6 Maintenance

Preventive Maintenance

Perform Preventive Maintenance annually. Replacement parts are included in the Preventive Maintenance Kit. See "Preventive Maintenance Kit" on page 6-14. To obtain additional parts, contact Carestream Health, Inc.

Replacement Procedures

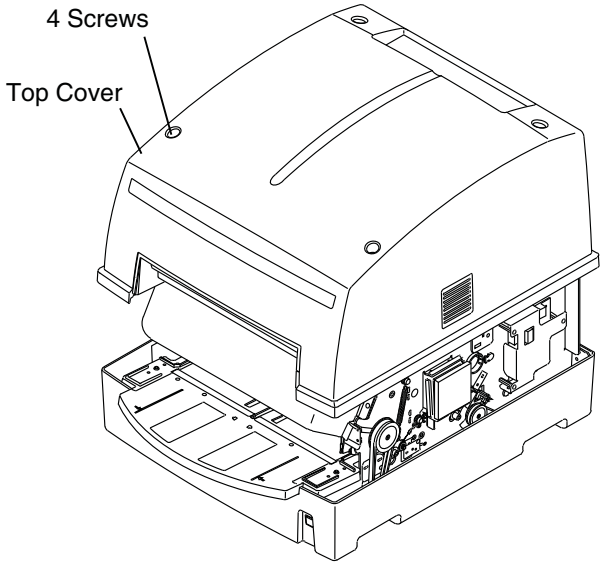
Replacing Erase Lamps

To test and identify the bulbs that should be replaced, the power must be left on. Follow the instructions carefully. Connectors are labeled.

CAUTION: Internal surfaces may be very hot! Allow to cool before performing a procedure.

Removing the Top Cover

1. Using a Phillips-head screwdriver, unscrew the four screws in the top cover.



2. Lift off the cover and set aside.

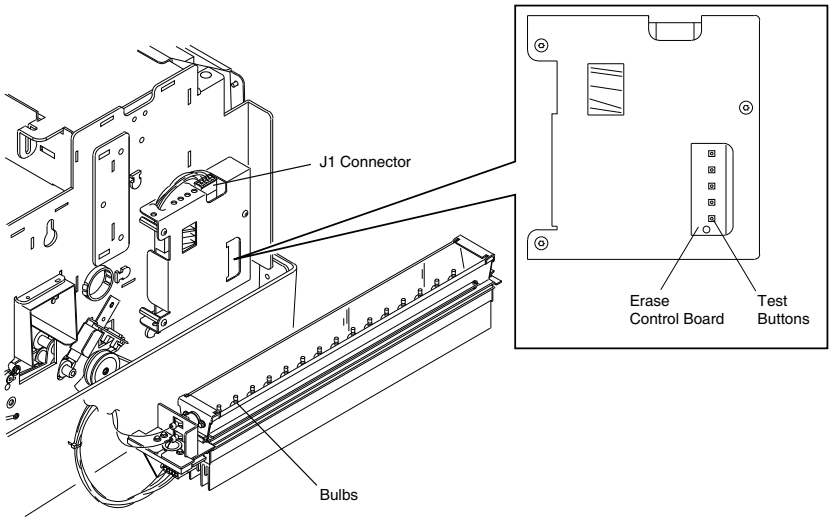
CAUTION:

Assembly may be very hot! Allow to cool before performing any procedure with the cover off.

Removing the Erase Assembly

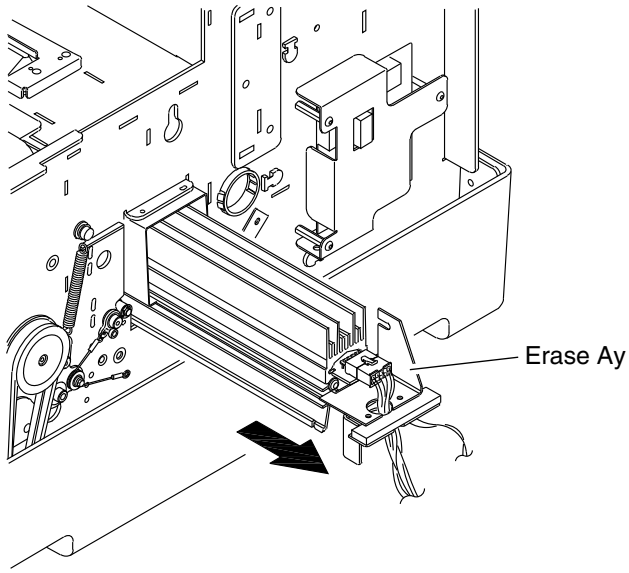
1. Disconnect the J1 Connector on the right side of the reader.

Erase Assembly Connectors



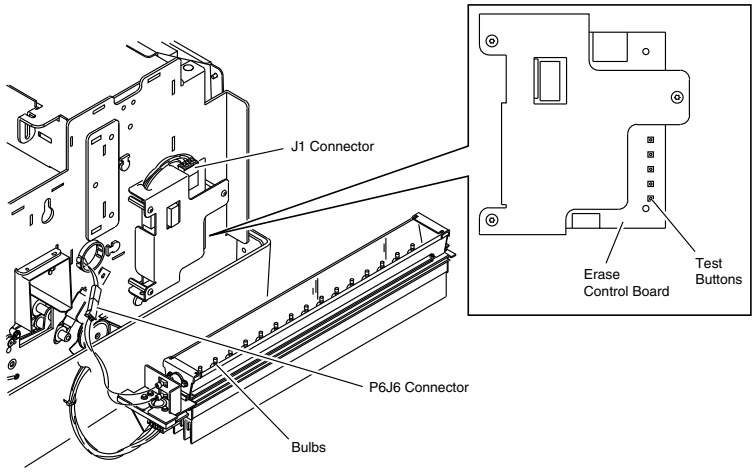
2. Disconnect the J1 Connector.
3. Loosen the Wing Nut from inside the Erase Assembly frame.
4. Carefully pull the Erase Assembly straight out.

Removing Erase Assembly

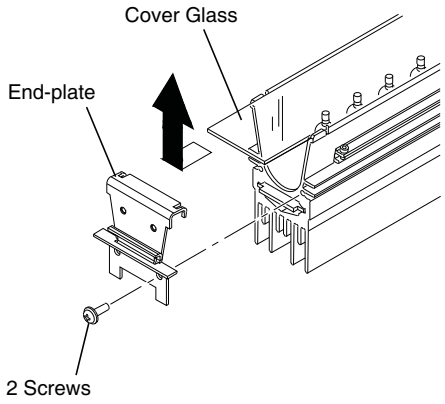


5. Place the Erase Assembly next to the reader.

Locating Erase Lamp Tester Buttons



6. Reconnect the J1 connector.
7. Press and hold each red Test button one at a time. The tester lights three bulbs at a time at a low light level so that you can visually identify which bulb(s) should be replaced.
8. Disconnect the J1 connector when you have identified the failed bulb(s).
9. Remove the two Phillips-head fasteners from the Eraser Assembly end-plate (non-connector end). Remove the end-plate.

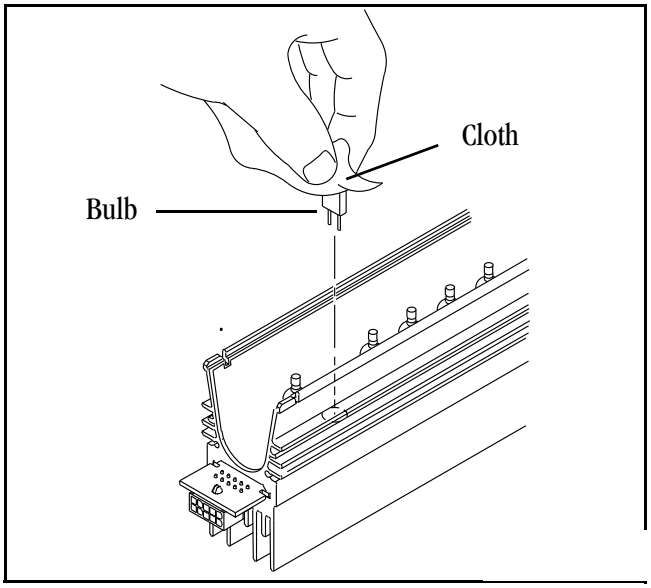


10. Slide the cover glass forward. Carefully remove the cover glass and set aside.
11. Using a soft, oil-free, lint-free cloth or tissue, grasp the expired bulb and pull it straight out.

CAUTION:
Bulbs may be hot! Allow the bulbs to cool before removing.

CAUTION:
Never touch bulbs with your hands.

Handling Erase Bulbs



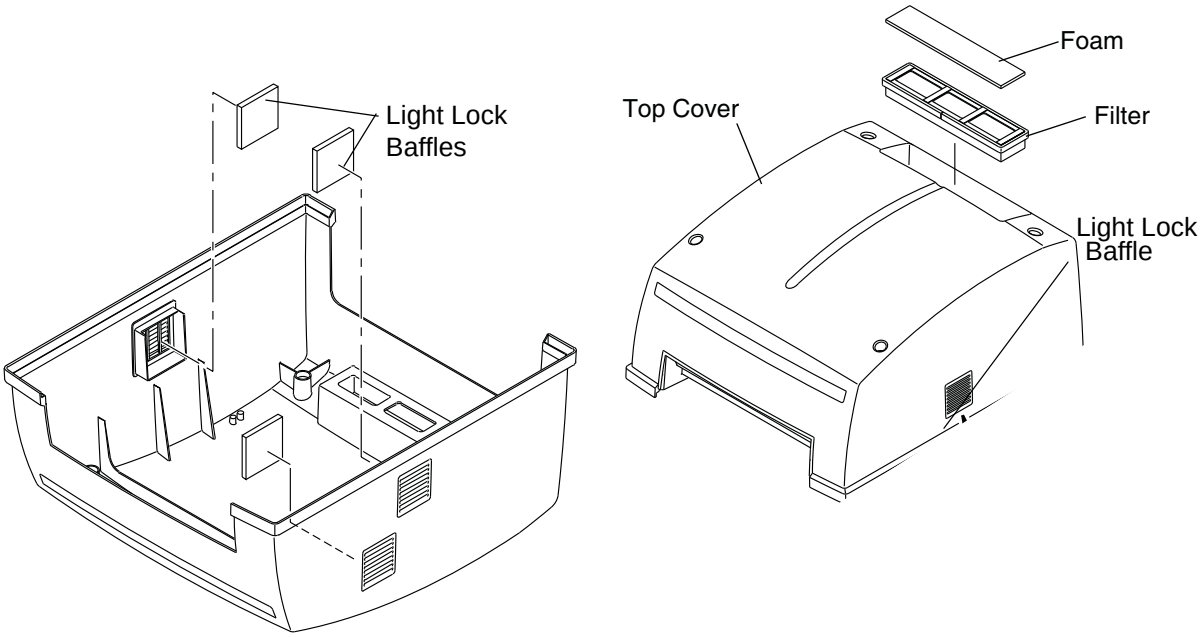
12. Insert the new bulb by holding it in its original packaging, or by using a clean, oil-free, lint-free cloth or tissue. DO NOT TOUCH BULBS WITH YOUR HANDS.

13. Replace the glass and end-plate.
14. Reconnect the J1 connector.
15. Verify that all the bulbs light when tested with the five Test buttons.
16. Remove the connectors and replace the assembly by reversing steps 1 through 4.

Replacing Filters and Baffles

There are three user-replaceable baffles located in the top cover. The baffles on the side of the reader keep light from entering the reader. There is one filter located on the top of the reader that filters air that enters the machine.

Filter and Baffle Placement



To change the top filter:

1. Remove the filter and foam cover from the back of the top cover.
2. Replace with the new filter and foam.

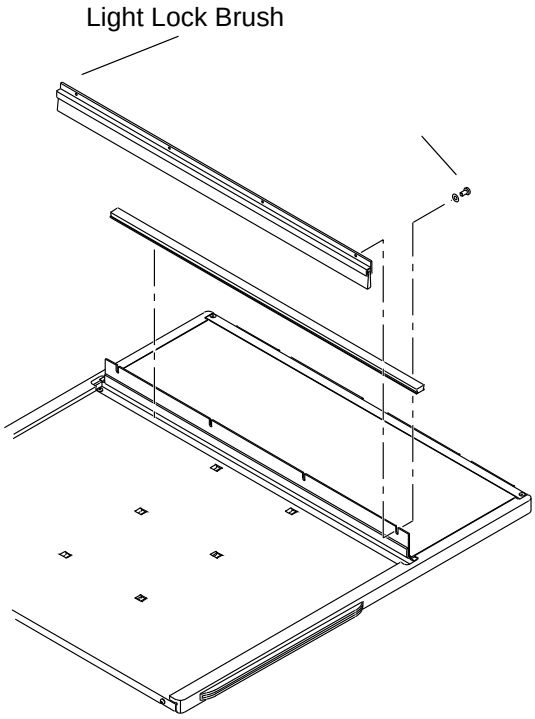
To change the side light-lock baffles:

1. Remove the top cover. See "Removing the Top Cover" on page 6-1.
2. Slide the light-lock baffles from the holders on the inside of the cover.
3. Slide new baffles into the holders.

Replacing the Light-Lock Brush

To remove and replace the light-lock brush:

1. Pull the Flex Feed Tray out to remove it.
2. Remove four screws that hold the light-lock brush in place.



3. Replace the brush. See "User-Replaceable Parts" on page 6-8.
4. Replace the screws.
5. Place a plate in the tray.
6. Manually loosen and tighten the screws to adjust the brush so it lightly touches the plate.

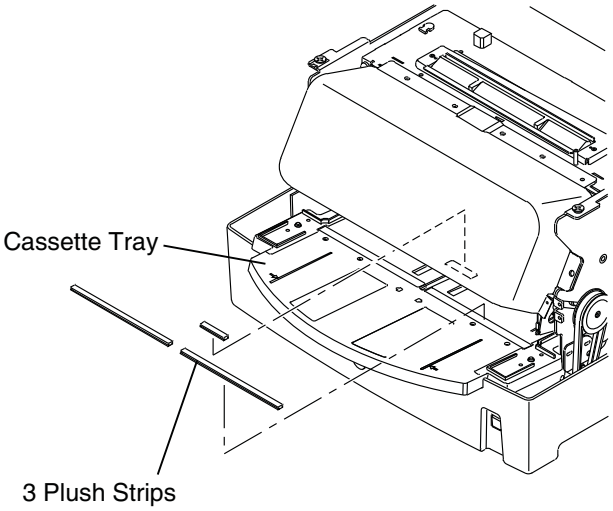
Replacing Plush Strips

There are seven plush strips to remove and replace. Six plush strips are located in the reader. One plush strip is located in the feed tray.

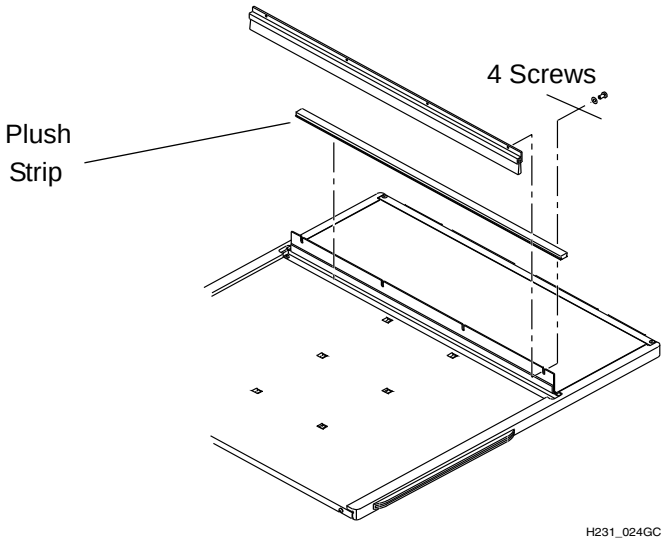
To remove and replace a plush strip:

1. Remove the Top Cover. See "Removing the Top Cover" on page 6-1.
2. Gently pull up on one end of the strip and pull the strip out of the track.
3. Place the new strip over the track and press into place.

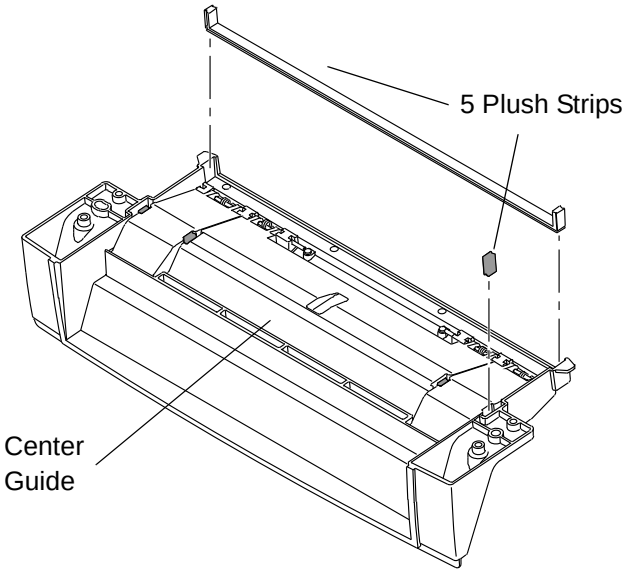
Cassette Tray



Flex Feed Tray



Roof Assembly (upside down)



To remove the roof assembly, remove four fasteners with a Phillips-head screwdriver.

User-Replaceable Parts

Part Number	Description
2G3058	Flex Screen Tray
2G3066	Guide, Flex Feed Tray
2G3202	Light Cover, Flex Feed Tray
2G3161	Input Brush Assembly
8G6041	Erase Bulbs
2G3232	Filter, Foam
2G3224	Filter, Air
2G4471	Filter, Light-Lock

Cleaning Surfaces

Clean the outer surfaces of the reader with water using a soft, lint-free cloth. Dampen the cloth, then wipe the outer surfaces lightly.

⚠ CAUTION:
Do not use alcohol or alcohol-based products to clean the pinch rollers, belts, entrance guide or any urethane parts on the reader.

Monitor

CAUTION:
To avoid damage, do not use liquid cleaners, abrasive cleaners or strong solvents to clean the plate.

1. Turn off the monitor.
2. Spray LCD screen cleaner on a soft cloth then gently wipe the screen viewing surface.
3. Use a soft cloth dampened with water to clean the housing around the screen.

Cassettes

CAUTION:
Prior to using, read and follow instructions in material safety data sheets (MSDS) for KODAK Screen Cleaner.

Use of a cleaning agent other than those specifically suggested is not recommended.

Cleaning Materials

- A soft cloth
- A mild soap-and-water solution or KODAK Screen Cleaner

CAUTION:
Do not use soaps or detergents containing brightening agents. Use of a cleaning agent other than those specifically suggested is not recommended.

Cleaning Method

CAUTION:
PREVENT ALL LIQUIDS FROM ENTERING THE CASSETTE.

1. Clean the outer cassette surfaces using a soft cloth moistened with a mild soap-and-water solution or KODAK Screen Cleaner.
2. Be sure all external and internal surfaces are thoroughly dry before reassembling and returning plates and cassettes to use.
3. Dry the cassette with a soft cloth.

IMPORTANT: ***Clean the phosphor plate before using it for the first time.***

See "Cleaning the Plate" on page 6-13.

Handling and Maintaining the Plate

Clean the plate regularly to ensure its proper operation.

KODAK INDUSTREX Digital Imaging Plates use a phosphor that is moisture sensitive. When exposed to water, in either liquid or vapor form, the phosphor breaks down and liberates iodine. The iodine can become trapped within the phosphor layer or at the interface between the overcoat and phosphor layer. The yellow-brown color in the iodine strongly absorbs the blue light emitted by the phosphor. This results in a loss in plate speed, which causes image quality problems.

The phosphor plate is over-coated with a highly moisture resistant polymer blend. However, the overcoat is very thin (less than 0.001 inch) and has limited resistance to mechanical abrasion that may occur during cleaning. Thus, it is possible to lower the resistance to water during use or cleaning. This can result in damage to the plate.

Handling and Maintaining the Plate

Under normal use conditions, phosphor plates will eventually show wear. Plate wear can result in artifacts on radiographs. This may occur from abrasion of the protective overcoat or inadvertent physical damage to the surface or edge. Certain chemical agents, such as non-approved plate cleaners, hand lotions, topical medications, food, etc., may also damage the plates. Make sure hands are clean when handling plates.

Phosphor plates are extremely sensitive to moisture. Exposure to moisture can cause damage to the phosphor plates, which results in image quality problems.

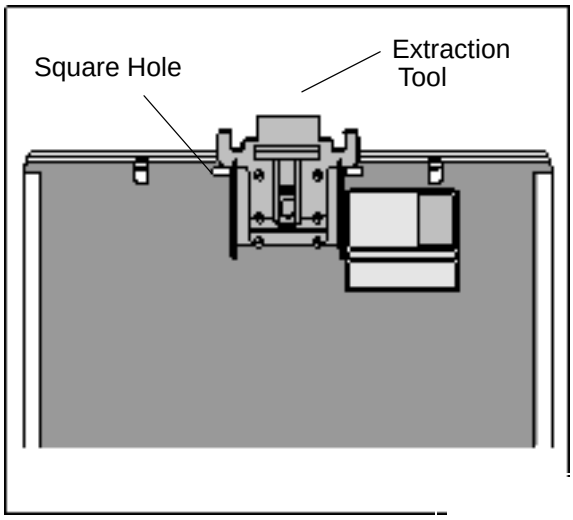
IMPORTANT: *Inspect phosphor plates every week and replace when wear is evident. Clean every 200 exposures, every 30 days, or as necessary with a recommended cleaning solution according to the manufacturer's instructions. Clean phosphor plates before using them for the first time!*

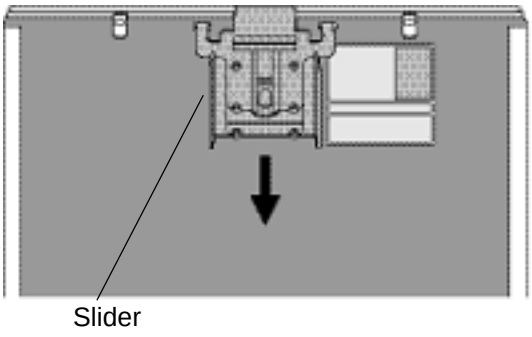
Inserting the Plate

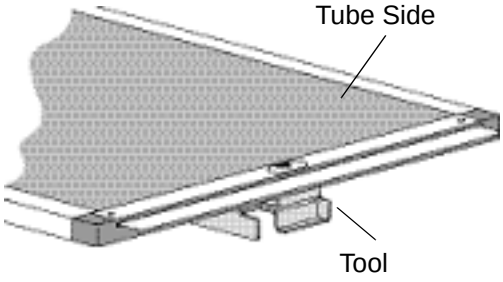
Insert the plate into the cassette as follows. If you fail to insert the casette correctly:

- The plate may not feed properly from the cassette, causing an error message.
- An exposed image may not be processed.
- The plate may fall out of the cassette.

1. Slide the edge of the Extraction Tool (PN 2G6580) over the back of the cassette. Pull the tool down until it enters the square slots in the back of the cassette.

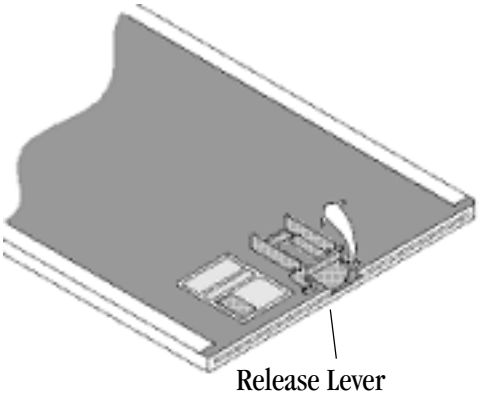






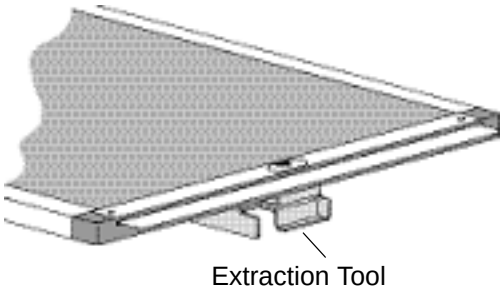
2. With the Extraction Tool in place, hold the plate with the white (phosphor) side up. Insert the plate into the cassette so that the back side (dark side) is facing the back of the cassette.
3. Hold the cassette vertically and make sure that the plate is fully inserted into the cassette.

4. Pull up on the release lever to remove the tool.



Removing the Plate

1. Follow the instructions for "Inserting the Plate" on page 6-10 to install the Extraction Tool.



2. Hold the cassette horizontally. Push the sliders in the middle of the Extraction Tool towards the open edge of the cassette until the plate is visible.
3. Carefully pull the plate out.
4. Pull up on the release lever to remove the Tool.

Cleaning the Plate

CAUTION:
Read and follow instructions in Material Safety Data Sheets (MSDS) for KODAK Screen Cleaner.

CAUTION:
Handle plate carefully to avoid damage to the phosphor plate.

Cleaning Materials

- Catalog No. 845 4977 - KODAK Screen Cleaner
- Soft, lint-free cloth, provided

CAUTION:
Water and isopropyl alcohol (isopropanol, rubbing alcohol) and plate cleaners containing Isopropyl alcohol are NOT recommended. Cleaning solutions other than those recommended can contain chemicals that cause visible or hidden damage to the plate and could result in immediate or future image artifacts. Do not use isopropyl alcohol (isopropanol, rubbing alcohol) to clean plates or cassettes.

Cleaning Procedure

CAUTION:
Do not soak the cloth.

1. Clean the phosphor plate with a SOFT, dry, lint-free cloth. Most minus density artifacts are caused by loosely adhered dirt. Normally, a gentle wipe is all that is needed.
2. If the dry cloth does not remove the dirt, perform the following:
3. Place the plate with the white (phosphor) side up.
4. Wipe the plate gently to remove dust. Remove other dirt by following the directions for the cleaning product being used. Clean and dry the plate's entire phosphor side.
5. Moisten a SOFT cloth with KODAK Screen Cleaner.
6. Clean the phosphor plate.
7. After the soil is removed, wipe the phosphor plate gently with a SOFT, dry, lint-free cloth.

Disposing of the Plate

CAUTION:
Due to the presence of barium, this plate may be considered a hazardous or special waste at the end of its useful service life. For disposal or recycling information, contact your local authorities.

Recycling the Cassette

CAUTION:
The KODAK INDUSTREX Cassette contains lead. Disposal of lead is regulated due to environmental considerations. For disposal or recycling information, contact your local authorities.

Preventive Maintenance Kit

Part Number	Item
2G3160	Brush - Light Lock, Flex Feed Tray
2G3232	Filter, Foam
2G3224	Filter, Air Intake
2G4471	Erase - Light Lock Filter
2G6062	Seal - Light, Plush, 17.5 mm (Qty 6)
2G6063	Seal - Light, Plush 390 mm
2G6589	Seal - Light, Plush 184.5 mm
2G6588	Seal - Light, Plush 44.75 mm
2G5204	Seal - Light, Flex Tray
2G4471	Filter - Light Lock, Erase

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