH, noncondensing
- Storage: 10% to 90% RH, noncondensing

Altitude
- 30 m (100 ft.) below sea level to 2438 m (8,000 ft.) above sea level

Surface Condition

The surface must be a level (must be level within 1°) table top or counter capable of supporting the weight of the Imager. For the Imager to operate with no image degradation, surface vibration levels cannot exceed the following:

G^2/Hz	Freq. Range	Direction
1 x 10⁻⁷	1-50 Hz	Vertical or horizontal
6 x 10⁻⁵	50-200 Hz	Vertical or horizontal
5 x 10⁻⁶	200-650 Hz	Vertical or horizontal
1 x 10⁻⁶	650-1000 Hz	Vertical or horizontal

Environmental Effects

- Heat Dissipation: total heat dissipation for the Imager is 883 BTU/hour
- Acoustical Noise:
  - Less than or equal to 75 dB-A at 1 m during a sound burst of 1 sec. or less
  - Less than or equal to 65 dB-A at 1 m during normal operation
  - Less than or equal to 50 dB-A at 1 m during idle mode

Laser Specifications

- Wavelength - 810 nm
- Power - 50 mW
- Radiation class - 3B
- Type - Diode

Power Requirements

The Imager power supply has an auto-sensing and auto-switching feature for both voltage and frequency. The current draw is 10 A at 120 V AC, and the power consumption is a maximum of 1275 W.

One of the following single-phase, 15 A power sources, with grounding, must be provided within 2.5 m (8 ft.) of the Imager.

Area	Power
North America	120 V AC +6% to -10%, 60 Hz ±3Hz
Europe	240 V AC ±10%, 50 Hz ±3Hz
China	220 V AC ±10%, 50 Hz ±3Hz

The wire must be insulation-rated for 600 V. A dedicated line is recommended.

Network Requirements

The Imager receives digital images from medical imaging devices (modalities) over a 10Base-T or 100Base-T ETHERNET Network. A single CAT 5 UTP cable is provided in the accessories package for the Imager; 2 m (6.5 ft.).

Film

Prior to installation you must order and have on hand DRYVIEW Laser Imaging Film. Contact your sales representative if you have questions.

Film Types

The Imager accommodates the following film types:

- KODAK DRYVIEW DVB Laser Imaging Film
- KODAK DRYVIEW DVC Laser Imaging Film
- KODAK DRYVIEW DVB+ Laser Imaging Film
- KODAK DRYVIEW DVB+ Premium Laser Imaging Film
- **5850 Laser Imager only**: KODAK DRYVIEW Mammography Laser Imaging Film and KODAK DRYVIEW DVM+ Mammography Laser Imaging Film

NOTE: Not all film types are available in every country.

Film Sizes

The Imager accommodates the following film sizes:

- 20 x 25 cm (8 x 10 in.)
- 25 x 30 cm (10 x 12 in.)
- 28 x 35 cm (11 x 14 in.)
- 35 x 35 cm (14 x 14 in.)
- 35 x 43 cm (14 x 17 in.)

Film Storage

Film must be stored at 5 - 25° C (41 - 77° F) and 85% RH or less.

Glossary

CR	Computed Radiography, the process of creating digital radiographic images.
CT	Computed Tomography, the process of creating digital tomographic images.
Cycle power	Cycle power means to shut down and power up the Laser Imager.
DICOM	Digital Imaging and Communications in Medicine. A TCP/IP-based protocol for transmitting and receiving medical imaging and related data over a network.
Dmax	Dmax means maximum density. Dmax is the density of an area on the film that has received maximum exposure.
Dmin	Dmin means minimum density. Dmin is the density of an unexposed area on the film.
DR	Digital Radiography, the process of creating digital radiographic images.
GSDF	Grayscale Standard Display Function.
GSM	Gray Scale Manager.
Film model	The film model defines the print characteristics for a particular lot of film.
Key operator	The person(s) designated by the department manager to receive applications training and allowed access to password-protected areas to make system changes.
LED	Light Emitting Diode.
Modality	Medical equipment that actually generates medical images (for example, an MRI).
Monotonic	Continuously increasing. When a calibration sheet, which consists of strips of increasing density (Dmin) to maximum density (Dmax), is read by the densitometer, the density values must be monotonic (continuously increasing). If they are not, an error message is generated.
MPDB	Modality Preferences Database.
MR	Magnetic Resonance.
N/A	Not Available or Not Applicable.
PLUT	Presentation Look-Up Table.
Service image	An image used by service personnel for troubleshooting.
Shutdown	The process of exiting current tasks and applications and turning the power off.
SMPTE test pattern	A Society of Motion Picture and Television Engineering monitor test pattern that is used for analyzing image-quality problems.

Test type	The type of test film that will be printed. Two film test types are available: a density test film (SMPTE pattern) and a calibration film.
TFT	Transfer Function Tables.
Unprintable queue	The queue of jobs that cannot be printed because of problems with the job description.
Version	A different rendition of an image. A second version of an image is processed using a second set of image processing parameters.

Appendix A: Warranty and Limitation of Liability

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Publication History

Revision	Date	Reason for Change
A	January 14, 2008	First release
B	February 27, 2009	Incorporated details for 5850 Laser Imager.