

SERVICE BULLETIN

KODAK X-OMAT Processor

Eastman Kodak Company/Customer & Technical Services/Health Sciences Markets Division/Rochester, New York 14650

SERVICE BULLETIN NO. 213

March 1995

***Kodak X-Omat M43 Processor
Kodak X-Omat M43A Processor
Kodak X-Omat Clinic 1 Processor***

Damage to the DRYER TOP COVER

NOTE

The PROCESSORS listed below have been modified. Production changed at Serial No. 350.

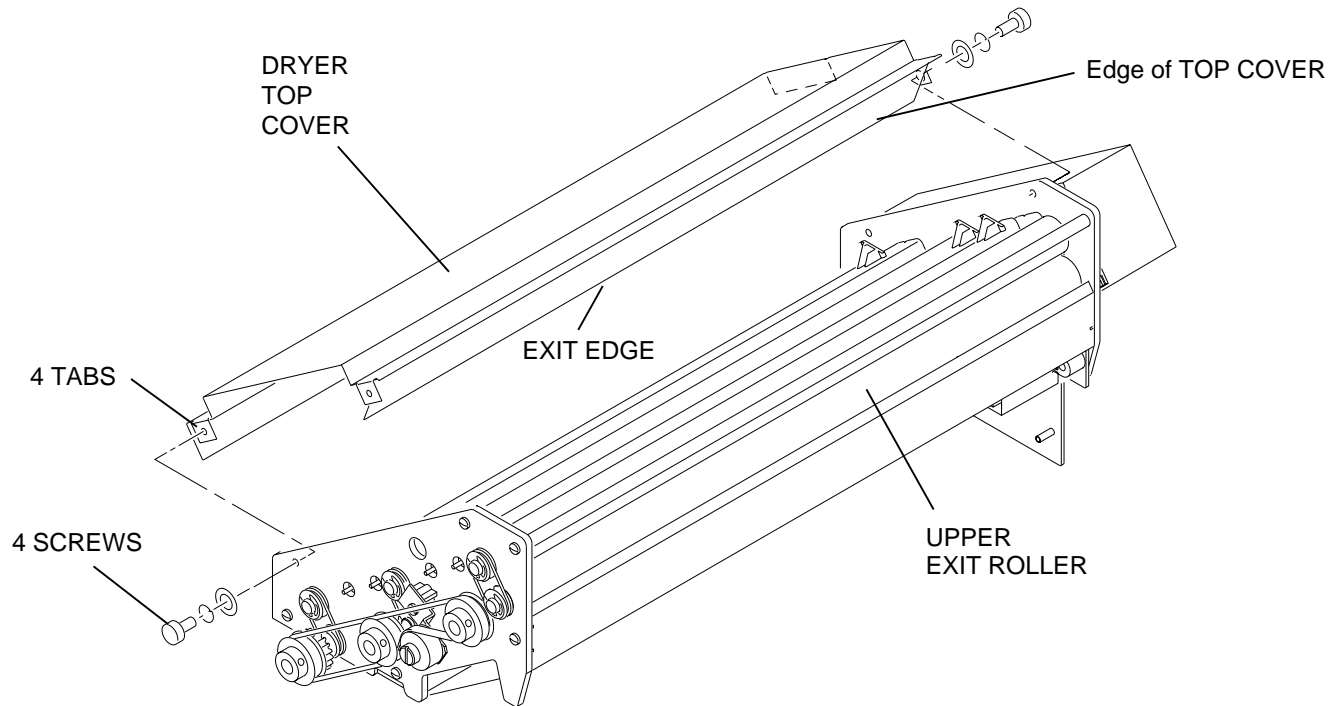
PROCESSOR	Serial No.
Clinic 1	234, 236, 239, 240, 241, 243, 246, 248, 249, 253, 255, 258 - 260, 263, 265 - 268, 271, 358 - 361, and 363 and above
M43	298, 300, 303, 306, 312, 314, 316, 318 - 324, 326, 328, and 311 and above
M43A	357, and 362 and above

There have been occurrences of damage to the DRYER TOP COVER during shipping. The packing procedure for the DRYER ASSEMBLY has been changed to prevent this damage. Damage may have occurred to the DRYER TOP COVER if:

NOTE

The DRYER TOP COVER should not touch any ROLLERS.

- The DRYER RACK ROLLERS do not rotate freely.
- Film jams occur in the DRYER ASSEMBLY.
- Film artifacts occur in the DRYER ASSEMBLY.
- The WASH DRIVE GEAR lifts away from the MAIN DRIVE SHAFT.
- The WASH DRIVE GEAR shows excessive wear.
- There are scratches and marks on the ROLLERS, or the ROLLERS cause dust by touching the DRYER TOP COVER.



H130_0234HCA
H130_0234HA

NOTE

See the figure for the location of the edges of the DRYER TOP COVER. These areas are usually where the damage occurs. These edges can cause damage to the UPPER EXIT ROLLER.

If any of this damage has occurred:

- [1] De-energize the PROCESSOR.
- [2] Remove the TOP COVER of the PROCESSOR.
- [3] Remove the DRYER ASSEMBLY from the PROCESSOR, and check the DRYER TOP COVER.
- [4] If necessary, remove the DRYER TOP COVER by removing the 4 SCREWS that hold the DRYER TOP COVER. See the figure.

NOTE

If too much damage has occurred to the DRYER TOP COVER, replace it.

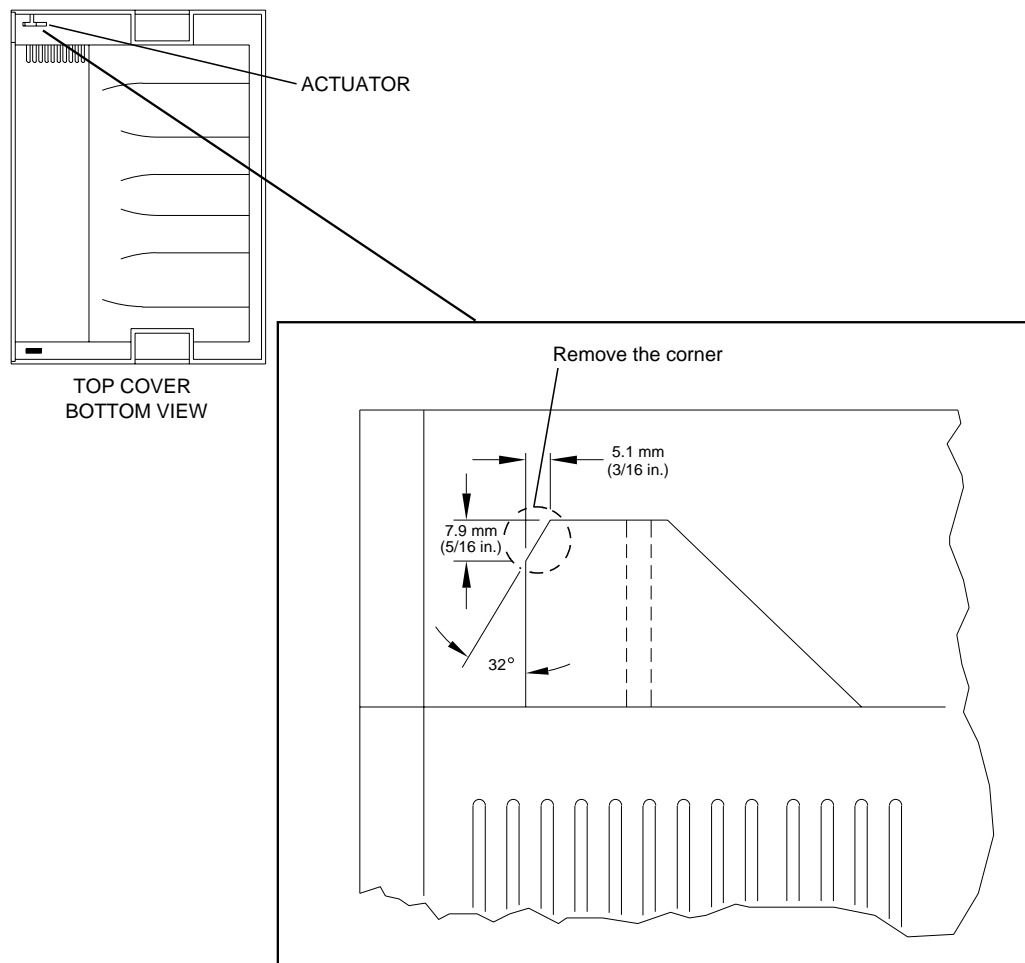
- [5] Reform the 4 TABS on the DRYER TOP COVER, and the edge of the DRYER TOP COVER, if necessary.
- [6] Install the DRYER TOP COVER, and check that it does not touch any ROLLERS.
- [7] Check that the ROLLERS rotate freely.
- [8] Replace any other components that may have been damaged.
- [9] Adjust the DRYER ASSEMBLY by using the "Adjusting the DRYER RACK for Squareness" procedure in the Service Manual, Publication No. 981090.
- [10] Assemble the PROCESSOR.
- [11] Check the operation of the PROCESSOR by feeding a test sheet of film through the PROCESSOR.

Removing a Corner from the TOP COVER ACTUATOR for the AC INTERLOCK SWITCH S5 on the Kodak X-Omat M43A Processor and Kodak X-Omat Clinic 1 Processor

Damage can occur to the ACTUATOR for the AC INTERLOCK SWITCH S5 when the TOP COVER is installed. By removing a corner of the ACTUATOR, this damage can be prevented. Removal of the corner has occurred in production of the PROCESSORS with Serial No. 350 and above, and with all PROCESSORS that have Modification 1 installed.

To prevent damage to the AC INTERLOCK SWITCH S5, do the following steps.

- [1] De-energize the PROCESSOR.
- [2] Remove the TOP COVER.
- [3] Place the outside surface of the TOP COVER on a flat work surface in a safe work area.
- [4] Locate the ACTUATOR for the AC INTERLOCK SWITCH S5 on the underside of the PROCESSOR TOP COVER. See the figure.
- [5] Using a FILE, remove the corner of the ACTUATOR per the dimensions below.
- [6] Clean any debris from the surface of the TOP COVER.
- [7] Assemble the PROCESSOR.



H130_0235DCA
H130_0235DC

Correction to the Part Number for the METAL OXIDE VARISTOR (MOV)

The part number for the MOV that is used across the AC connections of the SOLID STATE RELAYS is **943378**. The part number for the MOV ASSEMBLY at the TERMINAL STRIP is 1C0791.

Announcement of the Availability of the Binder Complete for *Kodak X-Omat M43 Processor, Kodak X-Omat M43A Processor, and Kodak X-Omat Clinic 1 Processor*

As of November 15, 1994, the binder complete for these PROCESSORS is available through Advertising Distribution as Publication No. 981097.

Announcement of the Availability of the LOCKING PLATE 1C7664 for the EXIT SQUEEGEE ROLLER ASSEMBLY of the WASH RACK

When removing the WASH RACK from the PROCESSOR, damage may occur if the EXIT SQUEEGEE ROLLER ASSEMBLY falls from the WASH RACK. To prevent this damage, a LOCKING PLATE is provided at no cost. When ordering the LOCKING PLATE 1C7664, order a quantity of 2.

To install the LOCKING PLATE, follow the steps below.

NOTE

The installation time is about 30 minutes.

- [1] De-energize the PROCESSOR.



Be careful when removing the WASH RACK from the PROCESSOR. The EXIT SQUEEGEE ROLLER ASSEMBLY may fall from the RACK.

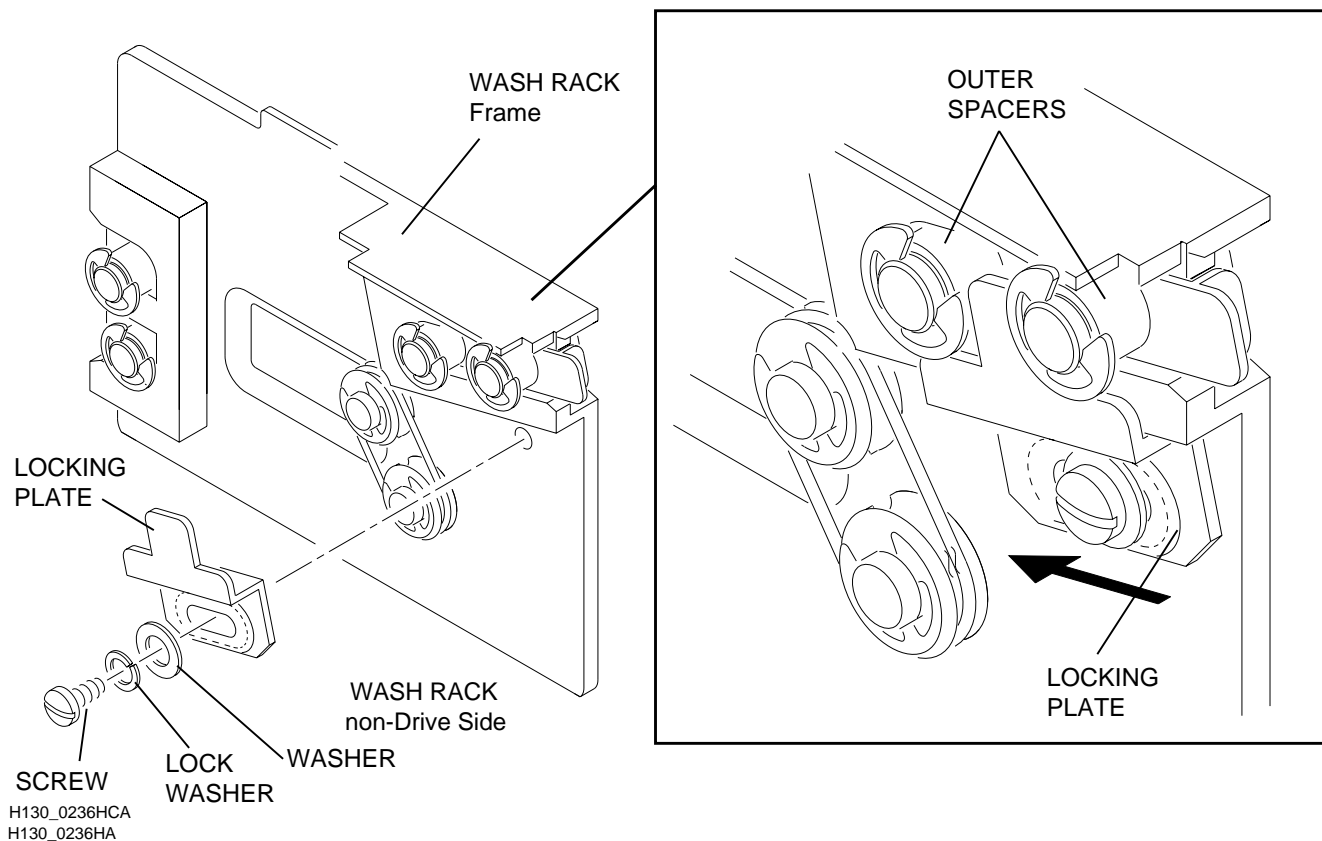
- [2] Remove the:
- TOP COVER
 - DRYER RACK
 - WASH RACK

- [3] On the non-drive side of the WASH RACK, locate the SCREW on the TIE ROD SHAFT of the EXIT SQUEEGEE ROLLER ASSEMBLY. See the figure.
- [4] Remove the SCREW and LOCK WASHER.
- [5] Install the LOCK WASHER and SCREW through the LOCKING PLATE.

NOTE

When installing the LOCKING PLATE, allow some space between the RACK BEARINGS so that the GEARS operate correctly.

- [6] Install the SCREW through the LOCK WASHER, LOCKING PLATE and the side of the WASH RACK frame, to the TIE ROD SHAFT. See the figure for the correct position of the LOCKING PLATE.
- [7] Do the Steps 3 - 6 for drive side of the WASH RACK.
- [8] Check the rotation of the WASH RACK ROLLERS.
- [9] Assemble the PROCESSOR.
- [10] Energize the PROCESSOR.
- [11] Check the operation of the PROCESSOR by feeding a test sheet of pre-exposed, non-processed film through the PROCESSOR.



ELECTRICAL BOX SUPPORT SHELF Noise

Some customers have experienced noise in the PROCESSOR caused by vibrations in the ELECTRICAL BOX SUPPORT SHELF. This noise has been corrected in production by installing FOAM TAPE to the SHELF. To correct this noise in the field, order the FOAM TAPE 483007, or an equivalent. An equivalent part should measure 9.5 mm wide x 3.2 mm thick ($\frac{3}{8}$ in. wide x $\frac{1}{8}$ in. thick). Each PROCESSOR needs 18 cm (7 in.) of the TAPE.

NOTE

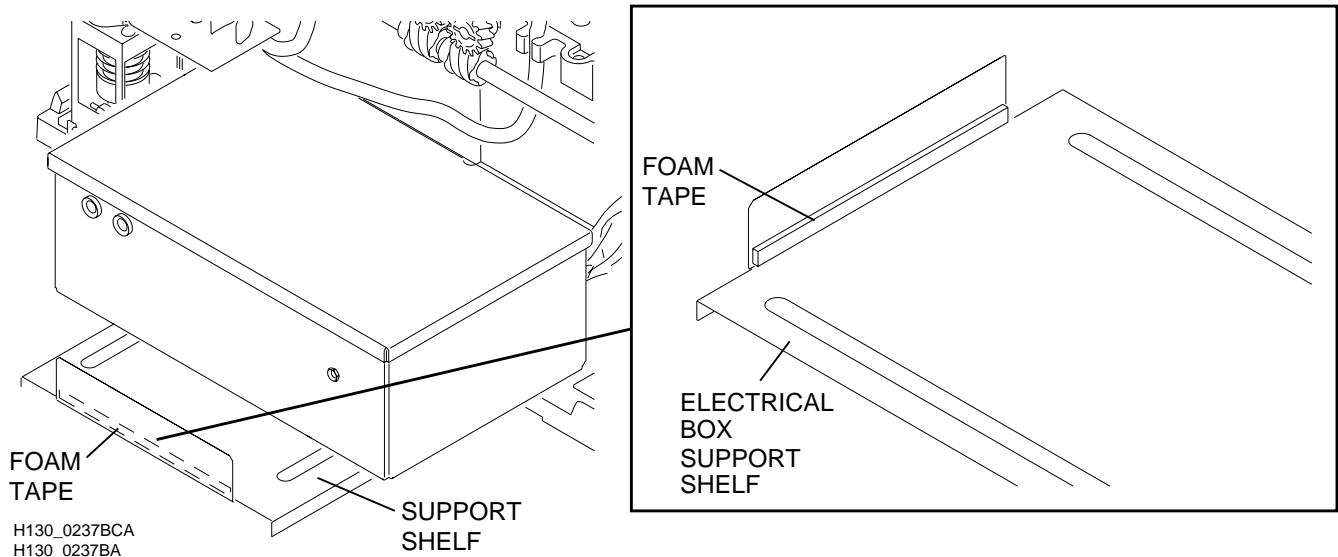
The FOAM TAPE must be ordered by the foot.

During the next visit to the customer site, do the following steps.

- [1] De-energize the PROCESSOR.
- [2] Remove the TOP COVER and DRIVE SIDE ACCESS PANEL.
- [3] Extend the ELECTRICAL BOX SUPPORT SHELF.
- [4] Install the FOAM TAPE on the inside of the SUPPORT SHELF. See the figure for the position of the TAPE.

When the DRIVE SIDE ACCESS PANEL of the PROCESSOR is installed, the FOAM TAPE will be compressed, and the vibration of the SUPPORT SHELF should be minimized.

- [5] Assemble the PROCESSOR.



Correction to the Diagnostics Manual Publication No. 981093 dated October 1994

A correction has been made to the Diagnostics Manual on pages 13 and 14. Note that 3 SOLENOIDS are used in the *Kodak X-Omat M43 Processor* and *Kodak X-Omat M43A Processor*. Only 1 SOLENOID is used in the *Kodak X-Omat Clinic 1 Processor*. For the position of these SOLENOIDS, see the Component Locator Manual, pages 6 and 7. Use the following information to troubleshoot these SOLENOIDS.

The voltages that are supplied to the SOLENOIDS during their operation are divided into 2 types of voltage. These types of voltages are the:

- actuate voltage
- holding voltage

These 2 types of voltages are used because:

- More voltage is required to actuate a SOLENOID than to hold the SOLENOID ON once it has been actuated.
- Reducing the voltage to the SOLENOID during the hold time decreases the heat that the SOLENOID releases. By decreasing the heat to the SOLENOID, the life of the SOLENOID will be increased.

See the following table for the changes to pages 13 and 14. These corrections will be included in the next version of the Diagnostics Manual.

SOLENOID	Resistance at Room Temperature	Approximate Actuate Voltage	Approximate Hold Voltage	Diagnostic SWITCHES Used
WATER INPUT SOLENOID L1 (used on the <i>Kodak X-Omat M43 Processor</i> , <i>Kodak X-Omat M43A Processor</i> , and <i>Kodak X-Omat Clinic 1 Processor</i>)	65 $\Omega \pm 5\%$	20 V DC for 1 sec.	7 V DC	1 and 4
DEVELOPER COOLING SOLENOID L2 (used on the <i>Kodak X-Omat M43 Processor</i> and <i>Kodak X-Omat M43A Processor</i>)	19 $\Omega \pm 10\%$	20 V DC for 1 sec.	4 V DC	1, 2, and 4
WASH SOLENOID L3 (used on the <i>Kodak X-Omat M43 Processor</i> and <i>Kodak X-Omat M43A Processor</i>)	19 $\Omega \pm 10\%$	20 V DC for 1 sec.	4 V DC	1 and 3 These SWITCH settings also energize the WASH PUMP.

Correction to the Operator Manual Publication No. 981089 dated October 1994

The film feeding chart in the Operator Manual incorrectly states the film feeding recommended for 7 in. x 17 in (cm x cm) film. The recommended procedure is to feed the film's 17 in. (cm) dimension across the FEED TRAY. Failure to do so may result in film snapping back into the PROCESSOR at the DRYER exit.

Replacement Software for the Kodak X-Omat M43 Processor, Kodak X-Omat M43A Processor, and Kodak X-Omat Clinic 1 Processor

Use the following table to check your spare parts. Discard the software versions that are not the correct version.

IMPORTANT

When installing new software in a PROCESSOR, do not install a software version that is a lower version than the existing version in the PROCESSOR. A lower software version can lock the operation of the PROCESSOR.

NOTE

The Clinic 1 and M43A software is **NOT** interchangeable.

PROCESSOR	Serial No.	Software Versions to Discard	Part No.	Correct Software Versions	Part No.
Clinic 1	349 and below, without Mod 1	Version 1.71	1C0540	Version 1.72	1C7791
	350 and above, or with Mod 1	Version 1.80	1C7434	Version 1.81	1C7793
M43 and M43A	349 and below, without Mod 1	Version 1.70	696137	Version 1.72	1C7790
	350 and above, or with Mod 1	Version 1.80	1C7437	Version 1.81	1C7792

For more information, please contact:

Eastman Kodak Company
Health Sciences Division
Imaging Service Center
343 State Street, 3rd Fl., Bldg. 20
Rochester, NY 14650-1131 (716) 724-1789, Option 1

Please be prepared to give your Customer Service Number and your equipment serial number.

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Health Sciences Division

