

Transmittal Page

Product 3001 EngineeringzCopier (60 Hz/ 50 Hz)	Title Service Manual	Part Number 701P14950
Status INITIAL ISSUE		Date December 1998

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All pages are new.

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Xerox 3001 Engineering Copier (60/50 Hz) Service Manual

701P14950
December 1998



CAUTION

Certain components in the 3001 Copiers are susceptible to electrostatic discharge. Observe all ESD procedures to avoid damage.

WARNING

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to correct the interference.

NOTICE

All service documentation is supplied to external customers for informational purposes only. Xerox service documentation is intended for use by certified, product trained service personnel only. Xerox does not warrant or represent that such documentation is complete, nor does Xerox represent or warrant that it will notify or provide to such customer any future changes to this documentation. customer performed service of equipment, or modules, components, or parts of such equipment may affect the warranty offered by Xerox with respect to such equipment. You should consult the applicable warranty for its terms regarding customer or third party provided service. If the customer services such equipment, modules, components, or parts thereof, the customer releases Xerox from any and all liability for the customer actions, and the customer agrees to indemnify, defend and hold Xerox harmless from any third party claims which arise directly or indirectly from such service.

Every effort has been made to ensure that this manual is technically accurate and reflects the configuration of the 3001 as of December 1998.

Published by:
Xerox Corporation
Multinational Customer and Service Education
780 Salt Road
Webster, New York 14580

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NOTICE

This product will produce ozone during normal operation. The ozone produced is dependent on copy volume and is heavier than air. Providing the correct environmental parameters as specified in Xerox installations procedures will ensure that concentration levels meet safe limits.

(USO only: If additional information concerning ozone is needed, request the Xerox publication 600P83222, "Ozone", by calling 1-800-828-6571.)

NOTICE

The appliance coupler (power cord) is the disconnect device for this equipment. Ensure that installation is near the outlet and is easily accessible.

Revision Control List

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● Initial Action		Drum Maintenance procedures,			
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● Maintenance Activities Checklist		procedures, copier specifications,			
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About This Manual

This manual is part of a documentation system that includes product training.

This manual contains Service Call Procedures, Diagnostic Procedures, General Procedures or Information, Status Indicator Repair Analysis Procedures, Repair and Adjustment Procedures and Parts Lists.

This information will help a Service Representative repair and maintain this copier.

Organization

This manual is divided into eight sections:

Section 1. Service Call Procedures

This section contains the following information:

- Call Flow Diagram

The Call Flow Diagram is a map of the procedures to follow on each service call.

- Initial Actions

The Initial Actions identify how to collect the information necessary to proceed with the service call.

- Status Code Entry Chart

The Status Code Entry Chart shows a list of status codes, causes, clearance procedures and instructions on where to go if the problem continues.

- Maintenance Activities Checklist

This is a list of the items that have to be checked based on the type of call to be performed.

Section 2. Status Indicator Repair Analysis Procedures

This section contains the Repair Analysis Procedures (RAPs) that are necessary to repair the faults other than image quality defects. When using a RAP, stop the repairs when the fault is fixed. Do not perform the remaining steps.

Section 3. Image Quality Repair Analysis Procedures

This section contains a listing of image quality defects to assist in classifying the defects. When the defect has been classified, a checklist is then used to repair the cause of the defect. The checklists are arranged in the sequence of most probable to least probable cause or the ease of the check.

Section 4. Repair/ Adjustment Procedures

This section contains the repairs and adjustments for the copier.

Section 5. Parts List

This section contains the detailed Parts Lists for the copier.

Section 6. General Procedures/ Information

This section contains the Diagnostic Procedures, Copier Installation and Removal procedures, Copier Specifications, Supplemental Tools and Supplies and Change Tag/Mod Index.

Section 7. Wiring Data

This section has a list of the connectors in the copier and shows the location of the connectors and some of the component wiring.

Section 8. Accessories/ Options

This section contains information about the accessories and options for the 2520 copier.

How To Use This Manual

Always begin with the Service Call Procedures, Section 1. Perform Initial Actions to identify and classify the problem.

Then proceed to one of the following sections of the manual to correct the problem.

Section 2 contains the Status Indicator RAPs. Use these RAPs if the copier is not operational, such as when a Status Code is displayed or there is an improper indication, or "blank" display, etc.

Section 3 is used to troubleshoot Image Quality problems. If you are not sure of the type of image quality defect that is occurring, use the contents page in Section 3 to find a defect that best represents the type of defect that is on the copy.

When using Section 2 or Section 3, you may be directed to Section 4 to perform repair or adjustment procedures, or to Section 5, Parts List.

Next, perform the Normal Call procedures. Now determine if Extended Maintenance has to be performed.

For an Extended Maintenance Call, perform the Extended Maintenance Procedures in Section 1.

After performing Normal Call or Extended Maintenance, perform Final Actions to ensure that the copier meets the copy specifications.

Multinational Configuration Differences

This manual contains information that applies to **USO** (USA), **EO** (Europe), **XCL** (Canada), and **XLA** (Latin America). **USO** references usually apply to **XCL** and **XLA**. If a **USO**, **EO**, **XCL** or **XLA** copier configuration is different, the specific **USO**, **XCL**, **RX** or **XLA** information will be shown by itself.

"Dry Ink" means the same as "Toner" and "Tag" means the same as "Mod".

Repair Analysis Procedures (RAPs)

A RAP is a series of steps designed to lead you to the cause of a problem. In each step, you will perform an action or observe an occurrence. At each step, a statement is made that has a Yes (Y) or No (N) answer.

If the answer is **NO**, perform the action following the **NO**. If the answer is **YES**, proceed to the next step.

When several items are listed, perform them in the order listed.

Proceed through the steps only until the problem is solved. There is no need to continue with the RAP after the problem is corrected.

Repair / Adjustment Procedures

The repair procedures provide detailed steps on how to remove and replace components. The adjustment procedures provide detailed steps on how to check and adjust components. Some copiers have been modified by various design changes. Each change or modification is labeled with a **Tag/MOD** (modification) number. The **Tag/MOD** numbers are identified in the Change **Tag/MOD** Index in Section 6 of this Service Manual.

When a modification affects how a particular procedure is performed, the procedure or steps are identified with either a **W/ Tag/MOD** or a **W/O Tag/MOD** statement. Each procedure or step that is affected by a modification is identified with the statement, **W/ Tag/MOD** followed by the modification number. The **W/** in the statement indicates that this step must be performed on copiers that are assembled with that specific modification.

When the procedure or steps are not affected by a particular modification, they are identified with the statement, **W/O Tag/MOD** followed by the modification number. The **W/O** in the statement indicates that this step must be performed on copiers that are assembled without that specific modification.

(continued)



Refer to the Change Tag/MOD Index for information on how to determine whether or not a copier has a particular Tag/MOD number.

FOR EXAMPLE:

THERMISTOR (RT1) REPAIR PROCEDURE

WARNING

1. Switch off the copier and disconnect the power cord.

W/ Tag/MOD 5: Remove the Xerographic Module.

In the step 1, the **W/ Tag/MOD 5** statement refers to the modification number 5. If the copier that is being serviced does have Tag/MOD 5, perform this step.

If the copier does not have Tag/MOD number 5, ignore the **W/ Tag/MOD 5** instruction. In this situation, do not remove the xerographic module.

2. Lower the transport latching cover.
3. Lower the front cover.

In the steps 2 and 3, no reference is made to either the with or without Tag/MOD 5 modification. Therefore, perform the instructions whether the copier has or does not have Tag/MOD 5.

Reference Symbology

The following symbols are used in this document:



NOTE

This symbol is used to refer to notes, usually on the same page.

10.1



Adjustment

This symbol is used to show that an adjustment is required on the indicated component and there is also a reference to the location of the adjustment procedure.



Voltage Source

This is an indication of the source voltage that is used for operation of a component. This voltage is distributed in the PWB and comes from the LVPS.

F1

Status Code

The status code is represented by a box in the control logic section of the circuit diagram. This example is the code for the fuser undertemperature signal.



Flags

This symbol is used on the circuit diagrams and is pointing to a wirenet that has to be examined for a short circuit to frame or an open circuit.

[10]

Component Control

The code [10] is the test for the copier main drive motor.

Parts List

PL 1.1 This is the reference to the parts list exploded drawing where the spared component is found.



Indicates that the part has a repair procedure listed in the Repair/Adjustment section of this manual.



Indicates that the part has an adjustment procedure listed in the Repair/Adjustment section of this manual.

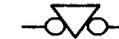


Indicates that the part has an adjustment procedure and a repair procedure listed in the Repair/Adjustment section of this manual.

Switches and Relay Contacts



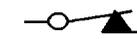
Safety interlock switch that is open.



Safety interlock switch that is closed.



Switch/ relay contacts with momentary contacts shown normally open.



Switch/ relay contacts with momentary contacts shown normally closed.



WARNING

A warning is used to alert the personnel to an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.



CAUTION

A caution is used to alert the personnel to an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.

Tag/MOD Information



This symbol identifies the component or configuration of components in a circuit diagram that are not part of a change identified with this Tag/MOD number.

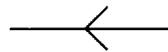


This symbol identifies an entire circuit diagram that has not been changed by this Tag/MOD number.

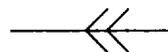


The Signal Flow

This symbol is used on circuit diagrams to indicate an interrupted signal in the horizontal direction.



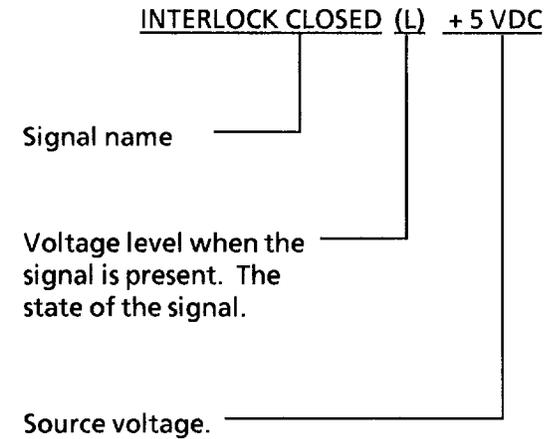
This symbol is used on circuit diagrams to indicate a recirculating signal.



This symbol is used on circuit diagrams to indicate a feedback signal.

Signal Name

The signal line is given a name that indicates the condition of the signal when the signal is present.



Tag/MOD Information



This symbol identifies the component or configuration of components in a circuit diagram that are part of a change identified with this Tag/MOD number.



This symbol identifies an entire circuit diagram that has been changed by this Tag/MOD number.

DC Voltage Specifications

Voltage	Specification
5 VDC	4.75 TO 5.25 VDC
10 VFWR	2.5 TO 14 VDC
15 VDC	14.25 TO 15.75 VDC
24 VDC	19 TO 35 VDC

Notes:

1. Service Call Procedures

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Introduction

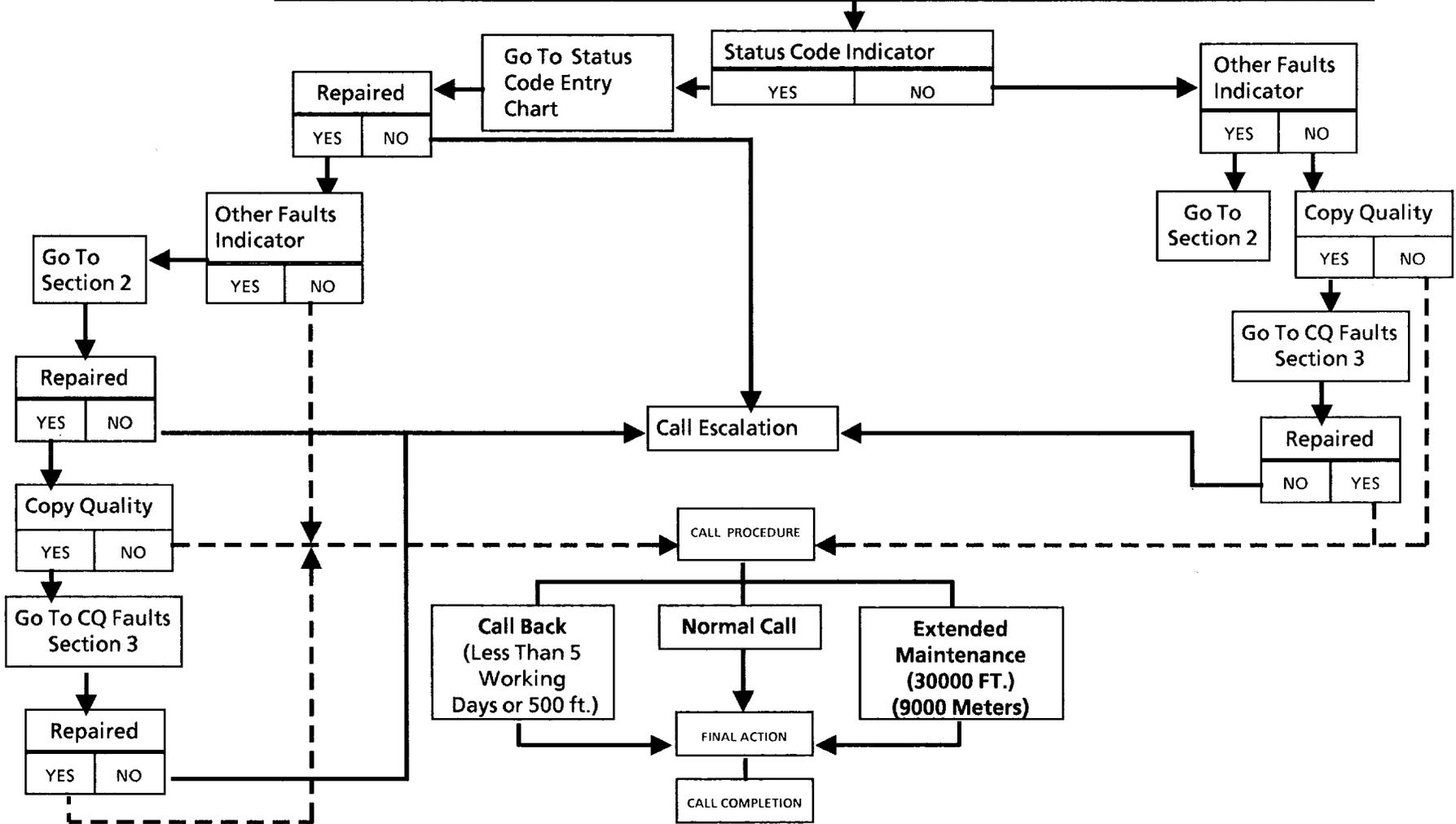
Use the Service Call Procedures as a maintenance guide when performing the service on the copier. The Service Call procedure has been designed to be used with the 3001 Service Manual.

- Call Flow Diagram - This diagram outlines the major activities that are performed when a service call is made. The diagram also outlines how the decision is made as to whether an Extended Maintenance activity will be performed.
- Initial Actions - This procedure is designed to guide the Service Representative through the customer interface. It also assists the Service Representative in preparing the copier for an evaluation of its performance. The Initial Actions diagram is designed to identify and classify the problem and to refer you to the appropriate RAP in order to repair the problem. When the problem has been repaired, refer to the Call Flow Diagram and continue the Service Call with the Maintenance Activities.
- Maintenance Activities - This procedure contains the activities that are followed after the main cause for the service call has been corrected. These activities are referred to as Normal Call and Extended Maintenance.
- Normal Call - This is the service activity that is performed when less than 30K feet (9K metres) of media has been run since the last service call. Normal Call activity is designed to be performed on all calls. This activity includes cleaning and replacing the parts in areas that require more frequent cleaning and inspection time. Normal Call activity is designed to restore the copier to an initially clean and functional condition.
- Extended Maintenance - This is the service activity that is performed when greater than 30K feet (9K metres) of media has been run since the last service call. Extended Maintenance is designed to restore the copy quality to an initial copy quality condition.
- Final Action - The purpose of this procedure is to record the media feet count and make a record of the service activities that were performed in the machine log book. Final Action is designed to stress test the image quality and repair any image quality problems.

Call Flow Diagram

Initial Action

<p style="text-align: center;">Phone</p> <ul style="list-style-type: none"> ● Precall customer ● Use CCA (Customer Call Assistance) ● Give Estimated Time of Arrival) ● Have customer save problem copies 	<p style="text-align: center;">At Account</p> <ul style="list-style-type: none"> ● Check space meets requirements ● Have customer operate machine and duplicate problem(s). Ask about additional problems. ● Record copy meter. check service log & tag matrix ● Inspect sample copies/credits ● Verify, Classify, Repair problem
--	---



Status Code	Cause	Clearance Procedure	Go to RAP in Section 2
A1	While the fuser was warming up, a document was in the copier. Ensure that the document handler is correctly seated.	Remove the document from the copier.	A1 Document Handler RAP
A3	A document was expected at the front original sensor but the original had been removed.	Remove the media from the copier.	A3 Document Handler RAP
A4	A document was expected at the rear original sensor but the original was removed.	Remove the media from the copier.	A4 Document Handler RAP
A5	The document did not reach the rear original sensor in the correct amount of time.	Remove the document and the media from the copier.	A5 Document Handler RAP
A6	While the fuser was warming up, a document was at the front document sensor. Ensure that the document handler is correctly seated.	Remove the document from the copier.	A6 Document Handler RAP
A7	A document was either less than 12 inches (305mm) or more than 54 inches (1372mm) long and the copier was in the multiple copies mode.	Remove the document from the copier.	A7 Document Handler RAP
A8	While the copier was in the multiple copies mode, a document was at the rear of the copier and another document was inserted into the copier.	Remove the second document from the copier.	
A9	The document did not reach the front document sensor in the correct amount of time.	Remove the document and the media from the copier.	A9 Document Handler RAP

Status Code	Cause	Clearance Procedure	Go to RAP in Section 2
C9	The Auditron is not connected.	Ensure that the Auditron is connected. Enter a valid user number.	C9 Auditron RAP
C9	The Foreign Accessory is not connected.	Ensure that the Foreign Accessory is connected.	C9 Foreign Accessory RAP
E1	It took too long for the copy media to reach the motion sensor.	Remove the media from the copier.	E1 RAP
E2	While the copier was in the multiple copies mode, the media is inserted into the copier before the document is inserted.	Remove the media from the copier.	E2 RAP
E3	The motion sensor stops turning while the copy media is still causing the actuator to block the prefeed sensor.	Open the transport latching cover and remove the media from the copier.	E3 RAP

Status Code	Cause	Clearance Procedure	Go to RAP in Section 2
E5	One of the interlock switches is open.	Ensure that all of the interlock switches are closed.	E5 RAP
F1	The fuser thermistor does not sense a temperature change within 20 seconds, or the fuser does not maintain the correct temperature.	Switch off the copier, then switch on the copier.	F1 RAP
J1	The toner concentration is too low.	Do not install a new toner cartridge if a new one already has been installed.	J1 RAP
J2	The toner concentration is too high.		J2 RAP
LL	There is a failure on the Control PWB.	Switch off the copier, then switch on the copier. Replace the Control PWB (PL 1.4).	
U1	The copy count meter is disconnected.	Reconnect the copy count meter.	U1 RAP
L9 to L0	Copier is in its warm up cycle.	Wait for fuser to warm up. Display should be counting down from L9 to L0.	
Constant L9 or L8	Copier does not warm up.	Switch off the copier, then switch on the copier.	F1 RAP
Constant P (USO), (XLA 60Hz)	Copier is in the power saver mode.	Press the Start button.	
Constant L (EO), (XLA 50Hz)	Copier is in the low power mode.	Press the Start button.	

DOCUMENT HANDLER

INTERVAL	Task	Reason	Task Enabler
NC [Normal Call]	Clean the platen	Spots on platen result in lines on copy. dust and other contaminants lower light transmission.	Clean both sides of platen with anti static cleaner on a white cloth.
NC	Clean lower document feed rolls and optics cavity	Dirty feed rolls can cause original to slip. contaminants in optics can cause C.Q. defects.	Clean using the Formula "A" on a towel or cloth.
NC	Clean the exposure lamp lens	Contamination on lamp and lens result in C.Q. defects.	Apply a small amount of anti-static cleaner to a towel. Check the tape on the lens, repair or replace as necessary.
NC	Inspect the idler rolls	Binding can cause the document drive to stall, resulting in a larger than acceptable copy.	Idler rolls should turn freely. replace as required.

(Continued)

XEROGRAPHIC MODULE

INTERVAL	Task	Reason	Task Enabler
NC (Normal Call)	Check charge / precharge corotron. replace if 20k or more	Contamination, loose or broken wires, damaged end blocks cause C.Q. defects.	Check for excessive contamination. 800 volts at onset should be able to be obtained with power supply output at "TP 1" below 475 volts.
NC	Clean the xerographic module	Contamination (toner or other) can cause cleaning problems. contaminants can travel to optics and corotrons resulting in C.Q. problems. fused toner on the bottom of mod can cause jams.	Vacuum toner from housing. use cleaning solvent to remove fused toner from bottom of module.
NC	Check / replace stripper fingers	Bent stripper fingers cause feedout jams and fuser roll damage.	Replace damaged or contaminated stripper fingers.
NC	Check /clean/replace oil dispenser assy	Contaminated wicks cause poor oiling and damage to fuser roll.	Replace wick if contaminated or if customer is running erasable vellum. Perform the Initialization Procedure for the Fuser Roll.
NC	Clean / replace fuser roll, fabric guide	Smooth / worn fuser roll loses ability to drive media. Contaminated fabric guide causes too much resistance to media resulting in jams / deletions/wrinkles.	Clean with film remover . clean fabric guide with formula "A" and film remover. Perform the Initialization Procedure for the Fuser Roll.
NC	Check the fuser roll for lack of oil	Too much or too little oil can cause media handling problems.	Replace the oil pads. If the fuser roll is dry, perform the Initialization Procedure for the Fuser Roll.
NC	Check / replace ozone filter	Lack of air flow due to clogged filters can cause "light side" copy quality defects.	If the Charge voltage (V_o) can't be achieved equally on both sides of drum suspect a clogged ozone filter - remove filter, and recheck- if your able to obtain equal charge voltage (V_o) replace filters

(Continued)

XEROGRAPHIC MODULE (Continued)

INTERVAL	Task	Reason	Task Enabler
30K	Check / clean cleaning blade	Residual image, streaks, drum scuffing can occur if blade is worn or contaminated.	Clean blade with film remover and towel. apply zinc stearate to blade. replace if damaged.
30K	Replace ozone filter	Clogged filters can cause side-to-side light copy quality defect and augers to bind with partially fused toner.	Vacuum auger area and seal . Ensure that seal is oriented toward the drum. replace seal if damaged.
30K	Perform ADJ 9.2 Electrostatic Series	New corotrons can affect the charge voltage (V_0).	Ensure machine is at operating temperature and light leaks are eliminated before performing the ADJ 9.2 Electrostatic Series.
20K	Replace or repair corotrons	Contamination on the wires, damaged or aged end blocks, are causes for corotron failure resulting in copy quality defects/jams etc.	Perform ADJ 9.2 Electrostatic Series

(Continued)

MEDIA TRANSPORT

INTERVAL	Task	Reason	Task Enabler
NC	Clean lower paper transports,turnaround baffle,paper feed rolls	Contaminants can cause media to slip, motion sensor to stall, C.Q. defects.	Clean transport with anti - static fluid and cloth. clean feed roller with Formula A.
NC	Clean under transport	Reduce airborne contaminants,asthetics.	Vacuum clean, then wipe down with a lint free cloth.

(Continued)

DEVELOPER MODULE

INTERVAL	Task	Reason	Task Enabler
NC	Check that the developer housing is level.	Uneven level results in uneven density. worn developer causes excess toner consumption and CQ defects.	Developer should be even from end to end.
NC	Check the canister for proper rotation	The toner cannister not rotating correctly will cause light copies.	Check the developer housing for worn cam, damaged retainer clip, and dispense solenoid binding or not adjusted correctly
NC	Check the developer drives	Worn gears will cause housing to move up and down causing copy quality defects.	Check the developer for worn or broken teeth , replace if necessary.
30K	Replace developer	Worn developer causes excess toner usage, higher dirt levels, and copy quality defects.	Replace the developer. Ensure that the gutter, for the auger on the inside of the module, is positioned on the pin located in the center of the developer module.
30K	Replace developer filter	Filters allow correct air flow in the developer housing to reduce dirt level.	Check / replace black plastic filter housing if damaged or warped.

(Continued)

COVERS

INTERVAL	Task	Reason	Task Enabler
NC	Clean covers	Positive customer perception	Formula A plus antistatic fluid on feed in shelves
NC	Reduce static build up	Document handling and stacking problem.	Clean the following with anti static cleaner: <ul style="list-style-type: none"> ● Document and Media Feed- in Shelves ● Document Return Guide ● All the plastic document and media guides ● Separator Guides

Final Action

1. Make a record of the copy count meter in the service log.
2. Make one light dusting (input document without an image) copy.
3. Make one 36 X 24 (A1) copy of test pattern 82E5980 in copy normal mode.
4. Perform the Image Quality Analysis located in Section 3.
5. Make a copy at each of the following **Copy Contrast** settings:
 - A. Lightest
 - B. Darkest
 - C. Normal (center position)
6. Compare the copies for differences in image darkness. If two or more copies are the same, go to the CQ 25 Developer Bias RAP located in Section 3.
7. Check that the copy count meter has advanced.
8. Record all activities in the service log.

Notes:

2. Status Indicator Repair Analysis Procedures

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A1 Document Handler RAP

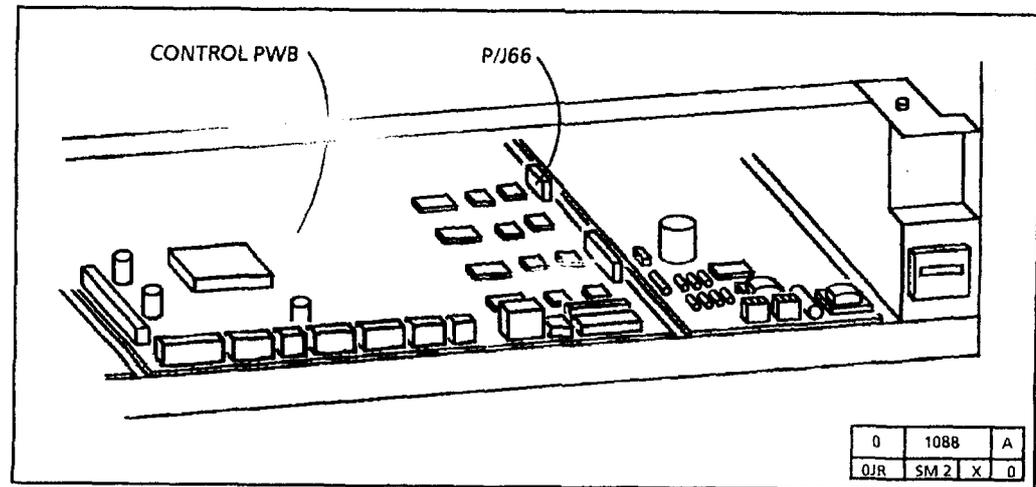
The status code A1 will be displayed if there is a document at the rear document sensor while the fuser was warming up.

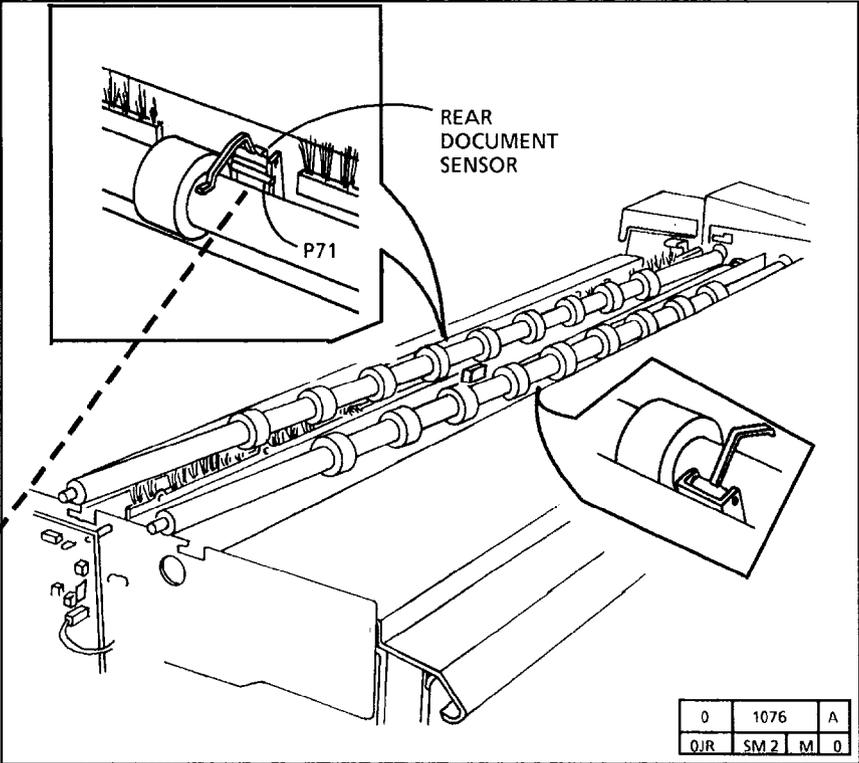
Ensure that the actuator for the rear document sensor is not binding or damaged.

Enter the code [37] to check the rear document sensor. The **Scale Adjust LED** will be lit if the sensor is blocked.

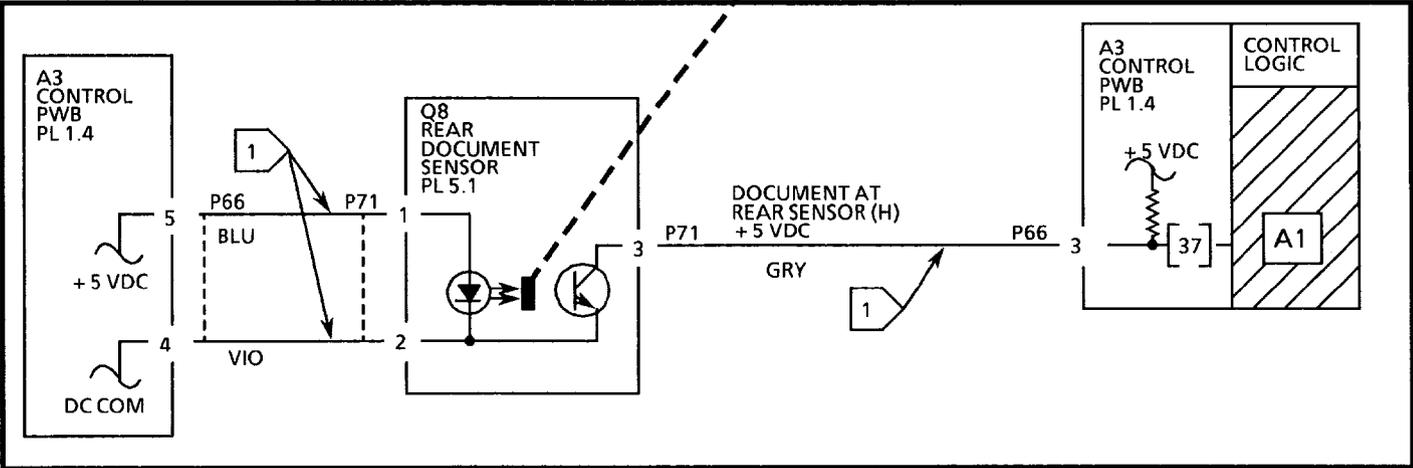
Go to FLAG 1 and check the wiring between the rear document sensor and the Control PWB for an open circuit.

If there is no open circuit, replace the rear document sensor.





0	1076	A
QJR	SM 2	M 0



Notes:

A3/ A5 Document Handler RAP

The status code **A3** will be displayed if the document is driven past the front document sensor and falls out of the front of the copier while the copier is in the multiple copies mode.

The status code **A5** will be displayed if the document does not reach the rear document sensor.

This could occur if the actuator that blocks the rear document sensor is binding. This could also occur if there is a problem with the document drive motor or the document drive motor PWB.

 *The circuit diagrams are on the next three pages.*

Initial Actions

- Ensure that the document is in good condition.
- Ensure that the connectors for the Document Drive Motor (A11P2) and Drive Motor PWB(A11P1) are seated correctly.
- Check the actuator of the Rear Document Sensor for damage or binding.
- Check the document path for obstructions and the Transport Platen and the platen for damage and for correct installation.
- Check the document Drive Belt and pulleys for damage and for the correct installation.
- Ensure that the document Handler is properly grounded.

Procedure

Enter the code [37] to check the rear document sensor.

NOTE: *The Scale Adjust LED will be lit when the sensor is blocked.*

Actuate the Rear Document Sensor (Q8). The Scale Adjust LED goes on then off when the sensor is actuated.

Y N

Go to FLAG 2 and check the wiring for an open circuit or a short circuit.

If there is no open or short circuit, replace the Rear Document Sensor (Q8).

If the problem persists, replace the Controller PWB.

Enter Special Test [30] to cycle a document through the Document Handler. The Document cycles properly through the Document Handler.

Y N

The Document Drive Motor turns.

Y N

Disconnect the Document Drive Motor Connector (A11P2) from the Drive Motor PWB (A11P1). Refer to **Note 2** and check the resistance of the motor. The check is good.

Y N

Replace the Document Drive Motor (Mot 4).

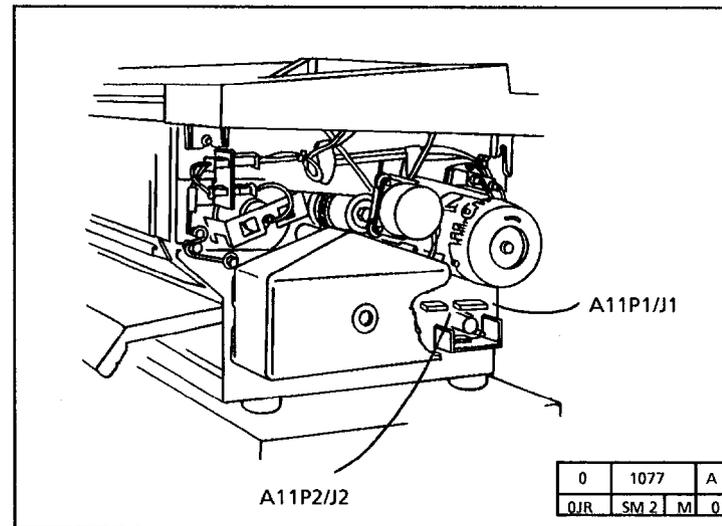
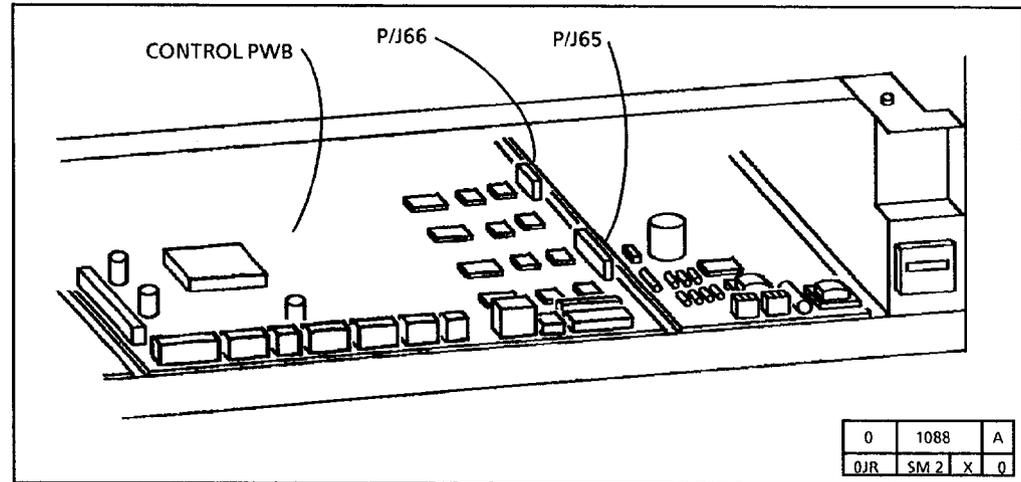
A B C

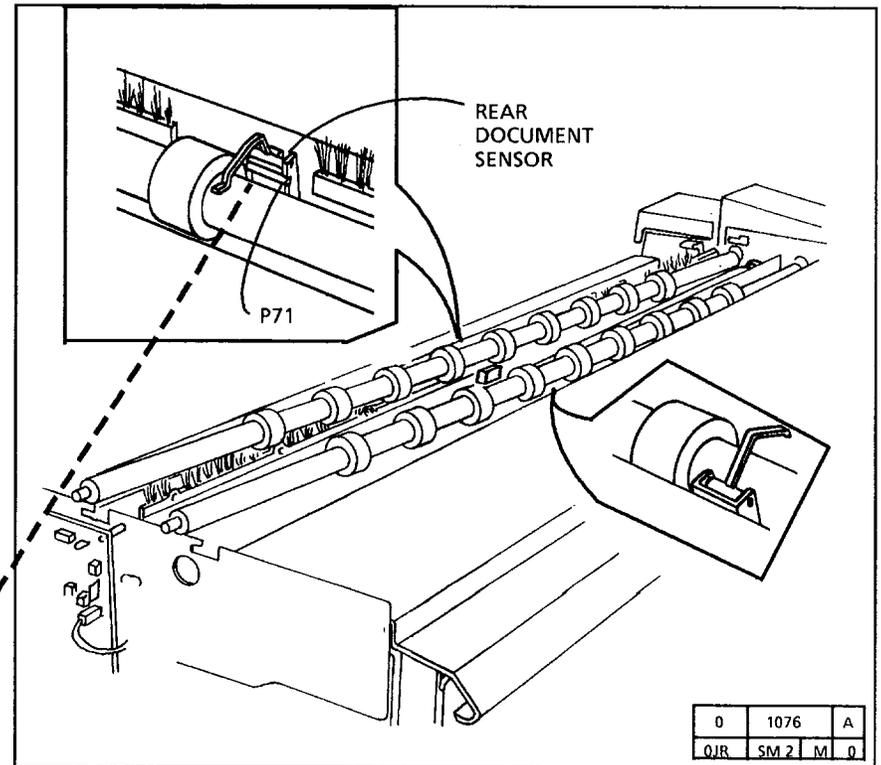
A B C

Go to FLAG 2 and check the wiring for an open circuit or a short circuit. If there is no open or short circuit, replace the Document Drive Motor PWB (A11). If the problem persists, replace the Controller PWB.

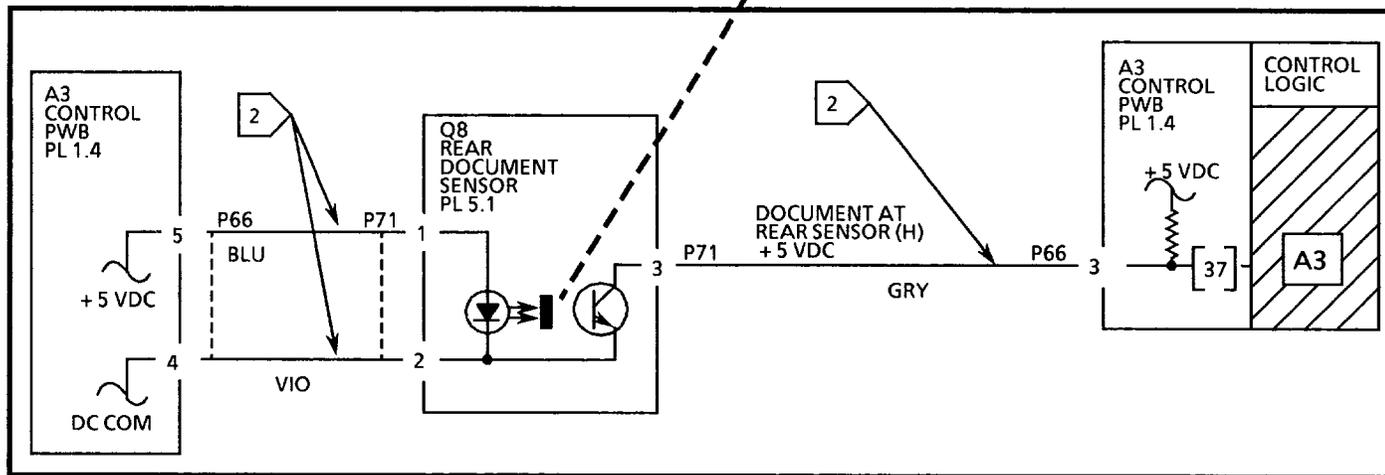
Refer back to the Initial Actions. If the problem persists, replace the Document Drive Motor PWB (A11). If the problem persists, replace the Controller PWB.

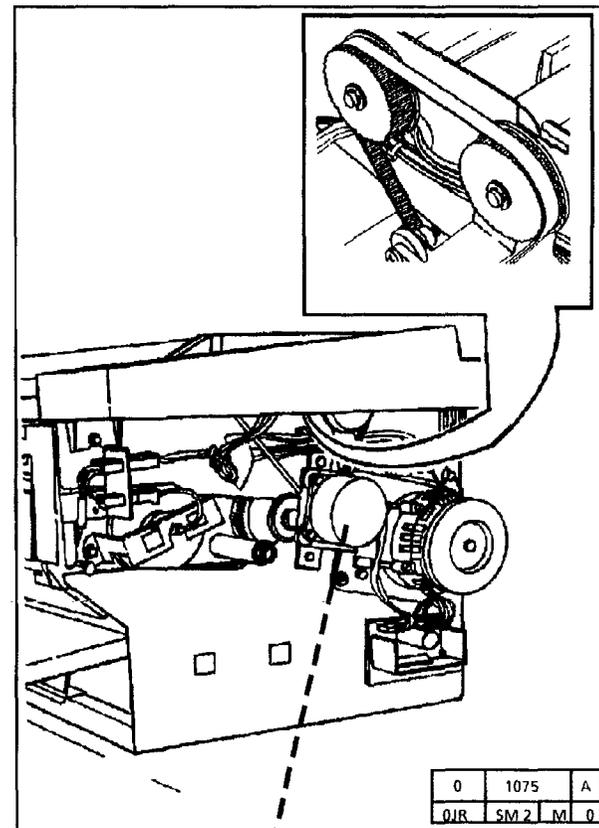
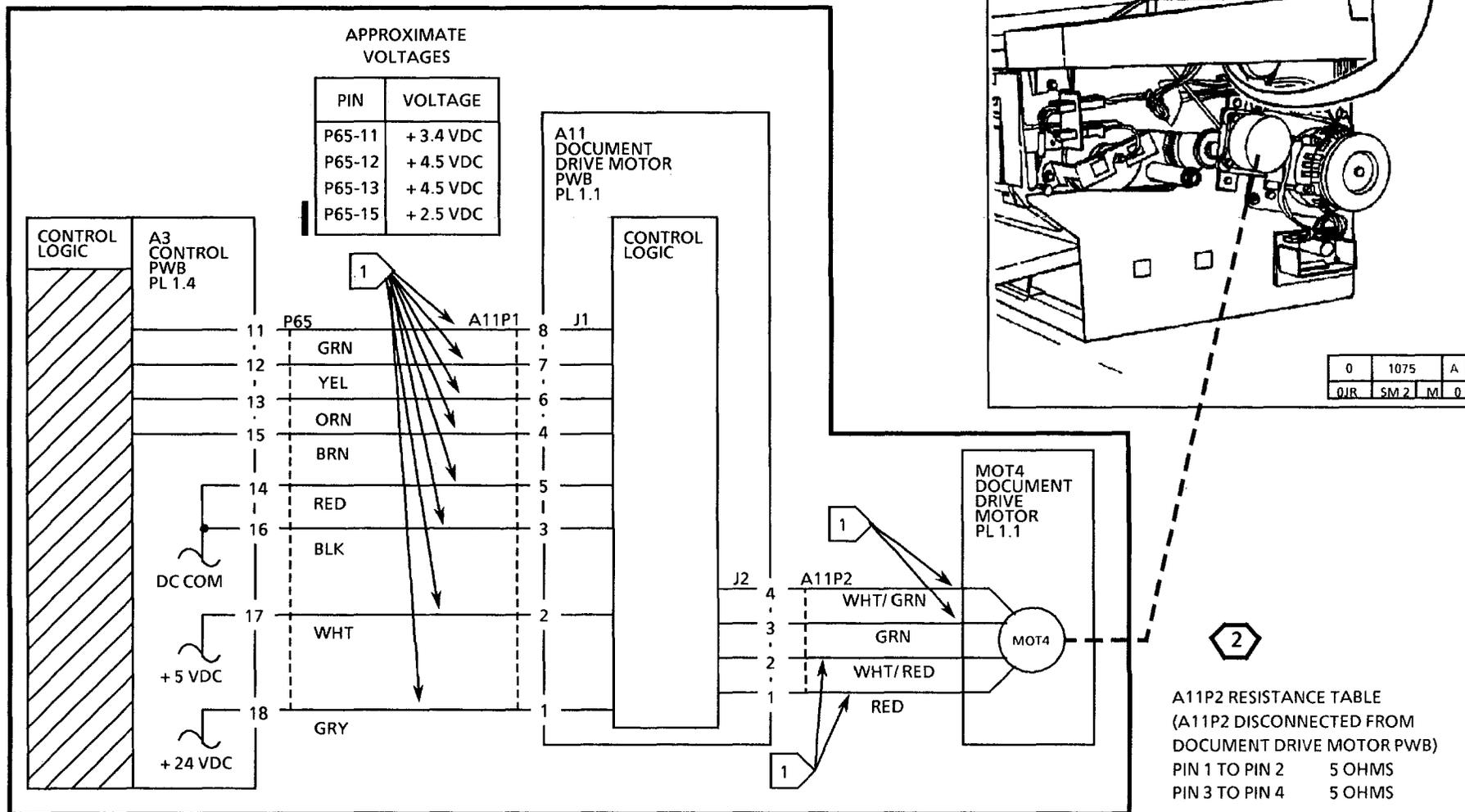
The problem could be an intermittent Rear Document Actuator or Sensor. Refer back to the Initial Actions section of this RAP. If the problem persists, replace the Rear Document Sensor.





0	1076	A
0JR	SM 2	M 0





A4 Document Handler RAP

The status code A4 will be displayed if the document is driven past the rear document sensor area while the copier is in the multiple copies mode.

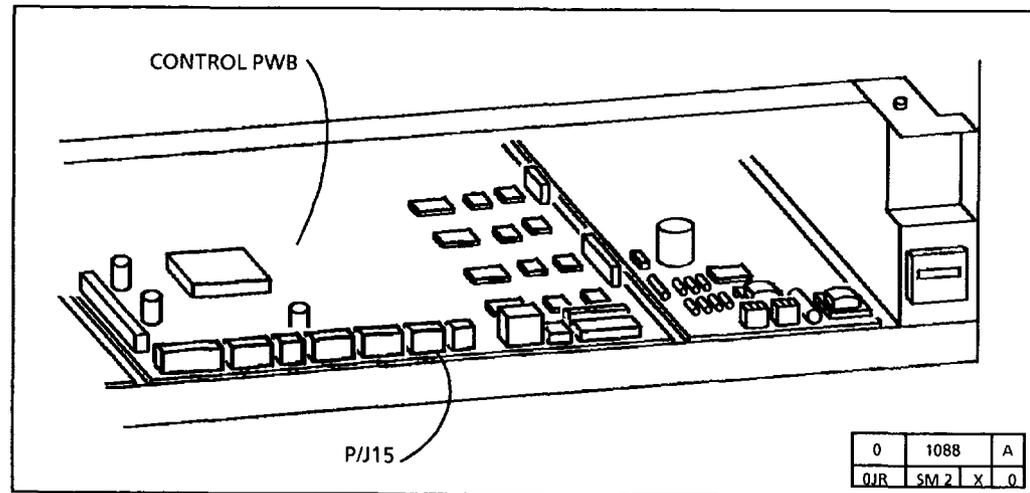
This could occur if the actuator that blocks the front document sensor is binding. The document drive motor is switched off when the trail edge of the document moves off of the front document sensor.



The circuit diagram is on the next page.

Initial Actions

- Ensure that the document is in good condition.
- Check the actuator of the front document sensor for damage or binding.
- Ensure that the connectors for the Document Drive Motor (A11P2) and Drive Motor PWB (A11P1) are seated correctly.
- Check the document path for obstructions and the Transport Platen and the platen for damage and for correct installation.
- Check the document Drive Belt and pulleys for damage and for the correct installation.
- Ensure that the document Handler is properly grounded.



Procedure

Enter the code [37] to check the Front document sensor.

NOTE: *The Film LED will be lit when the sensor is blocked.*

Actuate the Front Document Sensor (Q4). The *Film LED* goes on then off when the sensor is actuated.

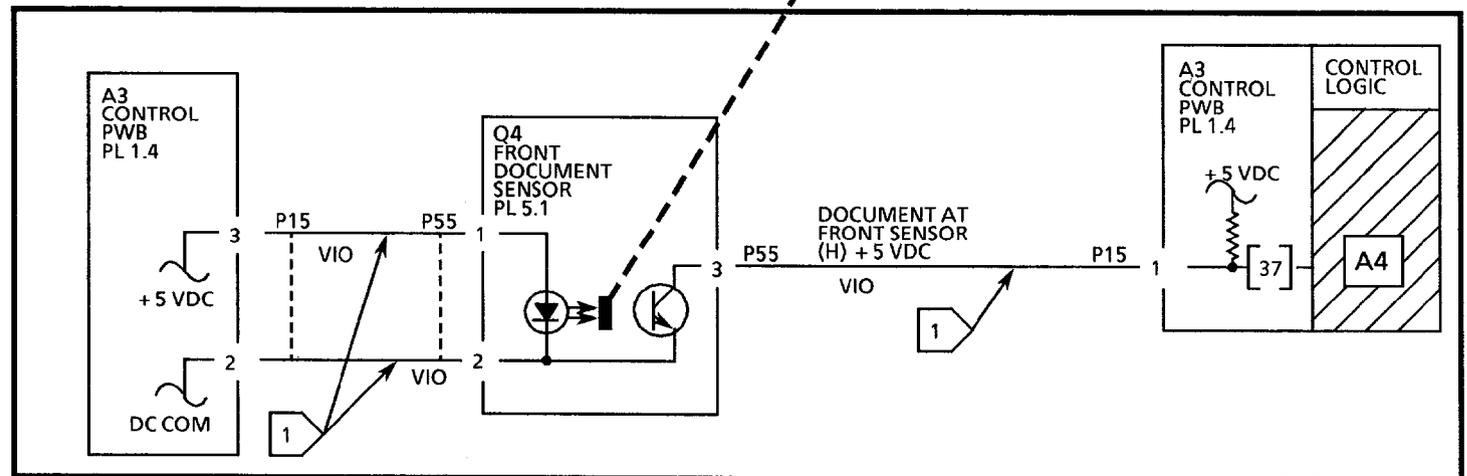
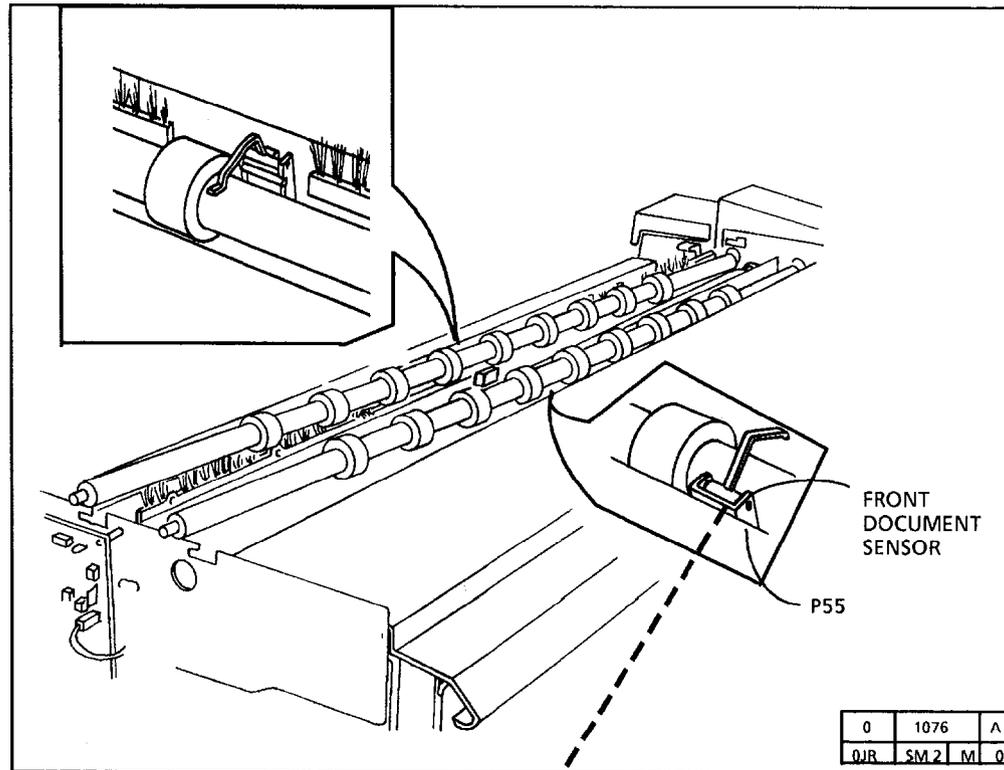
Y N

Go to FLAG 1 and check the wiring for an open circuit or a short circuit.

If there is no open or short circuit, replace the Front Document Sensor (Q4).

If the problem persists, replace the Controller PWB.

The problem could be an intermittent Front Document Actuator or Sensor. Refer back to the Initial Actions section of this RAP. If the problem persists, replace the Front Document Sensor.



A6 Document Handler RAP

The status code A6 will be displayed if there is a document at the front document sensor at the wrong time. This could occur if there was a document at the front document sensor when the fuser has warmed up.

Check the actuator of the front document sensor for damage.

Enter the code [37] to check the front document sensor. The Film LED will be lit if the sensor is blocked.

If the LED is lit all of the time, go to FLAG 1 and check the wiring for an open circuit.

If there is no open circuit, replace the front document sensor.

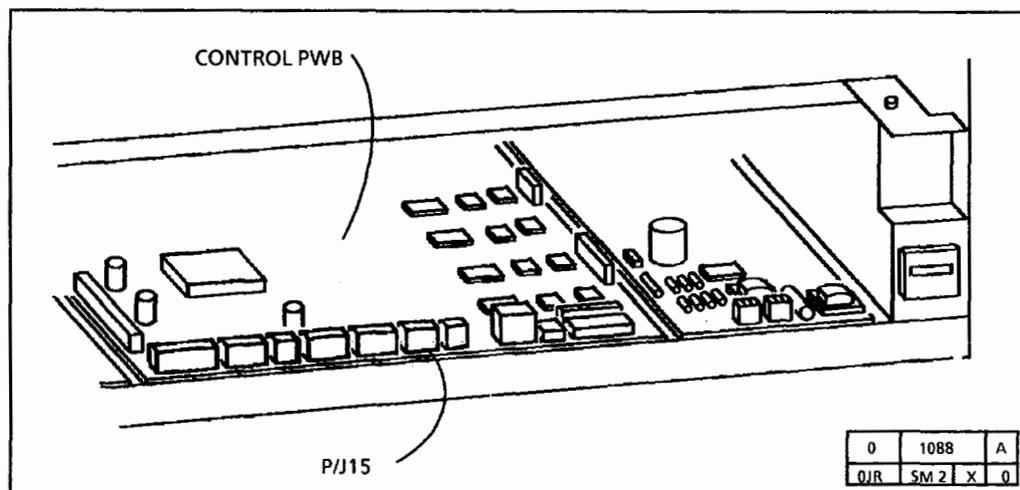
A7 Document Handler RAP

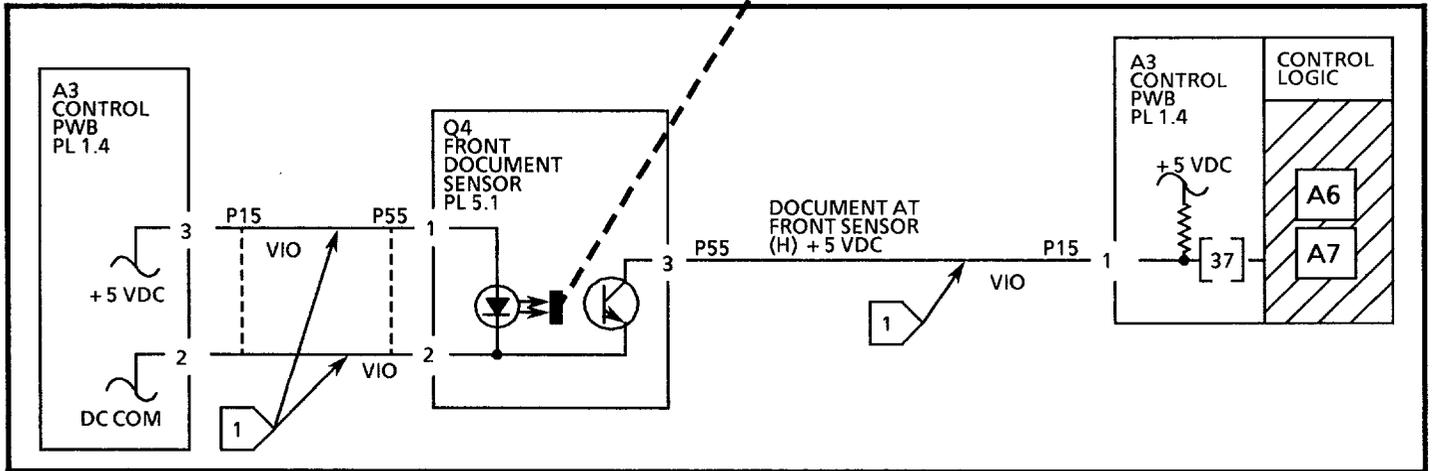
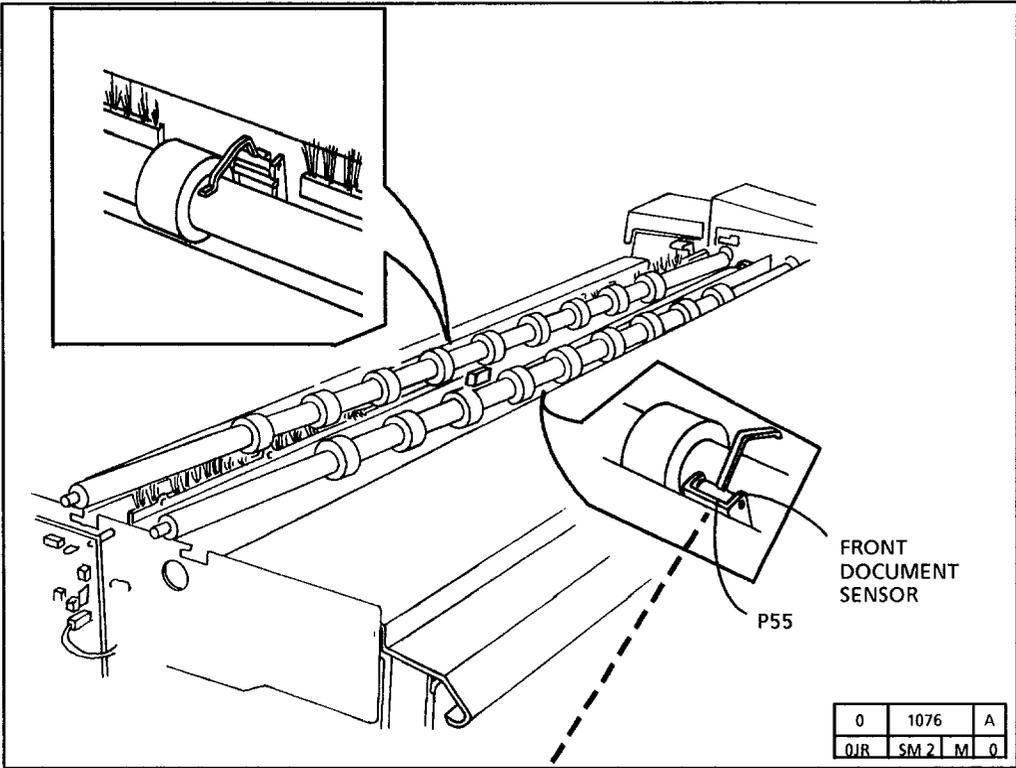
The status code A7 will be displayed if the document was less than 12 inches (305mm) or more than 54 inches (1372mm) long and the copier was in the multiple copies mode.

The document was not causing the actuator to block the front document sensor while the document was driven into the copier.

Enter the code [37] to check the front document sensor. The Film LED will be lit if the sensor is blocked.

Ensure that the document drive motor was not binding. Check for damage to the drive belt.





A9 Document Handler RAP

The status code **A9** will be displayed if the document does not reach the Front Document Sensor.

This could occur if the actuator that blocks the Front Document Sensor is binding. This could also occur if there is a problem with the Document Drive Motor or the Document Drive Motor PWB.

 *The circuit diagrams are on the next three pages.*

Initial Actions

- Ensure that the document is in good condition.
- Ensure that the connectors for the Document Drive Motor (A11P2) and Drive Motor PWB(A11P1) are seated correctly.
- Check the actuator of the Front Document Sensor for damage or binding.
- Check the document path for obstructions and the Transport Platen and the platen for damage and for correct installation.
- Check the document Drive Belt and pulleys for damage and for the correct installation.

Procedure

Enter the code [37] to check the Front document sensor.

NOTE: *The Film LED will be lit when the sensor is blocked.*

Actuate the Front Document Sensor (Q4). **The Film LED goes on then off when the sensor is actuated.**

Y N

Go to FLAG 2 and check the wiring for an open circuit.

If there is no open circuit, replace the Front Document Sensor (Q4).

If the problem persists, replace the Controller PWB.

Enter Special Test [30] to cycle a document through the Document Handler. **The Document cycles properly through the Document Handler.**

Y N

The Document Drive Motor turns.

Y N

Disconnect the Document Drive Motor Connector (A11P2) from the Drive Motor PWB (A11P1). Refer to **Note 2** and check the resistance of the motor. **The check is good.**

Y N

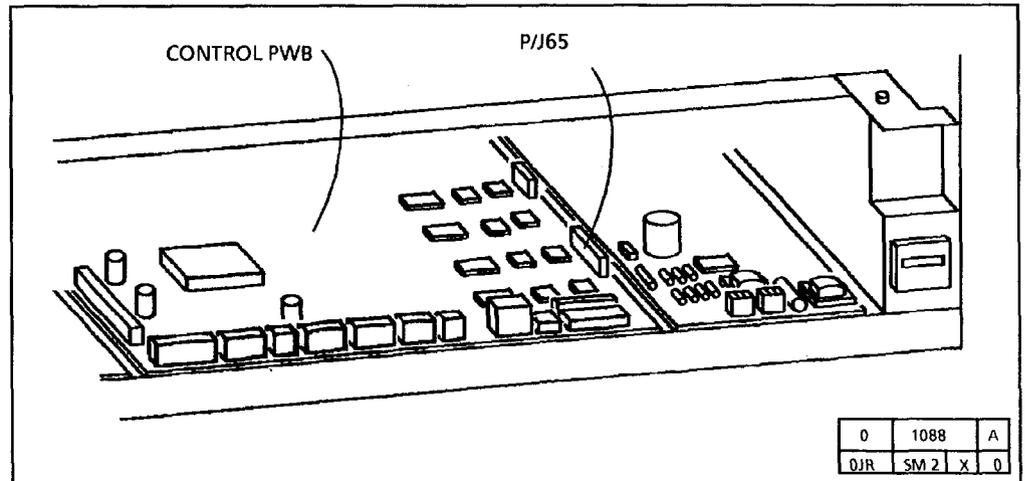
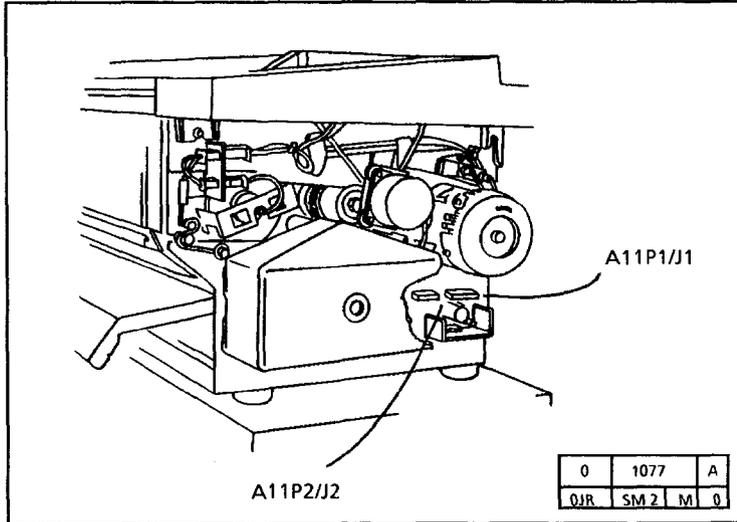
Replace the Document Drive Motor (Mot 4).

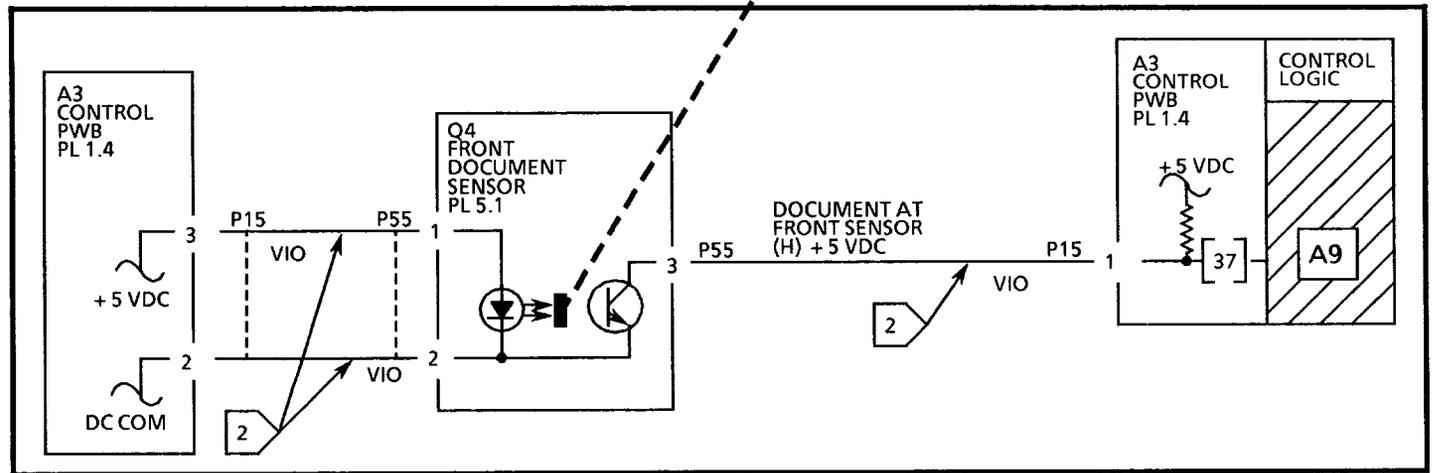
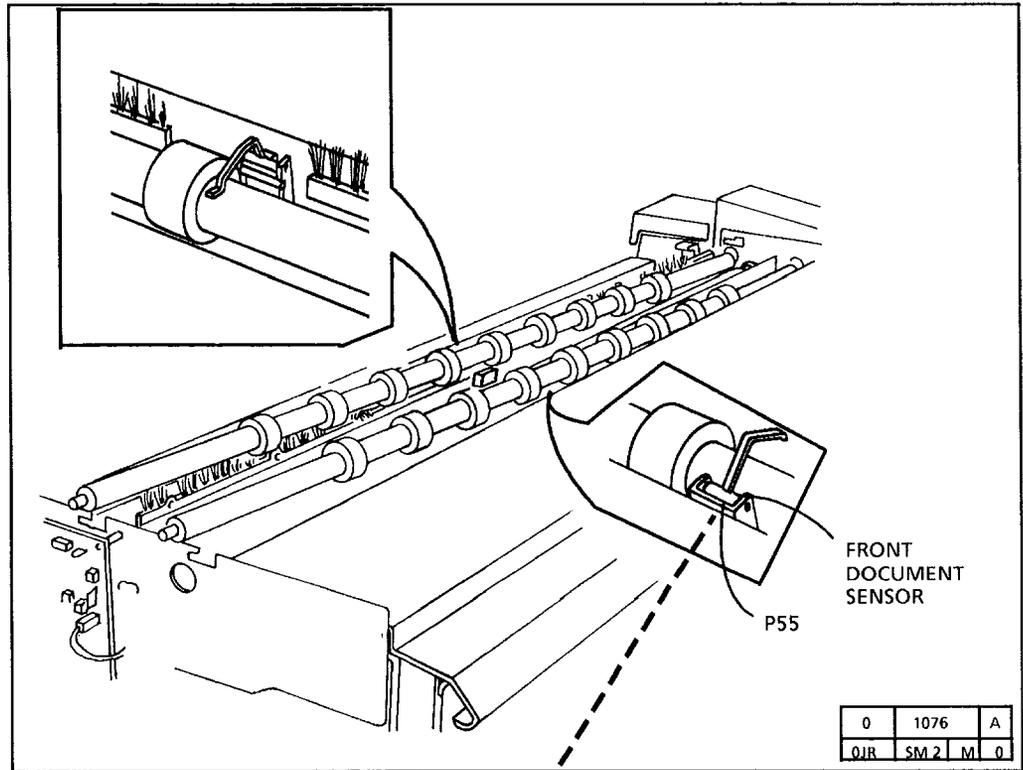
A B C

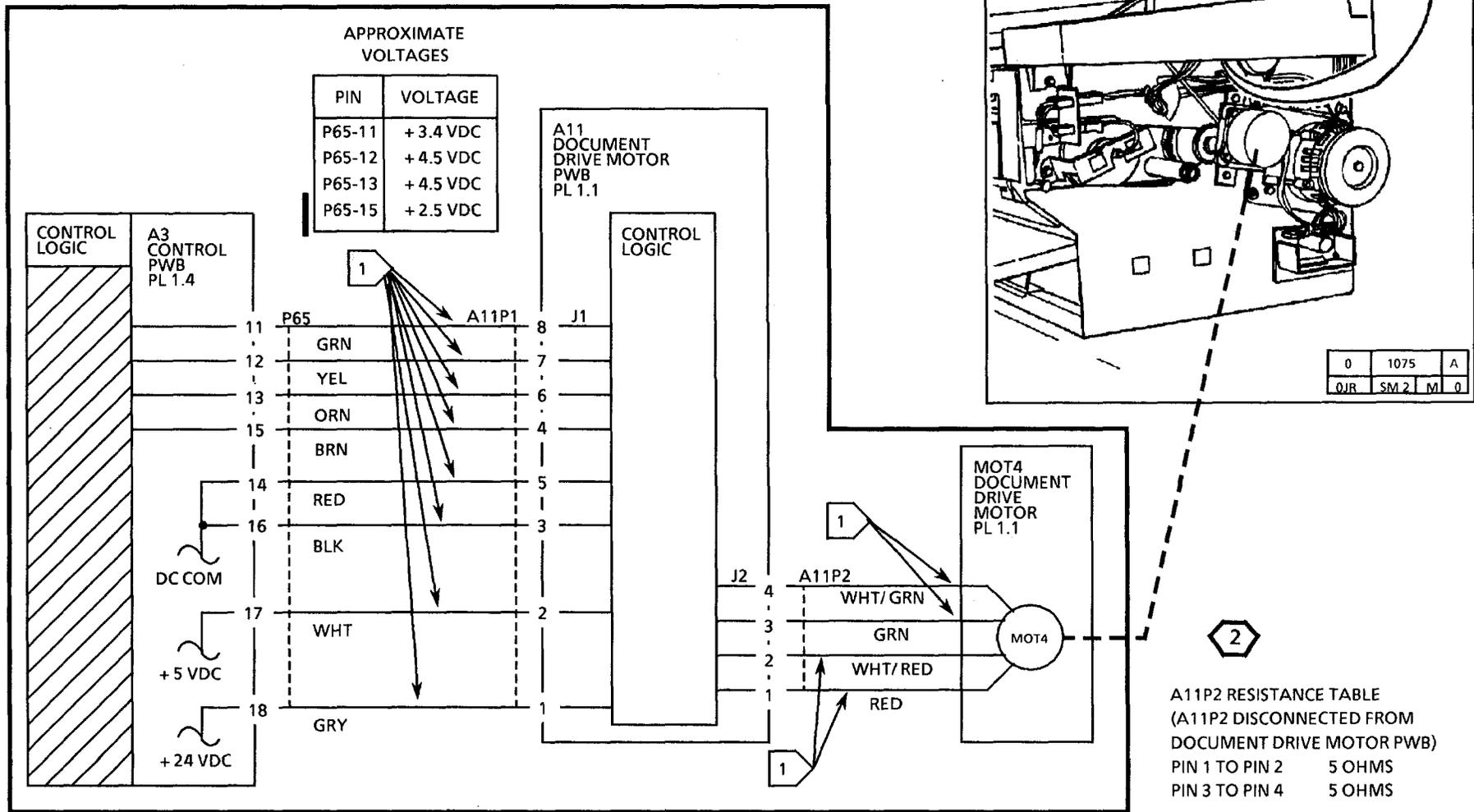
A B C

Go to FLAG 2 and check the wiring for an open circuit. If there is no open, replace the Document Drive Motor PWB (A11). If the problem persists, replace the Controller PWB. Refer back to the Initial Actions. If the problem persists, replace the Document Drive Motor PWB (A11). If the problem persists, replace the Controller PWB.

The problem could be an intermittent Front Document Actuator or Sensor. Refer back to the Initial Actions section of this RAP. If the problem persists, replace the Front Document Sensor.







C9 Auditor RAP

The status code will be displayed if:

- the auditor is enable and no user code is entered. The Auditor will indicate **READY**
- an incorrect user code is entered.
- the Auditor is enabled but not connected.
- the enable signal is missing.
- the AC power is disconnected

Enter a valid user code, the C9 code is no longer displayed. Explain to the user that the C9 code will be displayed as long as the auditor is enabled, but no user code is entered.

Ensure that the auditor power cord is connected.

Ensure that the copier to Auditor interface harness is seated correctly.

Turn the key to the ByPass mode.

The C9 code is displayed.

Y N

Explain to the user that the C9 code will be displayed as long as the auditor is enabled, but no user code is entered.

A

A

Enter the code [39] and ensure that the , Auditor is enabled.
Change the value to 2. This disables the Auditor feature. Try to make copies.

The copier makes copies.

Y N

Replace the Control PWB.

Go to FLAG 1 and check the wiring for an open circuit.

If there is no open circuit, notify the Customer that the Auditor is defective.

C9 Foreign Accessory RAP

The status code will be displayed if the foreign accessory is not connected or the enable signal is missing. Ensure that the interface harness is seated correctly.

Enter the code [39] and change the value to 2. This disables the foreign accessory feature. Try to make copies.

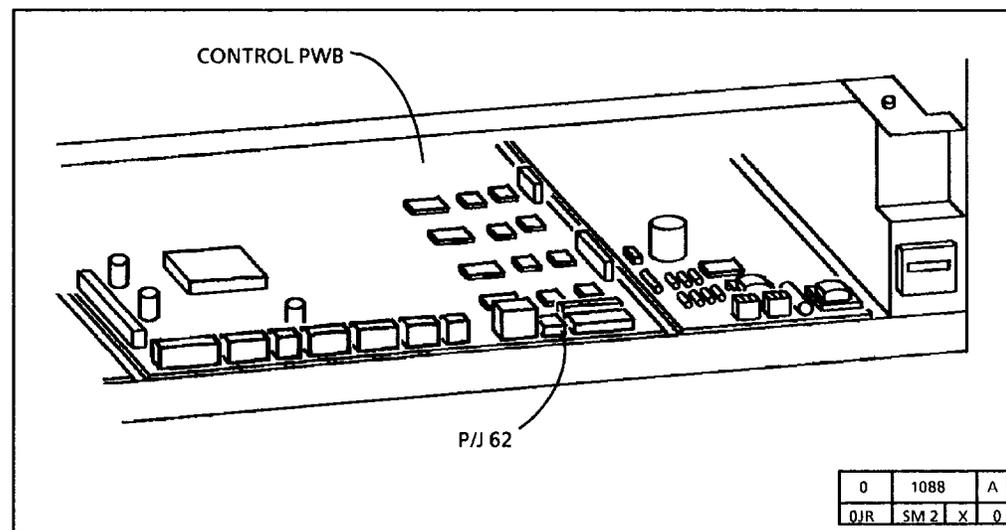
The copier makes copies.

Y N

Replace the Control PWB.

Go to FLAG 1 and check the wiring for an open circuit.

If there is no open circuit, notify the Customer that there is a problem with the foreign accessory.



E1 Media Jam RAP

This code is displayed if the media does not reach the motion sensor within 5 seconds of start of media feed.

NOTE: The circuit diagrams are on the next three pages.

The main drive motor started turning when the display indicated L3.

Y N

Go to the 4.1 Main Drive Motor RAP.

Insert the media into the copier.

The media fed into the copier.

Y N

Connect the (-) to the GND test point on the HVPS.

There is +24 VDC at pin 5 of P14 of the Control PWB.

Y N

Go to FLAG 1 and check the wiring for an open circuit between the media feed clutch and the Control PWB.

If there is no open circuit, then replace the media feed clutch.

A B

A B
Enter the code [11].

The voltage goes from +24 VDC to less than +1 VDC.

Y N

Replace the Control PWB.

Check the mechanical drives to the media feed clutch for damage.

If there is no damage, replace the media feed clutch.

Remove the media.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

In the following procedure, [10] will switch on the main drive motor, [11] will energize the feed clutch, and [37] will test the motion sensor.

Enter the following codes [10, 11, and 37] to check the motion sensor.

Insert a sheet of media in order to be able to test the motion sensor.

The Tracing/Vellum LED goes off and on when the wheel is rotated.

Y N

C D

C D
The LED is always lit.

Y N

Check the motion sensor wheel for damage.

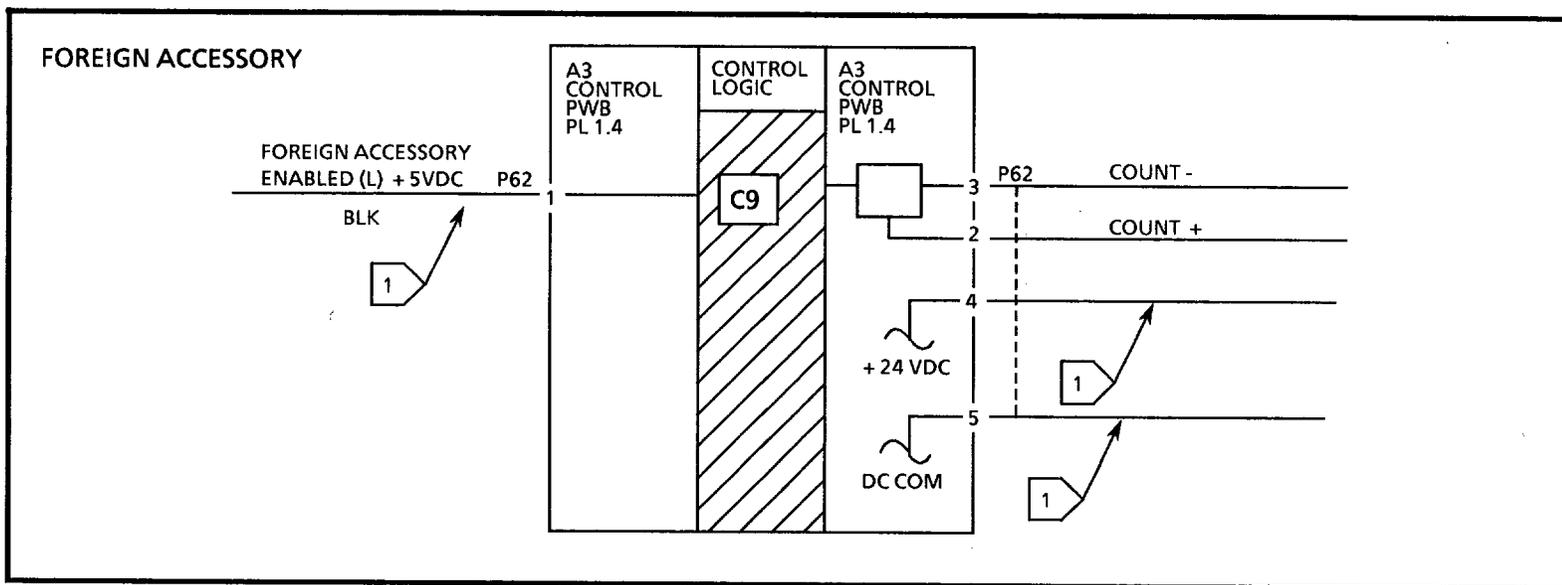
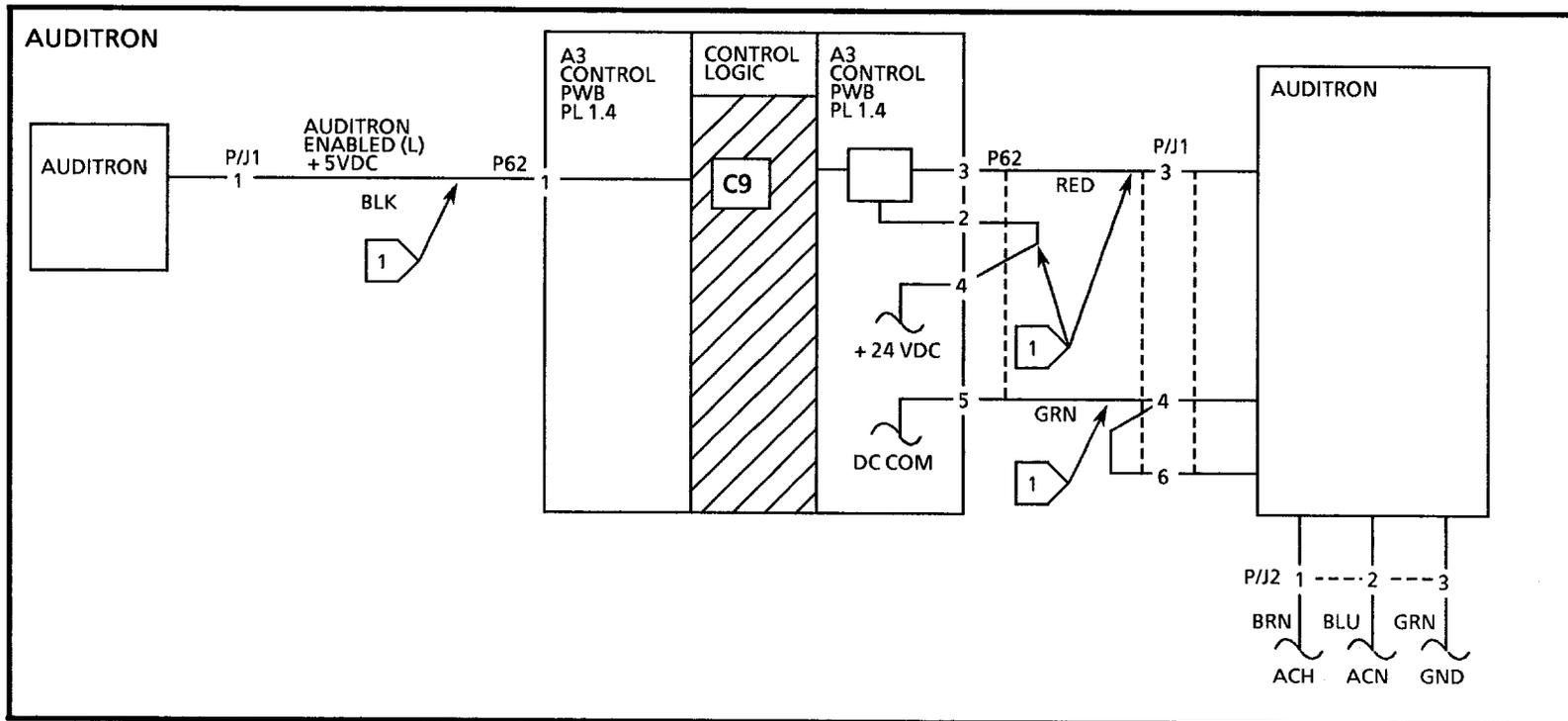
Go to FLAG 2 and check the wiring for a short circuit to the frame.

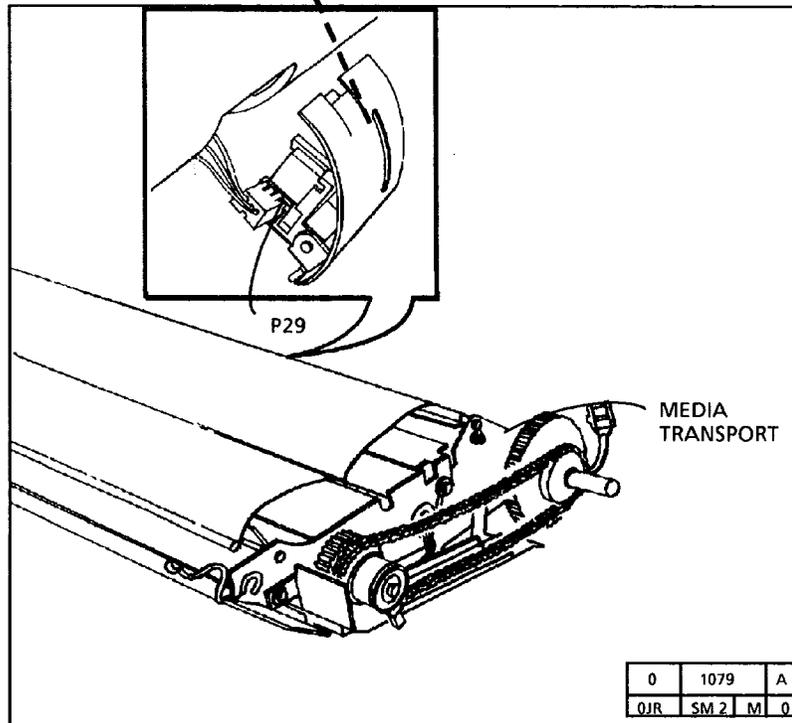
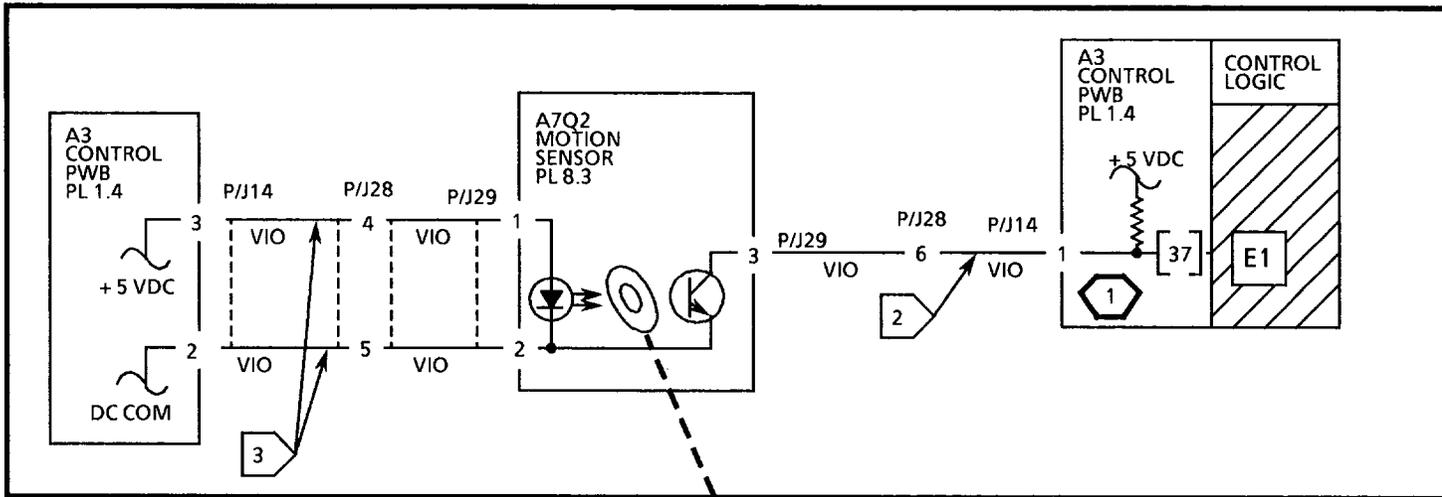
Check the motion sensor wheel for damage.

Go to FLAGS 2 and 3 and check the wiring for an open circuit.

Check all of the mechanical drives to the feed-in rolls, and the condition of the drive rolls.

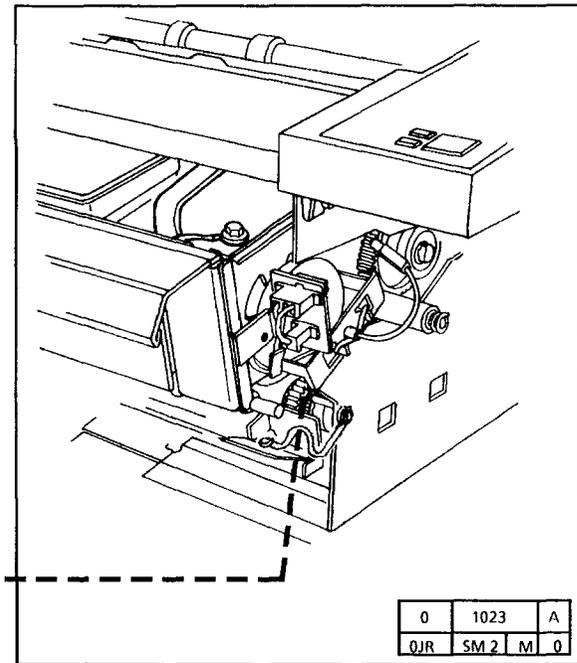
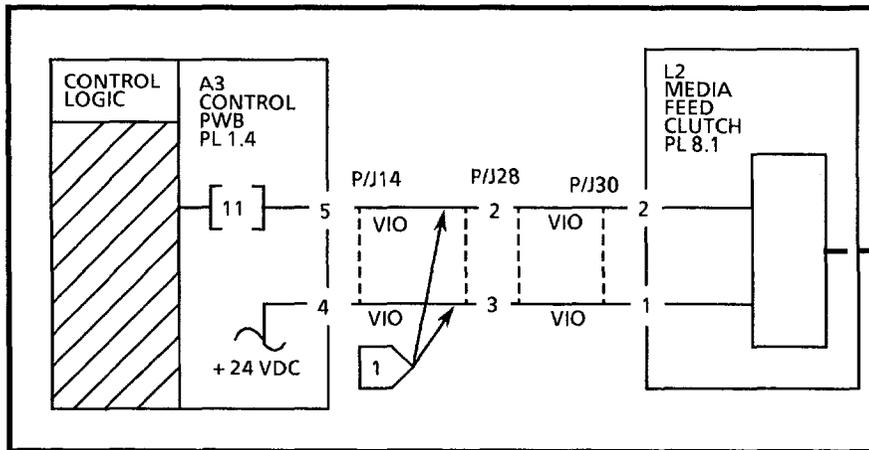
Check for any obstructions in the turnaround baffle, and ensure that the baffle is in the correct position.





1 In order to test the motion sensor, the following diagnostic codes must be entered first, [10] and [11]. After code [37] is entered, insert a sheet of media into the copier. The Tracing/Vellum LED will go off and on.

0	1079	A
0JR	SM.2	M 0



E2 Media Jam RAP

This code is displayed if the logic thinks that the Prefeed Sensor is blocked at the wrong time. This could occur if the media is inserted before the document is inserted and the copier is in the multiple copies mode.



The circuit diagrams are on the next page.

Initial Actions

- Check the Media path for obstructions.

Procedure

Enter the code [37] to check the Prefeed sensor.

NOTE: *The bond LED will be lit when the sensor is blocked.*

Actuate the Prefeed Sensor (Q7). The Bond LED goes on then off when the sensor is actuated.

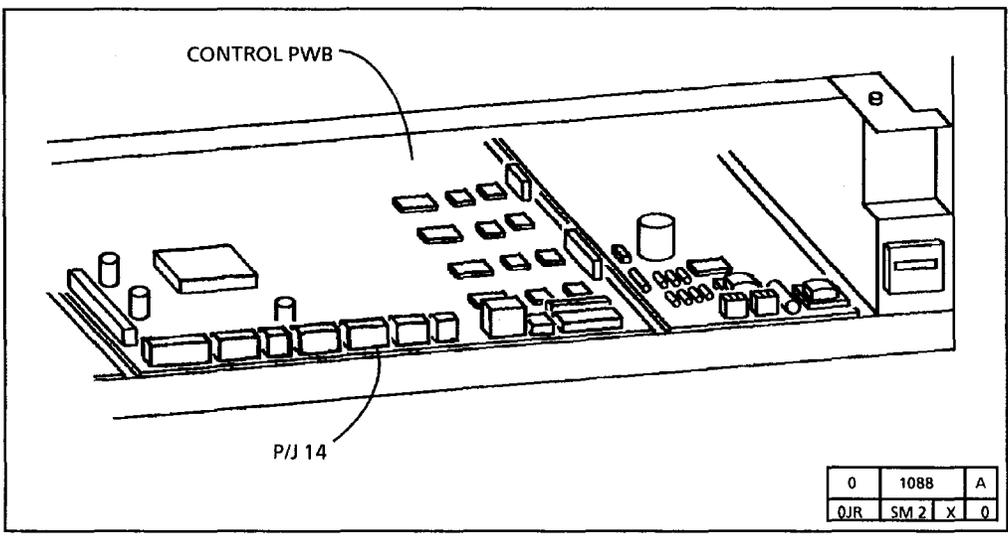
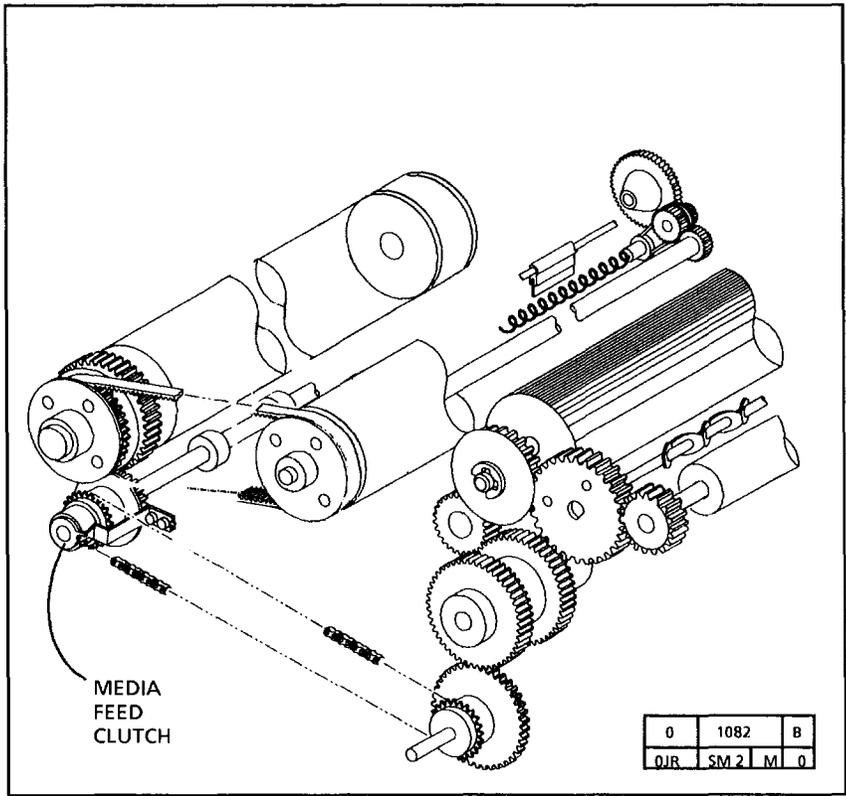
Y N

Go to FLAG 1 and check the wiring for an open circuit or a short circuit.

If there is no open or short circuit, replace the Prefeed Sensor (Q7).

If the problem persists, replace the Controller PWB.

If the problem persists, replace the Controller PWB (A3).



E3 Media Jam RAP



The circuit diagram is on the following page.

This code is displayed if the wheel of the motion sensor is stopped while the media is still causing the actuator to block the prefeed sensor.

Initial Actions

- Check the Media path for obstructions.
- Ensure that the curl in the media is not excessive.

Procedure

The exposure lamp is lit.

Y N

Go to the CQ-3 Black Copy RAP in Section 3.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

Enter the following codes [10, 11, and 37] to check the motion sensor.

Insert a sheet of media in order to be able to test the motion sensor.

The Tracing/Vellum LED goes off and on when the wheel is rotated.

Y N

The LED is always lit.

Y N

Check the motion sensor wheel for damage.

Go to FLAG 1 and check the wiring for a short circuit to the frame.

If there is no short circuit, replace the motion sensor

Check the motion sensor wheel for damage.

Go to FLAGS 1 and 2 and check the wiring for an open circuit.

If there is no open circuit, replace the motion sensor.

A

A

Enter the code [10] and feed-in a sheet of media.

The media feeds out of the copier.

Y N

Check the drives for slippage or an obstruction in the media path.

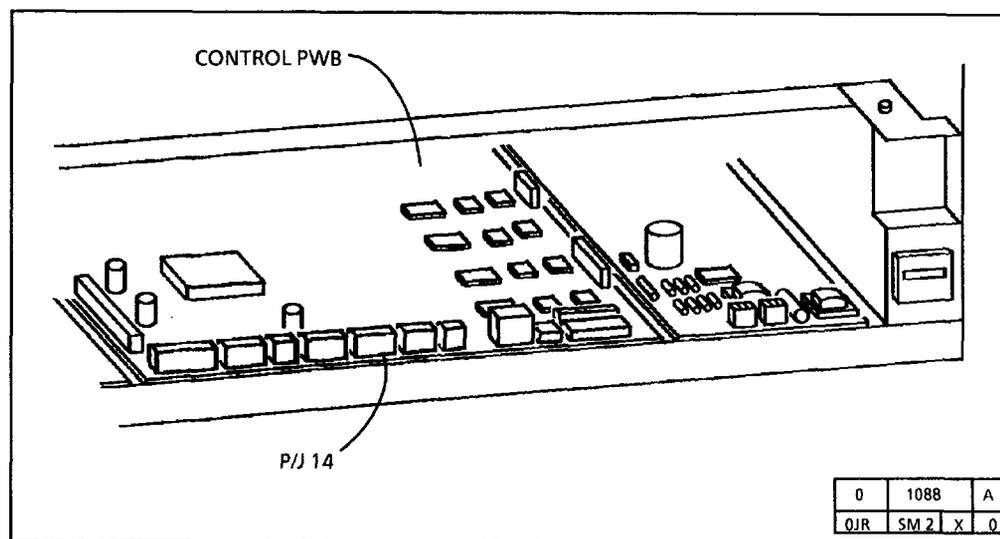
Check the fabric guide for damage.

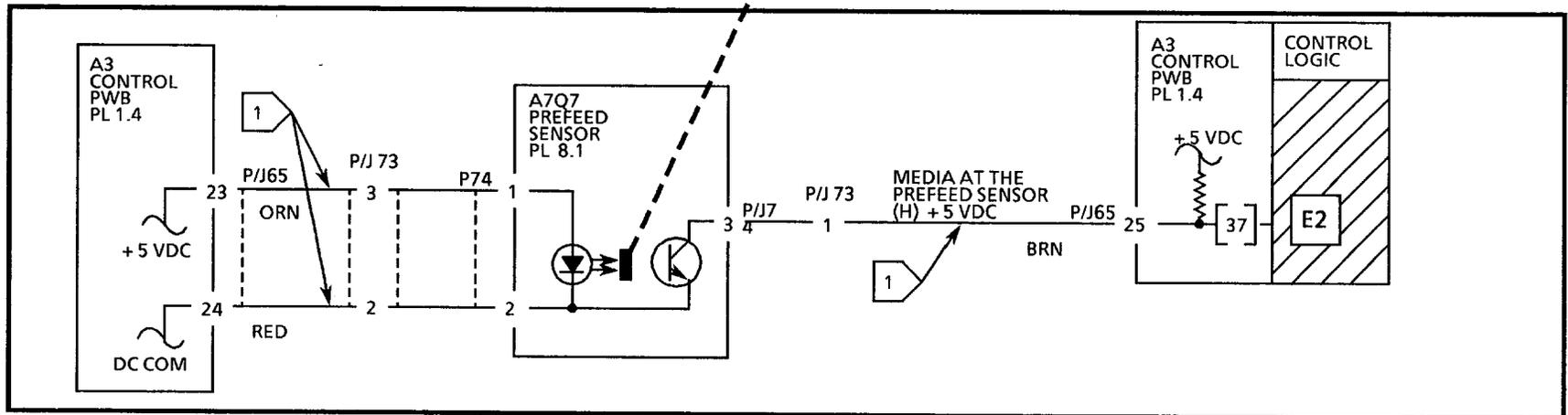
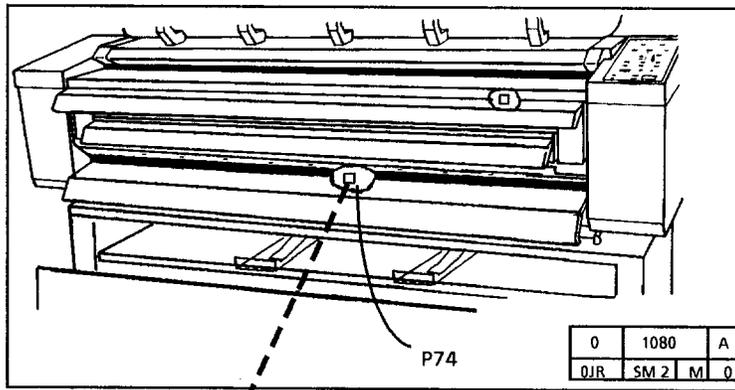
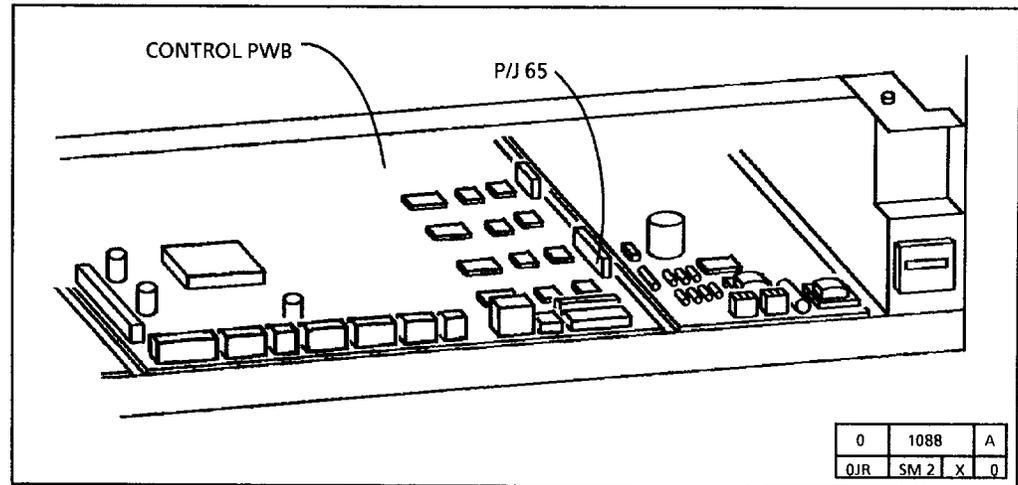
Check for excessive amount of oil on the fuser heat roll. If there is an excessive amount of oil, perform the oil dispenser adjustment (ADJ 10.2).

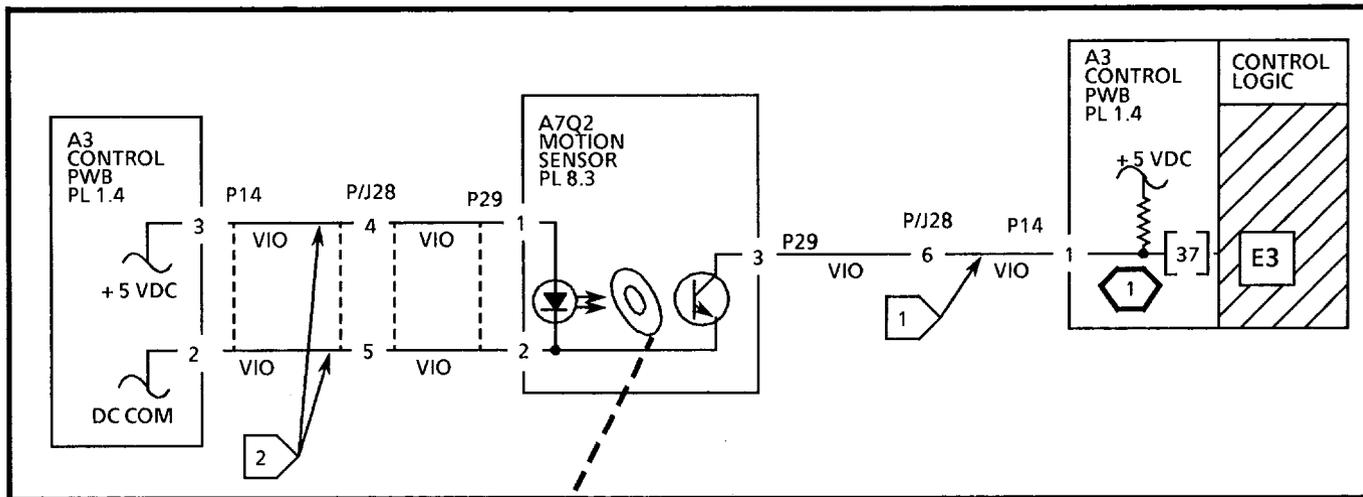
Check the gap after the transfer/detack corotron. If the gap is open, either tape over the gap or install kit 600K24350.

Check for incorrectly stored paper.

B C

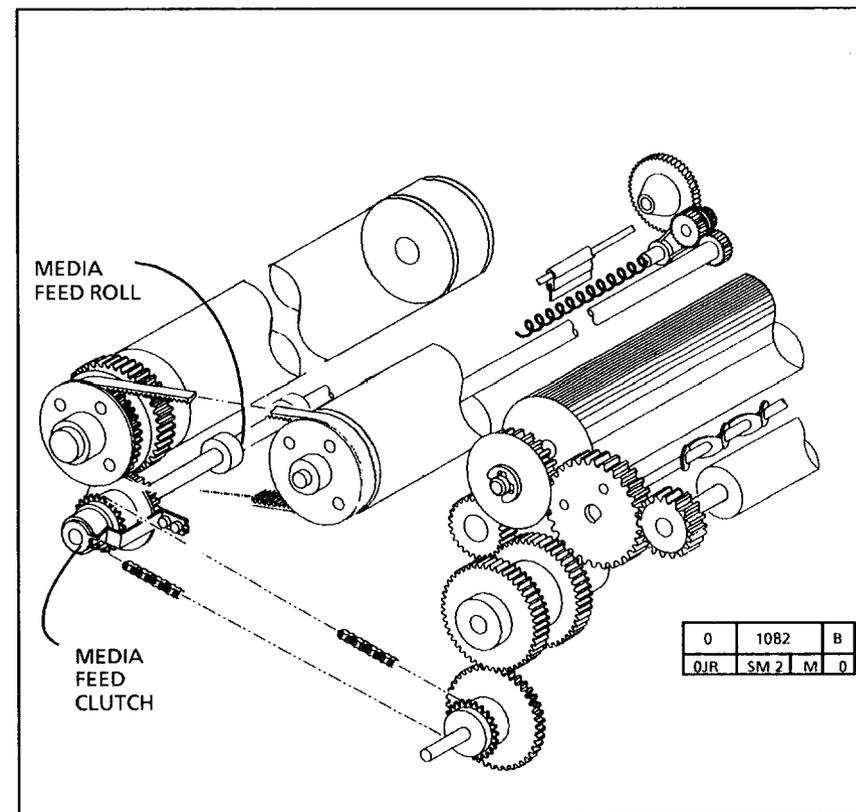
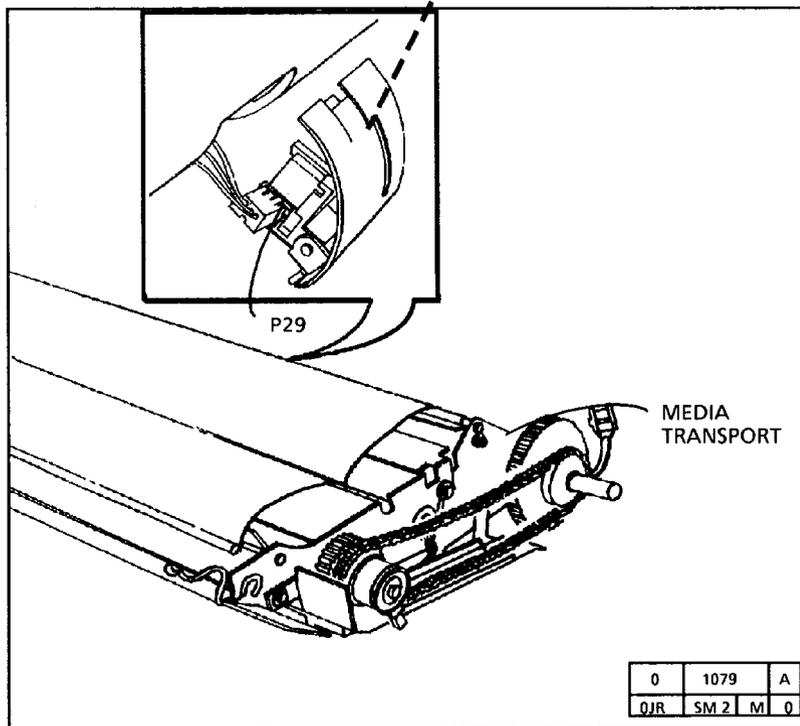






1

In order to test the motion sensor, the following diagnostic codes must be entered first, [10] and [11]. After code [37] is entered, insert a sheet of media into the copier. The Tracing/Vellum LED will go off and on.



B C

If there is no damage, go to the CQ-26 High Voltage Power Supply RAP in Section 3.

Electrostatics may be causing the jam.

Disconnect the Blue corotron cable and made several copies. If there is a jam, the Transfer/Dehack corotron is probably shorting. If there is no jam the Charge/Precharge corotron is probably shorting.

Check that the Charge voltage is in specification using the electrometer. If the voltage is very high (1200 volts) or varying by 200 volts there is probably a shorting problem.

E5 Interlock Open RAP

This code is displayed if the control logic senses that one of the interlock switches or the thermistor PWB is open or disconnected.

1 *The transport latching cover and upper rear cover interlock switches are actuated by magnets located on the transport latching cover and the upper rear cover.*

Initial Actions

- Ensure that the transport latching cover is closed, and the upper rear cover is installed.
- Ensure that the connectors P/J 5, 9, 43, 44, 46, 47, and 58, are connected/seated properly.
- Ensure magnets located on the transport latching cover and the upper rear cover are aligned with their associated interlock switch.

Procedure

The INT LED on the LVPS PWB is lit.

Y N

Set the DMM to the (+) 200 VDC scale.

Connect (+) to P/J5-4; connect (-) to the Ground test point on the HVPS.

There is + 19 to + 35 VDC.

Y N

Go to FLAG 1 and check the wiring for and open circuit. If there is no open circuit, disconnect the P/J 47 connector.

A B C

A

B

C

Measure the resistance between pins 1 and 3 of the connector. Use a magnet to check that the switch opens and closes.

The Transport Cover Interlock Switch (S5) is good.

Y N

Replace the switch.

Replace the Thermistor PWB (A10).

Connect (+) to P/J5-3; connect (-) to the Ground test point on the HVPS.

There is + 19 to + 35 VDC.

Y N

Replace the LVPS PWB (A2).

Connect (+) of the DMM to P/J5-1.

There is + 19 to + 35 VDC.

Y N

Go to FLAG 2 and check the wiring for and open circuit. If there is no open circuit, disconnect the P/J 58 connector. Measure the resistance between pins 1 and 3 of the connector. Use a magnet to check that the switch opens and closes.

The Upper rear Cover Interlock Switch (S4) is good.

Y N

Replace the switch.

Refer back to initial actions.

A

D

A

D

Connect (+) to P/J9-13; connect (-) to the Ground test point on the HVPS.

There is + 19 to + 35 VDC.

Y N

Go to FLAG 3 and check the wiring for and open circuit. If there is no open circuit, replace the LVPS PWB (A2).

Replace the Controller PWB (A3).

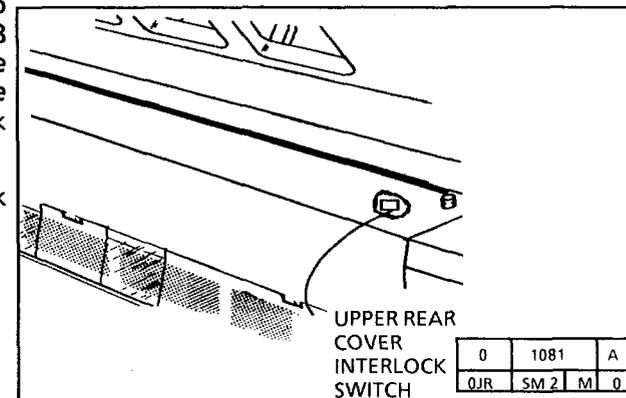
Connect (+) to P/J9-13; connect (-) to the Ground test point on the HVPS.

There is + 19 to + 35 VDC.

Y N

Go to FLAG 3 and check the wiring for and open circuit. If there is no open circuit, replace the LVPS PWB (A2).

Replace the Controller PWB (A3).



F1 Fuser RAP

WARNING

The heat rod and the fuser roll may be hot. Be careful when working in this area.



The overheat LED will be lit if the fuser temperature is more than 390°F (200°C). The overtemperature thermostat will open when the temperature is more than 550°F (290°C).

Switch on the copier and press the Start button.

The fuser heat rod begins to warm up.

Y N

Open the transport latching cover and observe the overheat LED through the hole in the frame.

The overheat LED is off.

Y N

(An overheat condition exists if the overheat LED is lit.)

Switch off and unplug the copier.

Check the fuser triac for a short circuit between MT1 and MT2. (This could have caused the overheat relay to open.) Replace the triac if there is a short circuit.

If there is no short circuit, go to FLAG 4 and check the wiring for a short circuit to frame.

A B C

A B C

If there is no short circuit, remove the xerographic module and ensure that the thermistor is against the fuser roll.

Replace the thermistor assembly PWB if the problem still exists.

Switch off and unplug the copier. Measure the resistance between P2-1 of the LVPS and terminal 3 (USO) or terminal 1 (RX) of the line filter.

There is less than 5 ohms between the pins.

Y N

Check the heat rod for an open circuit. Replace the heat rod if there is an open circuit.

Also check the over temperature thermostat for an open circuit. Replace the thermostat if there is an open circuit and check the following:

If the fans are not turning, go to the 1.3 Copier Cooling Fan RAP.

Remove the xerographic module and check the air flow manifold in order to ensure that it is not distorted or cracked (PL 1.5).

Ensure that the thermistor is seated correctly against the fuser roll.

Go to FLAGS 1 and 4 and check the wiring for an open circuit.

A D

A D

Disconnect the thermistor at P/J17 of the Control PWB and measure the resistance between pins 1 and 2 of the harness connector.

The thermistor has a cold resistance of between 100K and 150K ohms.

Y N

Replace the Thermistor PWB.

Go to FLAG 3 and check the wiring for an open circuit.

If there is no open circuit, replace the fuser triac.

If the problem still exists, replace the low voltage power supply.

If the problem still exists, replace the Control PWB.

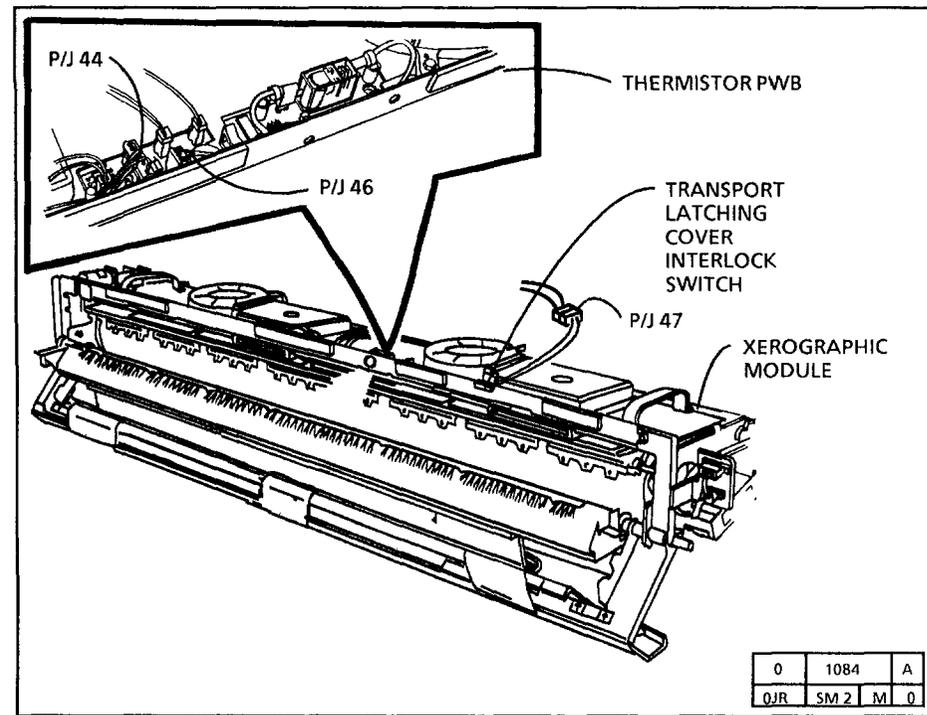
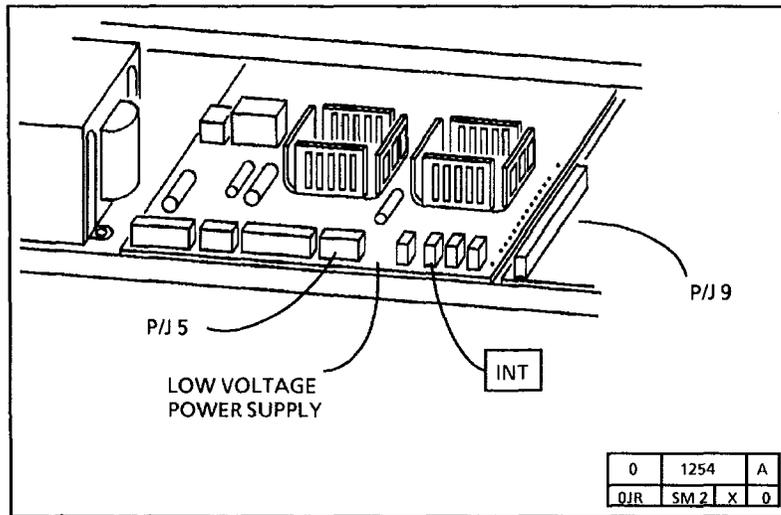
There is less than 5 VAC between P2-1 and P2-4 of the LVPS PWB.

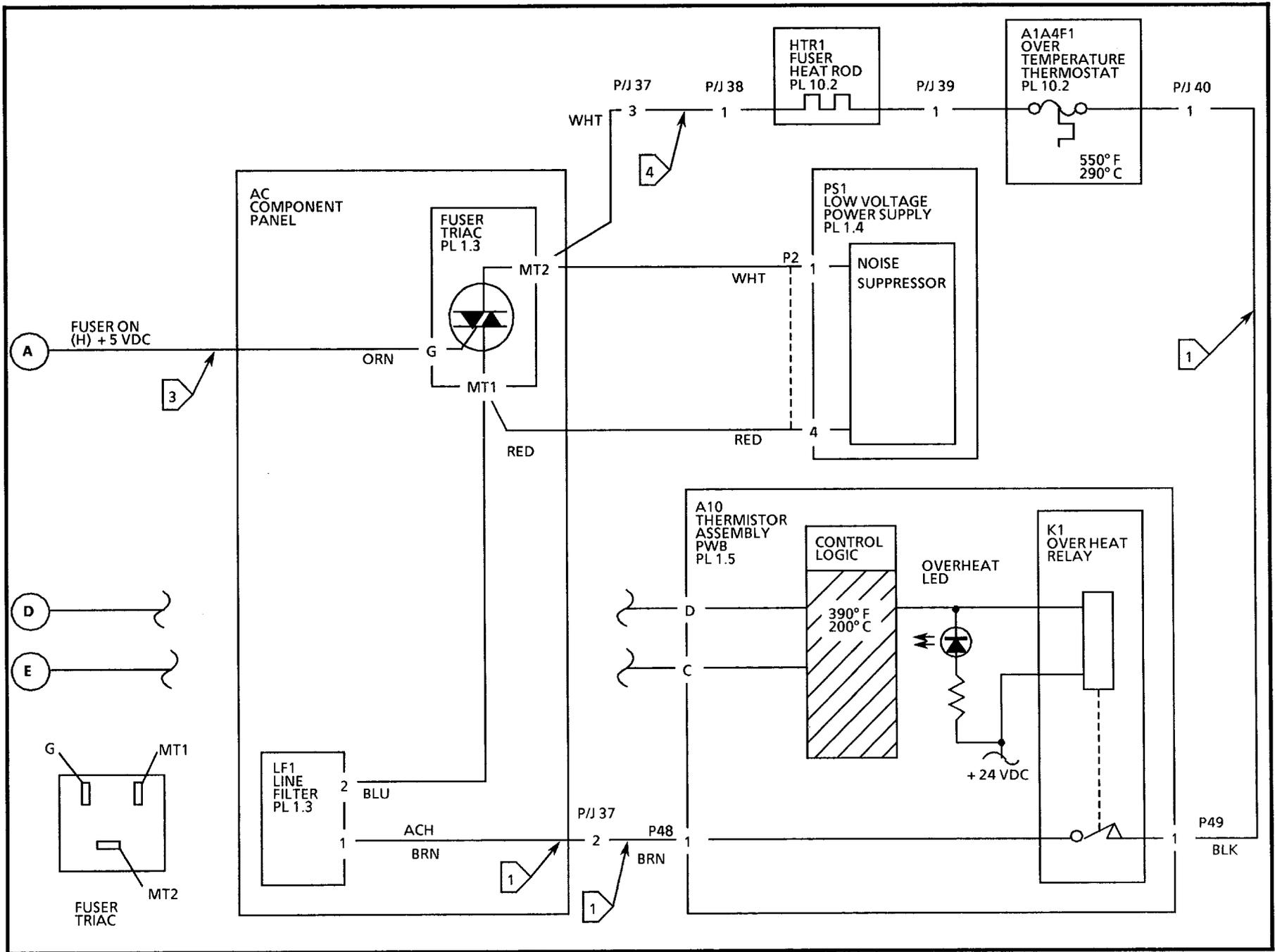
Y N

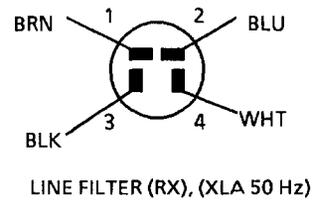
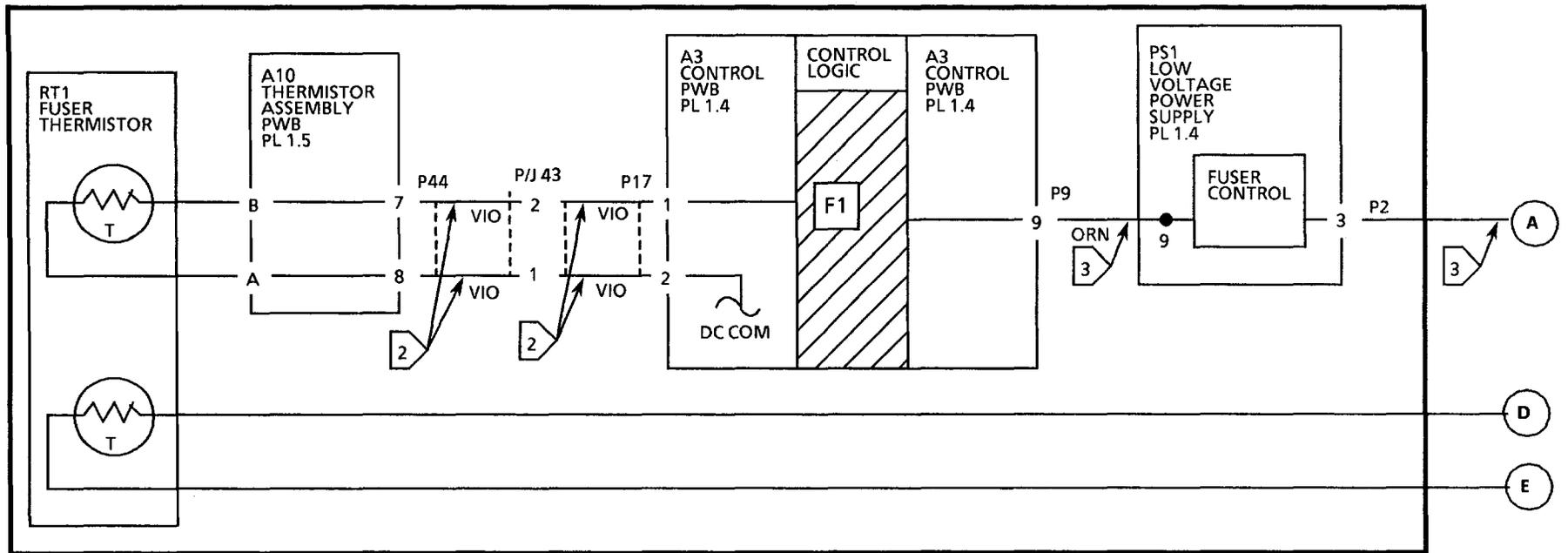
Replace the fuser triac.

Ensure that the thermistor is in contact with the fuser roll.

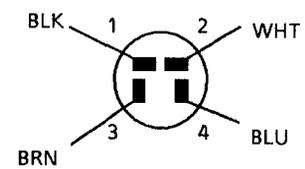
If the problem still exists, replace the fuser triac before replacing the heat rod.



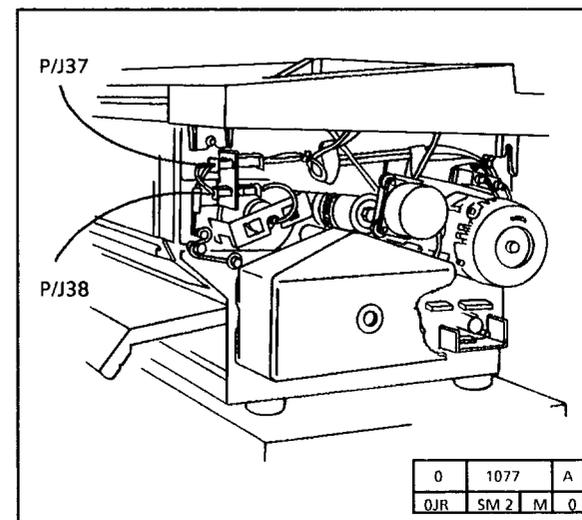
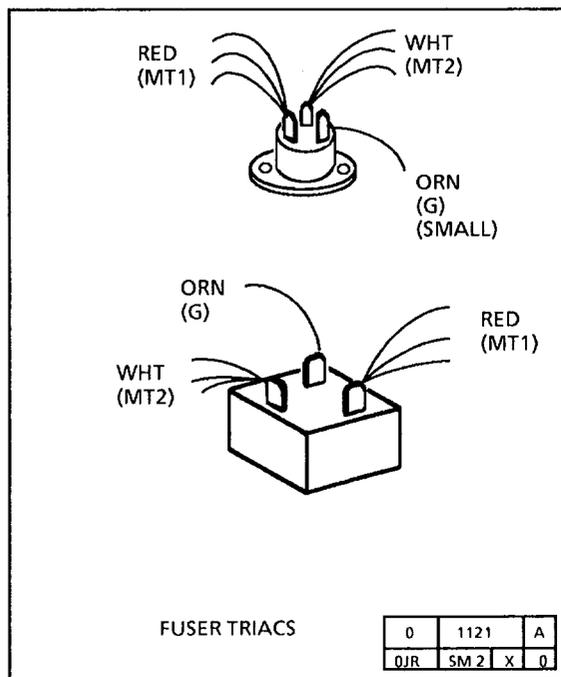
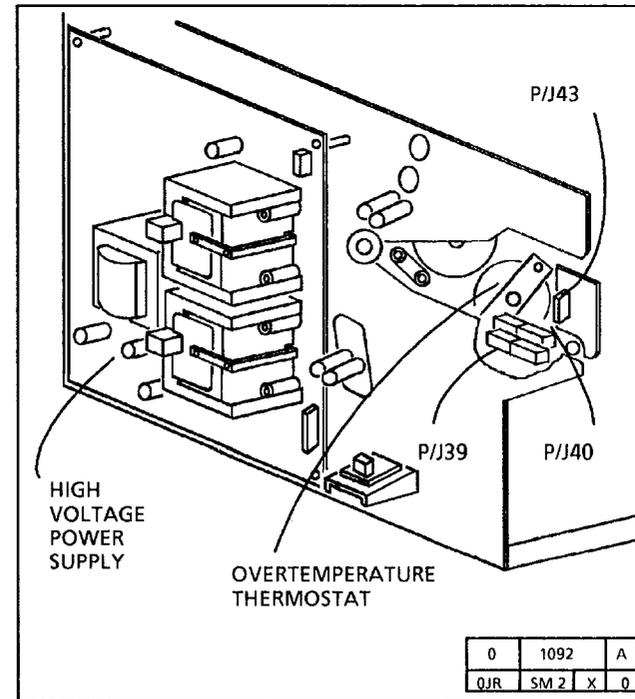
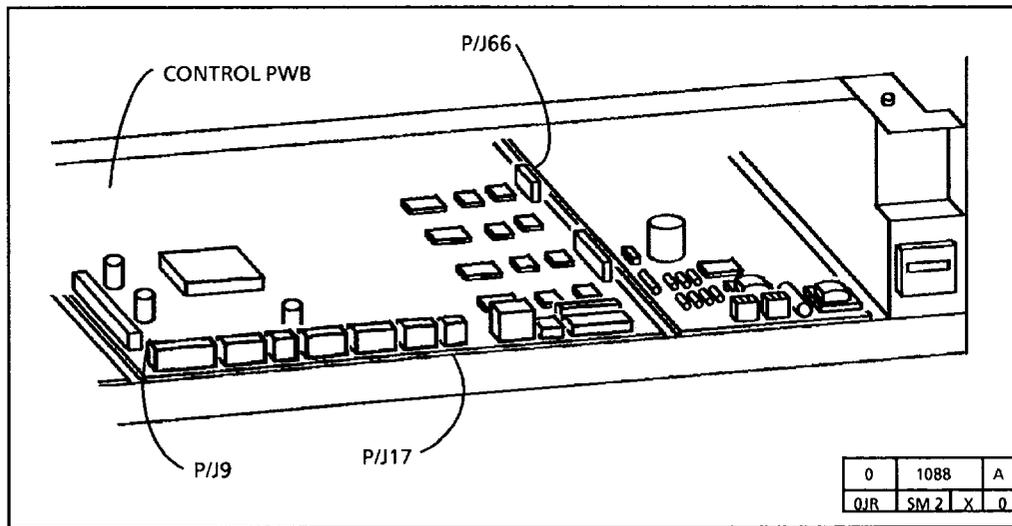


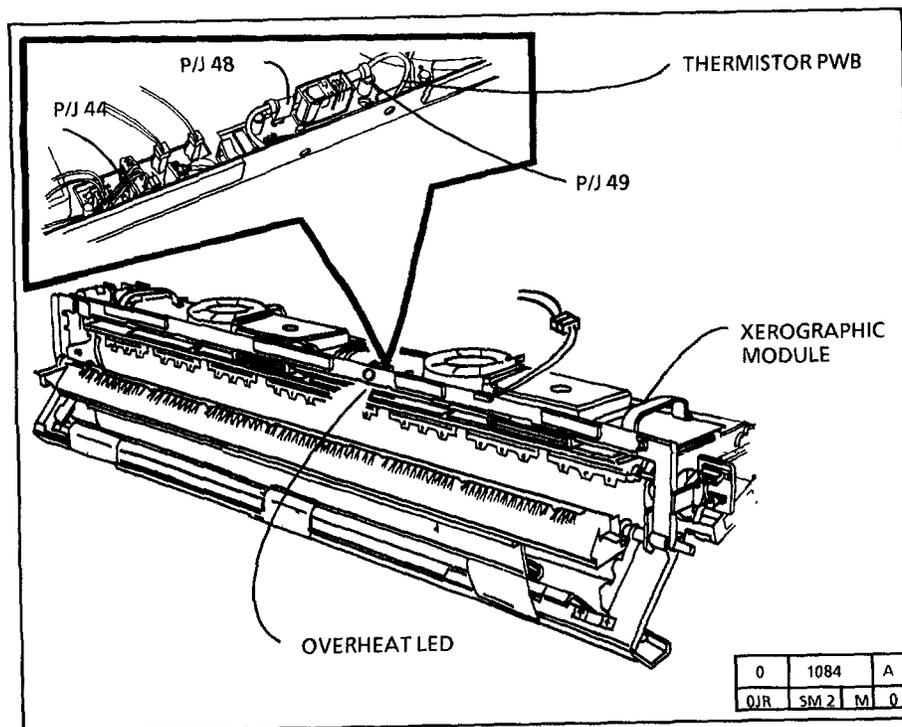
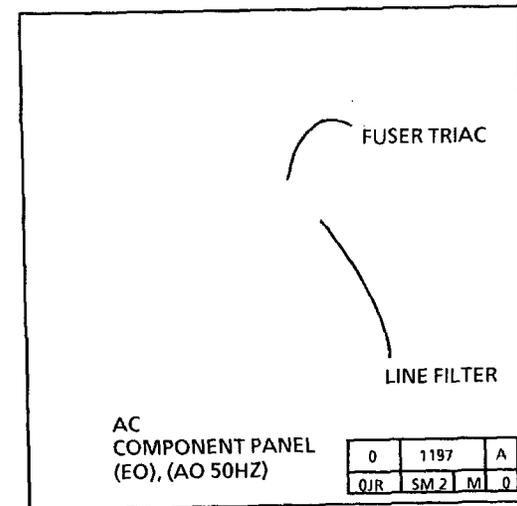
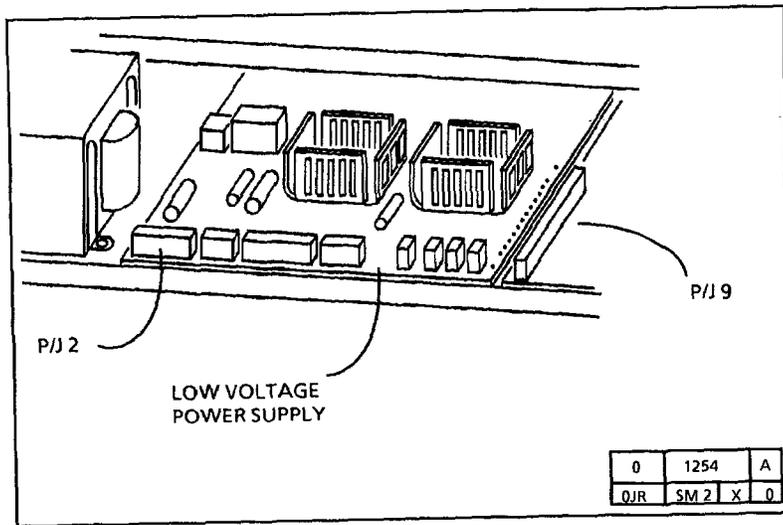


LINE FILTER (RX), (XLA 50 Hz)



LINE FILTER (3001)





J1 Low Toner Fault RAP

The status code J1 is displayed when the toner concentration is significantly lower than the nominal set point.

This status code may occur if there is a problem with the toner dispensing or the mixing of the developer material. The Initial Actions deal with the most likely mechanical causes for the J1 code.

Initial Actions

- Refer to Section 6 and ensure that special code 45 is set properly.
- Ensure that the toner cartridge is not defective and that enough toner is dispensed into the developer housing (Refer to OF3 Toner Cartridge RAP).
- Ensure that the Toner Solenoid connectors P/J31, P/J35, and P/J65 are connected securely.
- Ensure that the Toner Sensor connector P/J34 is connected securely.
- Ensure that the developer material and level is correct. Check the developer sump, the auger should not be visible.
- Ensure that the Developer Housing is level side-to-side and front-to-rear.

- Ensure that the pick-off baffle is installed correctly (REP 9.8) with the straight edge of the baffle touching the magnetic roll and the label down.
- Ensure that the Reclaim Bottle is not full. A full bottle may indicate a developer system problem. Refer to OF4 Toner Consumption RAP.

Procedure

Enter the code [4] to display the toner control point value. Make a record of the toner control point. Press Stop.

NOTE

It is not necessary to turn on the Main Drive Motor using code [10] before entering code [25].

Enter the code [25] to display the Toner Sensor value.

NOTE

When code [25] is entered the Main Drive Motor will not start until the fuser is at the correct temperature. The value displayed will flash until the reading has stabilized. The cleaning blade is engaged when the Main Drive Motor starts.

The value displayed in code [25] is 3 levels below the control point value displayed in Diagnostic Code [4].

Y N

Replace the Control PWB (REP 3.1).

A

A

Enter the code [47] to begin automatic tone up. Listen for beep indicating that tone up was successfully completed within the 15 minute time limit. If beep occurs before Main drive shuts down, wrap-up the call. If the beep does not occur before the main drive stops, proceed with this RAP.

Make 3 copies of 82E5980 in the Normal copy mode. Check the image density of the last copy.

The density of the 0.70G5 paragraph in the center of 82E5980 is greater than or equal to paragraph 28.5 on S.I.R 82E7030.

Y N

Set the DMM to the 200 VDC scale and connect the (+) lead to P/J 34 Pin 2. The reading is greater than 14 volts.

Y N

Replace the Control PWB. (REP 3.1).

Go to FLAG 2 and check for an open circuit.

There is an open circuit.

Y N

Replace the Toner Sensor (REP 9.11). Check/Adjust the Image Density (ADJ 9.4).

Repair the wires. Check/Adjust the Image Density (ADJ 9.4).

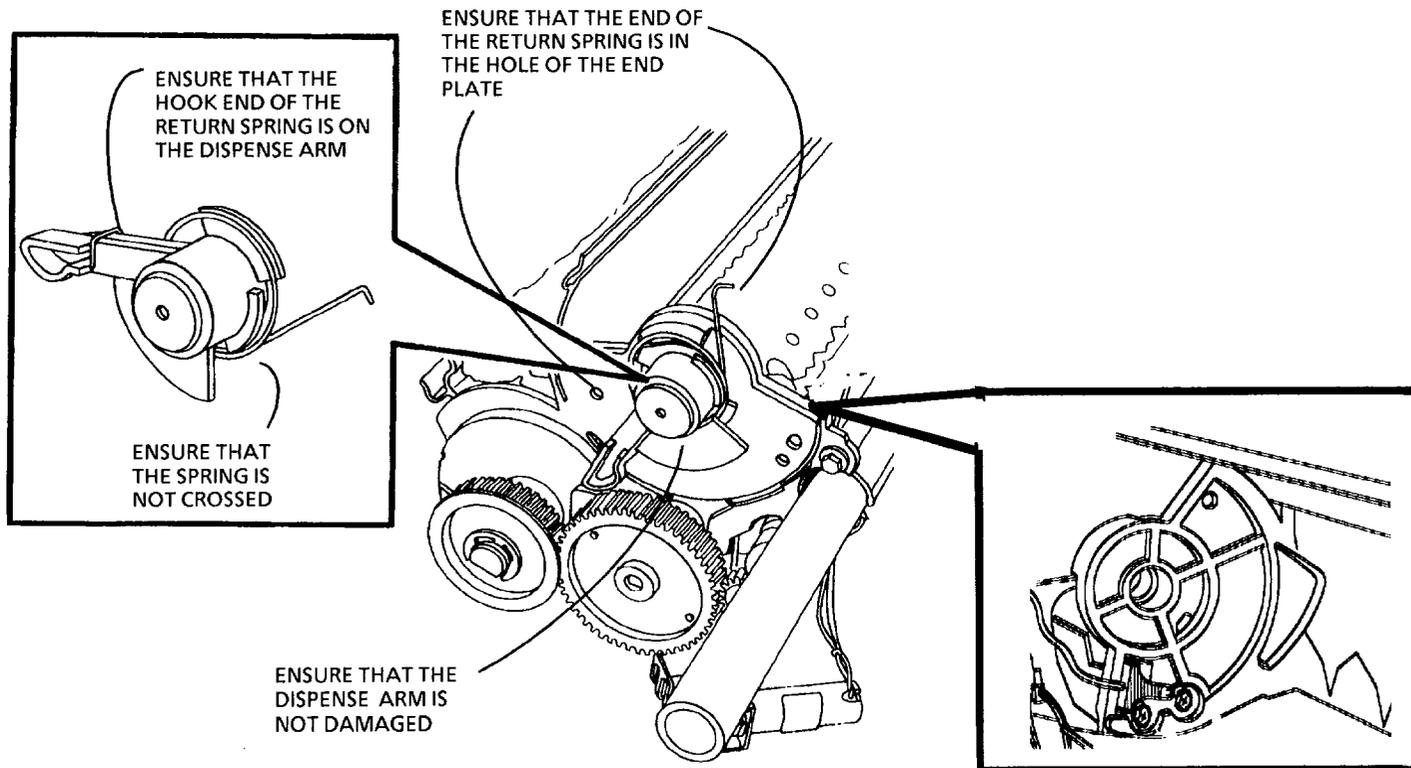
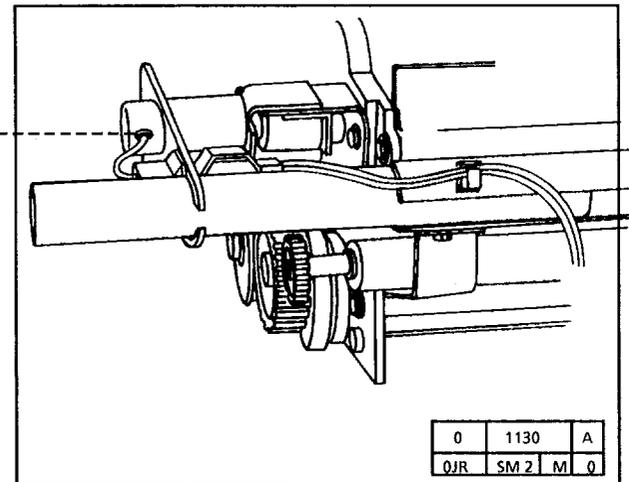
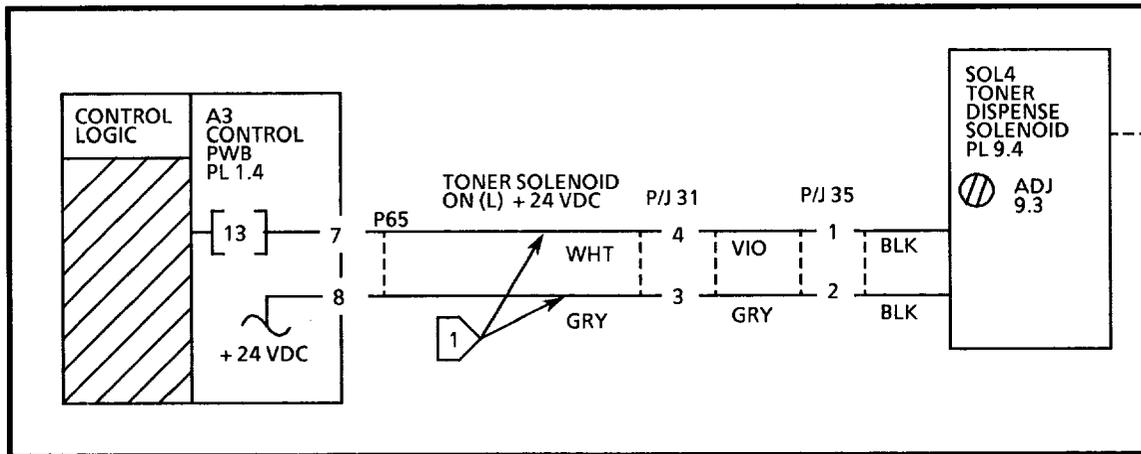
Observe the rotation speed of the toner cartridge.

The rotation speed is fast (about 10 seconds per revolution).

Y N

B C

Notes:



B C

Enter the code [10] to switch on the main drive motor. After the main drive motor is on, enter the code [13] to actuate the toner dispense solenoid.

The toner dispense solenoid actuates.

Y N

Set the DMM to the 200VDC scale and connect the (+) lead to P/J 35, pin 2 and the (-) lead to P/J 35, pin 1.

There is 24 VDC

Y N

Connect the (+) lead to P/J 65, pin 8 and the (-) lead to P/J 65, pin 7.

There is 24 VDC.

Y N

Replace the Control PWB (REP 3.1), then continue with Path A.

Repair the wires, then continue Path A.

Replace the Toner Dispense Solenoid (REP 9.6). Perform the Toner Dispense Solenoid Adjustment (ADJ 9.3), then continue with Path A.

Exit the diagnostics and perform the Toner Dispense Solenoid Adjustment (ADJ 9.5), then continue with Path A.

Perform Electrostatic Series, ADJ 9.3. Do not perform the Image Density Adjustment (ADJ 9.4) yet.

Enter the code [47] to begin automatic tone up. Listen for beep indicating that tone up was successfully completed within the 15 minute time limit.

J 1 is displayed

Y N

D E

D E

Perform the Image Density Adjustment (ADJ 9.5).

Refer back to the Initial Actions section of this RAP.

J2 High Toner Fault RAP

The status code J2 is displayed when the toner concentration is significantly higher than the nominal set point.

This status code may occur if there is a problem with the toner dispensing or the mixing of the developer material. The Initial Actions deal with the most likely mechanical causes for the J2 code.

Initial Actions

- Ensure that diagnostic code [45] is set properly.
- Ensure that the toner cartridge is not defective and that too much toner is not being dispensed into the developer housing (Refer to OF3 Toner Cartridge RAP).
- Ensure that the Toner Dispense Solenoid is adjusted correctly (ADJ. 9.3) and is not binding.
- Ensure that the Toner Sensor connectors P/J 31, 34, and 65 are connected securely.
- Ensure that the Toner Sensor connector P/J34 is connected securely.

Procedure

NOTE

It is not necessary to turn on the Main Drive Motor using code [10] before entering code [25].

Enter the diagnostic mode. Enter the code [4] and press **Start**. Make a record of the control point, then press **Stop**.

Enter the code [25] to display the Toner Concentration value.

NOTE

When code [25] is entered the Main Drive Motor will not start until the fuser is at the correct temperature. The value displayed will flash until the reading has stabilized. The cleaning blade is engaged when the Main Drive Motor starts.

The value displayed in code [25] is at least 5 greater than the value of code [4].

Y N

Replace the Controller PWB (REP 3.1). If the problem persists, replace the Control Panel (PL 1.1).

Make 3 copies of 82E5980 in the Normal copy mode. Check the image density of the last copy.

The density of the 0.70G5 paragraph in the center of 82E5980 is greater than or equal to paragraph 28.5 on S.I.R 82E7030.

Y N

Perform the Electrostatic Series (ADJ 9.3) then, return to this RAP.

Make 3 copies of 82E5980 in the Normal copy mode. Check the image density of the last copy.

The density of the 0.70G5 paragraph in the center of 82E5980 is greater than or equal to paragraph 28.5 on S.I.R 82E7030.

Y N

A B C

A B C

Go to Flag 3 and check for an open or short circuit.

There is an open or short circuit.

Y N

Replace the toner sensor (REP 9.11). If the problem persists, replace the Controller PWB (REP 3.1).

Repair the wires. Enter the code [46] and press **Start** to begin the Auto Detone.

Observe the rotation speed of the toner cartridge.

The rotation speed is fast (about 10 seconds per revolution).

Y N

Enter the code [46] and press **Start** to begin the Auto Detone.

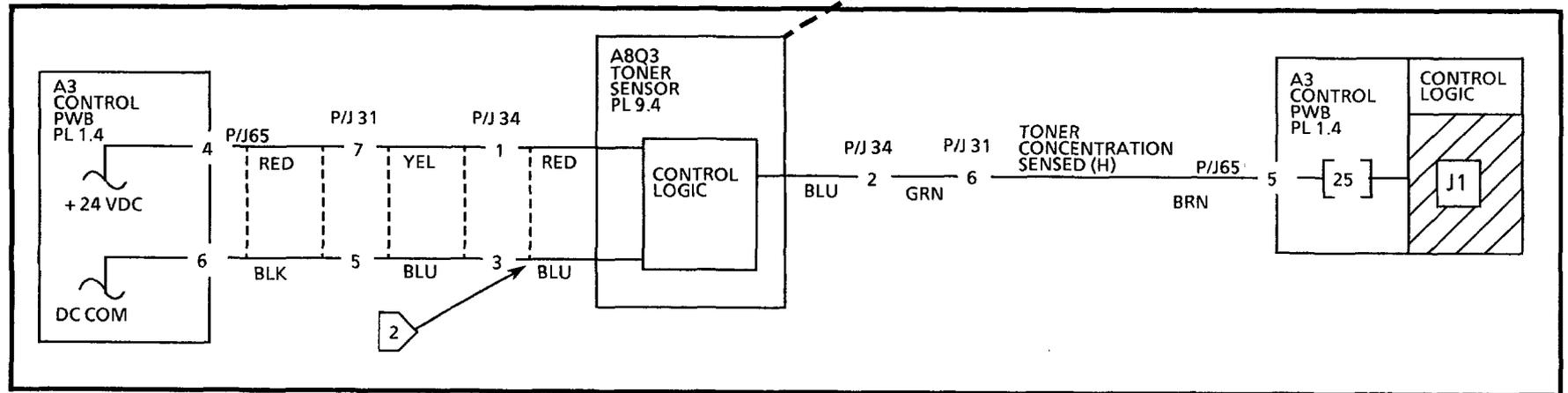
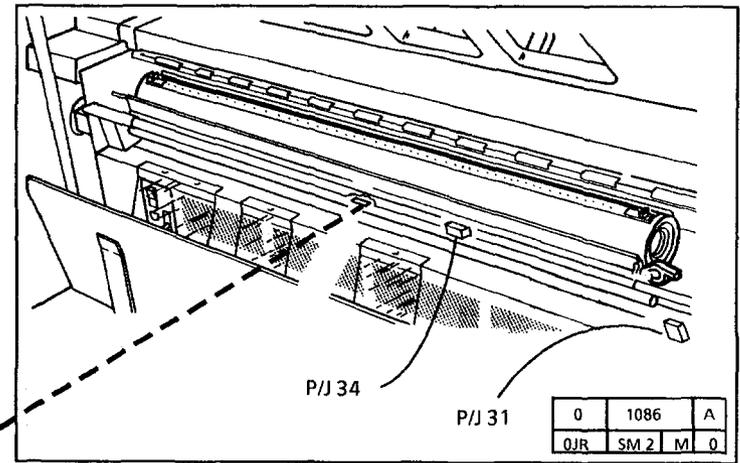
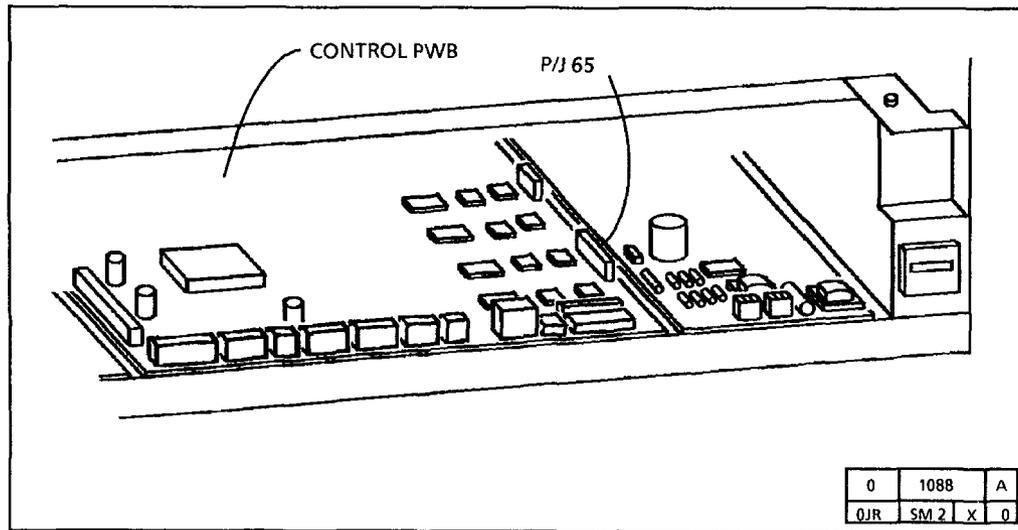
Switch off the copier, and disconnect P/J35. Switch on the copier, and enter the code [19] then [10] and press **Start**.

Observe the rotation speed of the toner cartridge.

The rotation speed is slow (about 2 to 4 minutes per revolution).

Y N

D E



D E

Visually check the position of the toner solenoid shaft.

The solenoid shaft is retracted.

Y N

Perform the Toner Dispense Solenoid Adjustment (ADJ 9.3).

Enter the code [46] and press **Start** to begin the Auto Detone.

Replace the Toner Solenoid (REP 9.6).

Enter the code [46] and press **Start** to begin the Auto Detone.

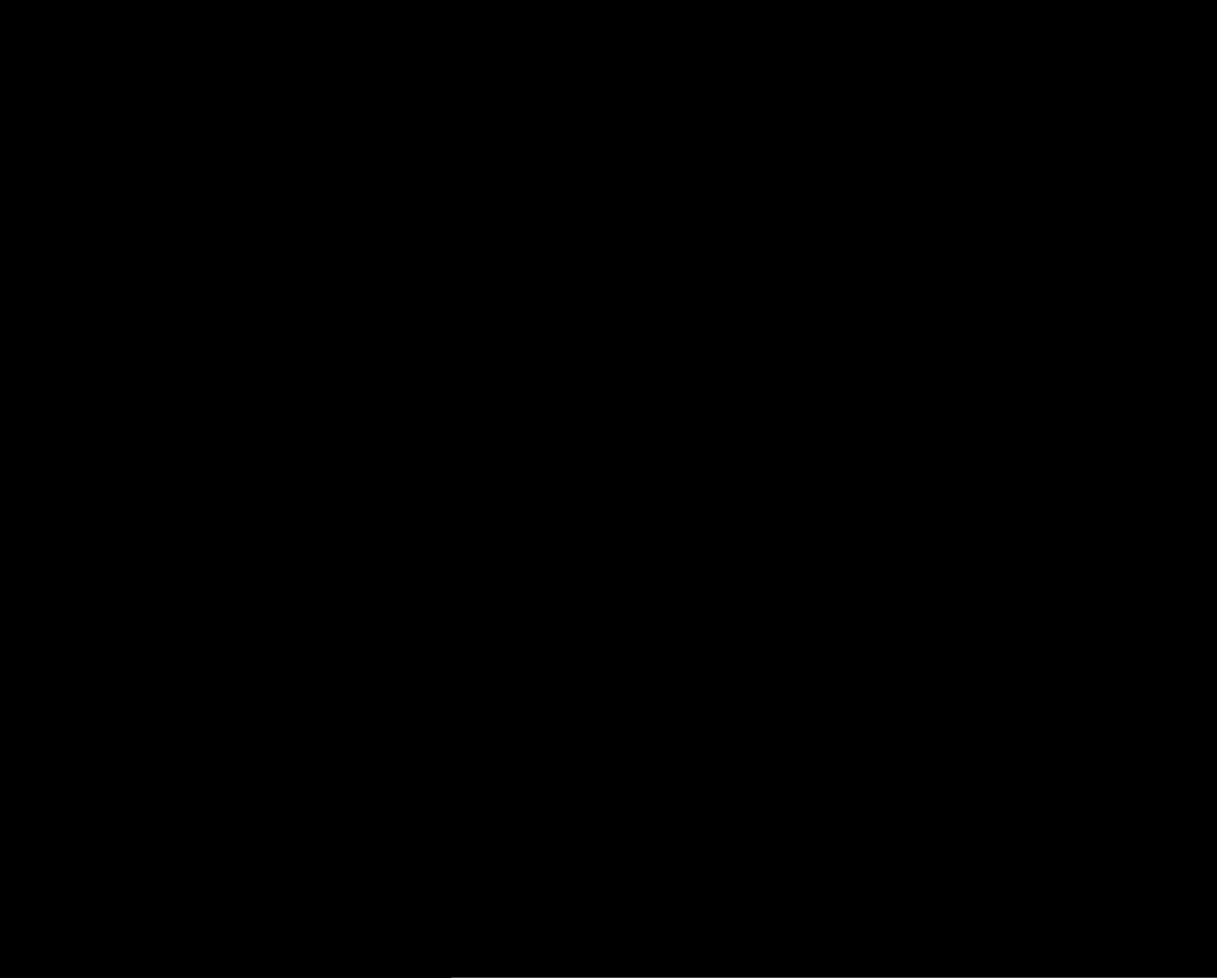
Go to Flag 1, and check the wires for an open or short circuit.

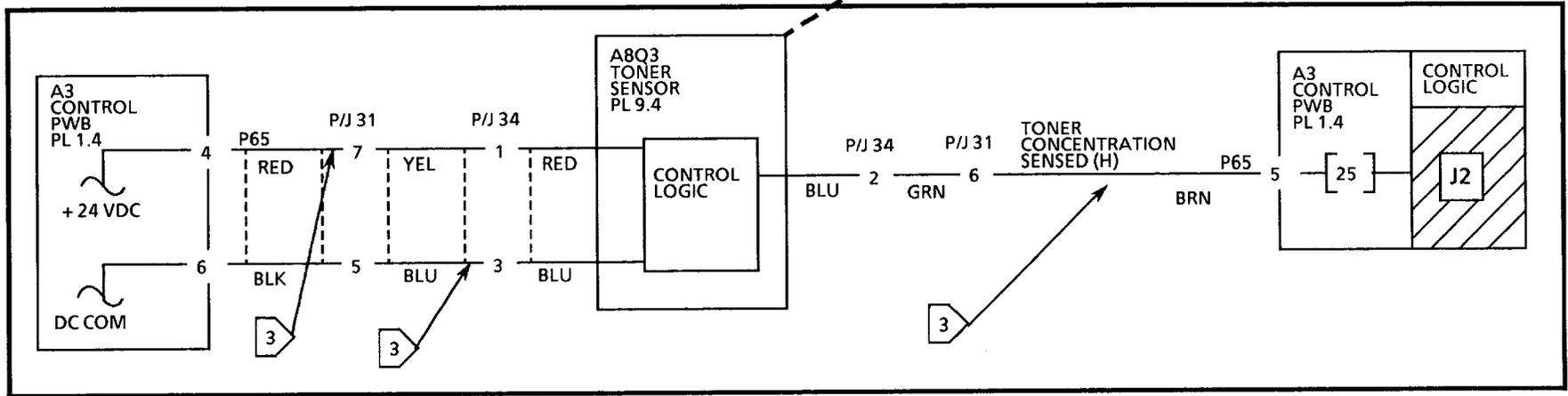
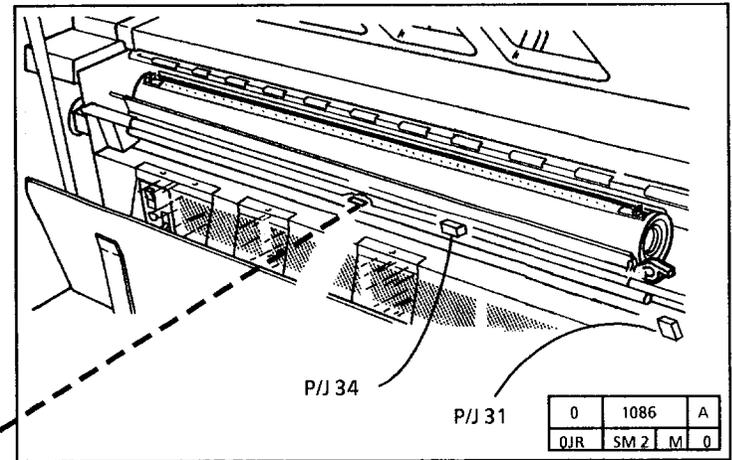
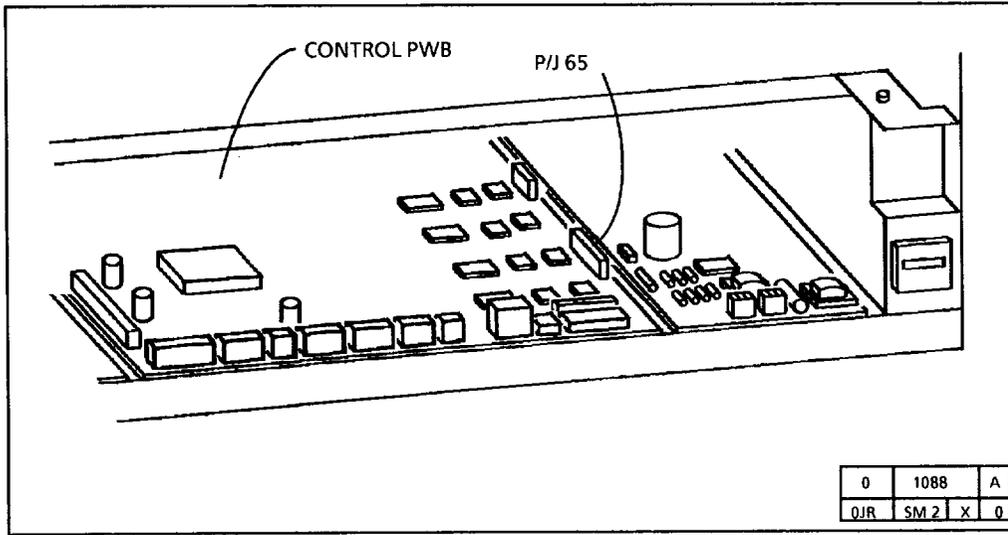
There is a short circuit.

Y N

Replace the Toner Solenoid (REP 9.8). Enter the code [46] and press **Start** to begin the Auto Detone. If the problem persists, replace the Control PWB.

Repair the wires. Enter the code [46] and press **Start** to begin the Auto Detone.





U1 Copy Counter Fault RAP

Ensure that the Country Configuration (ADJ 3.3) is adjusted correctly before performing this RAP.

Set the meter to measure + 24 VDC.

Connect (+) to P12-2 of the Control PWB; (-) to the GND test point on the HVPS.

There is + 19 to + 35 VDC present.

Y N

Switch off and unplug the copier. Go to FLAG 1 and check for an open circuit between the copy count meter and the Control PWB.

If there is no open circuit, replace the copy count meter.

Enter the diagnostic mode.

Enter the code [20] for the copy count meter.

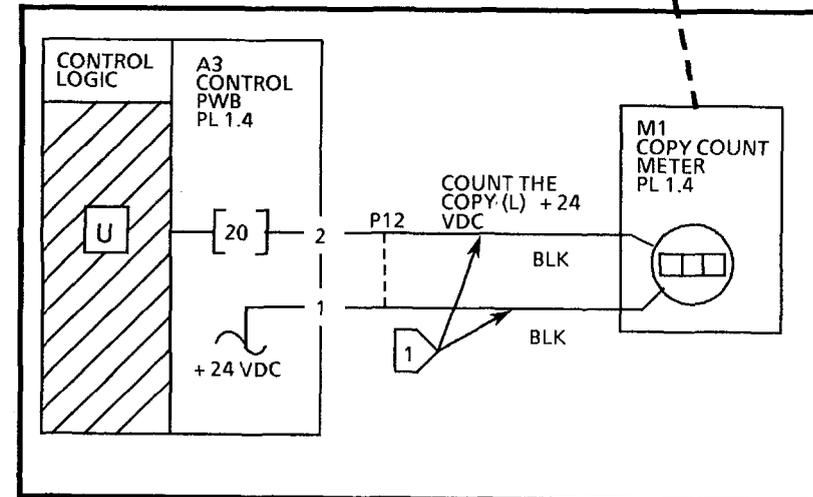
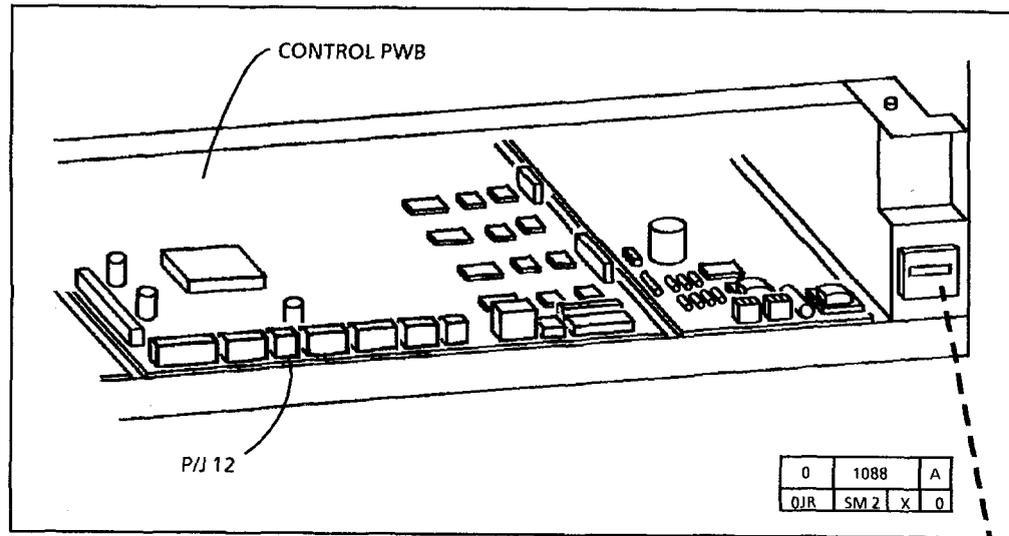
There is less than + 2 VDC at P12-2.

Y N

Replace the Control PWB.

Replace the copy count meter.

If the problem still exists, replace the Control PWB.



1.1 AC Power RAP

This RAP is used for problems in the AC Circuitry.

Loss of AC power may occur if there is a malfunction in the Power On/Off Switch, AC Interlock Switch, Line Filter, AC wiring, or a Ground Fault exists.

NOTE: *The component locator drawings and the circuit diagrams are on the following pages.*

Initial Actions

- Check that the correct voltage is being applied to the copier at the wall outlet.
- The Inline Ground Fault Device (on the Power Cord) is activated (red flag not up), go to 1.4 Ground Fault RAP.

Procedure



Go to FLAG 4 and check that ACH is present.

ACH voltage is present.

Y N

A B

A B
Go to Pin 1 of The Power On/Off Switch and check for ACH.

ACH voltage is present.

Y N

Go to FLAGS 1 through 4 and check the wiring from the low voltage power supply to the power cord for an open circuit. If there is no open circuit go to the 1.4 Ground Fault RAP.

Go to FLAG 2 and check that ACH is present.

ACH voltage is present.

Y N

Replace the Power On/Off Switch.

Go to FLAG 3 and check that ACH is present.

ACH voltage is present.

Y N

Replace the AC Interlock Switch.

Go to FLAG 4 and check that ACH is present.

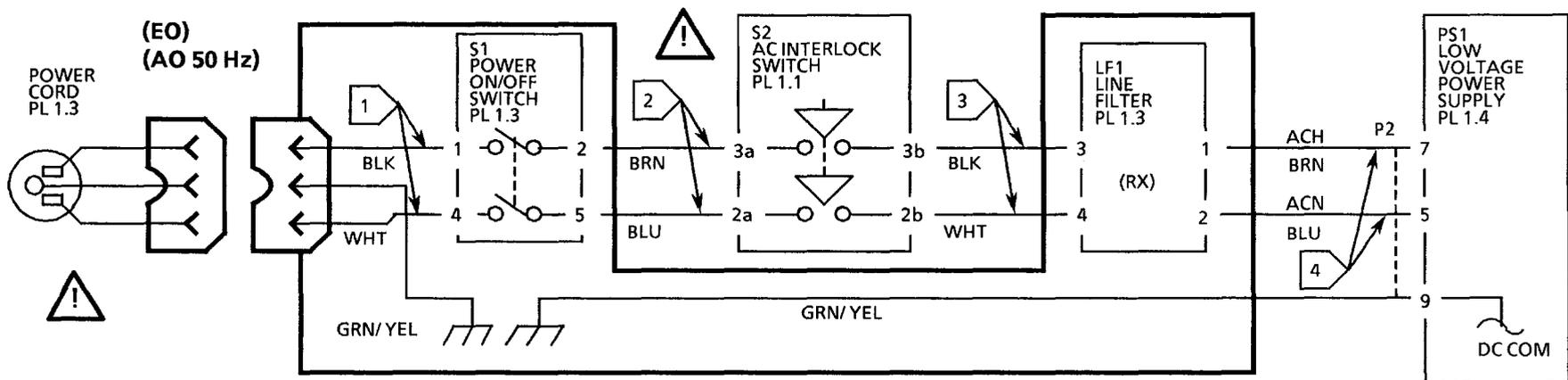
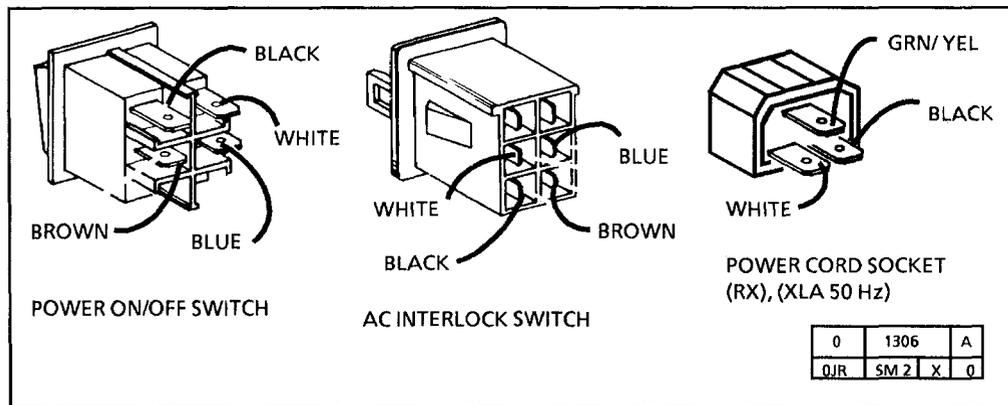
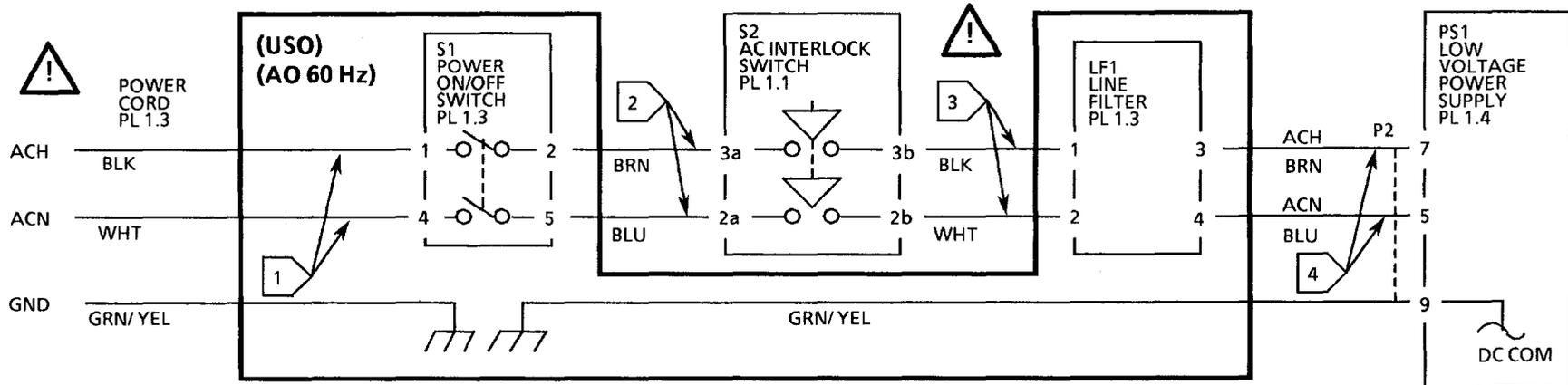
ACH voltage is present.

Y N

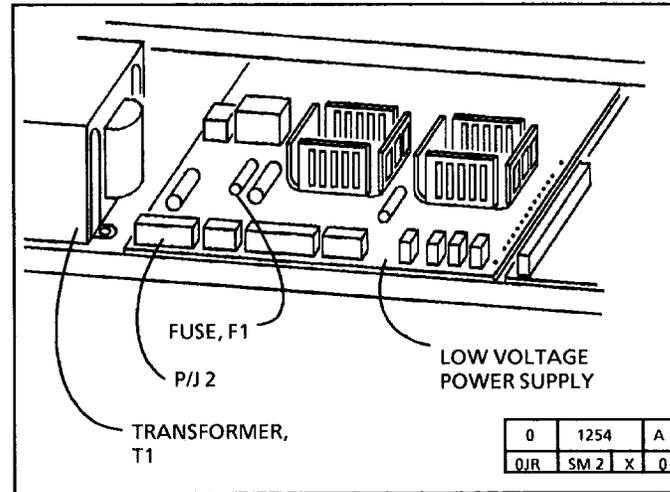
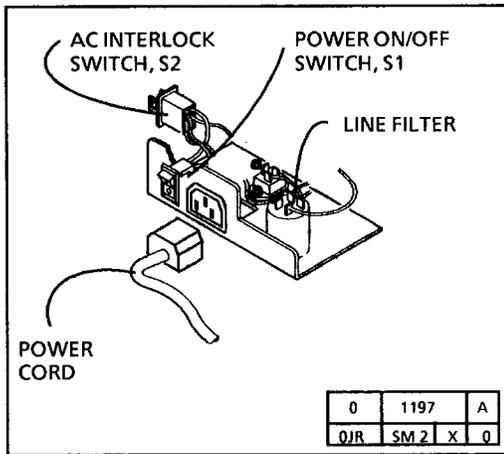
Replace the Line Filter.

Go to the 1.2 DC Power RAP.

Go to the 1.2 DC Power RAP.



AC COMPONENT PANEL



1.2 DC Power RAP

This RAP is used for problems related to the loss of all or part of the DC Power.



The +5V and +15V LEDs, when lit, indicate that DC voltage is available on the LVPS PWB.

Initial Actions

- Ensure that the connectors P/J 4, and P/J 9, are connected/seated properly.

Procedure

The +5V and +15V LEDs on the low voltage power supply are lit.

Y N

Set the DMM to read AC. Connect the DMM to P/J 4 Pins 1 and 4.

ACH is present.

Y N

Ensure the Fuse F1 on the LVPS is not open. The Fuse is open.

Y N

Replace the LVPS PWB.

Go to FLAG 1 and check for a short circuit. Replace the Fuse (F1) and disconnect P/J9. Set the DMM to read AC, and connect the meter leads from P/J4 pin 6 to P/J4 pin 10. There is 22 to 25 VAC.

Y N

Replace the Transformer (T1).

A B C

A B C

Reconnect P/J 9.
If the problem persists replace the Controller PWB (A3).

Note: Intermittent failure of the LVPS fuse can be a result of electrical noise on the ACN line. This is often caused by having the 3001 on a shared line with other equipment, particularly a another small copier.

Connect the meter leads from P/J4 pin 6 to P/J4 pin 10. There is 22 to 25 VAC.

Y N

Replace the Transformer (T1).

Disconnect P/J 9.

The +5V and +15V LEDs on the low voltage power supply are lit.

Y N

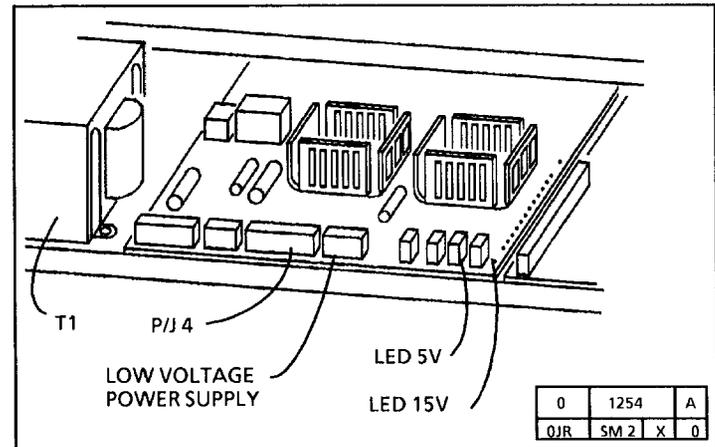
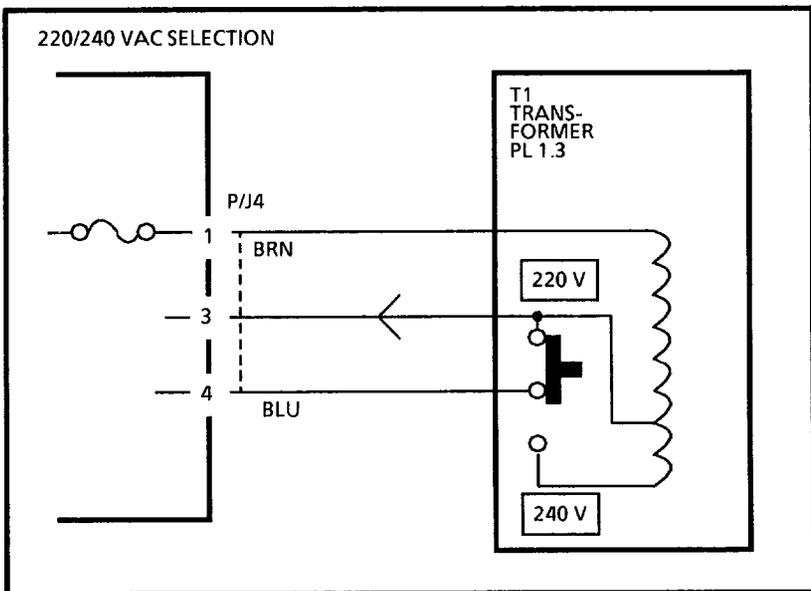
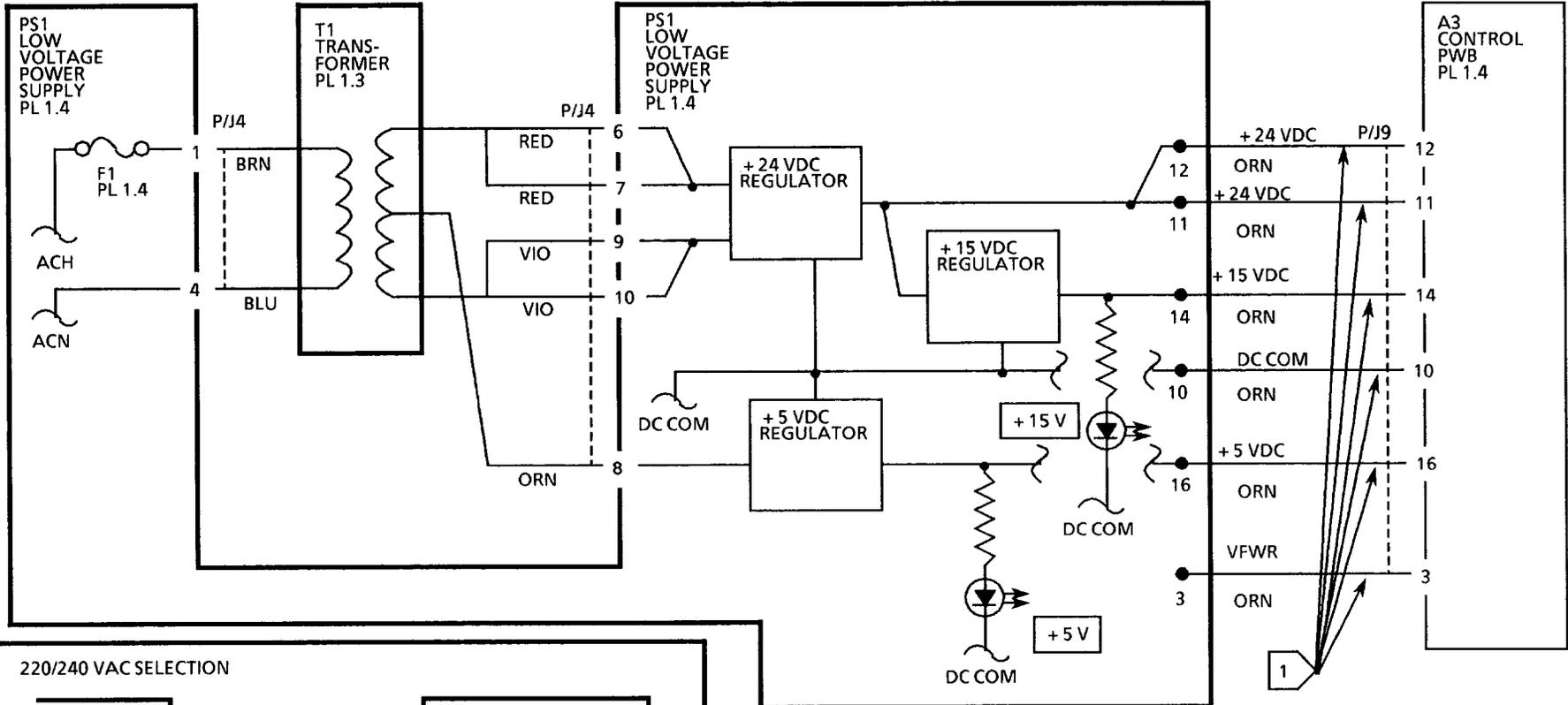
Replace the LVPS PWB (A2).

Replace the Controller PWB (A3).

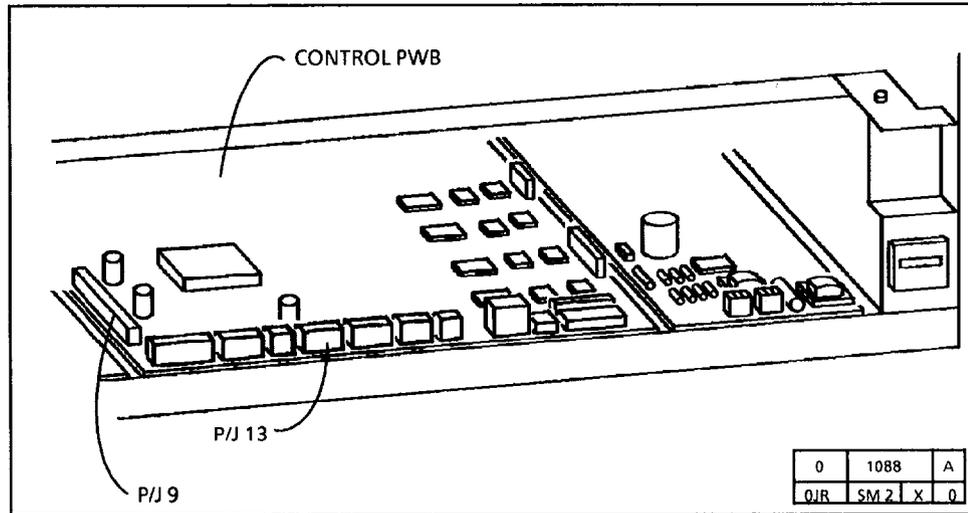
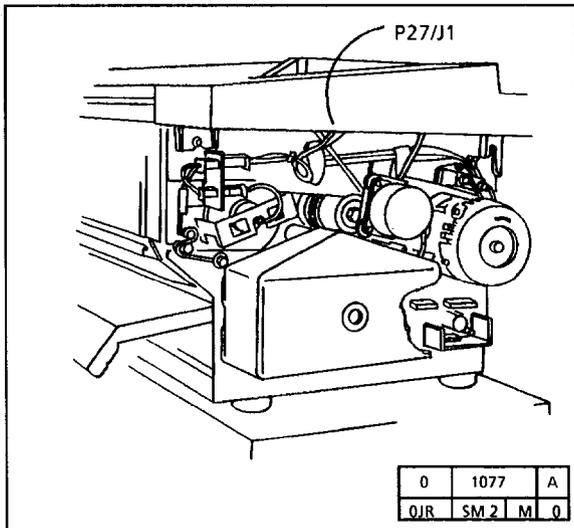
Set the DMM to the 200 VDC range. Connect (-) to the GND test point on the HVPS and measure the following LVPS voltages:

- P/J 9 Pin 16 = + 5 VDC
- P/J 9 Pin 14 = + 15 VDC
- P/J 9 Pin 12 = + 24 VDC
- P/J 9 Pin 3 = + 10VDC (+ 2.5 to + 14 VDC)

If any voltage is missing, go to FLAG 1 and check for and open circuit. If there is no open circuit replace the Low Voltage Power Supply PWB (A2).



Notes:



1.3 Copier Cooling Fan RAP

This RAP is used when a copier cooling malfunction is suspected. You may have been directed here from a CQ RAP or the F1 Fuser RAP.

1 *The fans are turning at a slower speed when the copier is in the power saver mode than when the copier is making copies.*

Initial Actions

- Ensure that the connectors P/J 5, 9, 41, 42, 43, and 44 are connected/seated properly.
- Check both fans for mechanical binding or possible obstruction.
- Ensure the ozone filters are not blocked.
- Ensure Contamination Seal is properly seated (REP 9.11).

Procedure

Both fans are turning while the copier is in the standby mode.

Y N

Set the DMM to the (+) 200 VDC scale. Connect the DMM (+) lead to P/J5-8. Enter the code [18] to turn the Cooling fans on.

The voltage goes from +24 VDC (+11 -5 VDC) to less than 0.1 VDC.

Y N

A B C

A B C

Set the DMM to the (+) 20 VDC scale. Connect the DMM (+) lead to P/J9-7. Enter the code [18] to turn the Cooling fans on.
The voltage goes from less than 0.1 VDC to +5 VDC.

Y N

Replace the Controller PWB (A3). Go to FLAG 1 and check for an open circuit. If there is no open circuit, replace the LVPS PWB (A2).

Replace one or both Fans.

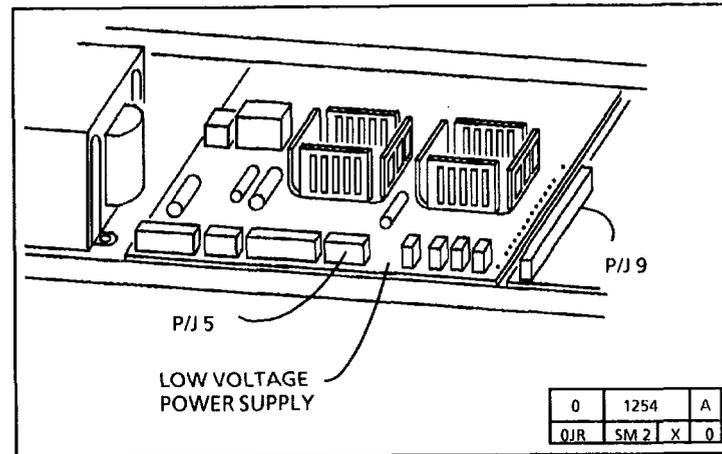
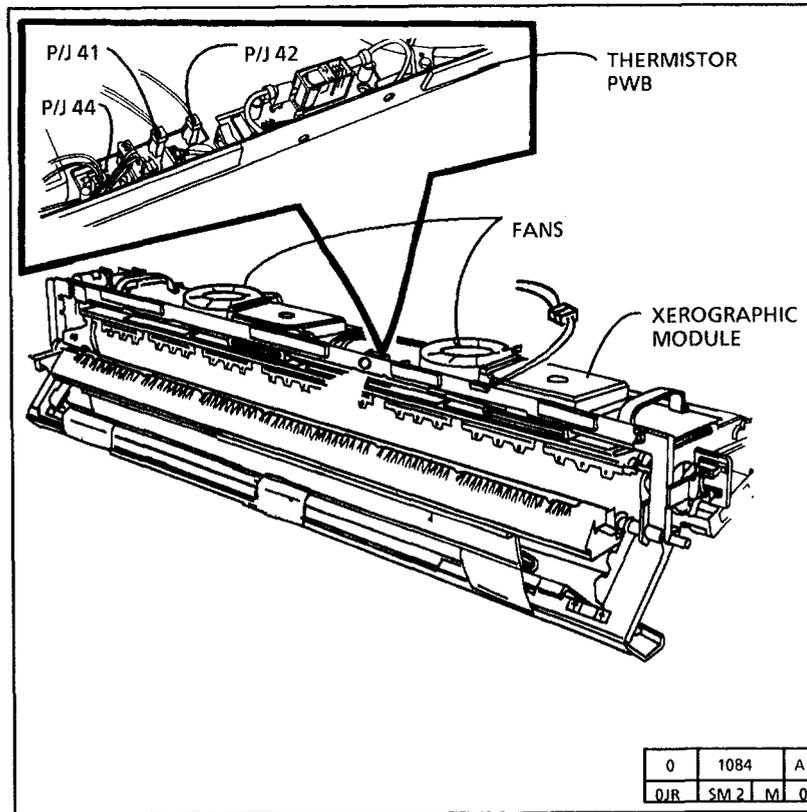
Refer to note 1 and determine if the fans switch to a slower speed.

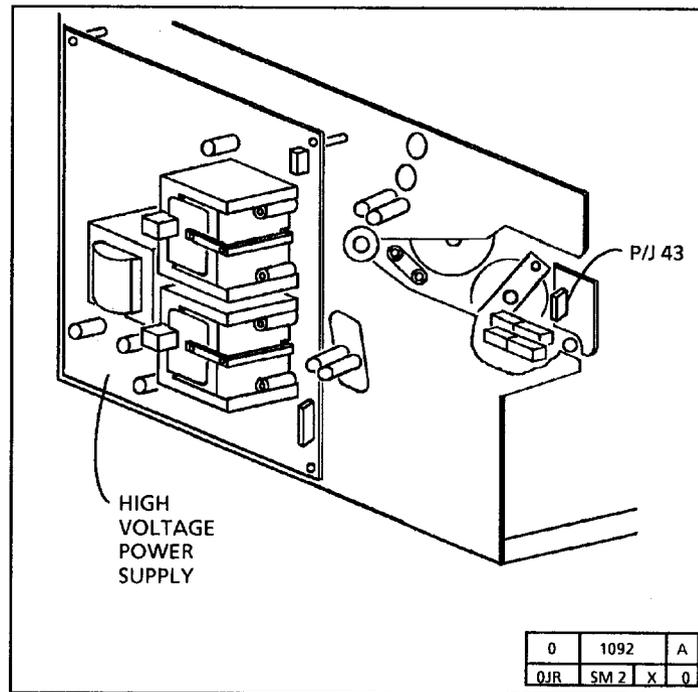
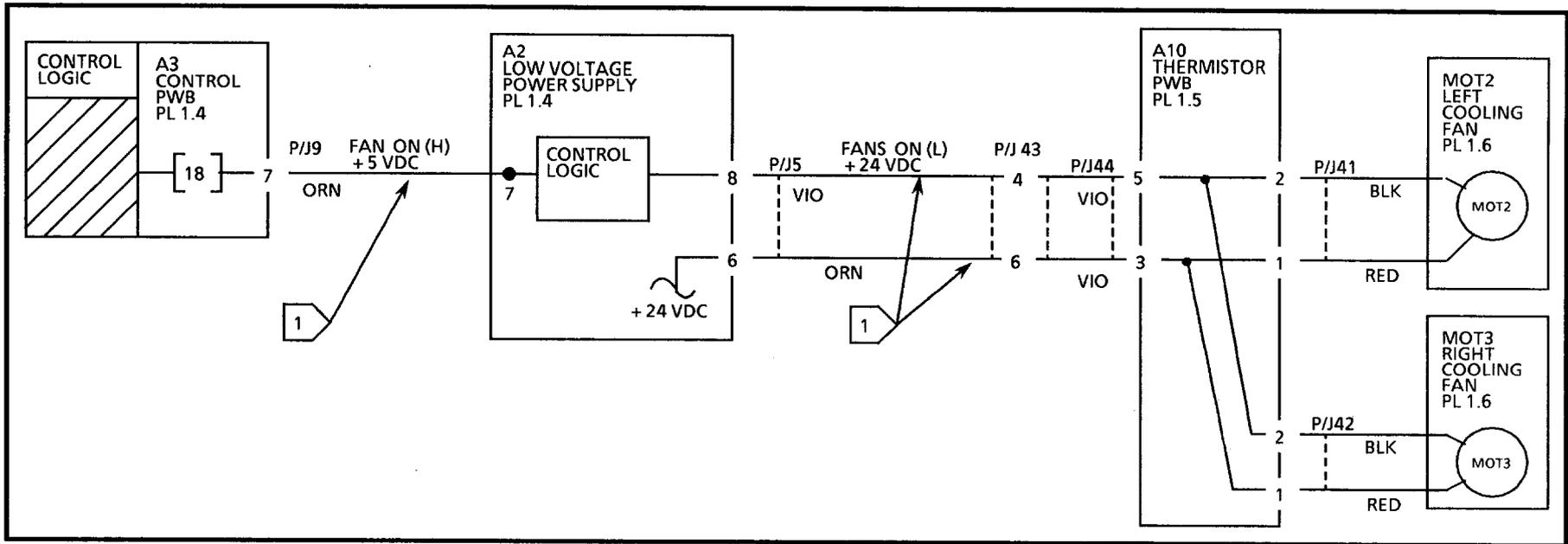
The fans switch to a slower speed after the copier enters the Power Saver mode.

Y N

Replace the Thermister PWB (A10). If the problem persists replace the Controller PWB (A3).

Return to the RAP that directed you here.





Notes:

1.4 Ground Fault RAP

This RAP is used to locate and repair ground faults in the primary AC power distribution circuitry. You were directed to this RAP from another AC power RAP that traced the loss of AC power to the GFP device.

The copier is equipped with an inline Ground Fault Protection (GFP) device (Located on the power cord) that detects excessive current leakage to ground. If excessive leakage is detected the GFP device will remove all power to the copier.

Initial Actions

- Check that the correct voltage is being applied to the copier at the wall outlet.

Procedure



Do not disconnect any plugs or wires while the power cord is plugged into the wall and the main power switch is on.

The Ground Fault Protector is in the tripped Position (red flag is not up).

Y N
Go to FLAG 1 and check that the correct voltage is present. **The voltage is correct.**

Y N
Replace the Power On/Off Switch (PL 1.3).

Go to the 1.1 AC Power RAP.

A

A

Refer to FLAG 1 and disconnect ACH and ACN at Pins 2 and 5 of the Power On/Off Switch. Plug in the power cord and test the GFP according to the Warning label. **The GFP passes the test.**

Y N
Replace the GFP (PL 1.3).

Reconnect ACH and ACN wires to the Power On/Off Switch. Go to FLAG 2 and check that the correct voltage is present. **The voltage is correct.**

Y N
Go to the 1.1 AC Power RAP.

Go to FLAG 3 and disconnect the wires to the Line Filter at the Line Filter. **The GFP trips (red flag is not up) after the Power On/Off Switch is turned on.**

Y N
Reconnect the wires to the Line Filter. Set the DMM to the 20K resistance scale. Switch off the Power On/Off Switch and unplug the power cord.

Go to the F1 Fuser RAP and check for a high resistance path from ACH or ACN to Ground. Look for pinched wires or wires with frayed insulation. If the problem persists go to the OF1 Media Heater RAP and check for a high resistance path from ACH or ACN to Ground. Look for pinched wires or wires with frayed insulation. **The GFP trips (red flag is not up) after the Power On/Off Switch is turned on.**

Y N

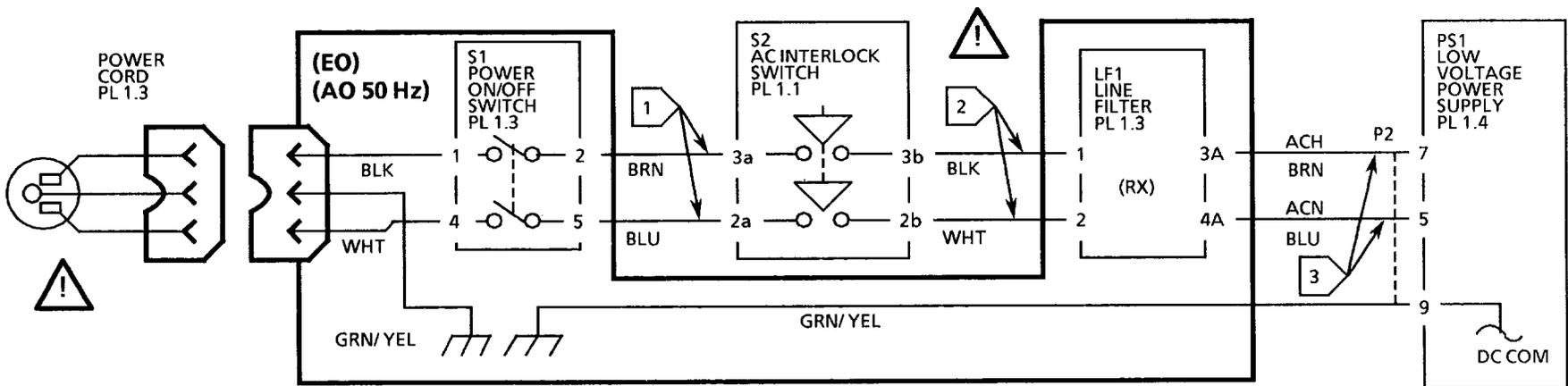
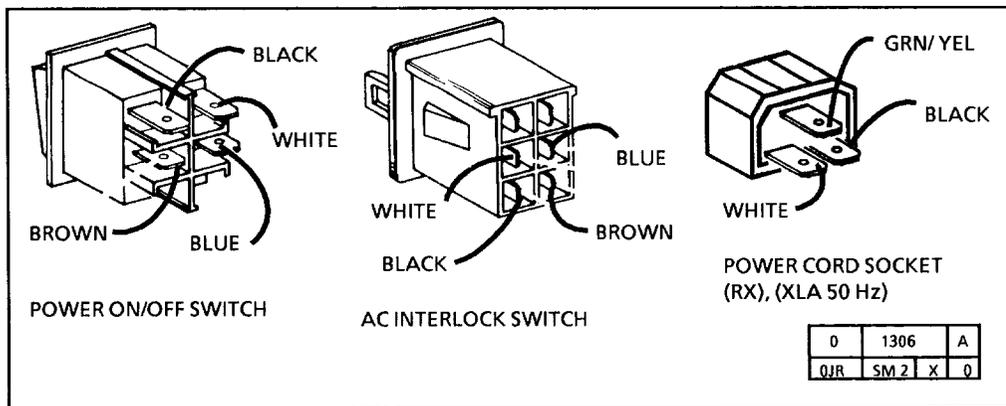
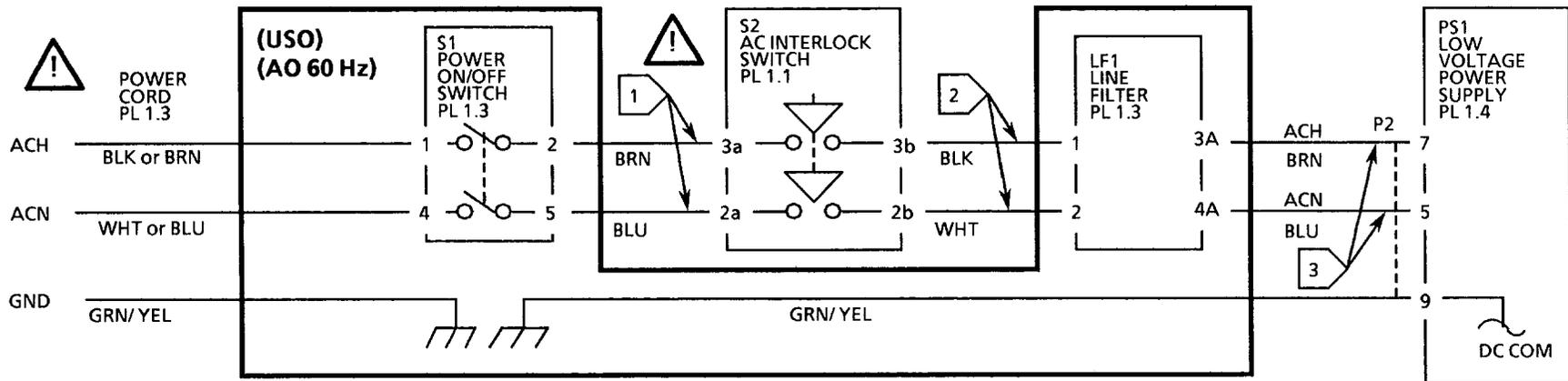
B C D

B C D
Proceed to wrap up the call.

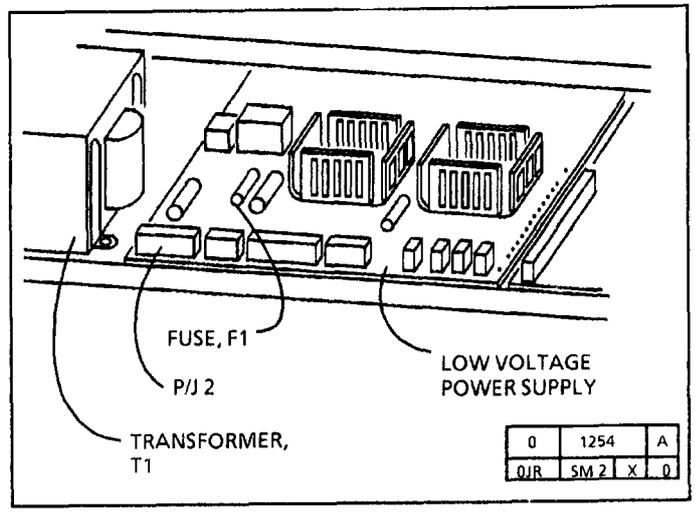
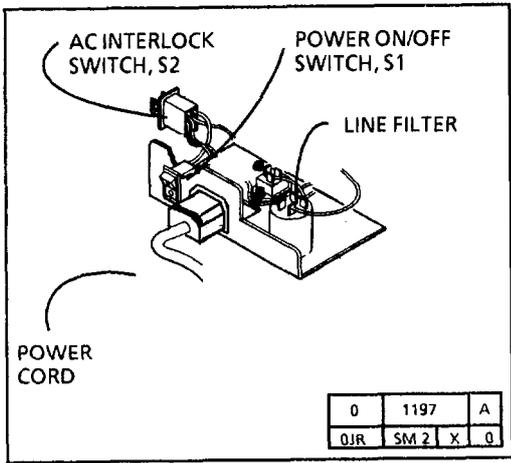
Disconnect Pins 7 and 5 of connector P2 at the LVPS PWB. **The GFP trips (red flag is not up) after the Power On/Off Switch is turned on.**

Y N
Proceed to wrap up the call.
Replace the LVPS PWB (PS1).

Replace the Line Filter (PL 1.2).



AC COMPONENTS PANEL



2.1 Control Panel RAP

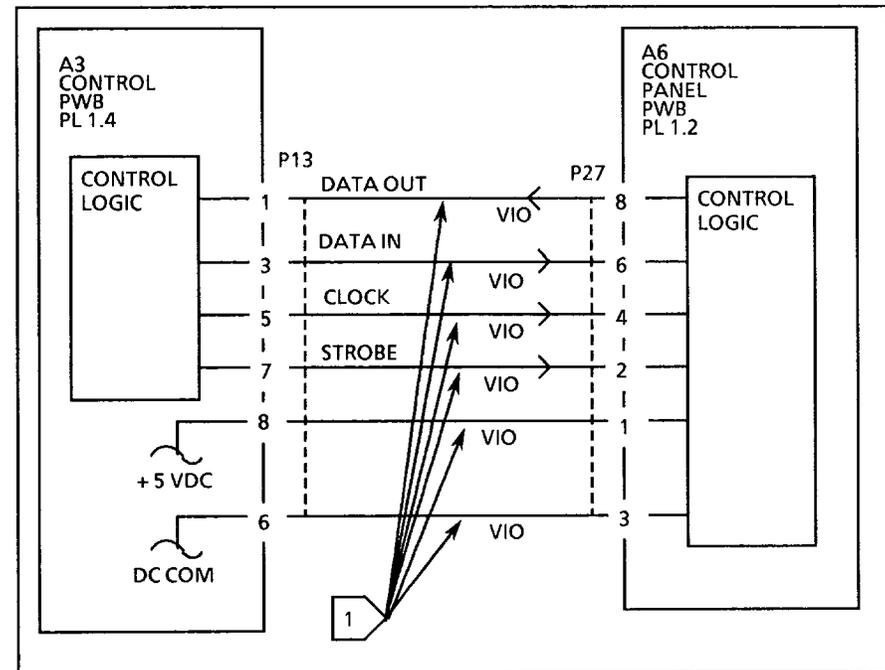
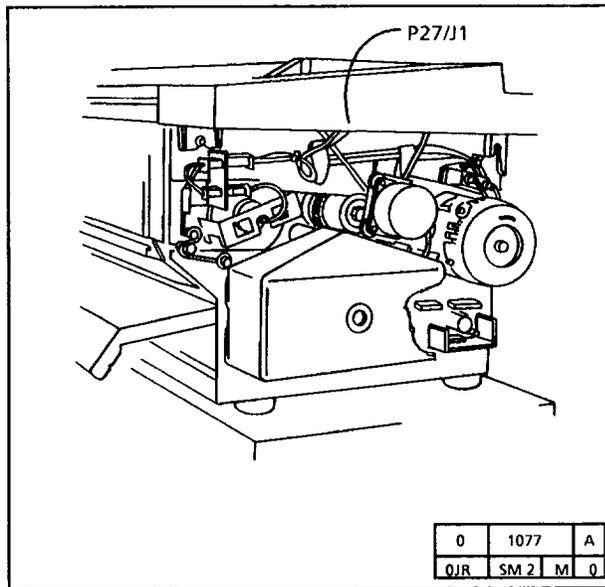
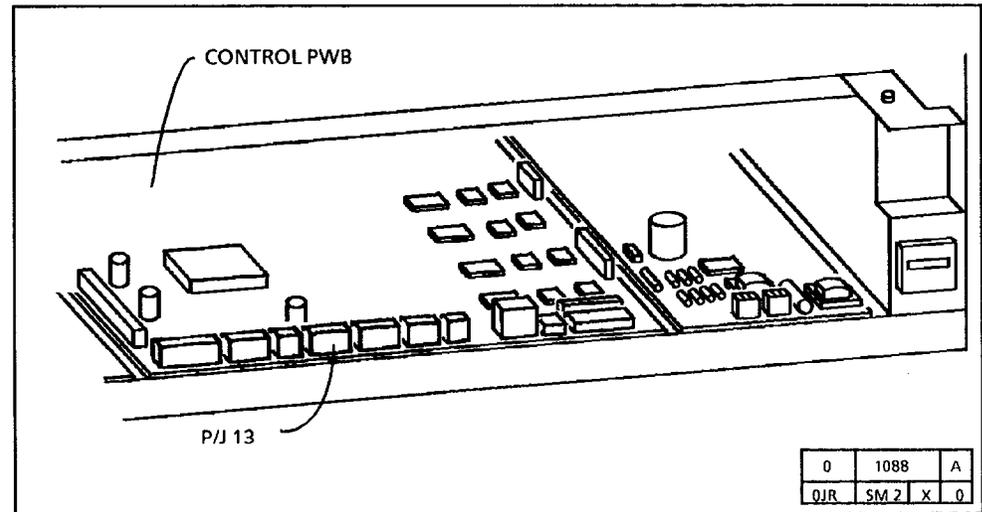
This RAP is used for control panel faults that do not indicate a status code.

One problem is that you are unable to select a control panel feature. Another problem is that one or more of the control panel lamps are not lit.

Enter the diagnostic mode. All of the control panel lamps will light for 3 seconds during self-test.

If one lamp does not light or if one button does not work, replace the control panel.

If none of the lights or buttons work, go to FLAG 1 and check for and open or short circuit. If there is no open or short circuit replace the Controller PWB (A3). If the problem persists, replace the Control Panel (A6).



3.1 Copy Count Meter RAP

This RAP is used for a copy count meter fault that does not indicate a status code.

Ensure that the Country Configuration (ADJ 3.3) is adjusted correctly before performing this RAP.

Set the meter to measure + 24 VDC.

Connect (+) to P12-2 of the Control PWB; (-) to the GND test point on the HVPS.

Enter the diagnostic mode.

Enter the code [20] for the copy count meter.

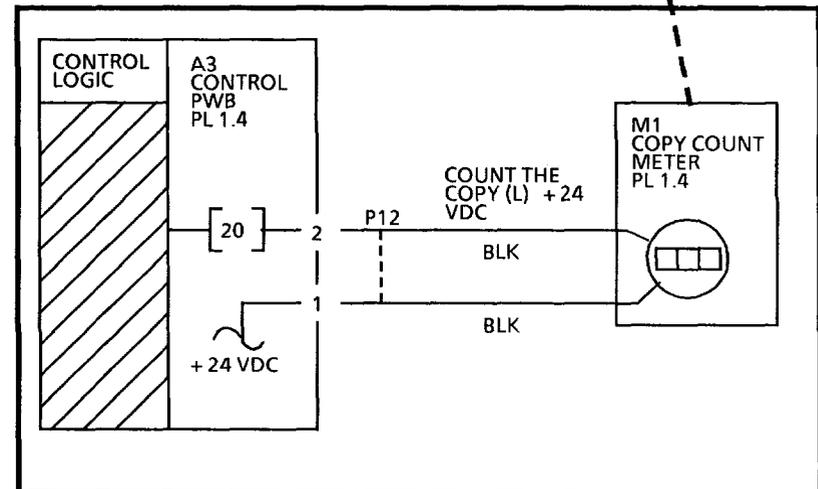
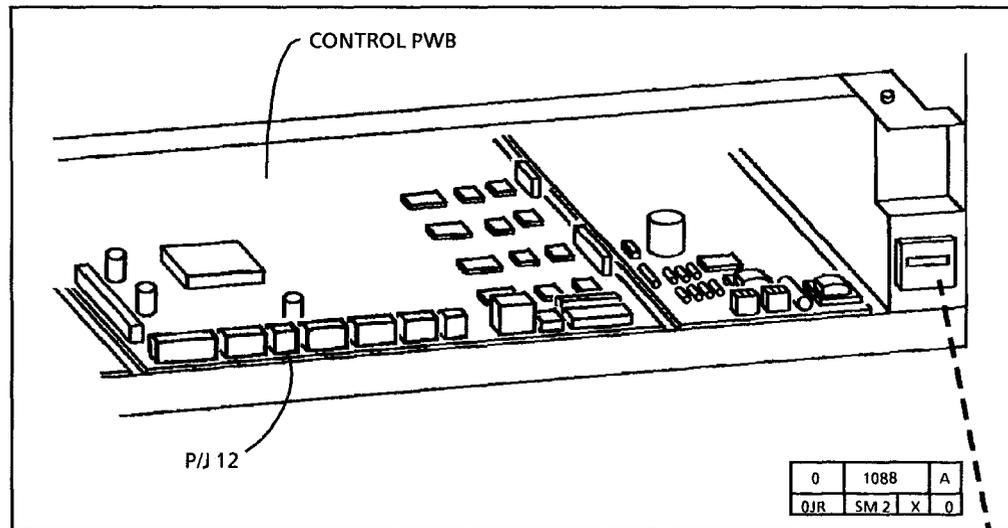
The voltage goes from + 24 VDC to less than + 1 VDC.

Y N

Replace the Control PWB.

Replace the copy count meter.

If the problem still exists, replace the Control PWB.



4.1 Main Drive Motor RAP

1 The circuit drawings and component drawings are on the following two pages.

This RAP is used if the main drive motor does not turn or turns when the power is switched on.

Switch off the copier. Remove the lower rear cover and observe the **MTR** LED on the low voltage power supply. Check the AC interlock switch. Switch on the power.

The **MTR** LED is lit after **L3** is displayed.

Y N

Switch off and unplug the copier. Go to **FLAG 1** and check for an open circuit between the Control PWB and the LVPS PWB.

If there is no open circuit, replace the Control PWB.

Set the meter to measure **ACH**.

There is **ACH** between **P3-1** and **P3-3** of the LVPS PWB.

Y N

Switch off and unplug the copier. Go to **FLAG 2** and check for an open circuit between **P4-3** and **P4-4** of the LVPS PWB.

If there is an open circuit, replace the transformer.

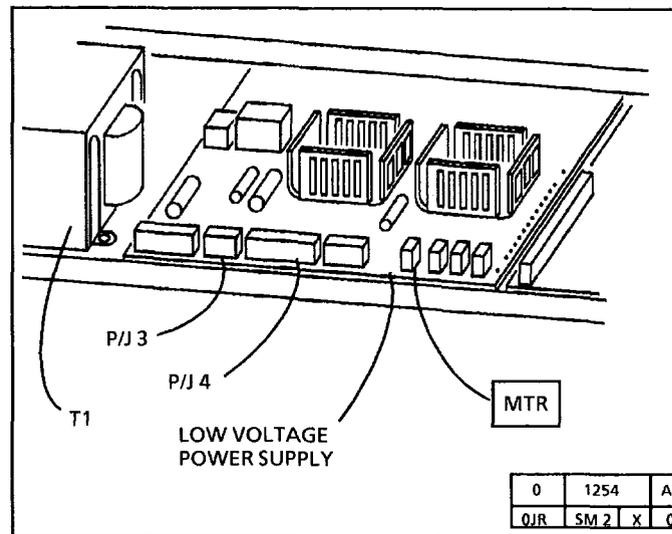
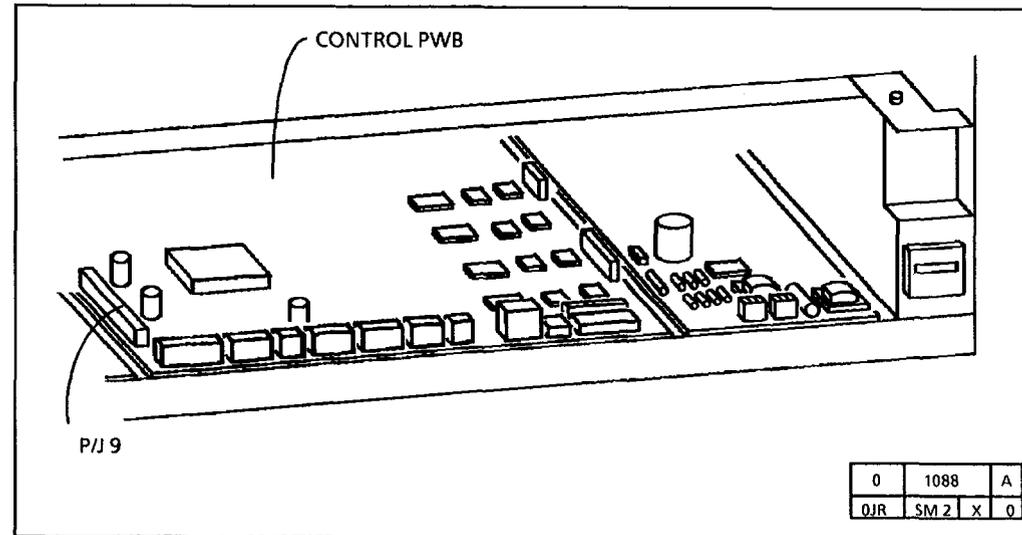
If there is no open circuit, replace the LVPS.

A

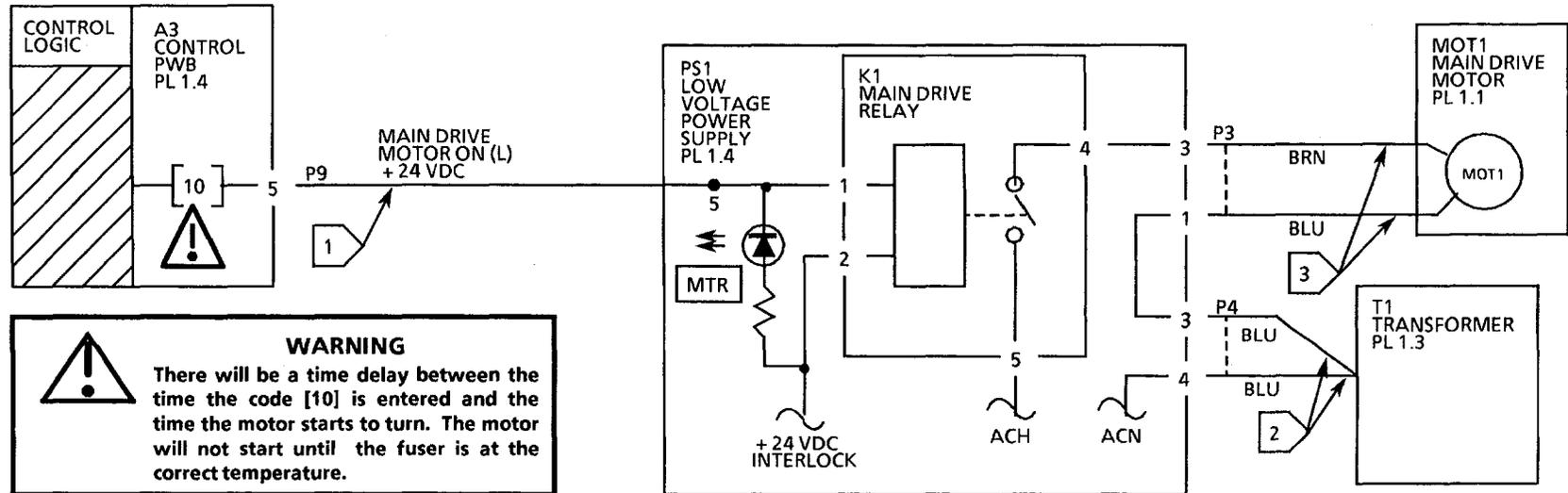
A

Switch off and unplug the copier. Go to **FLAG 3** and check for an open circuit between the main drive motor and the LVPS PWB.

If there is no open circuit, replace the main drive motor.

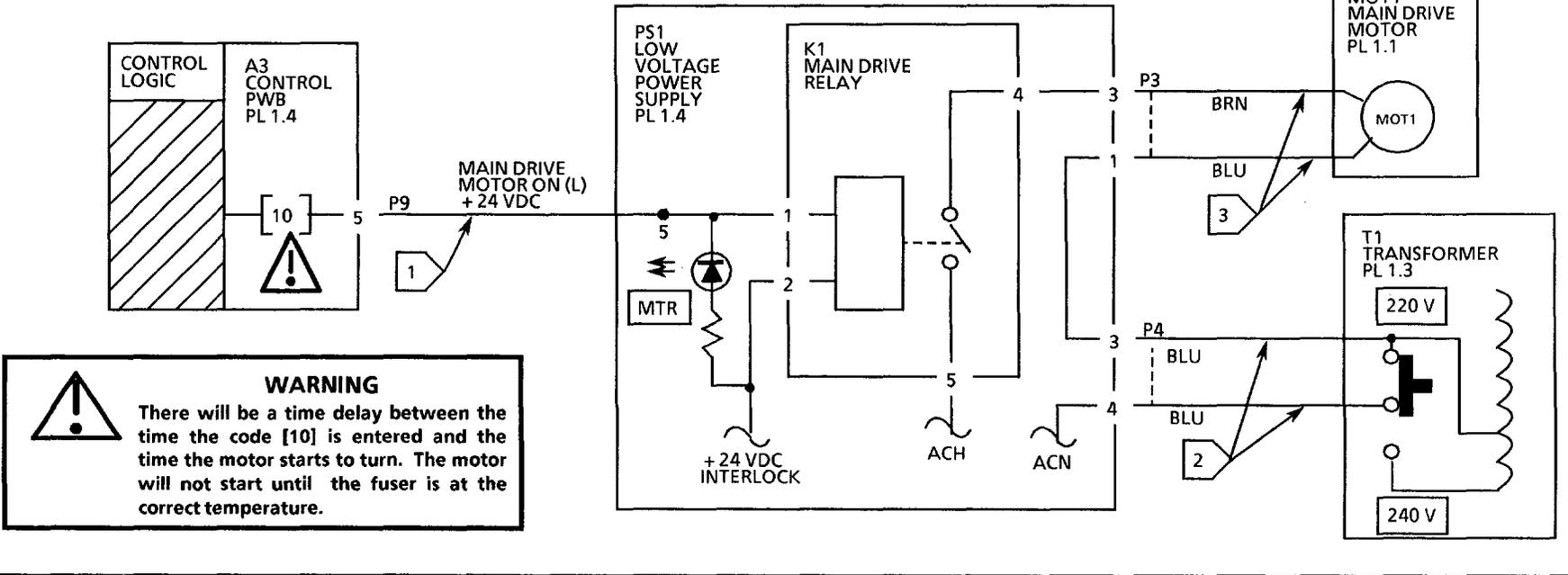


(USO), (AO 60 Hz)

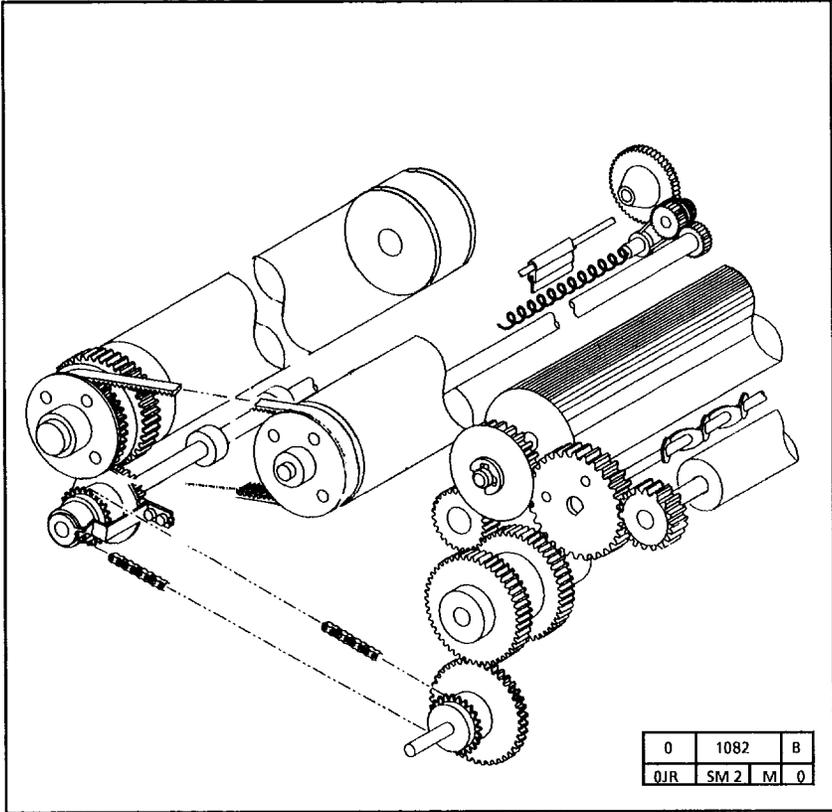
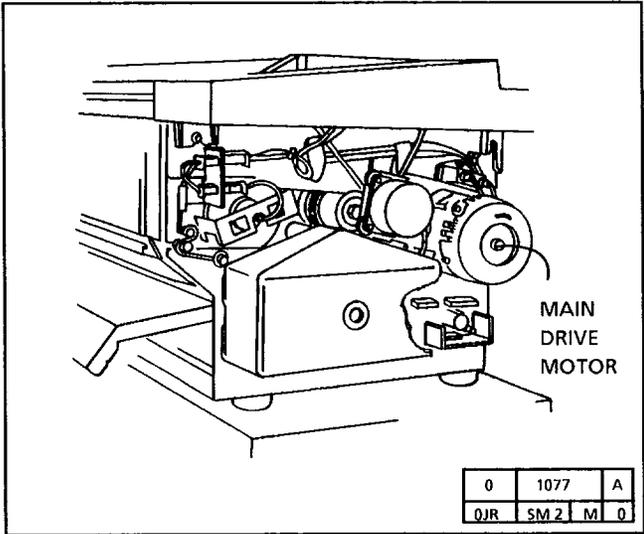


WARNING
There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

(EO), (AO 50 Hz)



WARNING
There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.



5.1 Document Handler RAP

This RAP is used for document handler faults that do not indicate a status code.

One problem is that the document is not sensed by the Document Handler.

1 The circuit diagram is on the next page.

Initial Actions

- Ensure that the document is in good condition.

Procedure

Enter the code [37] to check the Front document sensor.

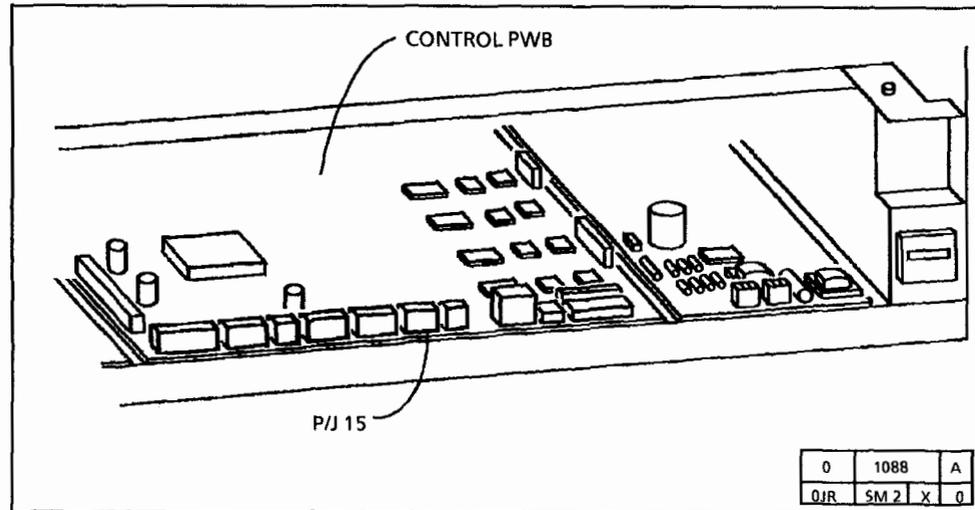
NOTE: *The Film LED will be lit when the sensor is blocked.*

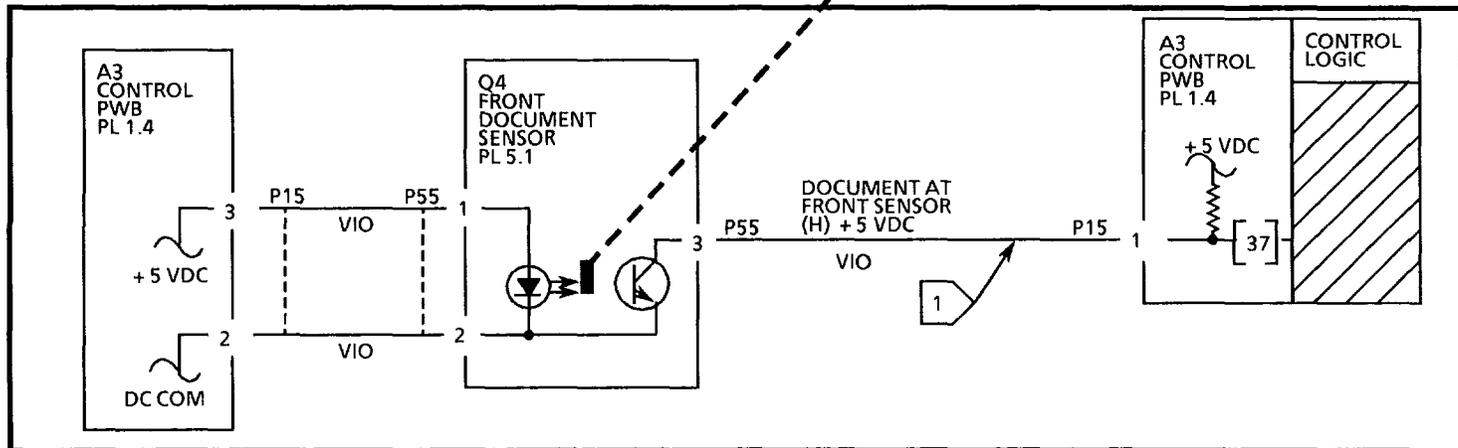
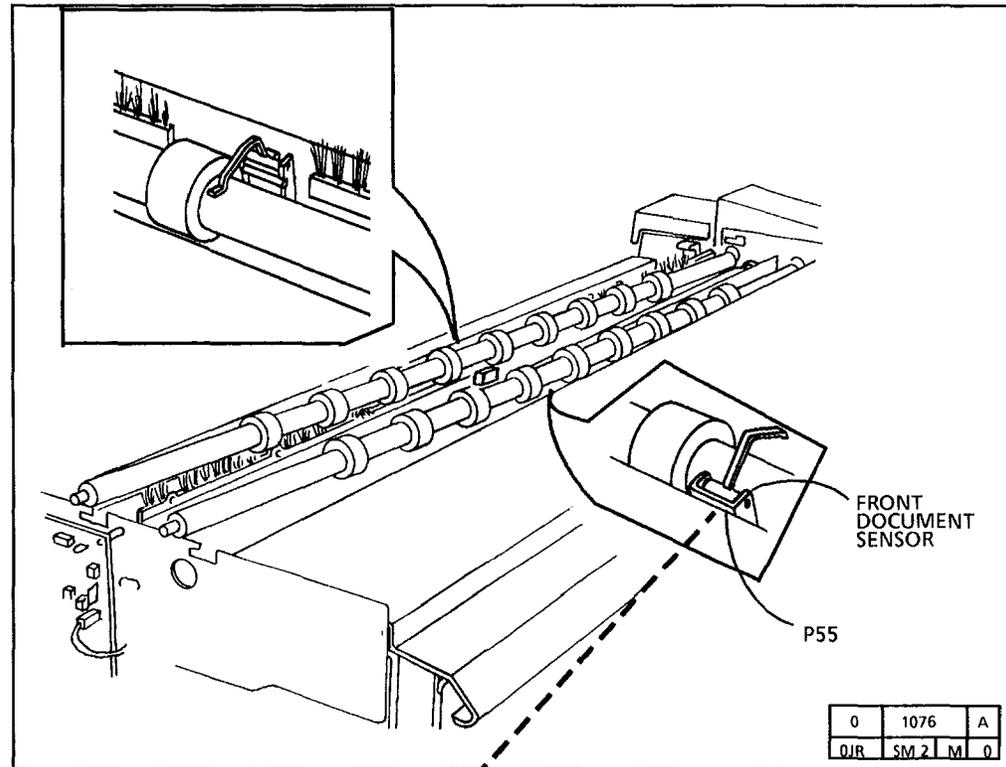
Actuate the Front Document Sensor (Q4). The *Film LED* goes on then off when the sensor is actuated.

Y N

Go to FLAG 1 and check the wiring for a short circuit. If there is no short circuit to frame, replace the Front Document Sensor (Q4). If the problem persists replace the Controller PWB (A3).

Proceed to wrap up the call.





8.1 Media Feed Problem RAP

This RAP is used for media feed problems that do not indicate a status code.

One problem is that the media is not sensed by the copier.

1 The circuit diagram is on the next page.

Initial Actions

- Ensure that the media is in good condition.
- Ensure that the actuator for the prefeed sensor is not binding.

Procedure

Enter the code [37] to check the Front document sensor.

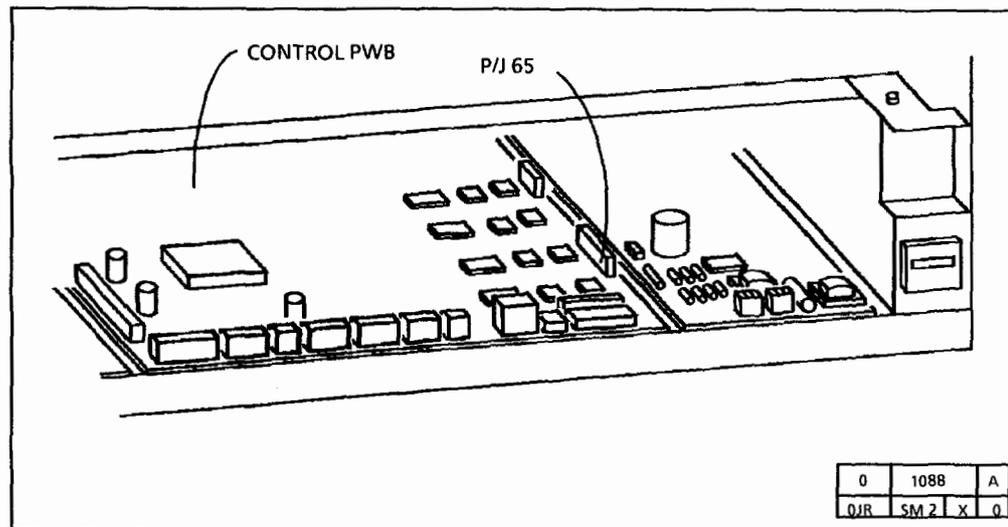
NOTE: *The Bond LED will be lit when the sensor is blocked.*

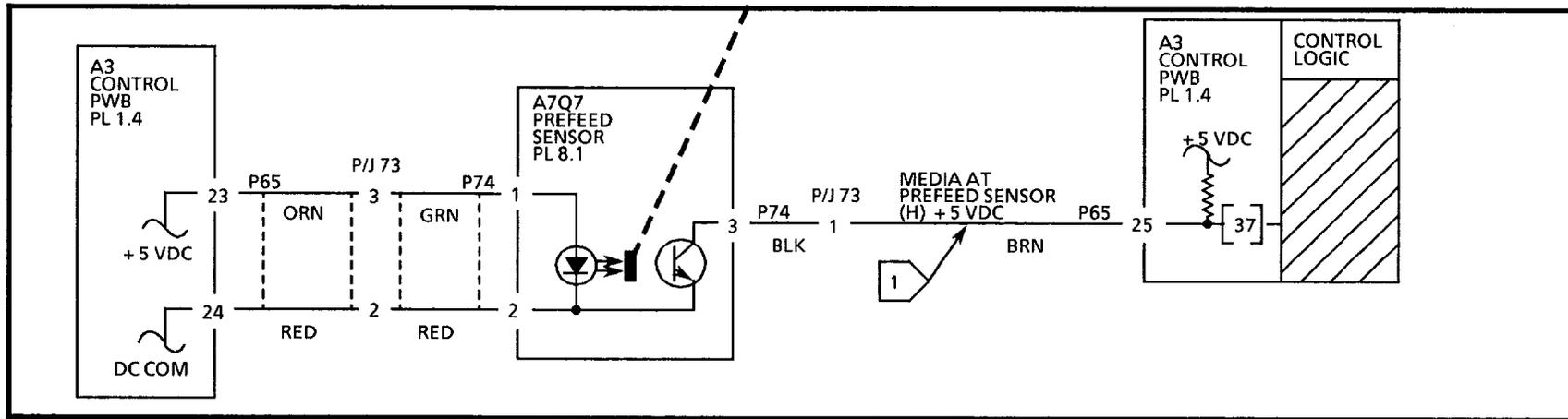
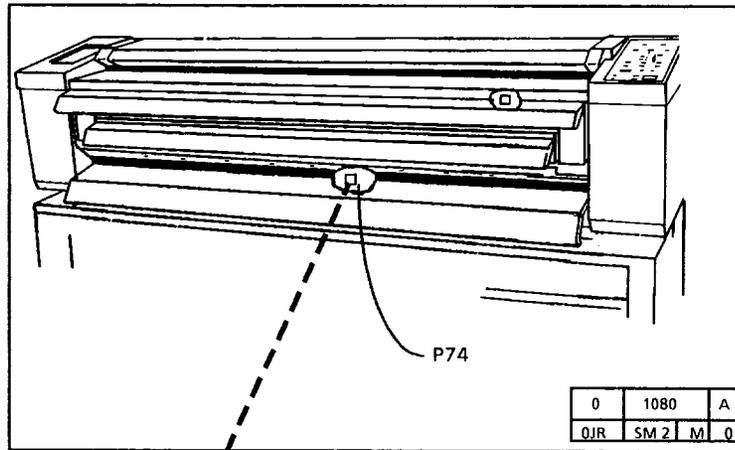
Actuate the Prefeed Sensor (Q7). The **Bond LED** goes on then off when the sensor is actuated.

Y N

Go to FLAG 1 and check the wiring for a short circuit. If there is no short circuit to frame, replace the Prefeed Sensor (Q7). If the problem persists replace the Controller PWB (A3).

Proceed to wrap up the call.





OF1 Isolation Procedure for Mechanical Noise

This procedure is used to isolate mechanical noises to a specific subsystem. There probably will not be a dropout to a specific component. The procedure will be eliminating one subsystem at a time in order to isolate to the most probable cause for the mechanical noise.

In the Power Saver or Rest mode, there is an electrical noise at the rear of the copier.

Y N

The noise is heard when the main drive motor is turning after the control panel indicates L3.

Y N

After the copier is ready, enter the code [10] to switch on the main drive motor and enter the code [11] to energize the media feed clutch.

The noise is heard when the feed clutch is energized.

Y N

Enter the code [30] and insert a document into the document handler. Check the following :

- the lower document feed rolls
- the bearings for binding (PL 5.1)
- document handler idler rolls
- the tension of the drive belt

A B C

A B C

Switch off and unplug the copier. Remove the media transport module (REP 8.1).

Check the following for damage:

- the upper media feed rolls
- the bearings
- media idler rolls
- idler roll shaft

Lubricate the Media Transport Main Drive Gear and Pivot Shaft with Molykote 557 (70H37) or 70P95.

Switch off and unplug the copier. Remove the developer module (REP 9.5). Cheat the upper rear cover interlock switch.

Connect the copier and switch on the power.

The noise is heard when the main drive motor is turning after the control panel indicates L3.

Y N

Check the developer module and gears for binding.

If noise is in the Magnetic Roll, replace the Developer Module (PL 9.4).

A D

A D

Remove the xerographic module (REP 9.1). Move the idler gear (PL 1.1) to the left on the shaft. Clean the shaft and then lubricate the idler gear and shaft with Molykote 557 (70H37) or 70P95. Check that the Contamination Seal is installed correctly. If not reseal or replace. Cleaning Blade Assembly can make contact with it and cause a popping noise. Reinstall the xerographic module and developer module.

Ensure that the Photoreceptor Ground Clip is install flat against the shaft. If necessary, use a conductive grease to lubricate.

Switch off and unplug the copier. Remove the xerographic module (REP 9.1). Remove the drum drive belt. Install the xerographic module.

Connect the power cord and switch on the copier.

When the fuser reaches the correct temperature, enter the code [10] to switch on the main drive motor.

The noise is heard when the main drive motor is turning.

Y N

Switch off and unplug the copier. Check the photoreceptor drum, auger and gears for damage. Clean the auger pully/gear shaft, remove any scoring with emery paper, then lubricate the pulley/gear with Molykote 557 (70H37) or 70P95. Replace the auger pully and bearing, do not lubricate.

A E

A E

Switch off and unplug the copier. Check the fuser roll and the bearings for damage.

Lubricate the fuser roll bearing with molybdenum disulfide, 70P87.

Lubricate the pivot shaft of the main drive gear with Molykote 557 (USO 70H37) or 70P95.

Replace the grounding bearing or lubricate with a conductive lubricant.

Check that the fuser roll screws are centered in the holes in the fuser roll.

Check for damaged Latch Springs.

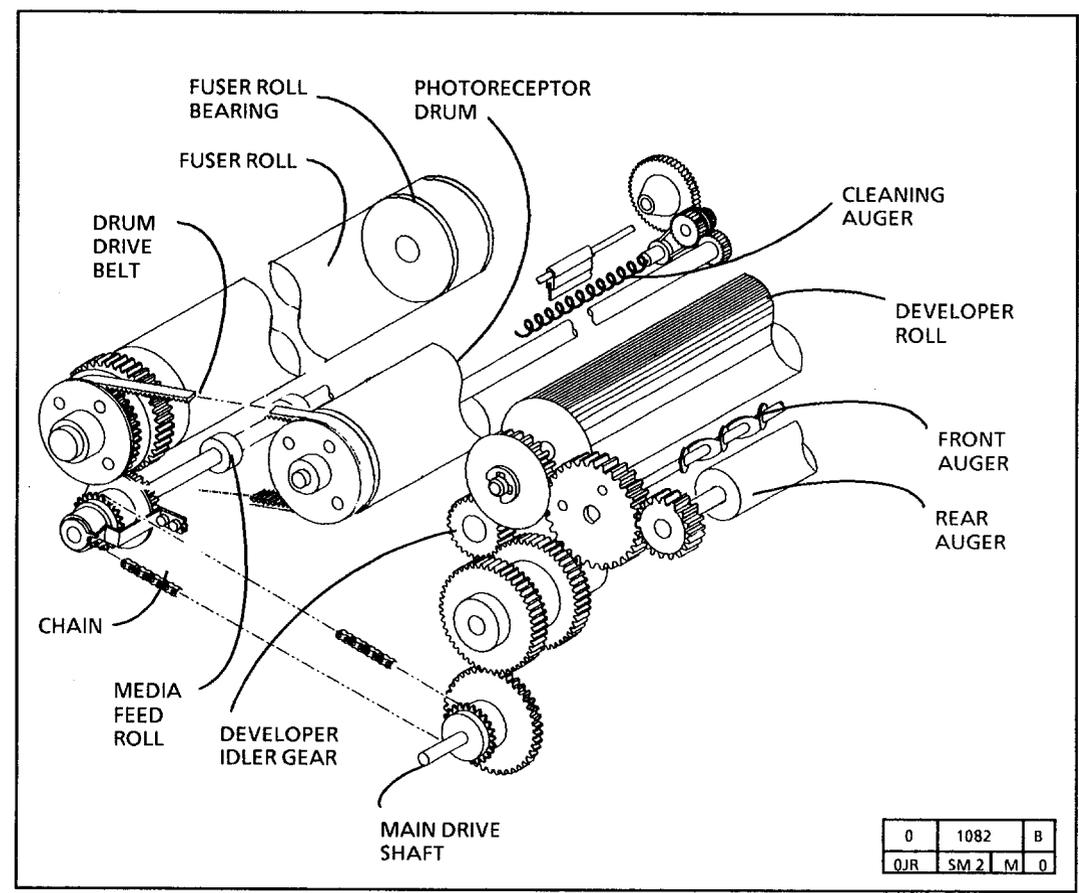
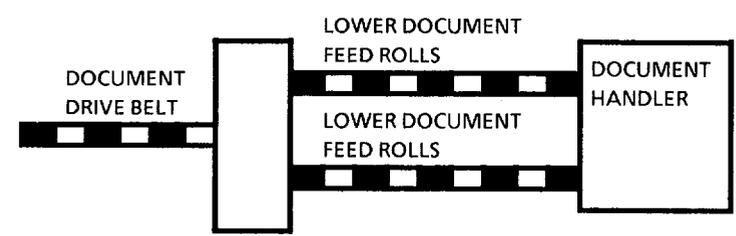
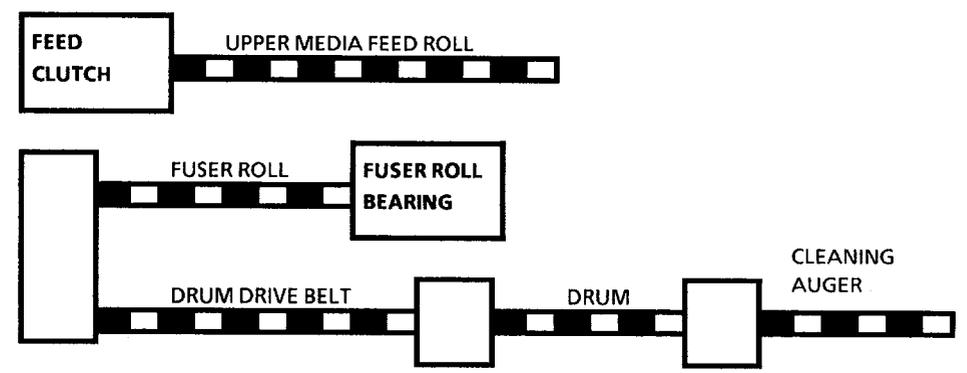
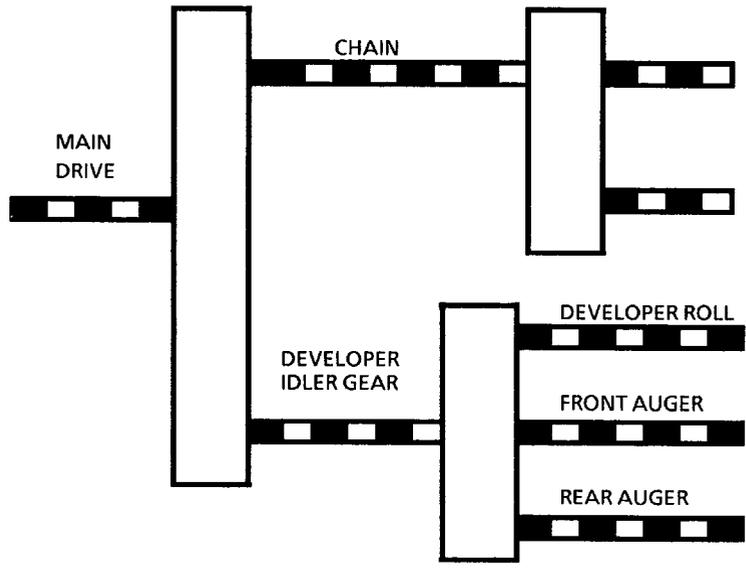
Check to see if the shipping spring has been removed. If not, remove the spring.

Check the gears for damage and wear.

Check the surface of the Fuser Roll for adequate oil.

Reflector is secured correctly.

Check for another copier on the same electrical circuit as this copier. Inrush current caused by the other copier fuser cycling can cause the transformer to make a noise.



0	1082	B
0JR	SM 2	M 0

OF2 Toner Cartridge RAP

This RAP should be used to help isolate and correct problems directly related to the Toner Cartridge.

NOTE:

The Main Drive Motor will not start until the fuser is at the correct temperature. The cleaning blade is engaged when the Main Drive Motor starts.

Procedure

Rotate the Toner Cartridge several times by hand. Check the dispense pattern. **The dispense pattern is uniform across the entire housing.**

Y N

Ensure that the developer housing is level. Check the cartridge holes/ flap for obstructions in the areas with nonuniform dispense patterns. If the flap cannot be reformed, replace the cartridge.

Enter the code [10] to turn on the Main Drive motor. **The Toner Cartridge is rotating slowly, about 30-60 seconds per 1/4 revolution (2-4 minutes per revolution).**

Y N

Adjust the Toner Dispense solenoid (ADJ. 9.3).

Enter the code [13] to turn on the Toner Dispense Solenoid while the Main Drive Motor is still on. **The Toner Cartridge is rotating at least 5 revolutions in 40 seconds or less (7.5 revolutions per minute).**

Y N

A B

A B

Check the following for wear or damage and replace as required:

- Developer Roll Drive Gear.
- Auger Drive Gear (including cam surface for cam follower).
- Dispense Arm.
- Dispense Arm Return Spring.
- Cartridge Retaining Clip.

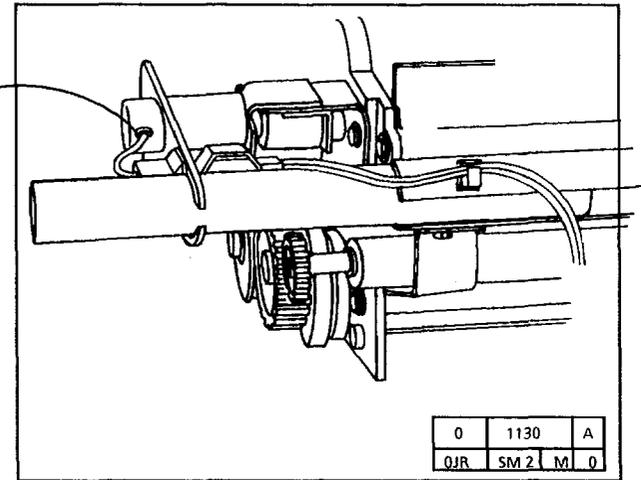
The Toner Cartridge has a slider.

Y N

Ensure that the cartridge has not been refilled with non-standard toner. Make a record of the toner lot number (7-8 digit number on fill plug). Make a record of the 4 digit cartridge type number (stamped on tube near the fill end). Call the toll-free Supplies Hotline to report the problem.

If cartridge is the slider type slider type, insure cartridge is not jumping Developer Housing dispense cams (located on the developer housing end plates). If the cartridge is jumping, replace toner cartridge. Ensure new cartridge operates correctly.

TONER
DISPENSE
SOLENOID

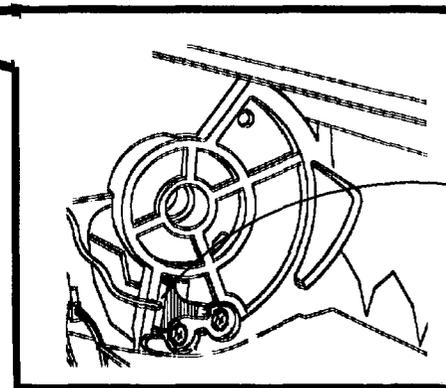
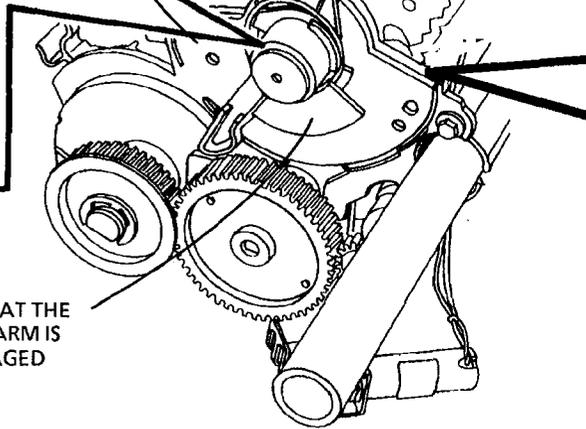
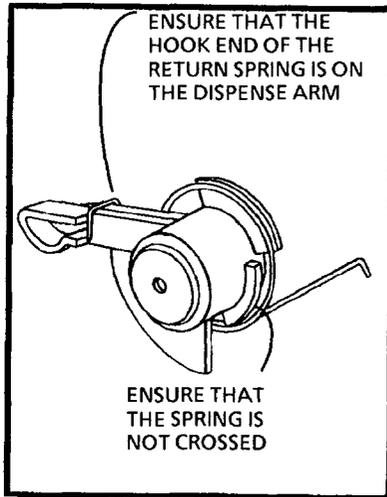


ENSURE THAT THE END OF
THE RETURN SPRING IS IN
THE HOLE OF THE END
PLATE

ENSURE THAT THE
HOOK END OF THE
RETURN SPRING IS ON
THE DISPENSE ARM

ENSURE THAT
THE SPRING IS
NOT CROSSED

ENSURE THAT THE
DISPENSE ARM IS
NOT DAMAGED



GROUND CLIP

0	1553	A
0JR	SM 2	M 0

OF3 High Toner Consumption RAP

This RAP should be used to help isolate and correct problems related to High Toner Consumption. High Toner Consumption is defined as less than 2000 feet of copy per Toner Cartridge. The minimum expected yield averages about 2000 feet.

Procedure

Remove the right side cover. The waste toner is near the red cap plug on the Toner Waste Bottle.

Y N

Refer to section 3 and evaluate the copy quality. Ensure that the customers originals are not the problem. High area coverage or high background originals use more toner.

Check area directly under the developer rolls and the bottom of the machine for dirt. If there is only toner in the bottom of the machine, replace the developer material. If there is mostly developer material in the bottom of machine check/correct the following:

- Ensure that the photoreceptor is correctly seated. Proper seating helps prevent variation in photoreceptor spacing to the developer roll.
- Xerographic module is seated properly.
- Developer housing is seated properly.

A B

A B

- If the problem persists replace the developer housing and developer material.

Check or perform the following:

- If possible, verify with the customer that the Waste Bottle was replaced.
- Ensure that the Toner Cartridge Ground Clip and 7L or higher Firmware has been installed.
- Ensure that the developer has been replaced at the proper maintenance interval (Section 1).
- Refer to the J2 High Toner Fault RAP.
- Refer to the Tape Transfer Procedure, available through the Hotline.

OF 4 Shutdowns

Copier stops in the middle of a copy job and returns to the Rest mode. The copier is protected by a circuit called the Watchdog Timer. The Watchdog Timer circuit monitors the 5 VDC logic voltage. If this voltage goes out of range, the Watchdog Timer returns the copier to the Rest Mode.

Perform the following checks:

- Check that the power is within specification at the AC wall outlet. If not, notify the customer.
- Check that the copier is the only device on the circuit. If not, notify the customer.
- Ensure that the AC hot, Neutral and Ground of the wall outlet is wired correctly. If not, notify the customer.
- Check that the Right Side Cover is secure correctly and actuating the AC interlock.
- Ensure that the AC interlock is functioning correctly and not damaged. Replace if required (PL 1.1).

- Check the fuser connector P/J37 for burn marks or heat discoloration (brown or black in color) .
- If the shut down is intermittent, or to the Power Saver mode, this could indicate the Latching Cover may be moving or vibrating open. Check the following:
 - Fuser Oil is sufficient
 - Xerographic Module latch is engaged.
 - Worn fuser drive gears
 - damaged latch springs

OF 5 Toner/Developer Dumping

Toner/developer dumping is generally caused by either the Developer material, Developer Housing, or the interface between the Developer Housing and the Xerographic Module.

Initial Actions

- Ensure that the copier is level front-to-rear.
- Check that the Developer Material is at the correct level. The mixing auger should not be visible.
- Check for failed Developer Material. Remove a small amount of material, and place it in the palm of your hand. Rub the material with your finger to separate the toner. The Developer material should be red to pink in color. If not, perform the Tape Transfer Procedure, Section 6. If the material is failed, replace it.
- Using test pattern 82E5980, check the image density. Adjust the Toner Control as necessary to obtain the correct image density.
- Ensure that the Toner Dispense Solenoid is adjust to specification.
- Check that the Charge voltage is in specification.
- Ensure that the Xerographic Module latch on right side of copiers is latched.

Procedure

1. If necessary, remove the Xerographic Module (REP 9.1).
 2. Place a jumper wire between pin 6 and 8 of P43. Ensure the the wire will not contact the copier frame. This will cause a short to ground and possible damage the Control PWB.
 3. Cover the Media Transport with a sheet of paper so that the paper is under the Developer Housing covering the corotron.
 4. Enter the diagnostic mode and enter the Main Drive Motor on code in order to run the motor.
 5. Check for toner or developer dumping.
 - a. If material is dumping on the paper, either the Developer Material is failed or the Developer Housing must be replaced or rebuilt.
 - Check the Magnetic Roll surface for wear. Replace the housing.
 - Check the Developer Housing drive gears for wear and damage. Gear teeth should not be rounded or pointed.
- Check the backlash between the Drive gear on the Main Drive Motor and the Idler Gear to the Developer Drive Gear. Remove the Upper Rear Cover. Hold the Idler gear from moving, and rotate the Drive Gear on the Main Drive Motor back and forth. There should be a small amount of movement. If there is excessive movement or no movement, adjust the Main Drive Motor. Loosen the 4 motor mounting screws just enough to be able to move the motor. Move the motor to set the backlash.
 - Replace the Developer Material. If the problem persists:

Replace the Developer Housing.

- b. If material is not dumping on the paper, the problem is the interface between the Developer and the Xerographic Module (DRS).
- Remove the Xerographic Module and check the Drum to Auger Seal. The seal should be against the Photoreceptor Drum. If not reform, or replace. The seal should point towards the Charge Corotron.
 - Check the Photoreceptor Drum for an out of round condition. Slowly rotate the Drum and watch the surface in relationship with the straight edge of the Xerographic Module. If the distance changes, remove the Photoreceptor Assembly and check the hubs for damage and reseal the Photoreceptor.
 - Ensure that the fuser roll is adequately oiled
 - Obtain the DRS Tool and instructions and check the DRS.

OF 6 Charge Voltage Out of Specification

Problem	Cause	Corrective Action
Voltage not equal side-to-side	Bent or bowed corotron	Replace the Charge Corotron (PL 9.2)
Voltage fluctuates	Photoreceptor drum is not seated correctly on the drum shaft.	Remove the xerographic module, and check that the drum is fully seated on the drum shaft end plates.
Voltage starts high and quickly drops below 600 volts	Contaminates ozone filter, cooling fans not operating, air manifold is blocked by the U-shaped seal near the cleaning blade	Replace the Ozone filter (PL 1.6) Replace the Cooling Fan (PL 1.6) Clear the obstruction blocking the manifold.
Voltage is low and cannot be adjusted to 800 VDC	Defective corotron, defective photoreceptor drum, light leak, defective high voltage power supply	Repair or replace the Charge Corotron (PL 9.2) Replace the Photoreceptor Drum (PL 9.1) Ensure that the covers are in place while doing the electrostatic adjustments. Refer to the CQ 26 HVPS Rap (Sect 3)
Voltage fluctuates from 800 to 1300 VDC	Shorting or arcing Precharge or Detack Corotron	Clean, repair, or replace the defective corotron (PL 8.4, PI 9.2)
Voltage is constant, but is 1300 VDC or higher	Ground connection on the electrometer is not connected or is not functioning Failed Precharge or Detack corotron.	Ensure that the electrometer is grounded correctly. Clean, repair, or replace the defective corotron (PL 8.4, PI 9.2).

OF 7 Fuser Heat Rod On at Power Up

Introduction

The Fuser Heat Rod remains on in Power Up Mode. This could also happen after replacing the Overheat Thermostat.

Procedure

The Fuser Heat Rod is on during the Power Up Mode

Y N

Go to the F- Fuser RAP.

Switch off the copier and disconnect the power cord. Disconnect the orange wire from the Fuser Triac (gate wire). Connect the power cord and switch on the copier.

The Heat Rod is off

Y N

Ensure that the Traic is wired correctly. If correct, replace the Traic (PL 1.3).

Switch off the copier and disconnect the power cord. Connect the orange wire on the Triac. Disconnect P/J 9 from the Control PWB. Connect the power cord and switch on the copier.

The Heat Rod is off

Y N

A B

A B

Ensure that the Triac is wired correctly. If correct, replace the LVPS (PL 1.4).

Ensure that the Triac is wired correctly. If correct, replace the Control PWB (PL 1.4).

3. Image Quality Repair Analysis Procedures

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Image Quality Definitions

The following terms are some of the most commonly used terms that describe copy quality problems.

Background

A degree of darkness or dirtiness that is overall or localized in the areas of the copy where no image is present.

Black Copy

This is a copy that is entirely black except for the lead edge and trail edge and possibly the left and right borders.

Blank Copy

This is a copy entirely without an image.

Cold Flow

Cold Flow is a distortion in the selenium alloy coating on the photoreceptor drum. This defect can appear anywhere on the copy and will be perpendicular to the media feed.

Crystallization

This is a change in the surface characteristics of the drum usually caused by exposure to heat or chemicals. When this occurs, the drum cannot accept a full charge and the result is deletions.

Deletions

An area of the copy where information has been lost.

Density

The relative blackness between the image and non-image areas.

Developer Bead Carryover

This is a condition where the developer beads stick to the drum during the development process and are carried out of the developer housing. This is generally caused by a very low toner concentration or an incorrect Xerographic Set-up (Electrostatic Series). This may appear to be one or more small deletions in the copy image that are randomly distributed over the entire copy. In some cases, a single developer bead can be seen or felt in the middle of the deletion.

Fuser Fix

This is a measure of how the toner particles adhere to the media as a result of the fusing process.

Image Distortion or Skew

The image is skewed with respect to the media. The image from side to side or lead edge to trail edge is not parallel to the edges of the copy. There is also distortion of the image from one side of the copy to the other. These defects are a result of a misadjustment of the media or document transportation system components.

Lichtenberg Spots

These are large circular spots that appear randomly throughout the image on the copy in the process direction (from lead edge to trail edge). This is caused by a disturbance of the transferred image before the fusing process.

The Light Copy

These are copies where the density is lighter than the specified line density for the copier.

Media Damage

This is any physical distortion to the media that is used in making a copy. This distortion can take the following forms: tears, folds, wrinkles, frayed edges, or others.

(Continued)

Misregistration

This is when the distance from the lead edge of the image to the lead edge of the media is not within specification.

Offsetting

This is the transfer of toner from the copy to the fuser heat roll. Sometimes the toner is transferred back to the copy or consecutive copies.

Resolution

The uniformity or clarity of fine line detail.

Residual Image

This is an image that is repeated on to the same copy or consecutive copies. The image can either be a ghosting of the original image or a toner image. The repeated image is usually spaced 10.4 inches (264mm) from the original image. This problem can be caused by poor cleaning of the drum, a drum that is fatigued, or offsetting by the fuser.

Smear

This is any copy defect that occurs in the cross-process direction (from left to right sides).

Line Darkness

This is the darkness and uniformity for a line.

(Continued)

Image Quality Definitions

(Continued)

Spots

These are defects which are 0.2 inches (5mm) or smaller in diameter.

Streak

This is any copy defect that occurs in the process direction (from lead edge to trail edge).

Unfused Copy

This is a copy where the image can easily be wiped off the media. The image is not adhered to the media.

Vertical Line Distortion

The image in the copy direction is longer or shorter than the image on the document.

Image Quality Analysis RAP

- Make one D (A1) size copy on 20 lb bond paper (XeroRepro 80 GSM) of Test Pattern 82E5980 in the Copy Contrast Normal mode (the middle Copy Contrast lamp is lit).
 - Evaluate the copy and ensure that the copy meets the Image Quality Specifications as specified in the Image Quality Specifications area of Section 3.
 - If the copy is not to specification, refer to the appropriate Copy Quality (CQ) defect and follow the procedure to eliminate any defects.
 - Evaluate the copy for any visual defects.
 - If the copy exhibits any visual defects, refer to the appropriate Copy Quality (CQ) defect and follow the procedure to eliminate the defects.
- Make one D (A1) size copy on 20 lb bond paper (XeroRepro 80 GSM) of Test Pattern 82E5980 in each of the following Copy Contrast modes:
 - Lightest (top Copy Contrast lamp lit)
 - Normal (middle Copy Contrast lamp lit)
 - Darkest (bottom Copy Contrast lamp lit)
- Compare the copies for differences in image darkness. If two or more copies are the same, go to the CQ 25 Developer Bias RAP.
- Go to the Maintenance Activities located in Section 1.

NOTE: Some of the copy quality defect samples still show the old test pattern. Please disregard which test pattern is shown. The purpose of the samples is to show the defect, and not the test pattern.

Image Quality Specifications

Image Reference Scale 82P5040

Image Reference Scale, 82P5040, (Figure 1) is used to evaluate the amount of background and also image darkness.

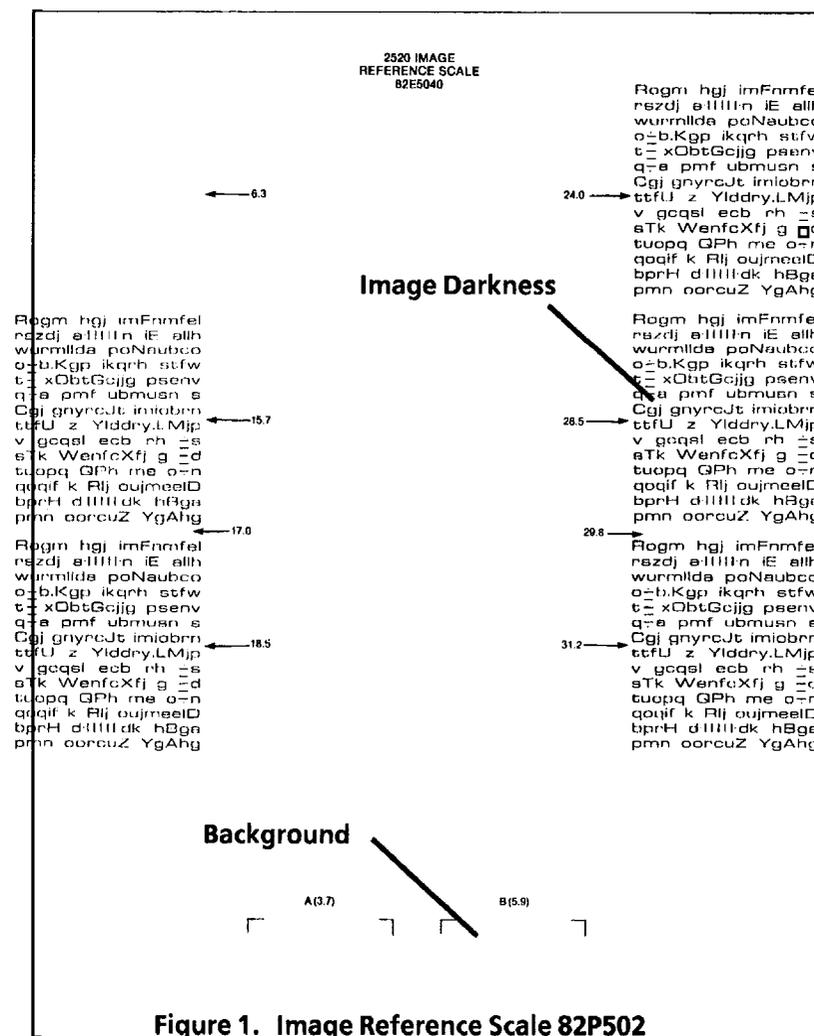


Figure 1. Image Reference Scale 82P502

Image Quality Specifications

Test Pattern 82E5980

This test pattern is the standard test pattern used for the evaluation of the copy quality of the 2520 copier. Copies of this test pattern are evaluated against the specifications listed in this section.

The Test Pattern (Figure 2) is used to evaluate line darkness, skips and smears, registration, skew, resolution, exposure level, lead edge registration, and magnification.

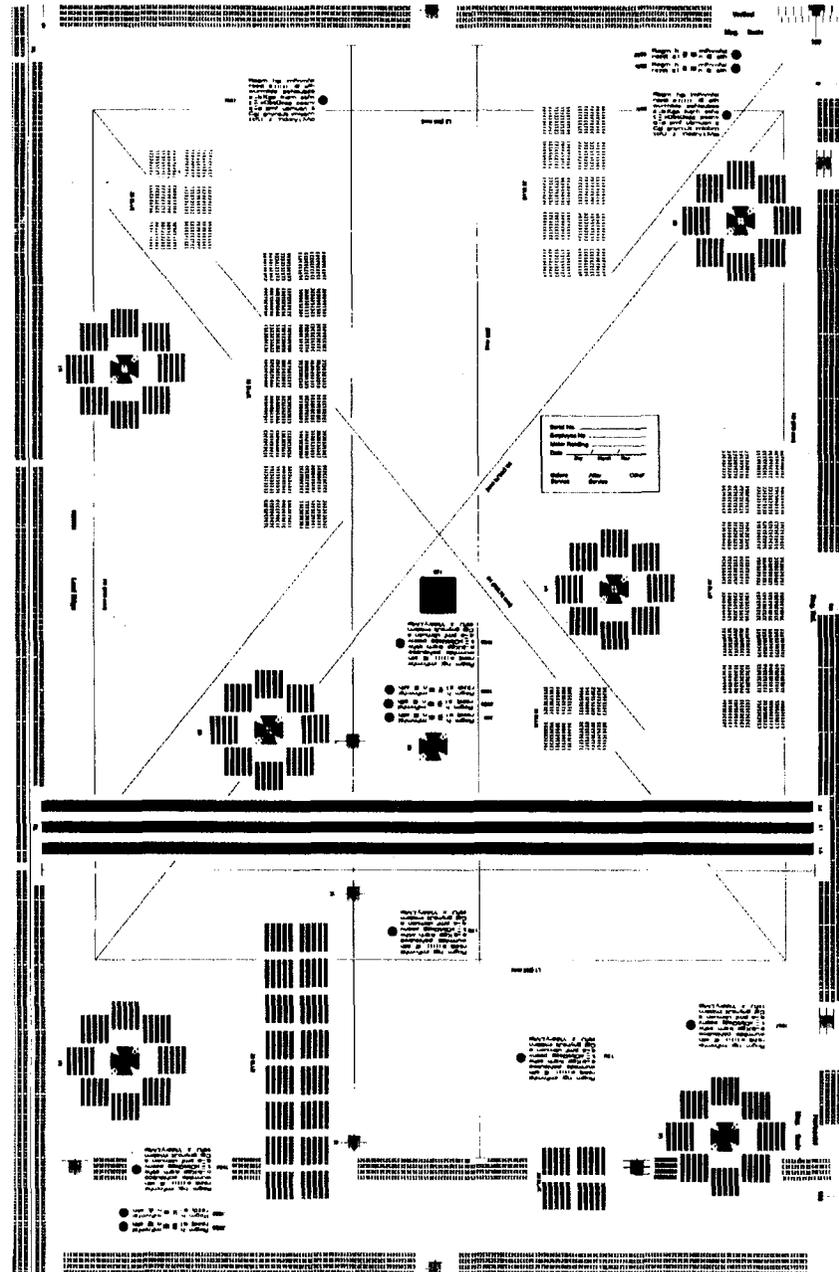


Figure 2. Test Pattern 82E5980

Line Darkness

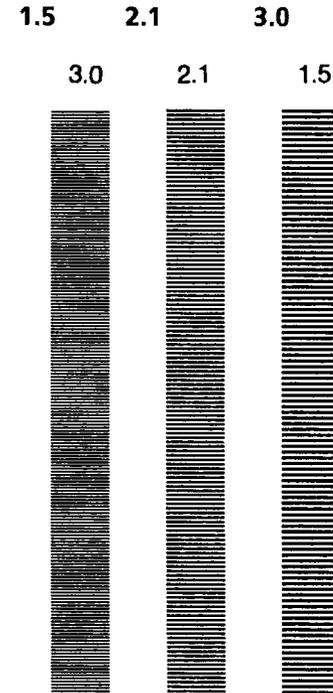
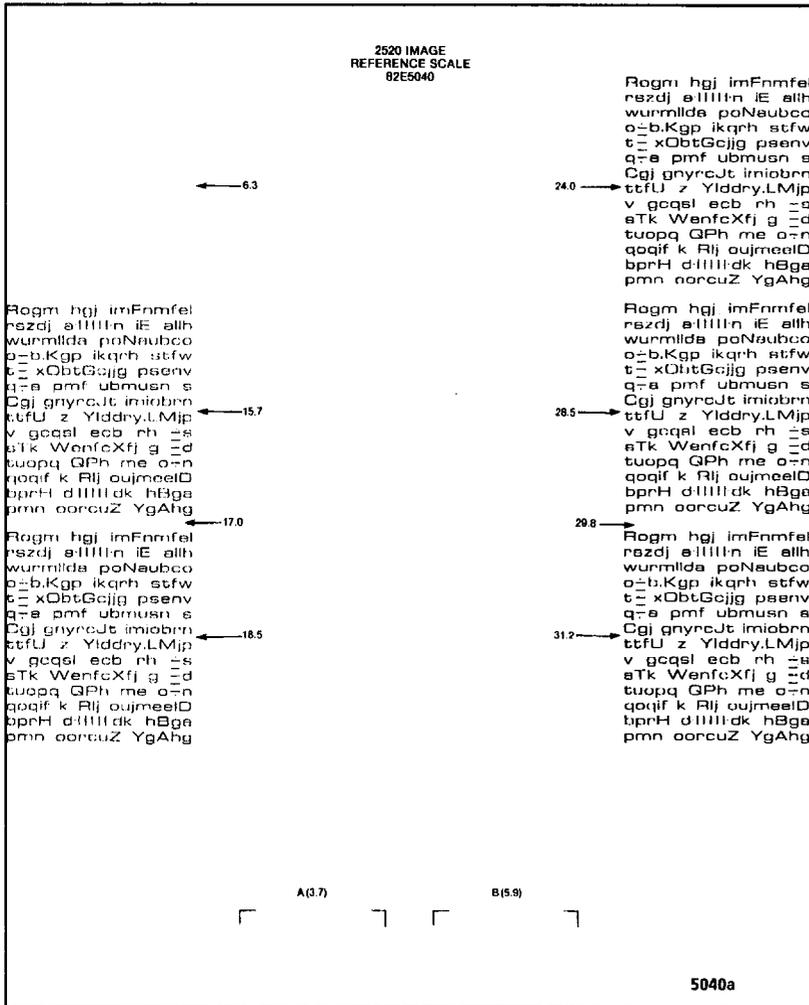
The copy of the 0.70G5 pattern in the center of test pattern 82E5980 should be between paragraph 24.0 and paragraph 31.2 on test pattern 82E5040.

Uniformity

The copy of the 0.70G2, 0.70G5, and 0.70G6 patterns of test pattern 82E5980 should be between 17.0 and 29.8 on test pattern 82E5040.

Skips and Smears

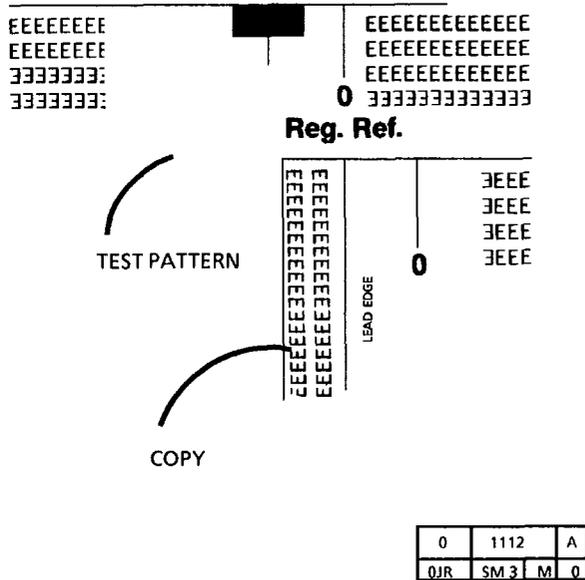
The 1.5 line pair per millimetre array on the Test Pattern 82E5980 must be completely resolved. The 2.1 line pair per millimetre can be completely resolved except for one part.



0	1168	A
QJR	SM 3	X 0

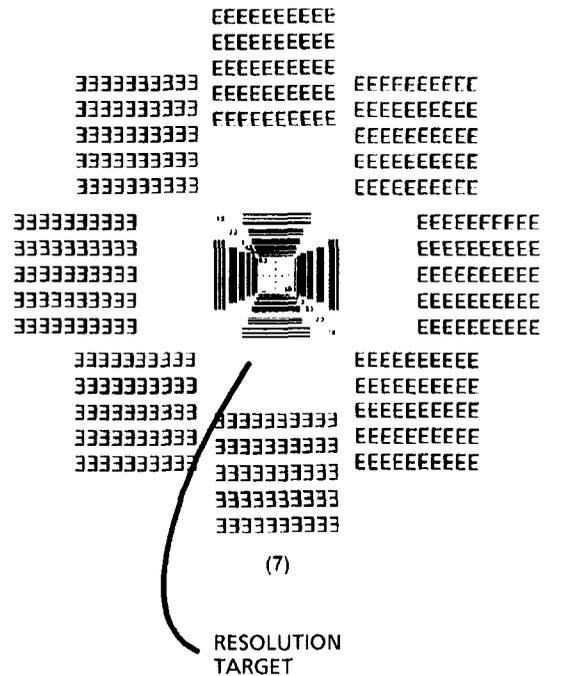
Lead Edge Registration

When the Lead Edge reference line on the copy is aligned with the 0 reference line on the test pattern, the lead edge of the copies of the 82E5980 Test Pattern must be within the black box on test pattern 82E5980.



Resolution

The copies of the 82E5980 Test Pattern must exhibit 100% of the 2.5 line pairs in each direction and 50% of the 3.5 line pairs in each direction. Check the resolution targets at the (1), (2), (5), (6), and (7) patterns.

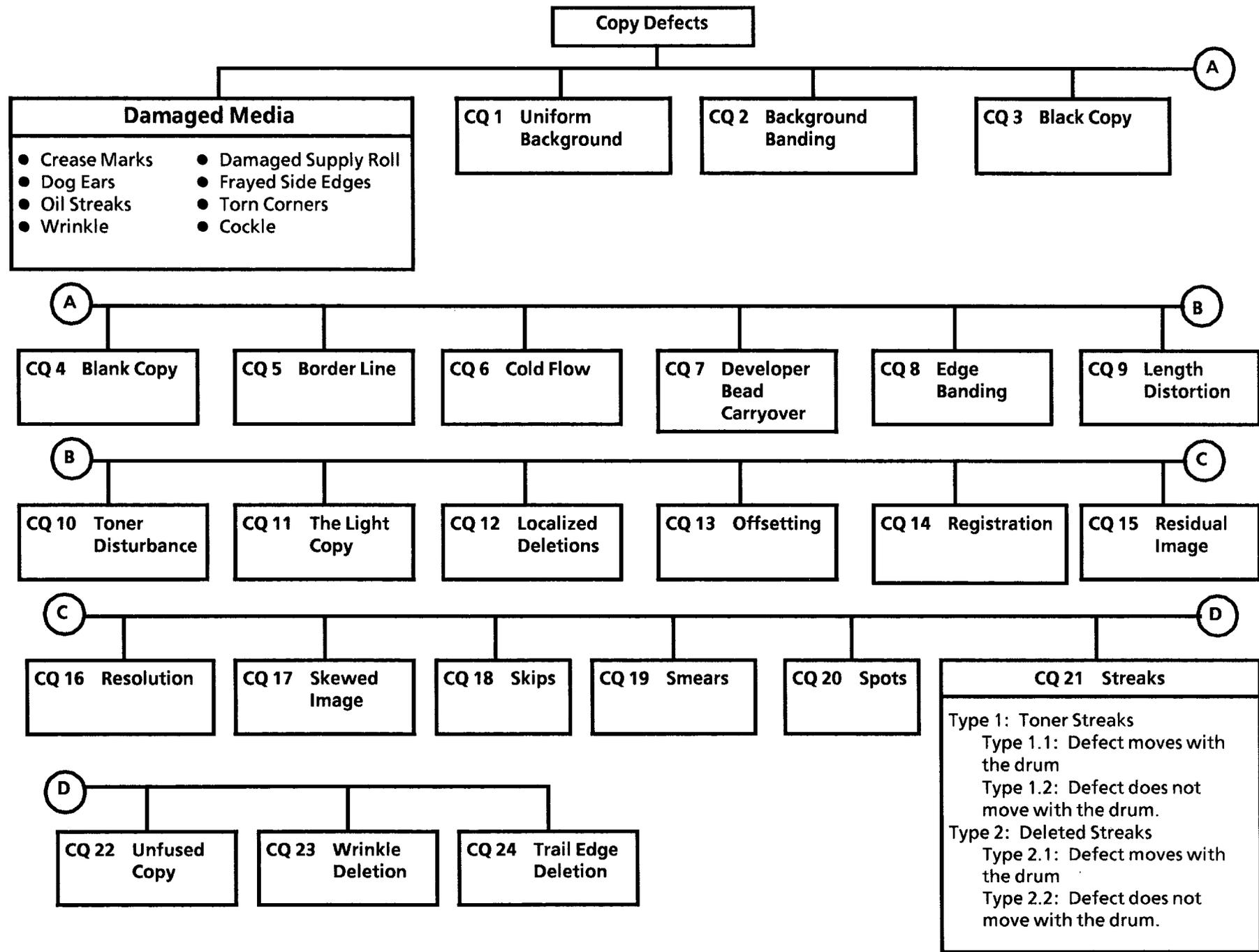


Exposure Level

The 0.10G line pair targets on the copies of the 82E5980 Test Pattern should be lightly visible at only one of the 0.10G2, 0.10G5, and 0.10G6 patterns.



0	1116	A
0JR	SM 3	M 0



Notes:

Damaged Media RAP

Probable Cause

Corrective Action

1. Crease Marks

A thin irregular line on the media because of stressing the media.

1. This defect can be caused by handling the media incorrectly.

1. Ensure that the media is stored correctly and is not folded or creased when inserted in the copier.

2. Damaged Supply Roll

There could be a flattened area at one end of the roll.

2. Rolled media was not handled correctly and could have fallen on a hard surface during handling of the roll.

2. Replace the media roll.

3. DOG EARS

This is a corner of the lead edge of the copy that has been bent back.

3. Curled or roll cut media.
Detack corotron

3. Use the cut sheet media.
Check for obstruction caused by the detack corotron.

4. Frayed Side Edge

This is damage to the sides of the copy.

4. Damaged media supply roll.
Incorrect media side to side registration.
Obstruction in the media path.

4. Replace the media roll.
Ensure that the media is inserted between the guide marks on the media feed-in shelf.
Check the media path for an obstruction.

5. Oil Streaks

Streaks on the copy.

5. Contamination or excessive amount of oil on the fuser oil pad and wick.

5. Clean or replace the Oil Pad (REP 10.4) and wick (REP 10.5).
Adjust Oil Dispenser (ADJ 10.2).

(Continued)

Damaged Media RAP (Continued)

6. Wrinkle

This is damage that is probably caused by the fuser subsystem. This is a severe case of creases that runs in the direction of media travel.

Probable Cause

6. Damage or obstruction in the handling system for the media.
Uneven oil dispensing.
Fuser is too hot.
Damp media.
Fuser Pressure Plate or Media Guide Plate (PL 8.2) is damaged or incorrectly installed.
Tightly rolled media.
Fuser heat roll is damaged or contaminated.

Corrective Action

6. Check the media path for an obstruction or damage.
Check/Adjust Oil Dispenser (ADJ 10.2).
Check/Adjust the Fuser Temperature (ADJ 10.1)
Try a new media roll or a cut sheet.
Replace the fuser heat roll (PL 10.2).

7. Cockle

This is damage that could be caused by the fuser subsystem. The media has a rough surface like an orange peel.

7. Damage or obstruction in the handling system for the media.
Uneven oil dispensing.
Fuser is too hot.
Damp media.
Fuser Pressure Plate or Media Guide Plate (PL 8.2) is damaged or incorrectly installed.
Tightly rolled media.

7. Check the media path for an obstruction or damage.
Check/Adjust Oil Dispenser (ADJ 10.2).
Check/Adjust the Fuser Temperature (ADJ 10.1)
Try a new media roll or a cut sheet.

8. Other Damage

8. If there are other defects that are on the copy, go to the Media Handling Problems on the following pages.

Media Handling Problems

Introduction

For media transportation problems, use the following problem solving approach. Experience has shown that many media transportation problems have more than one cause and must be handled using a systematic approach.

Media transportation problems show up as one of the following symptoms:

Pre-fuser jams
Copy quality defects
Physical distortion of media

When these symptoms occur, perform the following checks of media and copier and perform the corrective actions:

Media Check

1. Check the type of media:
 - a. Some vellum (a tracing paper) or bond paper less than 20 lb (80 GSM) perform with less reliability than Xerox 20 lb. (80 GSM) media. Some film less than 0.004 inches thick will perform with less reliability.
 - b. Other brands of media may have different design specifications than Xerox media and may not give acceptable performance in the 3001 copiers.
 - c. Erasable media has chemicals which, when heated, gives off a gas that contaminates copier components.
2. Check the storage of media:
 - a. Media that is exposed to the environment may have damp areas.
 - b. Media may have curled ends or taken a set from storing the media on end.

Corrective Actions

- a. Use the Xerox qualified media.
 - b. After all media checks, test with fresh Xerox media. Use the "Media Messages" booklet to explain differences to the customer.
 - c. The new and improved Zero Solvent Erasable Vellum is acceptable with limited use. Use should be limited to 15% or less of the monthly copy volume.
- a. Suggest that the customer use the package in which the Xerox media is shipped.
 - b. Suggest that the customer store the media flat.

(Continued)

Media Handling Problems (Continued)

Media Check

3. Check the grain direction of media:
 - a. Media with the grain direction perpendicular to the feed direction will have less wrinkles and jams than media fed with grain parallel to the feed direction.
 - b. To test for grain direction, tear a corner from a sheet of media, moisten one side, and the media will curl. Place your finger in the curl, place the piece in the sheet, and your finger will point in the direction of the grain.

Corrective Actions

- a. Try feeding the media in the correct grain direction.
- b. Roll cut media can only be made with the grain in the process direction

Copier Check

4. Ensure that fuser temperature is set to specification. (Fuser temperature that is too high will cause the media to shrink or wrinkle.)
 5. An incorrect electrostatic value can cause jams or deletions.
 6. Check, clean or replace the following components:
 - a. Transfer/detack corotron (PL 8.4).
 - b. Bottom of xerographic module (plate located above transfer/detack corotron).
 6. Check, clean or replace the following components (continued):
 - c. Fuser oil wick is clogged.
4. Clean the thermistor and ensure thermistor is in contact with fuser roll; perform Fuser Temperature Adjustment (ADJ 10.1).
 5. Perform Electrostatic Series (ADJ 9.2).
 - a. Check for contamination or dirt; clean or replace if necessary.
 - b. Clean the module with film remover. Dirt in this area causes dirty copies, smudges, and jams.
 - c. Check the Oil Pads (REP 10.4); replace the wick (PL 10.3).

Continued)

Media Handling Problems (Continued)

Copier Check

- d. Fabric guide.
 - e. Fuser heat roll.
 - f. Fuser pressure plate.
 - g. Fabric guide tensioning assembly.
 - h. Weight centered in fabric guide.
 - i. Media transport module is latched against the pins on the xerographic module.
 - j. Media deflectors.
 - k. Fuser stripper fingers
 - l. Excessive oil
 - m. Check for an opening between the Transfer/Detack corotron and the channel the corotron mounts in, or that the Post Transfer Corrigator has been removed.
7. After completing the previous checks, run several copies with dry Xerox media to verify that the problem is fixed or still exists. If the problem is fixed, perform the Final Actions.

Corrective Action

- d. Replace fabric guide (REP 8.5).
- e. Replace the fuser heat roll (PL 10.2) if it is glazed or contaminated. Before replacing, try to removing glaze using a fine abrasive paper. Refer to Section 6, Sanding the Heat Roll).
- f. Check for correct position on pins, bent or damaged plate (PL 8.2).
- g. Ensure that the fabric guide tensioning assembly (PL 8.2) is in the fully up position.
- h. Center the weight rod.
- i. Ensure that the media transport module is against the pins. Replace the latch springs if necessary.
- j. Check the media deflectors for damage (PL 10.3).
- k. Ensure that the fuser stripper fingers (PL 10.3) are not damaged.
- l. Check the Oil Pads (REP 10.4); replace the wick (PL 10.3).
- m. Install repair kit 600K24350.

CQ 1 Uniform Background

Definition

Background is a degree of toner contamination in the non-image areas of the copy. The background defect can be uniform over the entire copy or localized.

Probable Cause

1. Corotrons or end blocks are damaged, wires loose, or voltages are out of specification.
2. Dirty transport platen, platen, exposure lamp, or lens.
3. Developer material has more than 30K feet (9K metres) of copies on it.
4. Incorrect toner or developer is installed in the copier.
5. Photoreceptor drum is not being cleaned correctly.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

Corrective Action

1. Repair or replace corotron and then perform the Electrostatic Series (ADJ 9.2) and the Image Density ADJ 9.4.
2. Clean the transport platen and the platen with Anti-Static Fluid.

If required, apply a small amount of Film Remover (USO) or General Cleaning Solvent (EO) to a towel to remove excess contaminants from the lens and exposure lamp. Then apply Anti-Static Fluid to the towel and wipe the lens and exposure lamp.
3. Replace the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2).
4. Ensure the Customer is using the correct developer material and toner.
5. Remove the xerographic module (REP 9.1) and lightly dust the photoreceptor drum with zinc stearate. Install the xerographic module. Enter the diagnostic mode and enter the codes [10 and 19] to clean the photoreceptor drum. Remove the xerographic module. Ensure that the drum is cleaned correctly.

(Continued)

CQ 1 Uniform Background (Continued)**Probable Cause****Corrective Action**

5. (Continued)

5. (Continued)

If the photoreceptor drum is not cleaned correctly, check the following components:

Cleaner blade solenoid circuit in the CQ 15 Residual Image RAP.

Cleaner blade (PL 9.3) moves freely

Cleaner blade solenoid adjustment (ADJ 9.1)

Cleaner blade transition gear

Remove the photoreceptor drum and check the following for damage or contamination:

Cleaner blade seal assembly (PL 9.3)

Cleaner blade (PL 9.3)

Repair or replace as required.

6. Photoreceptor drum has been exposed to the light (Light Shock).

6. Make five copies in a lighter contrast mode. Now check the copy quality.

7. The toner dispense solenoid is not working correctly.

7. Check for obstruction and binding. Go to FLAG 1 in the circuit diagram in the J1 RAP in Section 2 and check the wiring for a short circuit to the frame.

(Continued)

CQ 1 Uniform Background
(Continued)

Probable Cause

Corrective Action

- | | |
|--|---|
| 8. Toner concentration is too high. | 8. Refer to the J2 High Toner Fault in Section 2. |
| 9. Developer bias has a short circuit to ground. | 9. Go to the CQ 25 Developer Bias RAP. |
| 10. An electrostatic voltage is out of specification. | 10. Perform the Electrostatic Series (ADJ 9.2). |
| 11. Exposure lamp heatsink is incorrectly installed or is missing. | 11. Install heatsink if missing (PL 6.1). Place the heatsink at center of lamp and against the frame. |
| 12. An open circuit in the photoreceptor drum ground circuit. | 12. Check that the ground bracket is in contact with photoreceptor drum shaft (PL 9.1). |
| 13. Defective photoreceptor drum. | 13. Replace photoreceptor drum (REP 9.3) and then perform the Electrostatic Series (ADJ 9.2). |
| 14. Defective exposure lamp or the lamp is installed incorrectly. | 14. Ensure that the exposure lamp is installed correctly (REP 6.1). |
| 15. The cooling fans are not turning or they are defective or damaged. | 15. Go to the 1.3 Cooling Fan RAP in Section 2. |

CQ 2 Background Banding/ Streaks

Definition

Background banding is a narrow band of background that appears in the direction of media feed.

Probable Cause

1. Dirty transport platen, platen, exposure lamp, or lens.
2. Toner on corotron.
3. Photoreceptor drum is not being cleaned correctly.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

Corrective Action

1. Clean the transport platen and the platen with Anti-Static Fluid.

If required, apply a small amount of Film Remover (USO) or General Cleaning Solvent (EO) to a towel to remove excess contaminants from the lens and exposure lamp. Then apply Anti-Static Fluid to the towel and wipe the lens and exposure lamp.
2. Clean, repair, or replace the corotrons and then perform the Electrostatic Series (ADJ 9.2).
3. Remove the xerographic module (REP 9.1), and lightly dust the photoreceptor drum with zinc stearate. Install the xerographic module. Enter the diagnostic mode and enter the codes [10 and 19] to clean the photoreceptor drum. Remove the xerographic module. If the photoreceptor drum is not cleaned correctly, check the following components:

Cleaner blade solenoid circuit in the CQ 15 Residual Image RAP.

Cleaner blade moves freely (PL 9.3)

Cleaner blade solenoid adjustment (ADJ 9.1)

Cleaner blade transition gear.

(Continued)

CQ 2 Background Banding/ Streaks
(Continued)

Probable Cause

Corrective Action

- | | |
|---|---|
| 3. Photoreceptor drum is not being cleaned correctly. (Continued) | 3. Remove the photoreceptor drum and check the following for damage or contamination:

Cleaner blade seal assembly (PL 9.3)

Cleaner blade (PL 9.3).

Repair or replace as required. |
| 4. Contaminated or damaged photoreceptor drum. | 4. Wash the photoreceptor drum (General Procedures). If this does not remove the contamination, replace the photoreceptor drum (REP 9.3).

If the photoreceptor drum is damaged, determine the cause of the damage before replacing the photoreceptor drum. Perform the Electrostatic Series (ADJ 9.2). |
| 5. The lower document feed rolls are contaminated. | 5. Clean the feed rolls with:

USO or EO Formula A Cleaner

EO General Purpose Cleaner. |
| 6. Uneven distribution of toner within the developer housing. | 6. Remove the toner cartridge and inspect the cartridge for damage. Replace the cartridge if it is damaged. If there is no damage, shake the cartridge side-to-side to evenly distribute the toner. Reinstall the cartridge, holding the drive side of the cartridge, rotate the cartridge one revolution and ensure that toner is being dispensed from each hole in the cartridge. |

(Continued)

CQ 2 Background Banding/ Streaks
(Continued)

Probable Cause

Corrective Action

- | | |
|--|---|
| 7. Uneven distribution of developer material within the developer housing. | 7. Ensure that the copier is level front-to-back and side-to-side. |
| 8. The media path components are contaminated. | 8. Clean the areas on the transport module and xerographic module that could come in contact with the media. |
| 9. The toner dispense solenoid is not working correctly. | 9. Check for obstruction and binding. Go to FLAG 1 in the circuit diagram in the J1 RAP in Section 2 and check the wiring for a short circuit to the frame. |
| 10. Toner concentration is too high. | 10. Remove the toner cartridge and inspect for damage and toner leakage. If the cartridge is damaged, replace cartridge and waste bottle (PL 9.3).

If the problem still exists, perform the Detoning Procedure in the General Procedures Section.

If this is not successful, replace the developer material and waste bottle. Perform the Electrostatic Series (ADJ 9.2). |
| 11. The cooling fans are not turning or they are defective or damaged. | 11. Go to the 1.3 Cooling Fan RAP in Section 2.

12. If the problem still exists, go to the CQ 1 Uniform Background RAP. |

CQ 3 Black Copy

Probable Cause

1. Exposure lamp does not light.
2. Reversed connections to the illumination sensor.

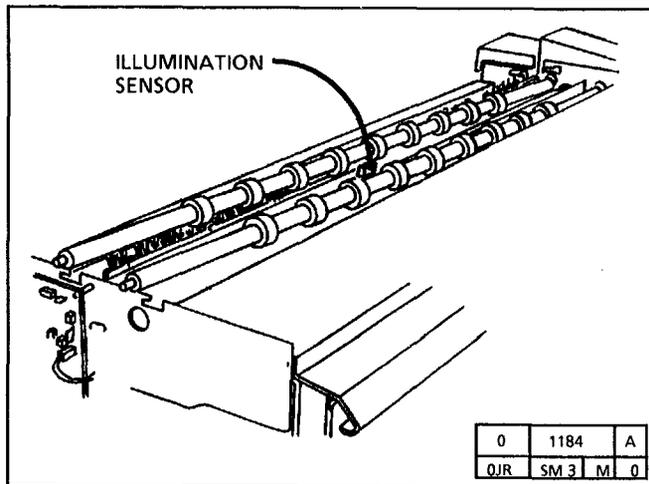
Corrective Action

1. Go to the CQ 27 Exposure RAP.
2. Go to the circuit diagram in the CQ 27 Exposure RAP and check the wiring to the illumination sensor.

No copy defect sample is needed.

Definition

The entire copy is black and there is no image.



CQ 4 Blank Copy

Probable Cause

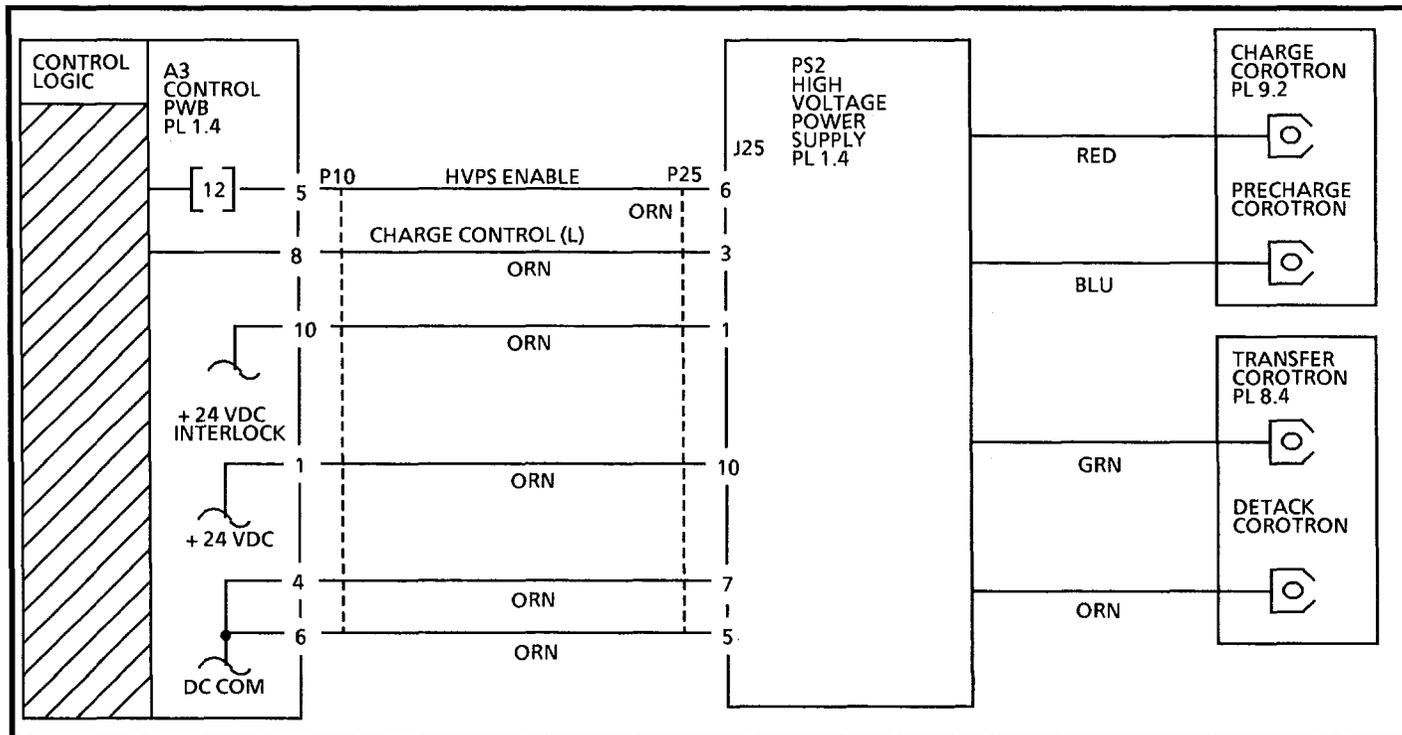
1. Dirty or defective corotrons.
2. Magnetic roll is not turning.
- 3 There is no Charge or Transfer output from the High Voltage Poer Supply.
- 4 An electrostatic voltage is out of specification.

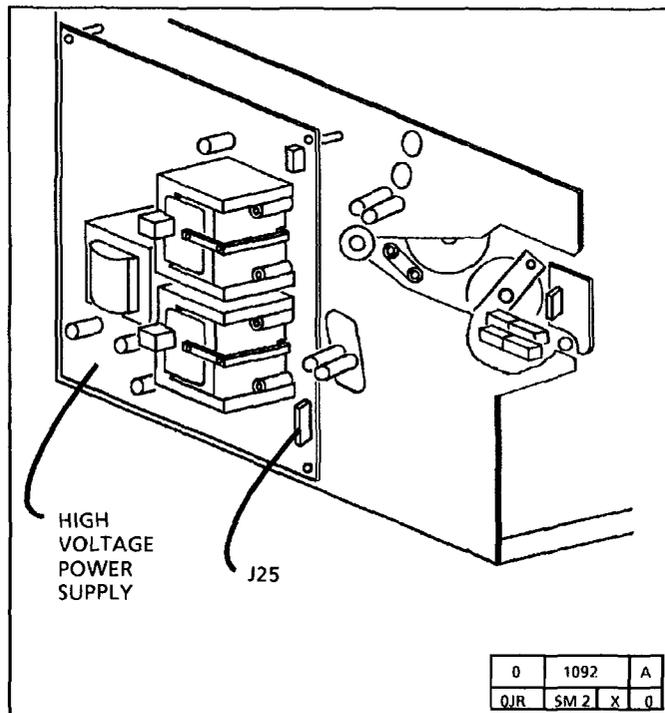
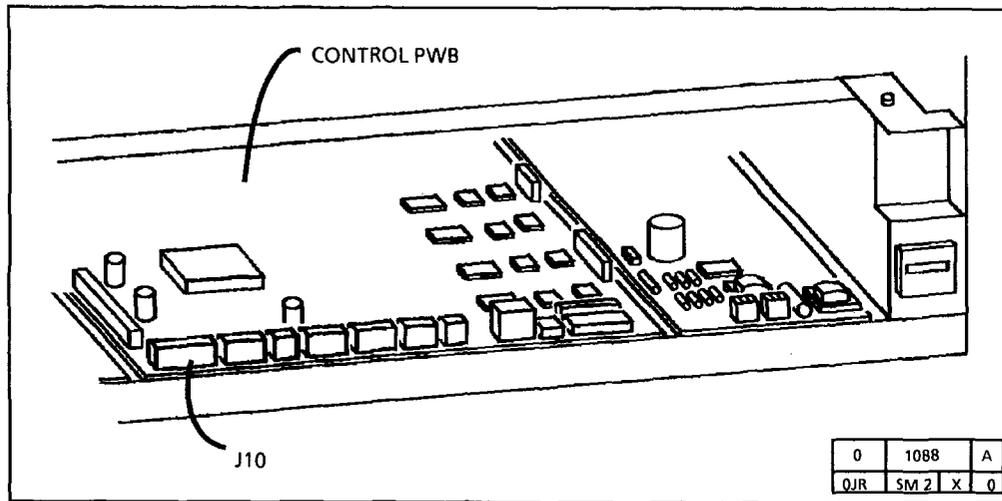
Corrective Action

1. Check that the high voltage leads are fully plugged into the corotrons. Clean, repair, or replace the corotrons and perform the Electrostatic series (ADJ 9.2)
2. Check the developer drive for damage. Ensure that the idler gear (PL 1.1) is in the correct position.
3. Go to the CQ 26 HVPS RAP.
4. Perform the Electrostatic Series (ADJ 9.2).

Definition

The entire copy has no image on it.





CQ 5 Border Line

Probable Cause

1. Registration is not adjusted correctly.
2. Document is smaller than the copy media.

Corrective Action

1. Adjust Registration (ADJ 8.1).
2. This is normal operation. If the document is smaller than the copy media, then the edges of the document will be copied. If this is not acceptable, try either of the following:
 - a. Cut the media to the same size as the document.
 - b. Select the lightest setting on the Copy Contrast.

Definition

A border line is a line that appears on or near any edge of the copy.

CQ 6 Cold Flow

Definition

Cold Flow is a distortion in the selenium alloy coating on the photoreceptor drum. This defect can appear anywhere on the copy and will be perpendicular to the paper feed.

Probable Cause

1. The cleaning blade is not being raised off the photoreceptor drum during the standby mode.

Corrective Action

1. Check the following:
 - a. Adjustment of Cleaning Blade Solenoid (ADJ 9.1).
 - b. Cleaning blade assembly (PL 9.3) for free movement.
2. Go to FLAG 1 in the CQ 15 Residual Image RAP and check the wiring for a short circuit to ground. If there is no short circuit, replace the cleaner blade solenoid.
3. Replace the photoreceptor drum (REP 9.3) and perform the Electrostatic Series (ADJ 9.2).

CQ 7 Developer Bead Carryover

Probable Cause

1. Charge voltage on photoreceptor drum is too high.
2. Developer material has more than 30K feet (9K metres) of copies on it.
3. Not enough toner in the developer. This will cause the developer to fail.
4. AC Corotron is shorted.
5. Developer material dumping onto Xerographic Module.

Corrective Action

1. Perform the Electrostatic Series (ADJ 9.2).
2. Replace the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2).
3. Replace the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2).

4. Repair or replace the corotron.

5. Worn drive gears on the right side of the Developer Housing

The magnetic Roll surface is worn smooth. replace the Developer Housing.

Trimmer bar gap is out of specification. Replace the Developer Housing.

The Developer to Roll Spacing (DRS) is out of specification. Contact SSE to check using the DRS Tool.

Ensure that photoreceptor drum is fully seated on the drum shaft and is not rotating out-of-round.

Xerographic Module is moving away from the photoreceptor drum. Check that there is sufficient oil on the fuser.

Definition

Bead carryover is one or more small deletions in the copy image that appear randomly over the entire copy. In some cases a single developer bead can be seen in the middle of the deletion.

CQ 8 Edge Banding

Definition

Edge banding is a black band on any edge of the copy.

Probable Cause

1. Contamination in the optics area.
2. High background.
3. Photoreceptor drum is not being cleaned correctly.
4. Uneven distribution of developer material within the developer housing.
5. Charge Corotron voltage out of specification. Place the electrometer probe in the area of the defect to check the voltage on the drum.

Corrective Action

1. Clean the Platen with anti-static fluid, Exposure Lamp, and Lens.
2. Go to the CQ 1 Uniform Background RAP.
3. Check the cleaning blade for damage (PL 9.3).
4. Ensure that the copier is level.
5. Clean, repair, or replace the corotron. Perform the Electrostatic Series ADJ 9.2.

CQ 9 Length Distortion

Definition

Length distortion, often referred to as copy enlargement or reduction, can be any of the following:

- a. The image on the copy is longer than the image on the document.
- b. The image on the copy is shorter than the image on the document.
- c. One side of the copy image is larger than the other side.

Probable Cause

1. Contamination or static on the platen.
2. Damp media.
3. Copy Size is out of specification.
4. Incorrect media speed at the fuser. Media is moving too slowly.
5. The lower document feed rolls are contaminated or worn.

Corrective Action

1. Clean the platen with Anti-Static Fluid.
- 2a. Cut sheet media
Make a copy using a sheet of media from the middle of the stack of media in the media storage on the stand.
If the problem is corrected, ensure that the cut sheet media is being stored correctly.
- 2b. Roll media
Remove and discard the first 3 to 6 feet (1 to 2 metres) of media from the roll. Make a copy on the new media.
If the problem is corrected, ensure that the roll media is being stored correctly.
3. Check/Adjust Copy Size (ADJ 5.1).
4. There is too much or too little oil on the fuser roll. Check the wick for contamination and sufficient oil. Adjust the Oil Dispenser (ADJ 10.2).
5. Go to the CQ 17 Skewed Image RAP.

Image Tolerance Specification (Bond media only): The copier has a tolerance specification which is; nominal 1:1 \pm 0.5% horizontal and vertical. As a general guide the following table illustrates the expected variance over the length of the print when the copier is set to specification.

PAPER SIZE (INCHES)	DECIMAL (INCHES)	NEAREST FRACTION (INCHES)	METRIC (mm)
8	\pm 0.040	\pm 3/64	\pm 1.
11	\pm 0.055	\pm 1/16	\pm 1.4
17	\pm 0.085	\pm 3/32	\pm 2.16
24	\pm 0.120	\pm 1/8	\pm 3.0
36	\pm 0.180	\pm 3/16	\pm 4.57
48	\pm 0.240	\pm 15/64	\pm 6.0
52	\pm 0.260	\pm 17/64	\pm 6.6
56	\pm 0.280	\pm 9/32	\pm 7.1

CQ 10 Toner Disturbance

Definition

This is a disturbance of the transferred toner image before the fuser. The defect can appear randomly throughout the image area in the process direction (from lead edge to trail edge) of the copy.

The samples show various amounts of the defect.

Probable Cause

1. Transfer/detack corotron hardware is not seated correctly or is shorted to ground.
2. An electrostatic voltage is out of specification.
3. The toner concentration is too high.

Corrective Action

1. Ensure that the transfer/detack corotron is seated correctly (PL 8.4).
2. Perform the Electrostatic Series (ADJ 9.2).
3. Enter the diagnostic mode Code [46] Auto Detone, then perform the Image Density ADJ 9.4.

CQ 11 The Light Copy (Overall)

Probable Cause

1. Not enough toner in the developer material. This will cause the developer material to fail. This could have been caused by a defective toner sensor.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

2. Toner cartridge is not rotating.
3. The Exposure Lamp is not fully seated.
4. An electrostatic voltage is out of specification.
5. Lens is not mounted correctly or light shield is damaged or missing.
6. Image on the document is light.

Corrective Action

1. Ensure that there is toner in the cartridge. If a new toner cartridge has been installed, do not install a new toner cartridge.
Enter the Code [4]. If the value displayed in the Code [25] is 2 units less than the value displayed in code [4], go to the J1 Toner Concentration Fault RAP in Section 2.
2. Check the cartridge drive for damaged gears, return spring, and/or the drive arm. Check for bent toner cartridge. (If excessively bent, replacement is necessary.)

Go to the J1 Toner Concentration Fault RAP and check the wiring to the toner dispense solenoid for an open circuit.
3. Ensure the lamp is fully seated and the opening in the lamp is facing the Illumination Sensor.
4. Perform the Electrostatic Series (ADJ 9.2).
5. Check the following:
 - a. The light seal is separated from lens (PL 6.1). Fix the seal with black electrical tape.
 - b. Ensure that the magnet and lens are positioned correctly against frame.
 - c. Check for direct room light or sunlight on the copier.
6. Select a darker Copy Contrast setting for light copy.

(Continued)

Definition

Light copies are copies where the image darkness is lighter than the image darkness specifications for the copier.

CQ 11 The Light Copy (Overall)
(Continued)

Probable Cause

Corrective Action

- | | |
|--|---|
| 7. There is insufficient Developer Material in the Developer Module | 7. Replace the Developer Material REP 9.8, then perform the Detoning Procedure. Enter the diagnostic code [46] Automatic Detone. |
| 8. Damp media. | 8a. Cut sheet media
Make a copy using a sheet of media from the middle of the stack of media in the media storage on the stand.

If the problem is corrected, ensure that the cut sheet media is being stored correctly.

8b. Roll media

Remove and discard the first 3 to 6 feet (1 to 2 metres) of media from the roll. Make a copy on the new media.

If the problem is corrected, ensure that the roll media is being stored correctly. |
| 9. Developer material has more than 30K feet (9K metres) of copies on it. | 9. Replace the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2). |
| 10. The charge voltage and developer bias are not being reduced to less than + 20 VDC while the document is returning to the front of the copier in order to make the next copy. | 10. Refer to the CQ 26 High Voltage Power Supply RAP. Go to FLAG 3 and check the wiring for an open circuit. If the voltage is not being reduced, then replace the HVPS (PL 1.4). If the problem still exists, replace the Control PWB (PL 1.4). |

(Continued)

**CQ 11 The Light Copy
(Overall)** (Continued)

Probable Cause

Corrective Action

- | | |
|---|---|
| 11. The developer bias is out of specification. | 11. Go to the CQ 25 Developer Bias RAP. |
| 12. The copy is not fused. | 12. Go to the CQ 22 Unfused Copy RAP. |
| 13. Airborne chemicals | 13. Some chemicals can cause damage or contamination of the drum.

Wash (General Procedures) or replace the drum (REP 9.3) and perform the Electrostatic Series (ADJ 9.2). If the problem still exists, notify technical support. |
| 14. Contaminated Air Filter or failed Cooling Fan | 14. Replace the Air Filter, or go to the 1.3 Copier Cooling Fan RAP. |
| 15. Air flow manifold damaged. | 15. Replace the air flow manifold (PL 1.5). |
| 16. The Contamination Seal in the Cleaner Blade area is damaged or has moved out of position. | 16. Ensure that the Contamination Seal is positioned correctly. |
| 17. Excessive use of high density documents will deplete the toner supply. | 17. Discuss the use of high density documents with the Customer. |

CQ 11 The Light Copy (Partial)

Probable Cause

Corrective Action

- | | |
|--|---|
| 1. Copier is not level side-to-side or front-to-rear. | 1. Level the copier. Refer to the Installation Procedure located in Section 6. |
| 2. Developer module or xerographic module is not fully seated against the stops. | 2. Ensure that the developer module and xerographic module are installed and secured correctly. |
| 3. The light can enter the copier through an opening in the covers. | 3. Ensure that the covers are not damaged and that they are seated correctly. Allow the photoreceptor drum to rest before trying to make copies. Copier is in a location near a window or where it is exposed to bright lights. |
| 4. Fans not functioning or ozone filter contaminated or blocked. | 4. Go to the 1.3 Copier Cooling Fan RAP in Section 2. Also replace the ozone filters (PL 1.6). |
| 5. Lens is not seated correctly or is damaged. | 5. Check the light shield for damage and the magnet is not pulled away from the lens. Replace the Lens PL 6.1. |
| 6. Corotrons are contaminated or damaged
Check for the following: <ul style="list-style-type: none">● corotrons that are bowed towards the photoreceptor● loose vibrating corotron wires | 6. Clean, replace, or restring the corotron. Perform the Electrostatic Series ADJ 9.2. |
| 7. Air Flow Manifold is damaged. | 7. Replace the Air Flow Manifold PL 1.5 |
| 8. Contamination Seal is not positioned correctly. | 8. Replace the Contamination Seal REP 9.11. |
| 9. Pickoff Baffle is installed backwards or upside-down. | 9. Install correctly |
| 10. Worn Latch Springs | 10. Replace the Latch Springs (PL |
| 11. Surface of the Magnetic roll is worn. | 11. Replace the Developer Housing (PL 9.4). |
| 12. The Developer Roll Spacing (DRS) is out of specification. | 12. Escalate the call to the DTS to have the spacing checked. |

CQ 12 Localized Deletions

Definition

Deletions are areas on the copy where the image is missing. (The causes for the defects are on the following two pages.)

Probable Cause

1. Dirty corotrons, loose wire, or corotron connectors are not connected correctly.
2. Damp media.
3. Contaminated or wrinkled fabric guide.
4. Fabric guide not tensioned correctly.

Corrective Action

1. Check for connector damage or loose wires. Clean the corotron if it is dirty. Repair or replace corotron if it is damaged and perform the Electrostatic Series (ADJ 9.2).
- 2a. Cut sheet media
Make a copy using a sheet of media from the middle of the stack of media in the media storage on the stand.

If the problem is corrected, ensure that the roll media is being stored correctly.
- 2b. Roll media

Remove and discard the first 3 to 6 feet (1 to 2 metres) of media from the roll. Make a copy on the new media.

If the problem is corrected, ensure that the roll media is being stored correctly.
- 2c. Check that the Snake Deletion Kit , Tag 83 is installed.
3. Replace fabric guide (REP 8.5).
4. Check that the tension assembly moves freely (PL 8.2).

(Continued)

CQ 12 Localized Deletions (Continued)

Probable Cause

Corrective Action

- | | |
|---|--|
| 5. The fuser temperature is too high. | 5. Check the Fuser Temperature (ADJ 10.1) |
| 6. Oil dispense assembly contaminated. | 6. Replace the oil pads and wick (PL 10.3). |
| 7. Lens is not mounted correctly or light shield is damaged or missing. | 7. Check the following: <ul style="list-style-type: none">a. The light seal is separated from lens (PL 6.1). Fix the seal with black electrical tape.b. Ensure that the magnet and lens are positioned correctly against frame.c. Check for direct room light or sunlight on the copier. |
| 8. Not enough developer material in developer housing. | 8. Replace developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2). |
| 9. The light leak discharges the photoreceptor drum. | 9. Ensure that the covers are not damaged and that they are seated correctly. Allow the photoreceptor drum to rest before trying to make copies. |
| 10. Copier is not level. | 10. Level the copier. |
| 11. Developer bead carryover. | 11. Refer to the CQ 7 Developer Bead Carryover RAP. |
| 12. Photoreceptor drum crystallization | 12. Replace the drum (REP 9.3) and then perform the Electrostatic Series (ADJ 9.2). If this is a continuing problem, ask the customer if chemicals are used or stored in the area. If chemicals are suspected, discuss with the Customer the possibility of moving the machine or chemicals to another location. |

(Continued)

CQ 12 Localized Deletions (Continued)**Probable Cause****Corrective Action**

- | | |
|--|--|
| 13. Air Flow manifold damaged | 13. Replace the air flow manifold (PL 1.5). |
| 14. Fuser pressure plate not positioned correctly or it is damaged. | 14. Check that the fuser pressure plate (PL 8.2) is positioned on the locating pins. Replace the fuser pressure plate if it is damaged. The plate must be flat. |
| 15. An electrostatic voltage is out of specification. | 15. Perform the Electrostatic Series (ADJ 9.2). |
| 16. Powder Deficiency Spots - Small size spot on the photoreceptor drum surface that will not accept a charge. | 16. Replace the photoreceptor drum (REP 9.3). |
| 17. Airborne contaminants. | 17. Wash (General Procedures) or replace (REP 9.3) the photoreceptor drum as required and perform the Electrostatic Series (ADJ 9.2).

If this is a continuing problem, ask the Customer if chemicals are used or stored in the area. If chemicals are suspected, discuss with the customer the possibility of moving the copier or chemicals to another location. |
| 18. Fans are not functioning or the ozone filter is contaminated or blocked. | 18. Go to the 1.3 Cooling Fan RAP in Section 2. Also replace the ozone filters (PL 1.6). |
| 19. Too much oil. | 19. 2 Check/Adjust the Oil Dispenser (ADJ 10.2). |
| 20. Worn Latch Springs. | 20. Replace the Latch Springs (PL |

CQ 13 Offsetting

Definition

Offsetting is the transfer of an image from the copy to the fuser. The image is then transferred back onto the same copy or another copy. The offset image may be repeated approximately every 10.4 inches (264mm).

Probable Cause

1. Offsetting or residual image.
2. Insufficient lubrication on the fuser.
3. Donor Roll is not turning freely.
4. Fuser temperature is out of specification.

Corrective Action

1. Go to the CQ 28 Isolation procedure to determine if the problem is offsetting or residual image. Return to this RAP if the problem is offsetting.
2. Replace oil pads (REP 10.4), and replace the wick (REP 10.5).

Perform the Fuser Initialization Procedure in Section 6, General Procedures.

High copy volume account, install the High Volume Account Oil Dispenser Tag 85.
3. Inspect the Donor Roll for damage. Ensure that the Roll rotates in the correct direction. The Roll should turn counterclockwise when viewed from the side with the Support Arm with the black paint. If not replace the Donor Roll.
4. Check/adjust the Fuser Temperature (ADJ 10.1).

CQ 13 Offsetting
(continued)

Probable Cause

Corrective Action

- | | |
|--|--|
| 5. Damp media. | 5a. Cut sheet media
Make a copy using a sheet of media from the middle of the stack of media in the media storage on the stand.
If the problem is corrected, ensure that the roll media is being stored correctly. |
| | 5b. Roll media
Remove and discard the first 3 to 6 feet (1 to 2 metres) of media from the roll. Make a copy on the new media.
If the problem is corrected, ensure that the roll media is being stored correctly. |
| 6. Image Darkness is to high | 6. Perform the Electrostatic Series ADJ 9.2 then the Image Darkness ADJ 9.4. |
| 7. Oil Dispense Assembly is not installed correctly or is damaged. | 7. Ensure the Dispense Assembly is against the Brackets on the left and right side and fully seated in mounting holes. Check that the assembly is not bowed or damaged. |
| 8. High copy volume copier. | 8. Install the High Volume Oiler Kit Tag 85. |
| 9. Customer is not selecting the correct media type | 9. Explain to the customer that in order to get the image fused to the media correctly, they must select the media type. This selects the correct fusing temperature for the media selected. |
| 10. The surface of the heat roll is worn. | 10. Replace the Heat Roll (PL 10.1). |

CQ 14 Registration

Definition

Misregistration is when the distance from the lead edge of the image to the lead edge of the media is not within specification.

Probable Cause

1. Registration is not adjusted correctly.
2. Defective motion sensor (registration will vary copy to copy).
3. Defective media feed clutch.
4. Defective upper media feed roll .
5. Incorrect or defective document sensor.
6. Operator pushed document too far into the document handler.

Corrective Action

1. Perform Registration adjustment (ADJ 8.1).
2. Replace the motion sensor (PL 8.3).
3. Replace the media feed clutch (PL 8.1).
4. Replace the upper feed roll (REP 8.2).
5. Ensure that the front document sensor is installed correctly so that, the actuator actuates 0.040 inch (1mm) above the maximum height of the document drive rolls.
6. Instruct operator on how to insert the document into the document handler.

CQ 15 Residual Image

Definition

Residual image is an image that is repeated back on to the same copy or the next copy made. The image can either be a negative image, or a positive image (almost the same as offsetting).

The repeated image can be caused by poor cleaning or a photoreceptor drum that has been exposed to the light.

Probable Cause

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

2. Photoreceptor drum is not being cleaned correctly.

Corrective Action

1. Go to the CQ 28 Isolation procedure to determine if the problem is offsetting or residual image. Return to this RAP if the problem is residual image.

2. Remove the xerographic module (REP 9.1), and lightly dust the photoreceptor drum with zinc stearate. Install the xerographic module. Enter the diagnostic mode and enter the codes [10 and 19] to clean the photoreceptor drum. Remove the xerographic module. If the photoreceptor drum is not cleaned correctly, check the following components:

The Cleaner Blade Solenoid energized.

Y N

There is + 24VDC at P5, Pin 7.

Y N

There is + 24 VDC at P5, Pin 6

Y N

Replace the LVPS PL 1.4.

Go to Flag 1 and 2 and check for an open circuit in the wires.

If there is no open circuit, replace the Cleaning Blade Solenoid PL 9.3.

Enter code [10] and [19].

The voltage at Pin 7 changes to 0.70 VDC.

Y N

Go to Flag 3 and check for an open circuit. If there is no open circuit, replace the Control PWB PL 1.4.

Check the following:

Continued

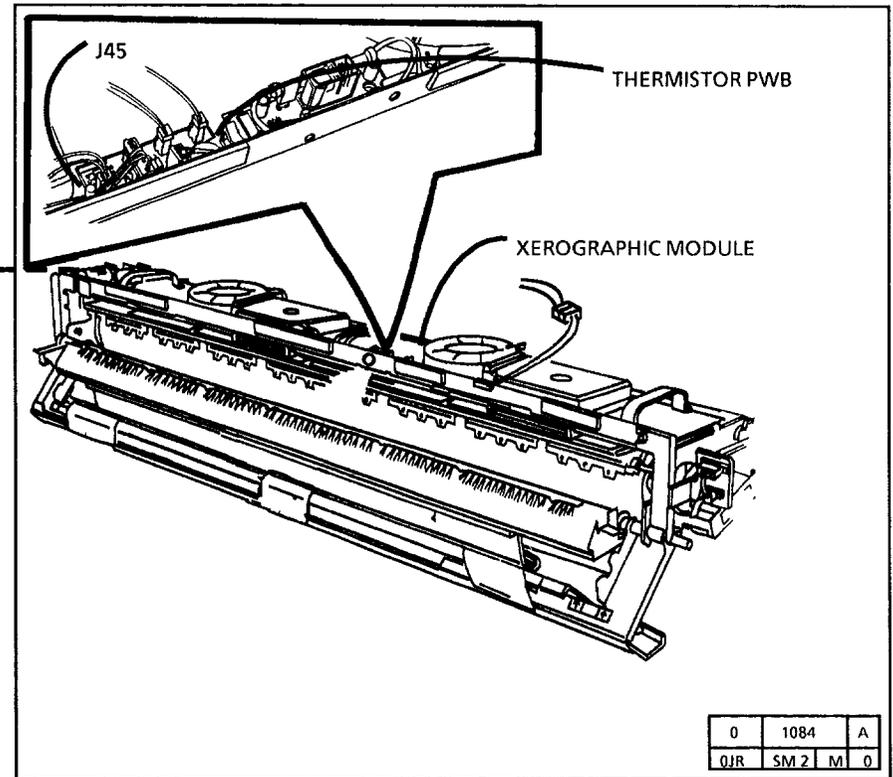
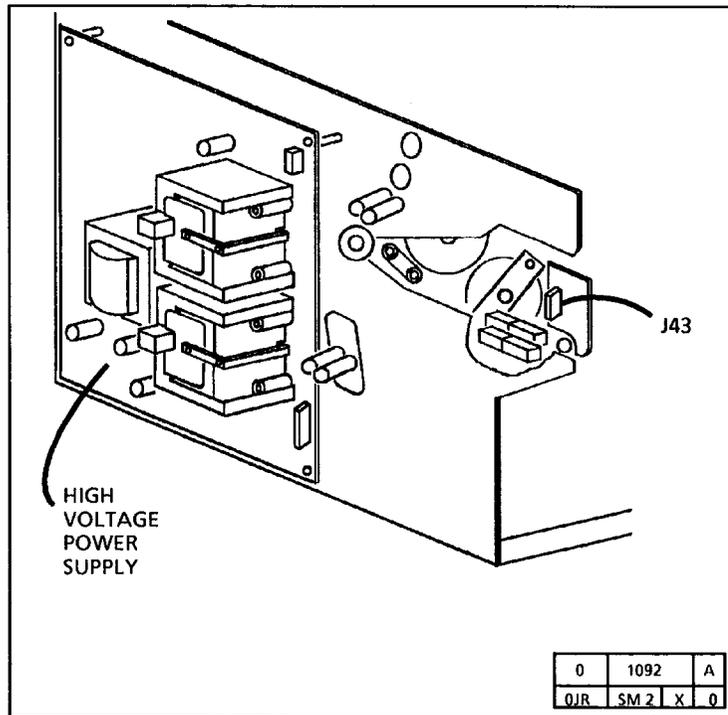
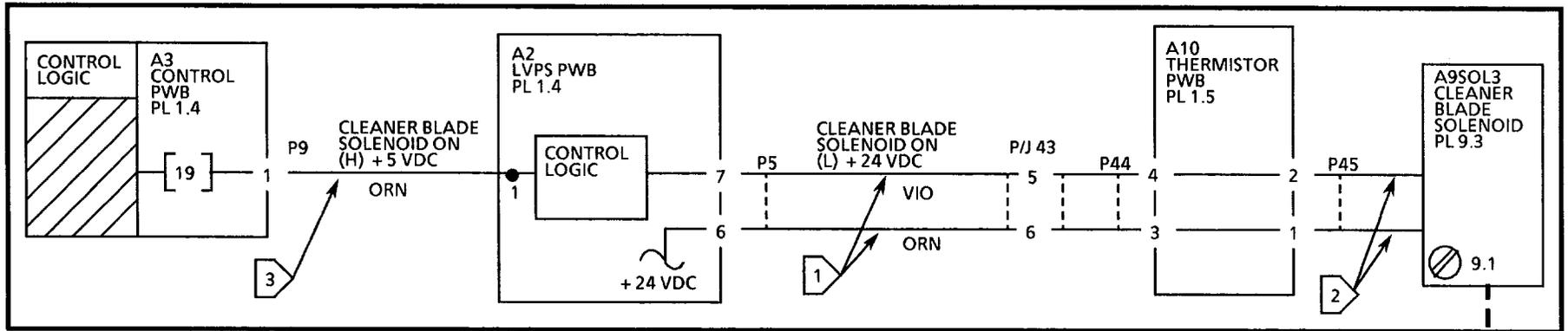
CQ 15 Residual Image (Continued)

Probable Cause

Corrective Action

2. Cleaner blade solenoid adjustment (ADJ 9.1)
Cleaner blade moves freely and the blade weight does not touch the frame when transitioned fully to the left and right.
Cleaner blade transition gear for damage.
Remove the photoreceptor drum and check the following for damage or contamination:
Cleaner blade seal assembly (PL 9.3)
Cleaner blade (PL 9.3).
Repair or replace as required.

If the residual image problem happens again within a short period of time, replace the photoreceptor drum (REP 9.3), and the cleaner blade assembly which could be bent.
3. Photoreceptor drum has been exposed to the light (Light Shock).
4. An electrostatic voltage is out of specification.
3. Make five copies in a lighter contrast mode. Now check the copy quality.
4. Perform the Electrostatic Series (ADJ 9.2).



CQ 16 Resolution

Definition

Resolution is when the image is out of focus and blurred.

Probable Cause

1. Lens is not installed correctly.
2. Document handler is not installed correctly.
3. The lower document feed rolls are contaminated or damaged.
4. The platen is not installed correctly or damaged.
5. A fold in the document.
6. Document speed is out of adjustment.
7. Incorrect exposure level.

Corrective Action

1. Ensure that the lens (REP 6.2) is installed correctly and is not damaged.
2. Ensure that the document handler is installed correctly.
3. Clean the feed rolls with Formula A Cleaner (USO and RX) or General Purpose Cleaner (RX) and water. Replace the rolls if damaged (PL 5.1).
4. Ensure that the platen is installed correctly. Replace the platen (PL 5.1) if it is damaged.
5. Straighten the creases in the document.
6. Check/adjust the Copy Size Adjustment (ADJ 5.1).
7. Perform the Electrostatic Series (ADJ 9.2).

CQ 17 Skewed Image

Probable Cause

Corrective Action

Definition

A skewed image defect is when the copy image is not parallel with the edges of the copy media.

Skew Isolation Procedure.

1. Figure 1: Place a piece of opaque tape across the width of the Platen. Place the tape so that when a copy is made the image of the tape will be a few inches in from the edge of the copy media.
2. Make a copy.
3. If the copy looks like one of the strips in Figure 2, the problem is in the media feed.
4. If the copy looks like Figure 3, the problem is in the document feed.
5. Refer to the appropriate Probable Cause to correct the problem.

1. Static on the platen or the platen is damaged.
2. Contaminated or damaged document idler rollers.
3. Contaminated or damaged upper media feed rolls or media idler rolls.
4. Obstruction in the document return path.

1. Clean the platen with Anti-Static Fluid.
Replace the platen (PL 5.1) if it is damaged.
2. Clean the rolls (PL 8.1) with:
USO: Formula A Cleaner and water
EO: Formula A Cleaner or General Purpose Cleaner and water.
Replace the rolls if damaged (PL 8.1).
3. Clean the rolls (PL 8.1) with:
USO: Formula A Cleaner and water
EO: Formula A Cleaner or General Purpose Cleaner and water.
Replace the rolls if damaged (PL 8.1).
4. Check the document return path.

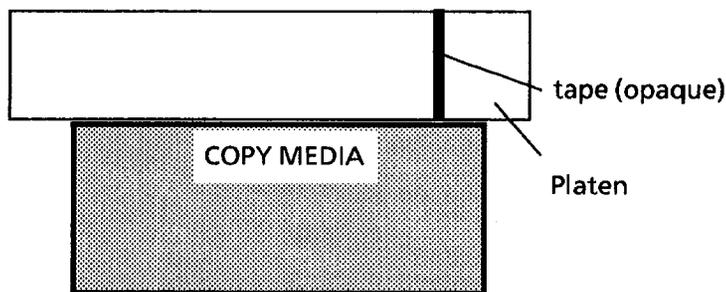


Figure 1. Installing the Tape

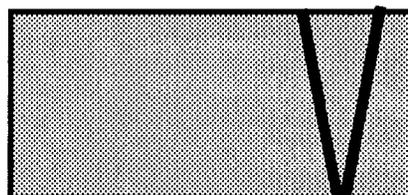


Figure 2

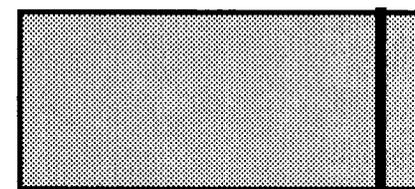


Figure 3

CQ 18 Skips

Definition

Skips are a light image defect caused by a difference in speed between the document and the drum surface.

Probable Cause

1. Document was disturbed as it moved across the platen.
2. Document transport drive belt is slipping on the drive pulleys.
3. Contaminated or damaged document transport drive belt and pulleys.
4. Media transport not seated correctly.

Corrective Action

1. Check the platen for damage. Clean the platen with Anti-Static Fluid.
2. Check that the lower document feed rolls and document idler rollers are not binding. If the rolls are binding, replace the rolls (PL 5.1) and bearings if necessary. Check the belt tension.
3. Replace the damaged or contaminated parts (PL 5.1).
4. Ensure that the media transport is seated correctly and that it is latched correctly.

CQ 19 Smears

Definition

Smear is an image defect caused by a difference in speed between the photoreceptor drum surface and the copy media.

Probable Cause

1. Media feed clutch feeds intermittently.
2. Media feed clutch stub shaft is loose or misaligned.
3. Defective media feed clutch.
4. Photoreceptor drum is not secured correctly on drum shaft causing the drum to slip.
5. Transfer/detack corotron current is out of specification.
6. Media is contacting the extrusion between the photoreceptor drum and the fuser roll.
7. Main drive motor gear mesh is too tight.
8. The copy media hesitates as it goes through the fuser causing the media to buckle. This allows the media to contact the bottom of the xerographic module and smudge the image.
9. The copy stalls in the fuser

Corrective Action

1. Go to the E1 Media Jam RAP in Section 2.
2. Check that the stub shaft is aligned correctly and is tight. Replace if required.
3. Replace the media feed clutch (PL 8.1).
4. Tighten the photoreceptor drum hardware (REP 9.3).
5. Perform the Electrostatic Series (ADJ 9.2).
6. Try to make a copy using a Xerox approved media to see if the defect is corrected. Replace the media if required.
7. Loosen the four bolts that hold the main drive motor to the frame and raise it slightly. Tighten the bolts and try to make a copy.
8. Go to the Media Transportation Problems located in this section.
Check the media guide for damage (PL 1.5).
Remove the Post Transfer Corrigator.
9. Check the following:
 - a. Fuser temperature adjustment (ADJ 10.1)
 - b. Damage or contamination of the fabric guide (PL 8.2).
 - c. The position of the fuser pressure plate (PL 8.2).
 - d. The condition of the surface of the Heat Roll. Refer to Section 6, Sanding the Heat Roll

CQ 20 Spots

Definition

These defects are 0.2 inches (5mm) or smaller in diameter. These could appear at intervals that are in the process direction.

Probable Cause

1. Contaminated or damaged photoreceptor drum.
2. Contaminated or damaged fuser heat roll or fuser wick.
3. Contaminated or damaged upper media feed rolls or media idler rolls.
4. Defective or damaged media.
5. Developer material has more than 30K feet (9K metres) of copies on it.
6. Low toner concentration or the developer material is contaminated.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

Corrective Action

1. Wash (General Procedures) or replace (REP 9.3) the photoreceptor drum as required.
Perform the Electrostatic Series (ADJ 9.2)
2. Clean or replace the fuser heat roll (PL10.2) and wick.
3. Clean or replace (PL 8.1) as required.
4. Try to make a copy using a Xerox approved media to see if the defect is corrected. Replace the media if required.
5. Replace the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2).
6. Inspect and clean any contamination on the developer housing. Check the developer for correct operation.
Perform the Electrostatic Series (ADJ 9.2).
Enter the code [25] to check the toner concentration. Then enter code [4] and check the value. If the value in code[25] is 2 or more units less than the value in code [4], go to the J1 Toner Concentration RAP in Section 2.

(Continued)

CQ 20 Spots (continued)

Probable Cause

Corrective Action

- | | |
|---|---|
| 7. Damaged photoreceptor seal. | 7. Replace the photoreceptor seal (PL 9.3). |
| 8. Excessive toner contamination is on the return baffle near the transfer/detack corotron. | 8. Clean the contamination and then check that the developer housing is seated correctly. Check for an obstruction between the magnetic roll and the developer housing. Check the developer housing for damage. |
| 9. Contaminated toner | 9. Replace the toner cartridge and also the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2) and Image Darkness (ADJ 9.4) |

CQ 21 Streaks (TYPE 1.1, Toner Streaks)

Definition

Copy defects that appear in the process direction (from lead edge to trail edge). Streaks may be uniform (similar to data information), non-uniform (a smudge with no clearly defined line pattern), or periodic. The toner streaks follow the photoreceptor drum.

Probable Cause

1. Defective photoreceptor drum.
2. Defective photoreceptor drum.

Corrective Action

1. In order to isolate the cause of the problem, remove the photoreceptor drum (REP 9.3) from the photoreceptor drum support shaft. Rotate the photoreceptor drum end for end, and install the photoreceptor drum on the support shaft. Install the photoreceptor drum in the copier and run another copy. Compare the copy defect with the original copy defect.

If the defect is at the same place on the copy, then go to the CQ 21 Type 1.2 RAP.

If the defect moved to a different place on the copy, then continue with this RAP.
2. Wash (General Procedures) or replace (REP 9.3) the photoreceptor drum as required. Check for damage to other components that touched the photoreceptor drum in the area where the defect occurred on the drum. Check for contamination or damage of the following: cleaner blade, cleaner assembly seal, magnetic seal, developer material, or developer roll.

Perform the Electrostatic Series (ADJ 9.2).

CQ 21 Streaks (TYPE 1.2, Toner Streaks)

Definition

Copy defects that appear in the process direction (from lead edge to trail edge). Streaks may be uniform (with clearly defined lines), non-uniform (a smudge with no clearly defined line pattern), or periodic. The toner streaks did not follow the photoreceptor drum. The photoreceptor drum may still be good.

Probable Cause

1. Something is blocking the optical path to the photoreceptor drum.
2. Photoreceptor drum not being cleaned correctly.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

Corrective Action

1. Remove the photoreceptor drum assembly (REP 9.2) and cover it with a shield. Look for an obstruction in the optical path.
2. Remove the xerographic module (REP 9.1) and lightly dust the photoreceptor drum with zinc stearate. Install the xerographic module. Enter the diagnostic mode and enter the codes [10 and 19] to clean the photoreceptor drum. Remove the xerographic module. If the photoreceptor drum is not cleaned correctly, check the following components:

Cleaner blade circuit diagram in the CQ 15 Residual Image RAP.

Cleaner blade moves freely (PL 9.3)

Cleaner blade solenoid adjustment (ADJ 9.1)

Cleaner blade transition gear.

Remove the photoreceptor drum and check the following for damage or contamination:

Cleaner blade seal assembly (PL 9.3)

Cleaner blade (PL 9.3).

Repair or replace as required.

(Continued)

CQ 21 Streaks (TYPE 1.2, Toner Streaks) (Continued)

Probable Cause

Corrective Action

- | | |
|---|--|
| 3. Developer housing is not functioning correctly or is not seated correctly. | 3. Replace the developer material (REP 9.8) and perform the Electrostatic Series (ADJ 9.2) if it has more than 30K feet (9K metres) of copies on it. Check the developer roll and material for contamination. Replace as required. Ensure that the developer housing is seated correctly. Also ensure that the material in the developer housing is level. |
| 4. Contaminated or damaged fuser components. | 4. Check the fuser roll for contamination, damage, or offsetting. If the fuser roll is damaged, check the stripper fingers (PL 10.3) for damage. If there is material from the fuser roll on the air flow manifold, check the air flow manifold (PL 1.5) for interference to the fuser roll. Check the oil dispensing system for correct operation. Check for contamination of the fuser wick. Check the fabric guide for damage that may have caused the contamination of the drum because of excessive moisture. |
| 5. Contaminated media path components and baffles. | 5. Clean the contaminated media path baffles and components. |
| 6. Contaminated media supply. | 6. Clean the media supply area. |
| 7. Copier is not level (side-to-side) | 7. Ensure that the copier is level (side-to-side). |

(Continued)

CQ 21 Streaks (TYPE 1.2, Toner Streaks) (Continued)

Probable Cause

- 8. The photoreceptor seal is damaged.
- 9. Toner concentration is too high.

Corrective Action

- 8. Replace the photoreceptor seal (PL 9.3).
- 9. Remove cartridge and inspect for damage and toner leakage. If the cartridge is damaged, replace cartridge and waste bottle.

If the problem still exists, perform the Detoning Procedure in the General Procedures Section.

If this is not successful, replace the developer material and waste bottle. Perform the Electrostatic Series (ADJ 9.2).

CQ 21 Streaks (TYPE 2.1, Deleted Streaks)

Definition

The copy defects that appear in the process direction (from lead edge to trail edge). Streaks may be uniform (deletions with clearly defined pattern), non-uniform (deletions with no clearly defined pattern), or periodic. The deleted streak follows the photoreceptor drum.

Probable Cause

1. Defective photoreceptor drum.
2. Light shock, crystallization, or contamination of the photoreceptor drum.

Corrective Action

1. In order to isolate the cause of the problem, remove the photoreceptor drum (REP 9.3) from the photoreceptor drum support shaft. Rotate the photoreceptor drum end for end and reinstall the photoreceptor drum on the support shaft. Reinstall the photoreceptor drum in the copier and run another copy. Compare the copy defect with the original copy defect.

If the defect is at the same place on the copy, then go to CQ 21 Type 2.2 RAP.

If the defect moved to a different place on the copy, then continue with this RAP.

2. Wash (General Procedures) or replace (REP 9.3) the photoreceptor drum as required. Check for damage to other components that touched the photoreceptor drum in the area where the defect occurred on the photoreceptor drum. Check for contamination or damage of the following: cleaner blade, cleaner assembly seal, magnetic seal, developer material, or developer roll.

Perform the Electrostatic Series (ADJ 9.2).

CQ 21 Streaks (TYPE 2.2, Deleted Streaks)

Definition

Copy defects that appear in the process direction (from lead edge to trail edge). Streaks may be uniform (deletions with a clearly defined pattern), non-uniform (deletions with no clearly defined pattern), or periodic. The deleted streak did not follow the photoreceptor drum.

Probable Cause

1. Contaminated or defective corotrons.
2. The light leaks because the covers are misadjusted or are loose.
3. Lens is not mounted correctly or light shield is damaged or missing.

Corrective Action

1. Make a copy and perform the Image on Drum (Panic Stop) procedure in Section 6 to isolate the cause of the defect.

If the defect is on the developed image on the photoreceptor drum, replace the charge corotron (PL 9.2).

If the defect is not on the photoreceptor drum, but it is on the media, replace the transfer corotron (PL 8.4).

Perform the Electrostatic Series (ADJ 9.2).
2. Ensure that the covers are not damaged and are seated correctly.
3. Check the following:
 - a. The light seal is separated from lens (PL 6.1). Fix the seal with black electrical tape.
 - b. Ensure that the magnet and lens are positioned correctly against frame.
 - c. Check for direct room light or sunlight on the copier.

(Continued)

CQ 21 Streaks (TYPE 2.2, Deleted Streaks) (Continued)

Probable Cause

Corrective Action

4. Damaged media or damp media

4a. Cut sheet media

Make a copy using a sheet of media from the middle of the stack of media in the media storage on the stand.

If the problem is corrected, ensure that the cut sheet media is being stored correctly.

4b. Roll media

Remove and discard the first 3 to 6 feet (1 to 2 metres) of media from the roll. Make a copy on the new media.

If the problem is corrected, ensure that the roll media is being stored correctly.

5. Contaminants in the developer material.

5. Inspect the developer material for foreign material and replace the developer material (REP 9.8) if necessary. Perform the Electrostatic Series (ADJ 9.2).

6. Developer housing is not seated correctly.

6. Ensure that the developer housing is seated correctly. Ensure that the developer housing is operating correctly.

7. Contaminated or damaged photoreceptor drum.

7. Wash (General Procedures) or replace the photoreceptor drum (REP 9.3) as required. Perform the Electrostatic Series (ADJ 9.2)

8. The photoreceptor seal is damaged.

8. Replace the photoreceptor seal (PL 9.3).

CQ 22 Unfused Copy

Definition

Unfused copy is a copy where the image can be easily wiped off the media.

Probable Cause

1. The fusing temperature is too low.
2. Damp media.
3. Incorrect fabric guide tension.
4. Fuser pressure plate not seated correctly.
5. The image density is too high.

WARNING

There will be a time delay between the time the code [10] is entered, and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

6. Incorrect Fuser Heat Rod
7. Incorrect Toner.
8. Incorrect voltage at the wall receptacle.

Corrective Action

1. Check/adjust the Fuser Temperature (ADJ 10.1).
- 2a. Cut sheet media
Make a copy using a sheet of media from the middle of the stack of media in the media storage on the stand.
If the problem is corrected, ensure that the cut sheet media is being stored correctly.
- 2b. Roll media
Remove and discard the first 3 to 6 feet (1 to 2 metres) of media from the roll. Make a copy on the new media.
If the problem is corrected, ensure that the roll media is being stored correctly.
3. Check that the fabric guide tensioning assembly (PL 8.3) is not binding and the weight is centered in the fabric guide.
4. Ensure that the fuser pressure plate is seated correctly.
5. Make several copies, and then enter the code [10] to switch on the main drive motor and code [25] to check the toner concentration.
6. Ensure that the correct Heat Rod is installed (PL 10.1).
7. Ensure that the correct toner is installed (Section 6).
8. Check for 105 to 125 VAC.

CQ 23 Wrinkle Deletions

Definition

Wrinkle deletions are large areas of image missing from the copy around a wrinkle in the media.

Probable Cause

1. Media wrinkled in the fuser.

Corrective Action

1. Go to the Media Handling Problems located in this Section.

CQ 24 Trail Edge Deletion

Definition

A Trail Edge Deletion exists when an image deletion greater than 0.4 inches (10mm) on the trail edge of the copy is observed.

Probable Cause

1. Excessive curl in the media.

NOTE: The Trail Edge Deletion is caused by the preset curl in the media. The curl is formed by the media being wrapped around the core of the roll. The Deletion may get worse as the roll of media is depleted and the diameter of the roll becomes smaller.

Corrective Action

1. Use the media that has been cut 0.4 inches (10mm) longer than what is actually required for the image area.

CQ 25 Developer Bias RAP

Switch off and unplug the copier.

Ensure that the developer bias connector, J24, is seated correctly on the high voltage power supply (HVPS) and the developer bias lead is connected to the developer bias clip.

Set the meter to measure +300 VDC.

Connect the (-) to the GND test point on the HVPS.

Plug in and switch on the copier. Cheat the AC interlock switch and the upper rear cover interlock switch. Make a copy using the light input mode.

The voltage at the developer bias clip goes from approximately +220 VDC to approximately +200 VDC while a copy is being made.

Y N

The voltage at J25-8 of the High Voltage Power Supply goes from +6.1 VDC to +4.9 VDC while a copy is being made.

Y N

Switch off the copier and go to FLAG 2 and check the wiring for an open circuit.

If there is no open circuit, replace the Control PWB (PL 1.4).

A B

A B

Switch off the copier and disconnect the bias lead from the bias clip.

Ensure that the bias lead does not come in contact with the copier frame.

Switch on the copier and make a copy using the light input mode.

The voltage at the developer bias lead goes from approximately +220 VDC to approximately +200 VDC while a copy is being made.

Y N

Go to FLAG 1 and check the developer bias lead for a short circuit to frame or an open circuit.

If there is no short circuit or open circuit, replace the high voltage power supply and perform the Electrostatic Series (ADJ 9.2).

Check the developer housing for a short circuit to frame.

A

A

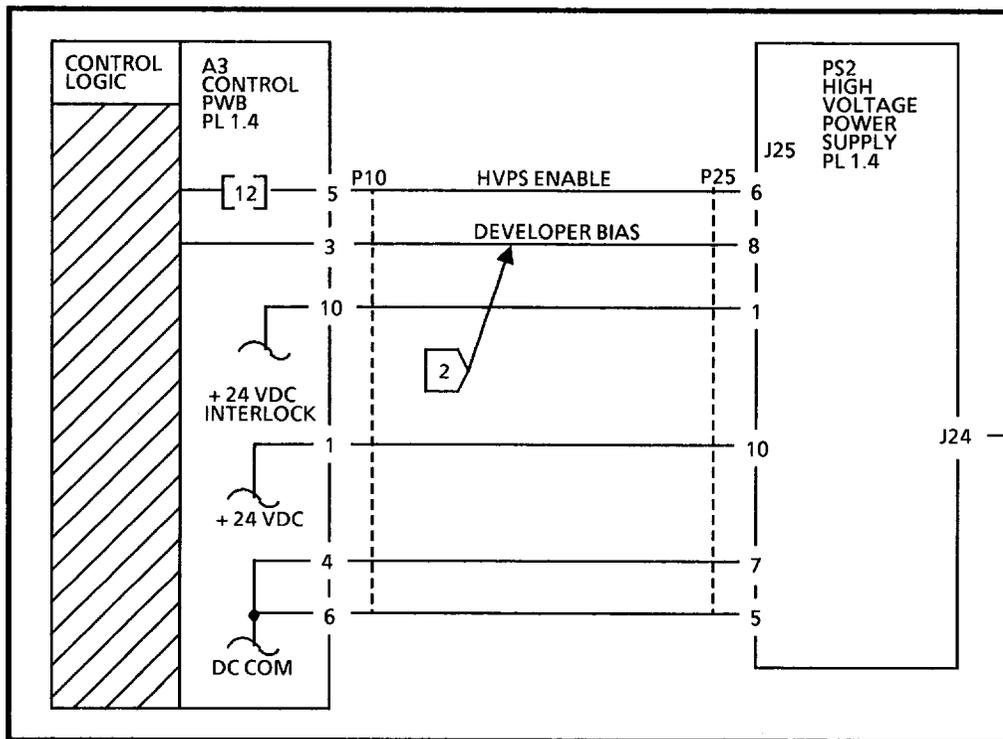
Make a copy using the dark input mode.

The voltage at the developer bias clip goes from approximately +220 VDC to approximately +300 VDC while a copy is being made.

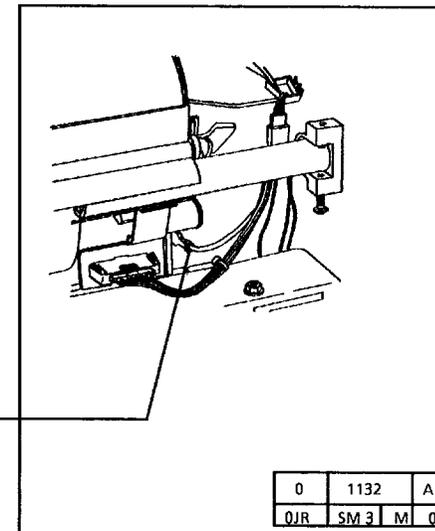
Y N

Replace the high voltage power supply and perform the Electrostatic Series (ADJ 9.2).

Go to the copy quality RAP that directed you here and continue troubleshooting the copy quality problem.

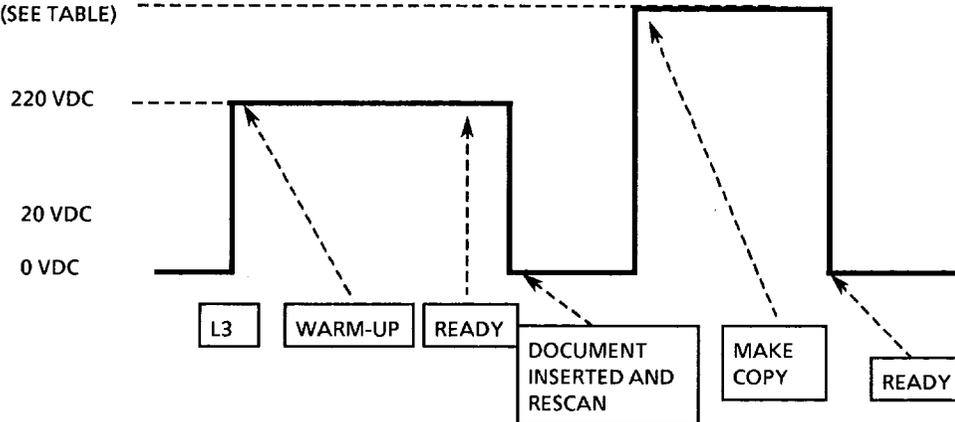


DEVELOPER BIAS
BLK



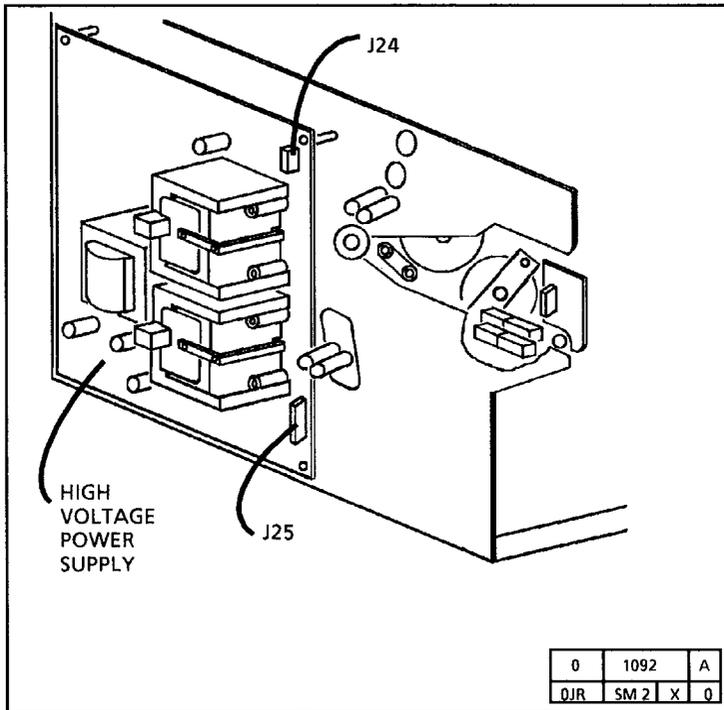
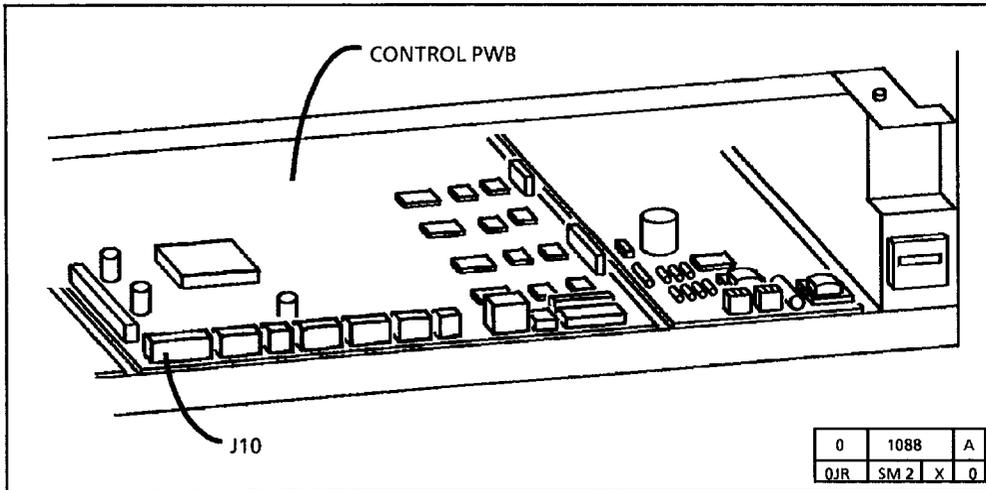
400 VDC ---

DEV BIAS
(SEE TABLE)



DEVELOPER BIAS VOLTAGES WHILE MAKING A COPY

DOCUMENT INPUT	COPY CONTRAST				
	DARKER		NORMAL		LIGHTER
DARK	200 VDC	200 VDC	300 VDC	400 VDC	400 VDC
LIGHT	150 VDC	150 VDC	200 VDC	300 VDC	300 VDC



CQ 26 High Voltage Power Supply RAP

Switch off and unplug the copier.

Ensure that the connectors are correctly seated on the high voltage power supply.

Ensure that all of the interlock switches are cheated.

Set the meter to measure + 24 VDC.

Connect the (-) to the **GND** test point on the HVPS.

Plug in and switch on the copier

There is + 24 VDC at pins 1 and 10 of J25 of the high voltage power supply.

Y N

Switch off the copier and go to FLAG 1 and check the wiring for an open circuit.

If there is no open circuit, replace the Control PWB.

If the problem still exists, replace the high voltage power supply and perform the Electrostatic Series (ADJ 9.2).

Set the meter to measure + 20 VDC.

In the power saver mode, there is + 20 VDC at pin 6 of J25 of the HVPS.

Y N

A B

A B

Go to FLAG 2 and check the wiring from the Control PWB to the HVPS for an open circuit.

If there is no open circuit, replace the Control PWB.

Press the **Start** button to switch on the HVPS.

The voltage goes from +20 VDC to +0.7 VDC.

Y N

Replace the Control PWB.

C

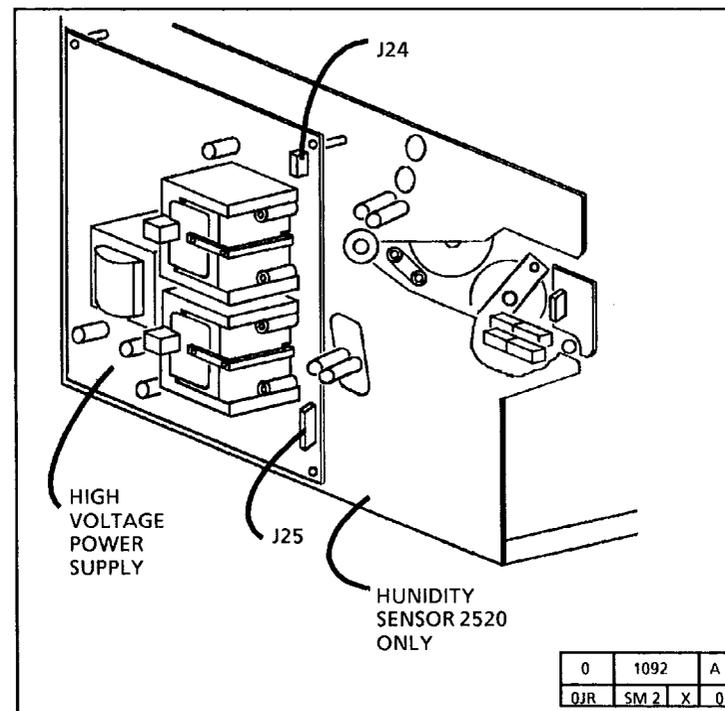
C

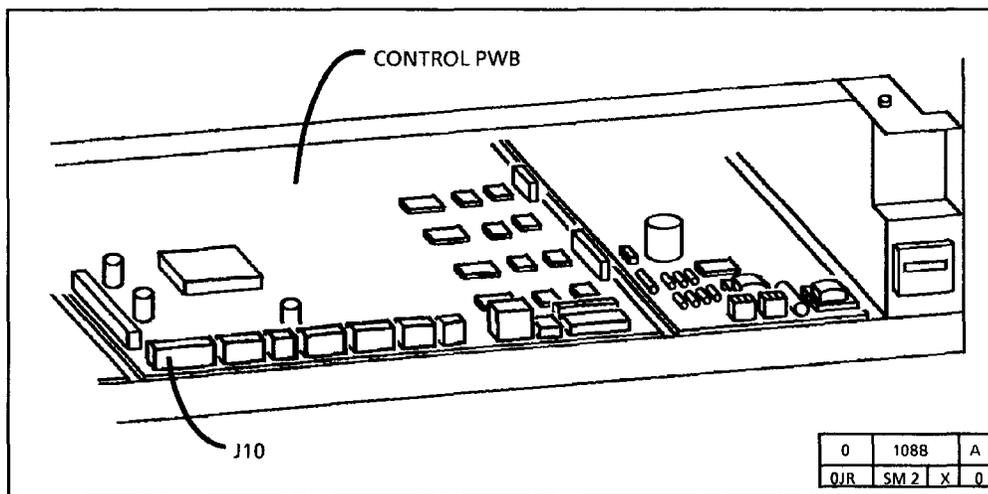
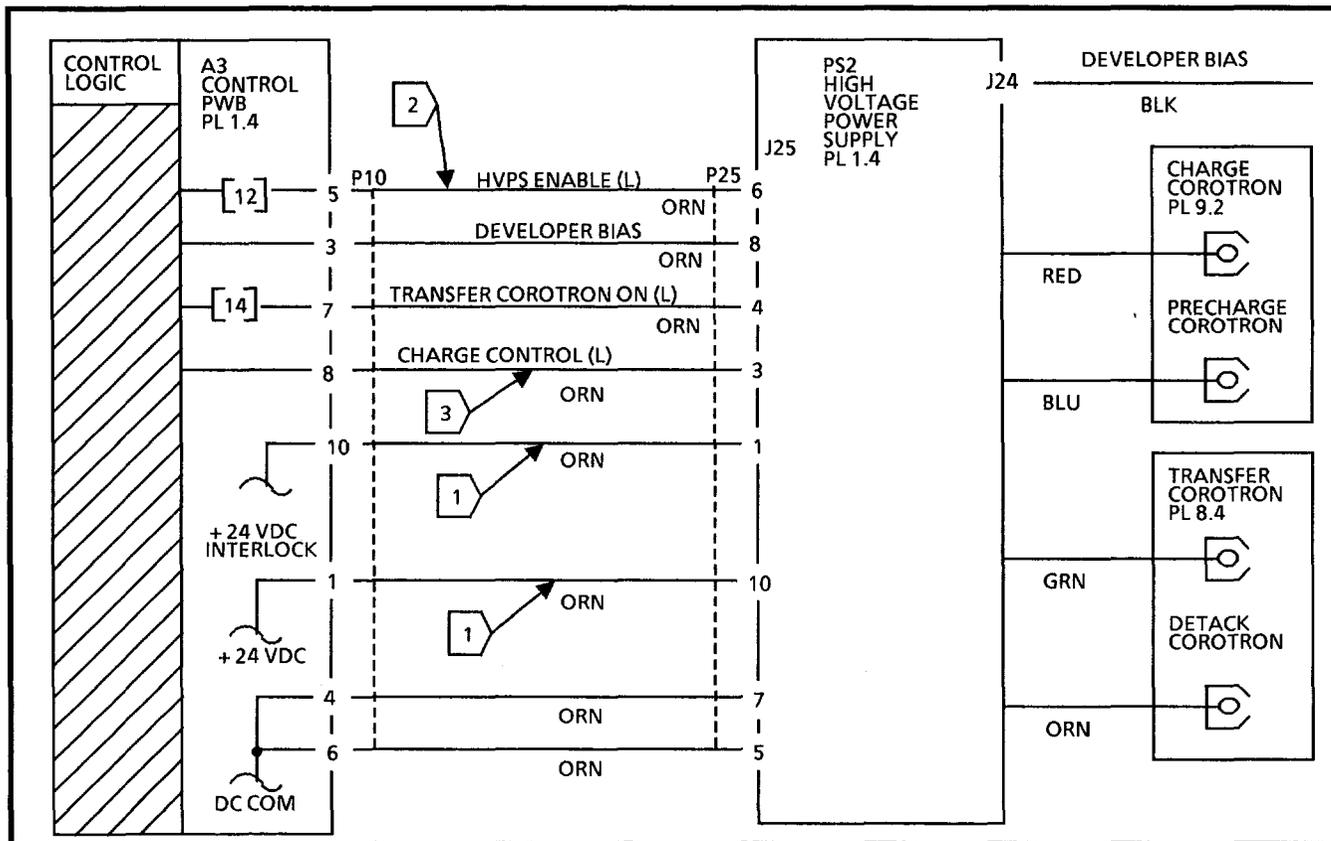
Go to FLAG 3 and check for an open circuit in the wiring.

Check for an open circuit in the wiring from the HVPS to the corotrons.

If the problem still exists, replace the corotrons.

If the problem still exists replace the HVPS and perform the Electrostatic Series (ADJ 9.2).





CQ 27 Exposure RAP

This RAP is used if there is no exposure or an excessive amount of exposure. No exposure will give a black copy and an excessive amount of exposure will give a washed out copy.

Initial Actions

Ensure that connectors P11 of the Control PWB and P21 and P22 of the lamp ballast are connected correctly.

Ensure that the exposure lamp sockets are not damaged.

Ensure the opening in the Exposure Lamp is facing the Illumination Sensor.



Do not leave the exposure lamp on for an extended amount of time. The drum could be damaged by the light shock

Enter the code [15]. The Exposure Lamp lights.

Y N

The lamp filaments are on

Y N

There is +0.7 VDC between pins 4 (+) and 3 (-) of P11 on the Control PWB.

Y N

Go to FLAG 1 and check the wiring between the Control PWB and the lamp ballast for an open circuit.

If there is no open circuit, replace the Control PWB.

Replace the Lamp Ballast.

A B

A B

There is +24 VDC between pins 6 (+) and 3 (-) of P11 on the Control PWB.

Y N

Go to FLAG 1 and check the wiring between the Control PWB and the lamp ballast for an open circuit.

If there is no open circuit, replace the Lamp Ballast.

Press Stop then Start. The voltage between pins 6 (+) and 3 (-) of P11 on the Control PWB goes from +24 VDC to +0.6 VDC.

Y N

Replace the Control PWB.

Replace the lamp ballast.

If the problem still exists, replace the exposure lamp.

Connect the multimeter (+) to P11-7 on the Lamp Ballast PWB and connect (-) to ground.

WARNING

There will be a time delay between the time the code [5] is entered and the time the main drive motor starts to turn. The motor will not start until the fuser is at the correct temperature.

Enter the code [5] and write down the value displayed. Observe the multimeter. Scroll to a value of 9, continue scrolling past 9 to a value of 1.

The voltage decrease when code [5] is scrolled from 9 to 1.

Y N

C D

C D

Connect the multimeter (+) to P15-5. Block and unblock the Illumination Sensor.

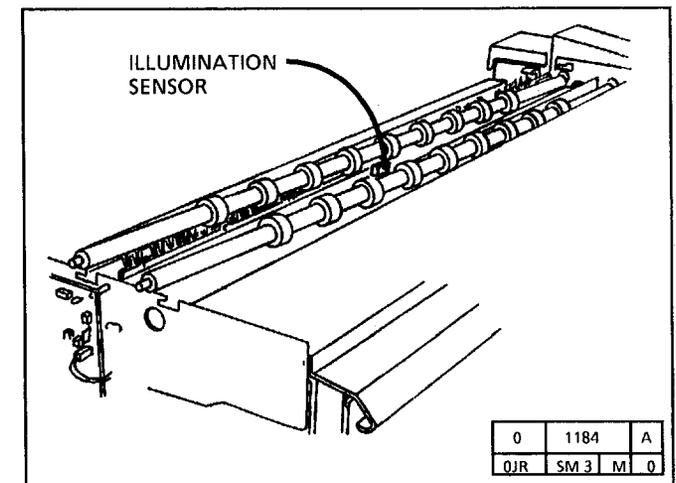
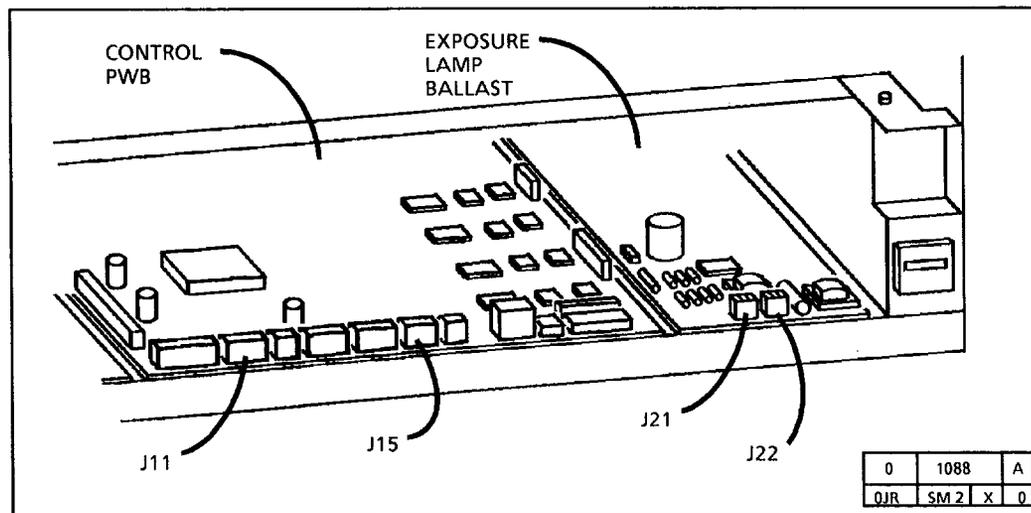
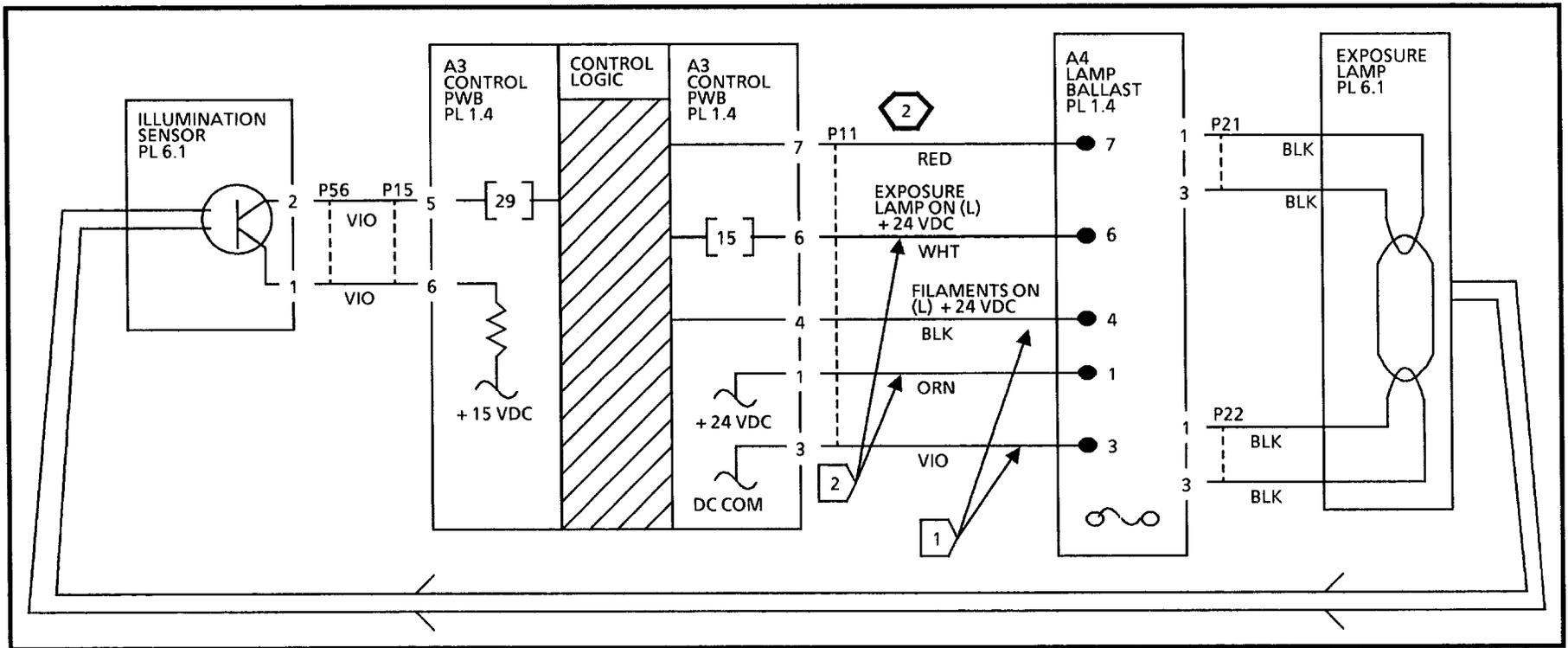
The voltage changes approximately 2 to 3 VDC.

Y N

Replace the Illumination Sensor.

Replace the Control PWB.

Return the value displayed in code [5] to the value recorded earlier. Perform the Electrostatic Series (ADJ 9.2).



CQ 28 Offsetting and Residual Image Isolation RAP

This RAP is used to isolate between an offsetting and residual image copy quality problem. It may be necessary to make several copies to see if the problem can be repeated.

1. Ask the customer for the document that is causing the problem.
2. Select a sheet of media, and draw a short line 4 1/4 inches (108 mm) from the lead edge and parallel to that edge.
3. Put the number 0 by one end of the line drawn in step 2. Use this prepared sheet as the media for the next copy.
4. Select the normal contrast mode (middle LED lit).
5. Insert the lead edge of the prepared media with the marked side facing down.
6. Start to make a copy, then press **STOP** when the line marked on the copy media is even with the outside edge of the latching cover.

The mark will move about 1/2 inch (1.27cm) beyond the front cover before the main drive stops.

7. Open the transport latching cover and remove the partially made copy. Ensure that the copy is not dragged against the photoreceptor or fuser roll.
8. Examine the new copy 10 3/8 inches

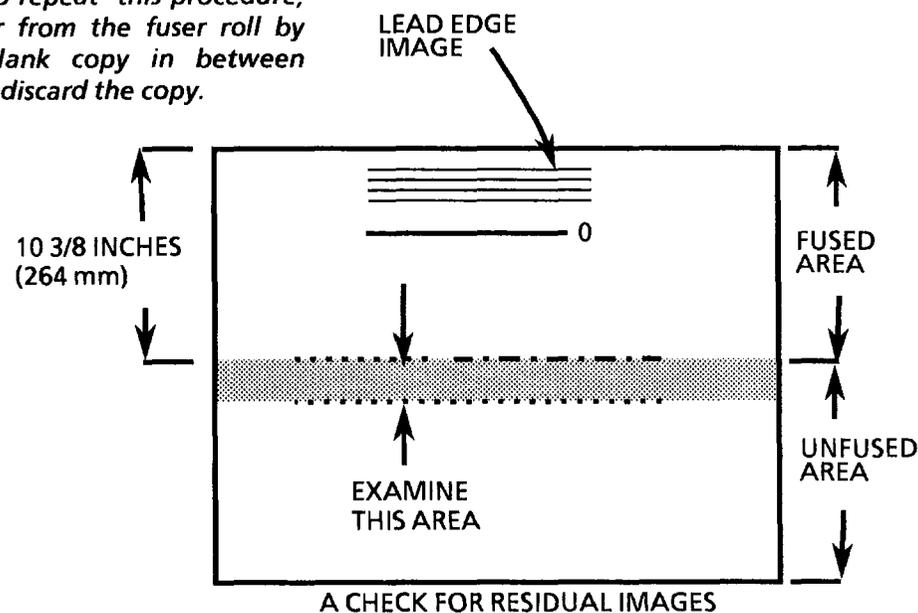
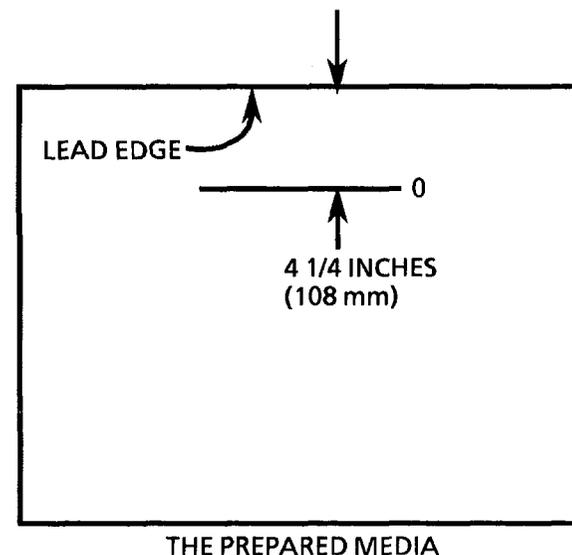
(264mm) (circumference of the drum) away from the lead edge.

2 *Locate the exact end of the fused area of the image by wiping the image with a finger.*

9. If there is a reprint of the lead edge information in the unfused area of the image, then the problem is residual image. This is caused by either a cleaning problem, a dirty cleaning blade, or an incorrect electrostatic value. Go to the CQ-15 Residual Image RAP.

10. Examine the images within the unfused area. If the reprint is not in the unfused area, then remove the oil dispense assembly and check the fuser roll for a toner image. If there is a toner image on the roll, then go to the CQ-13 Offsetting RAP.

3 *If you need to repeat this procedure, remove toner from the fuser roll by making a blank copy in between attempts and discard the copy.*





4. Repair/Adjustment

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ADJ 9.2	Electrostatic Series	4-64
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Fusing

ADJ 10.1	Fuser Temperature	4-71
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REP 3.1 CONTROL PWB

PARTS LIST ON PL 1.4

REPLACEMENT

AFTER REPLACING THE CONTROL PWB,
PERFORM THE FOLLOWING ADJUSTMENTS:

1. COUNTRY CONFIGURATION (ADJ 3.3).
2. ELECTROSTATIC SERIES (ADJ 9.2).
3. REGISTRATION (ADJ 8.1).
4. LEAD EDGE MARGIN (ADJ 8.2).
5. FUSER TEMPERATURE (ADJ 10.1)
6. TIMEOUT INTERVAL TO REST MODE (ADJ 3.1)
7. TIMEOUT INTERVAL TO POWER SAVER MODE (ADJ 3.2).
8. COPY SIZE ADJUSTMENT (ADJ 5.1)
9. ENTER DIAGNOSTICS AND ENTER THE CODE [31]. SET THE CORRECT COPIER CONFIGURATION.

REP 3.2 HIGH VOLTAGE POWER SUPPLY (HVPS)

PARTS LIST ON PL 1.4

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE LEFT SIDE COVER.
3. (FIGURE 1): REMOVE THE HIGH VOLTAGE POWER SUPPLY (HVPS).

REPLACEMENT

 Step 3 E in REMOVAL: Ensure that the screws are reinstalled for a proper electrical ground.

 Route all High Voltage wires through the appropriate cable ties, making sure that the HV wires are not stressed against sharp metal.

1. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2).

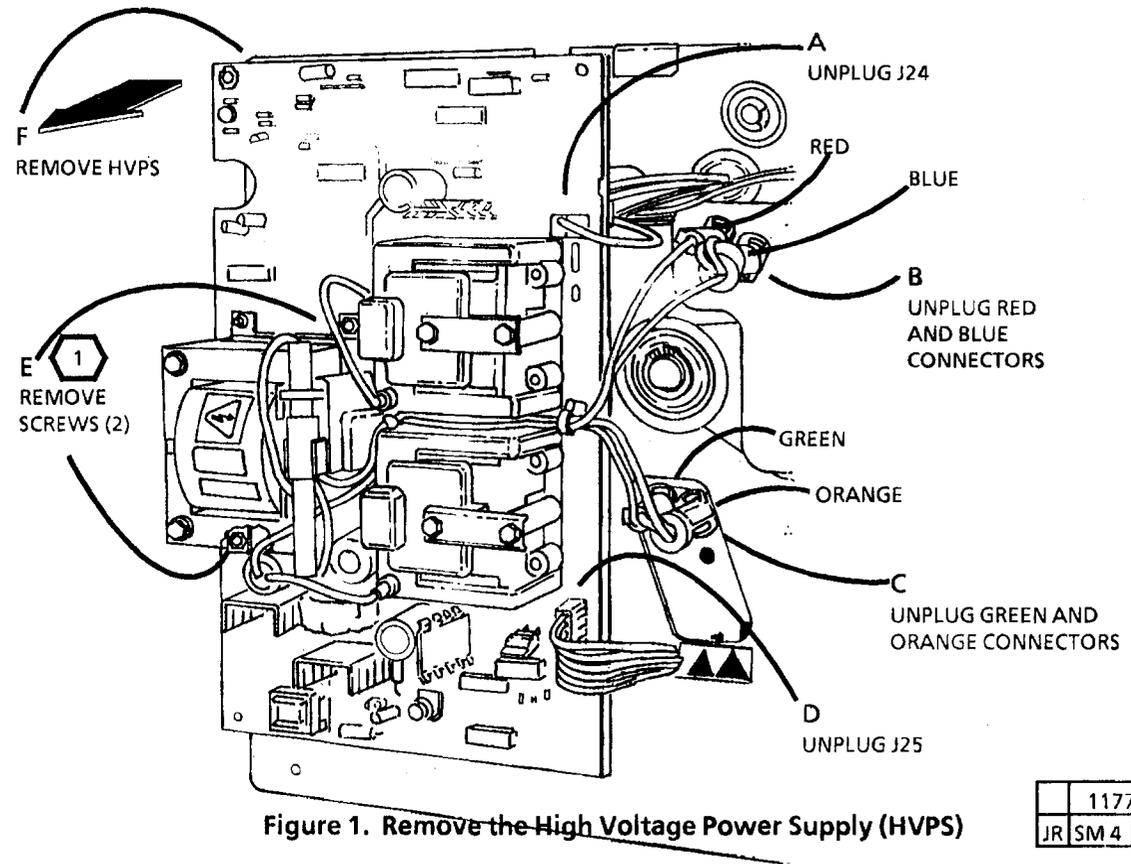


Figure 1. Remove the High Voltage Power Supply (HVPS)

	1177	A
JR	SM 4	★

REP 5.1 DOCUMENT IDLER ROLLERS (IDLER SHAFT, FLAT SPRING)

PARTS LIST ON PL 5.2

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE DOCUMENT HANDLER.
3. (FIGURE 1): REMOVE THE TRANSPORT PLATEN.

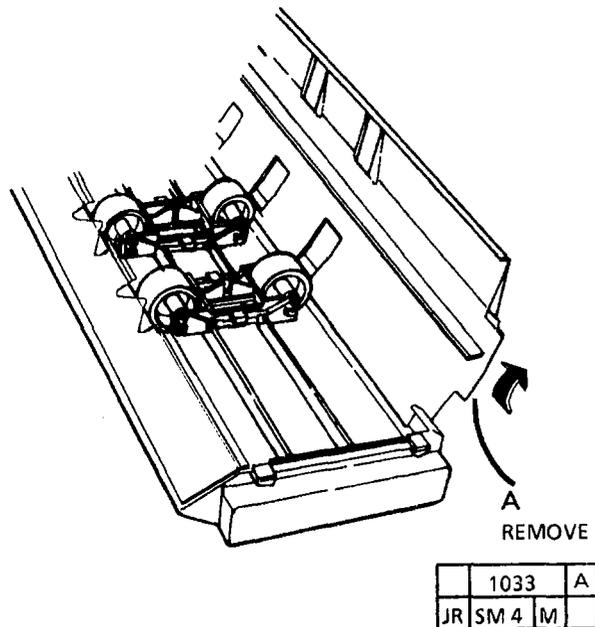


Figure 1. Remove the Transport Platen

4. (FIGURE 2): REMOVE THE IDLER ROLLERS.

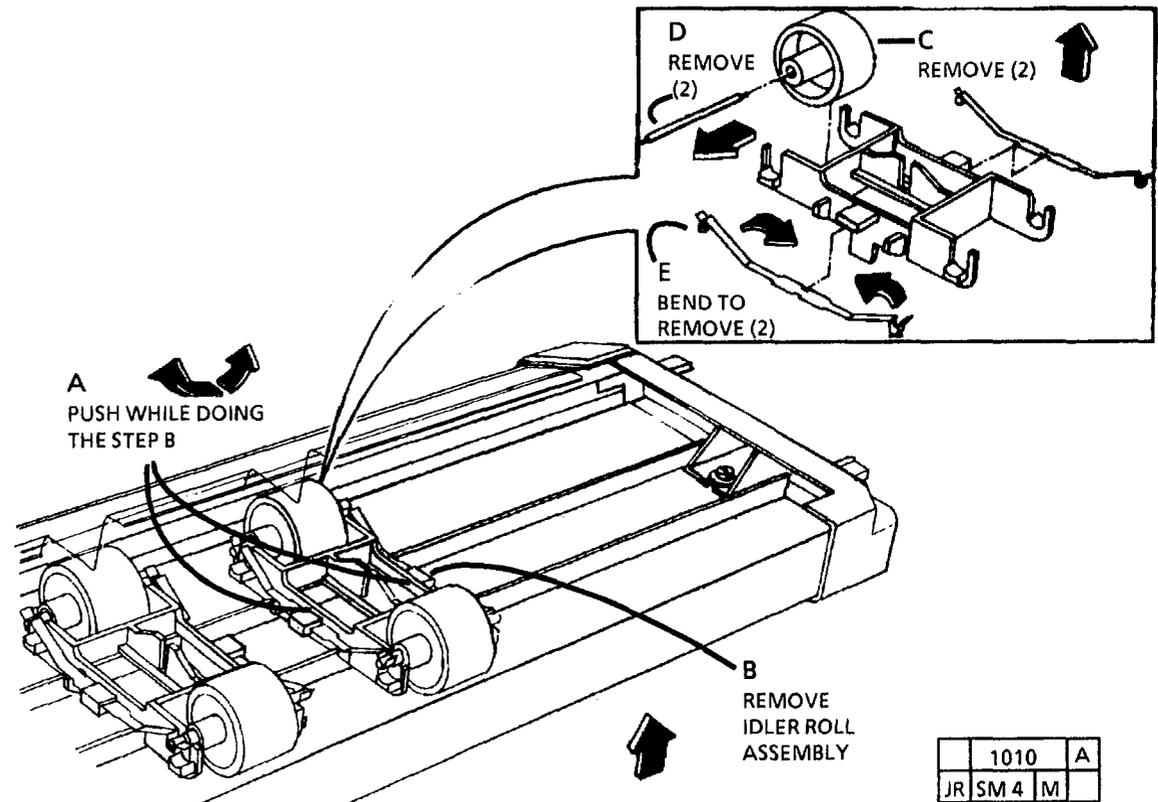


Figure 2. Remove the Idler Rollers

REPLACEMENT

1. (FIGURE 3): INSTALL THE TRANSPORT PLATEN.

1 Step 1 B: The Transport Platen is shown open for clarity to show the rib and the slot.

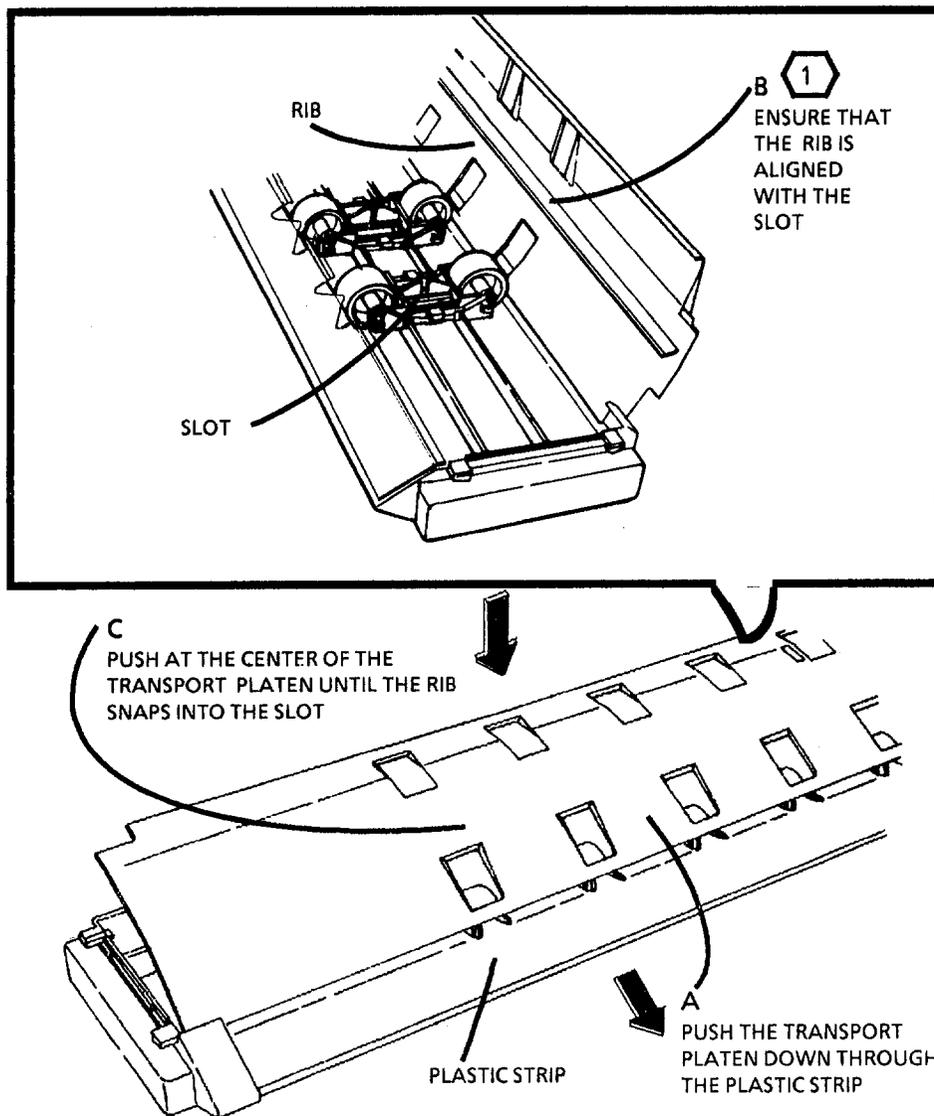


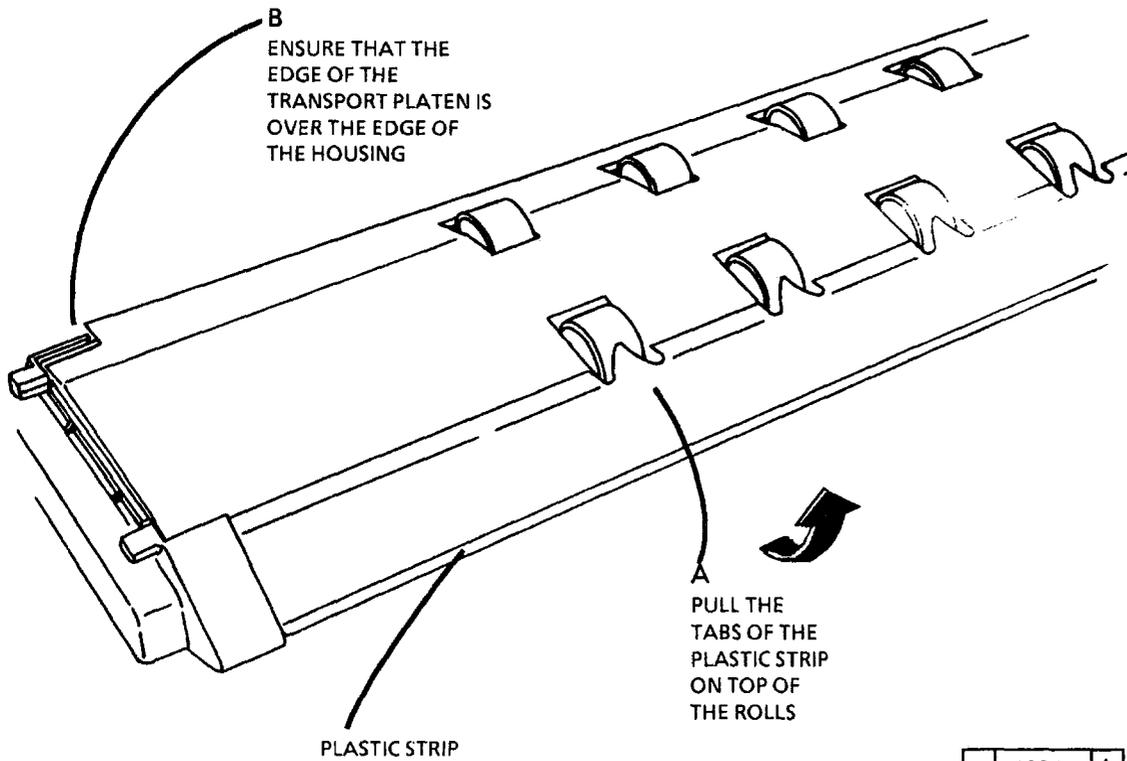
Figure 3. Install the Transport Platen

(Continued)

	1135	A
JR	SM 4	M

(Continued)

2. (FIGURE 4): ENSURE THE CORRECT INSTALLATION.



	1094	A
JR	SM 4	M

Figure 4. Ensure the Correct Installation

REP 5.2 LOWER DOCUMENT FEED ROLLS

PARTS LIST ON PL 5.1

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE DOCUMENT HANDLER.

3. REMOVE THE RIGHT AND LEFT SIDE COVERS AND THE UPPER REAR COVER.
4. REMOVE THE PLATEN.
5. REMOVE THE WASTE BOTTLE.
6. (FIGURE 1): REMOVE THE DRIVE PULLEYS.

7. (FIGURE 2): REMOVE THE BEARINGS FROM LEFT SIDE.

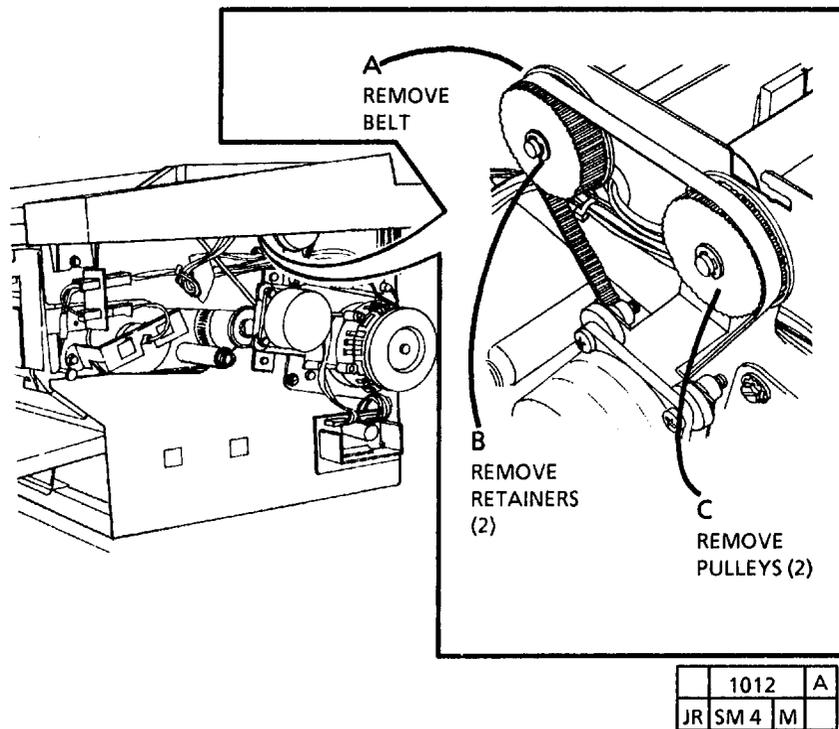


Figure 1. Remove the Drive Pulleys

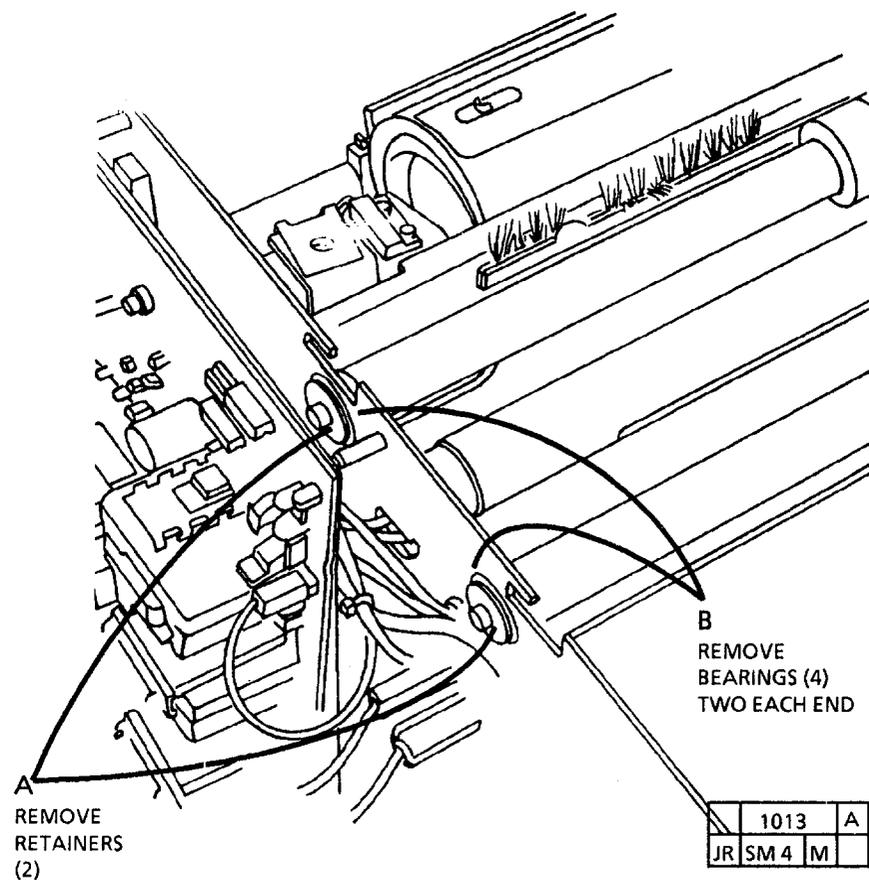


Figure 2. Remove the Bearings from Left Side

(Continued)

(Continued)

8. (FIGURE 3): REMOVE THE LOWER DOCUMENT FEED ROLL.

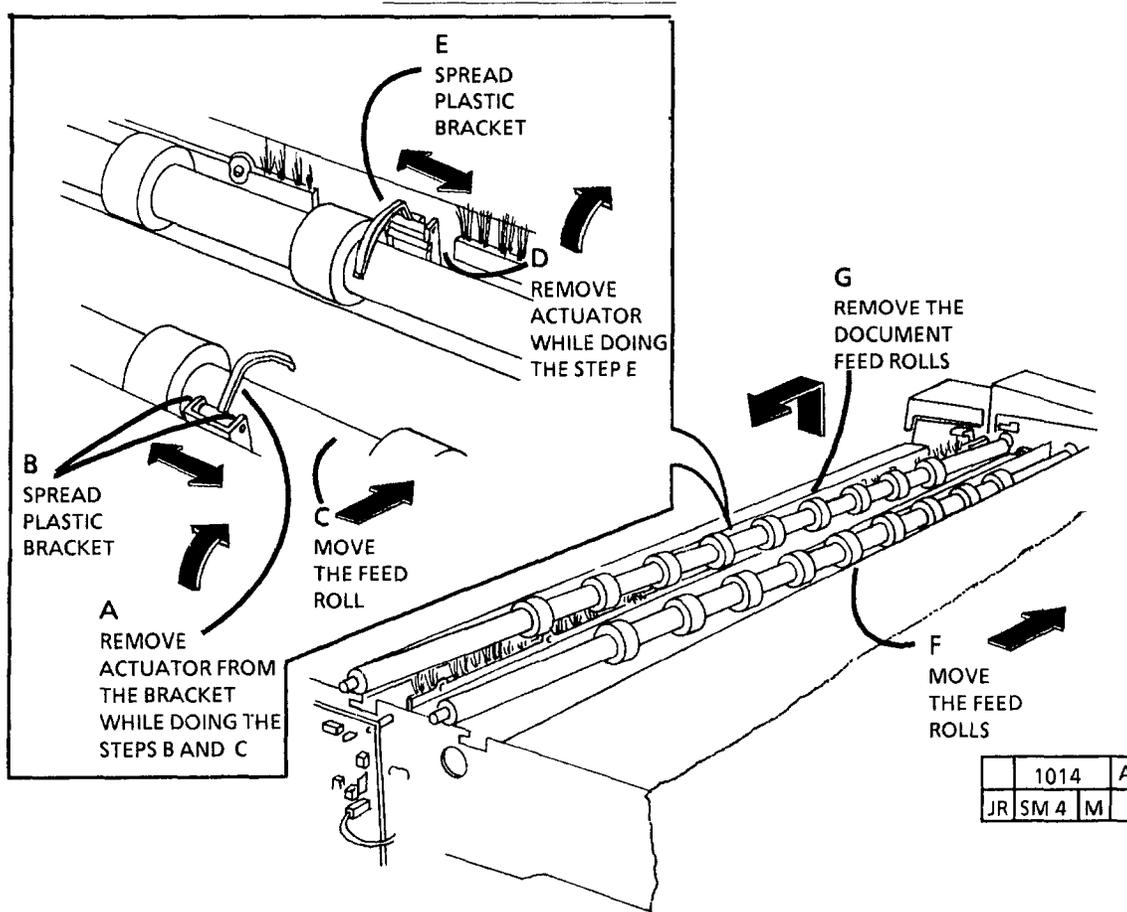


Figure 3. Remove the Lower Document Feed Roll

REPLACEMENT

1. REINSTALL THE ACTUATORS AFTER THE ROLLS ARE IN PLACE AND BEFORE REINSTALLING THE BEARINGS.
2. (FIGURE 4): REINSTALL THE BELT.

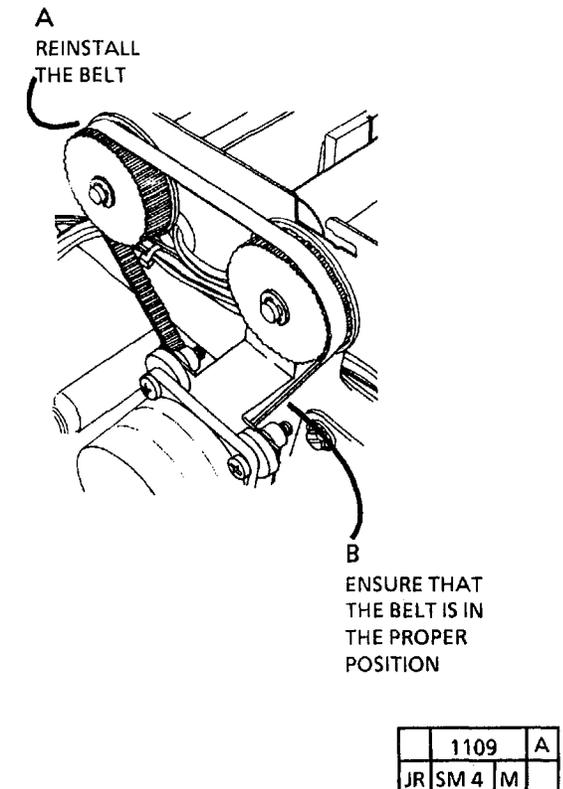


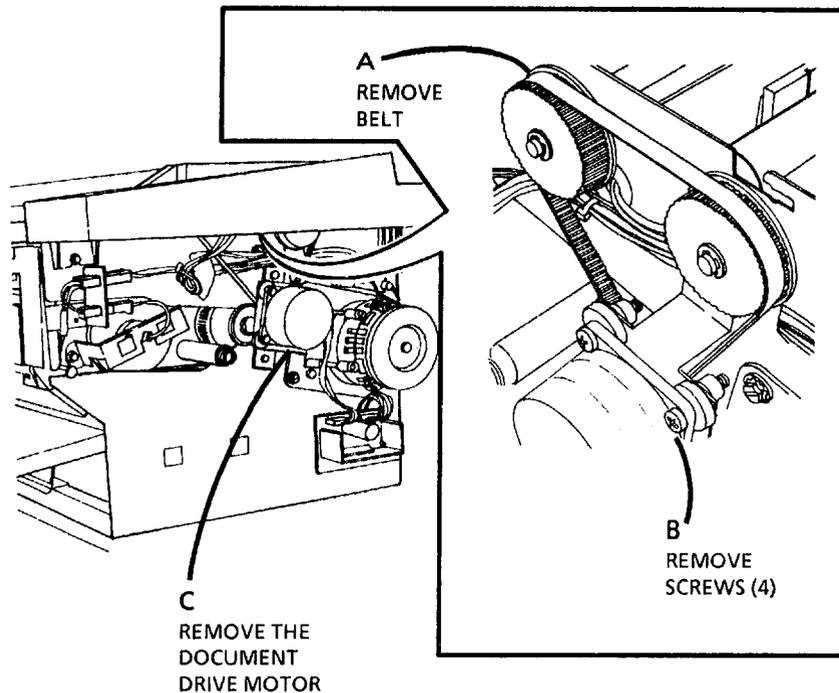
Figure 4. Reinstall the Belt

REP 5.3 DOCUMENT DRIVE MOTOR

PARTS LIST ON PL 1.1

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

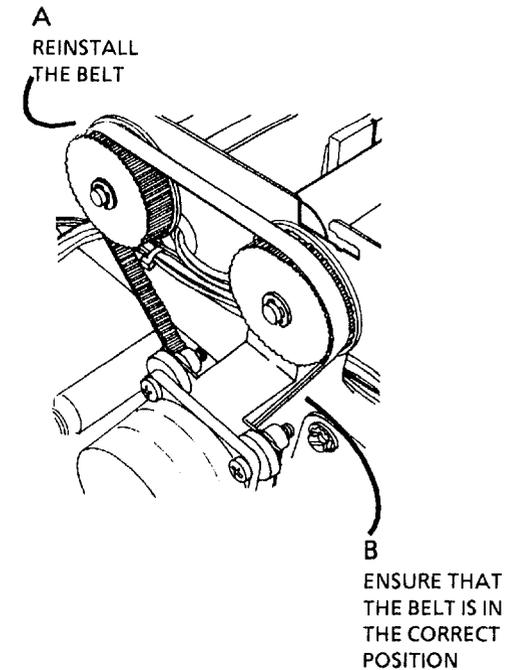


	1110	A
JR	SM 4	★

Figure 1. Remove the Document Drive Motor

REPLACEMENT

1. REINSTALL THE DOCUMENT DRIVE MOTOR.
2. (FIGURE 2): REINSTALL THE BELT.



	1109	A
JR	SM 4	M

Figure 2. Reinstall the Belt

REP 6.1 EXPOSURE LAMP

PARTS LIST ON PL 6.1

REPLACEMENT

1 Ensure that the heatsink is in place in the center of the exposure lamp and it is not touching the rear document drive rolls shaft.

2 Ensure that the lamp part number is at the right side of the machine.

1. ENTER THE DIAGNOSTIC MODE.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

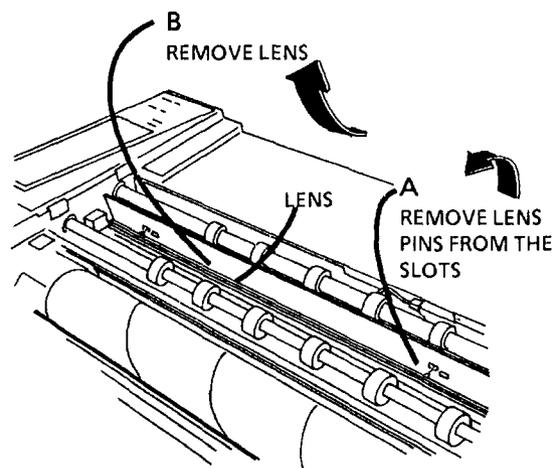
2. USING THE ARROW BUTTONS, ENTER THE CODE [10]. PRESS THE Start BUTTON.
3. USING THE ARROW BUTTONS, ENTER THE CODE [15]. PRESS THE Start BUTTON.
4. ALLOW THE COPIER TO RUN FOR FOUR MINUTES TO PREPARE THE NEW LAMP FOR USE.
5. PRESS THE Stop BUTTON.
6. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2)

REP 6.2 LENS

PARTS LIST ON PL 6.1

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE DOCUMENT HANDLER.
3. REMOVE THE PLATEN.
4. REMOVE THE EXPOSURE LAMP.
5. (FIGURE 1): REMOVE THE LENS.



VIEW FROM THE REAR

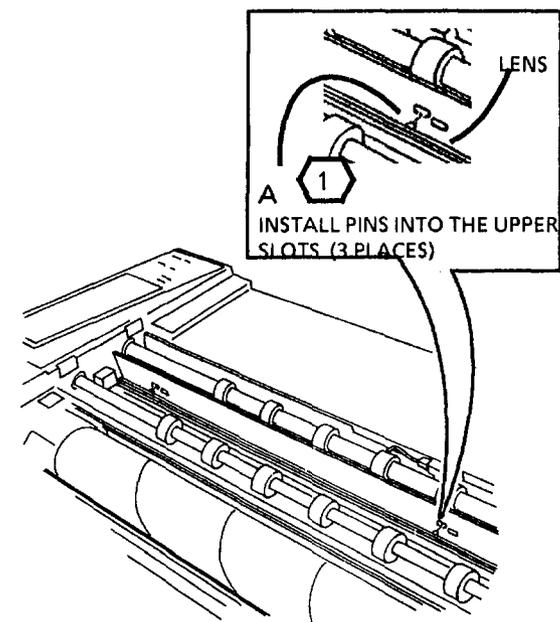
	1185	A
JR	SM 4	★

Figure 1. Remove the Lens

REPLACEMENT

1. (FIGURE 2): THE CORRECT LENS POSITION.

1 STEP 1 A: There are six slots in the frame into which the lens pins can be installed. The slots in the upper position are for the 3001. Locating the lens pins in the lower slots will cause an out of focus condition, in the 3001.



VIEW FROM THE REAR

	1183	A
JR	SM 4	★

Figure 2. The Correct Lens Position

REP 8.1 MEDIA TRANSPORT MODULE

PARTS LIST ON PL 8.1

REMOVAL

1. REMOVE THE LEFT AND RIGHT SIDE COVERS, THE UPPER AND LOWER REAR COVERS AND THE SEPARATOR GUIDES.
2. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
3. (FIGURE 1): PREPARE TO REMOVE THE MEDIA TRANSPORT MODULE.
4. (FIGURE 2): REMOVE THE RETAINING CLIP.

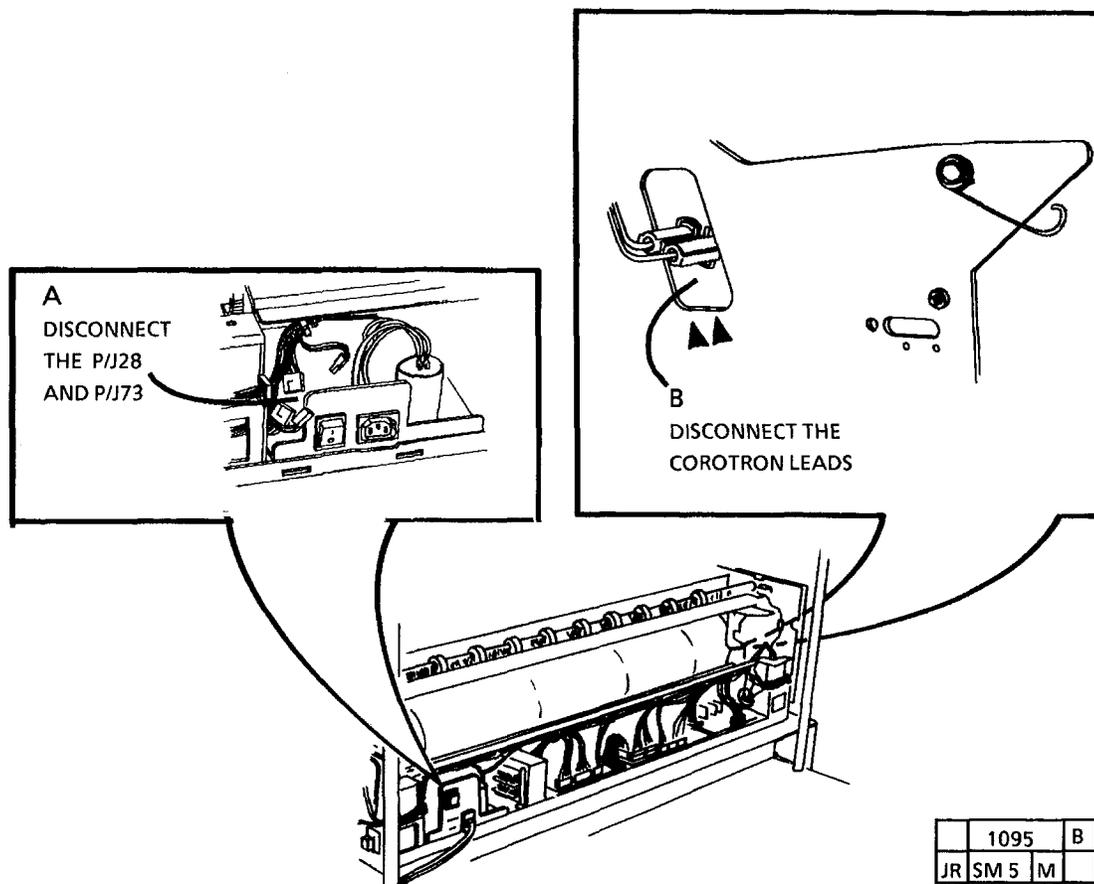


Figure 1. Prepare to Remove the Media Transport Module

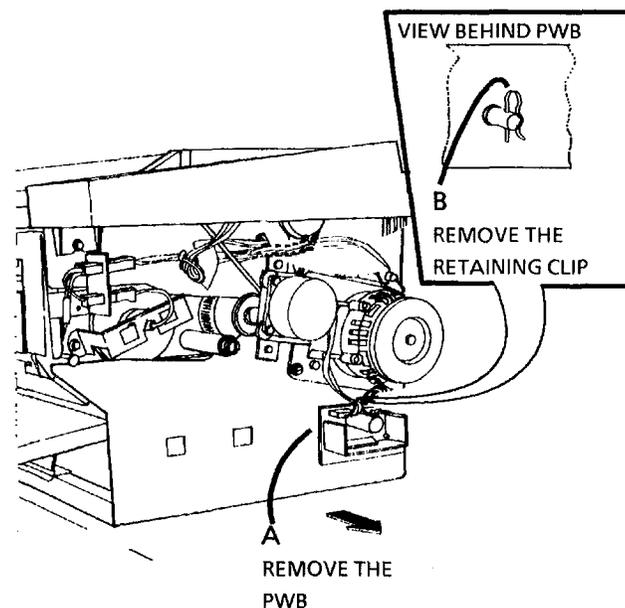
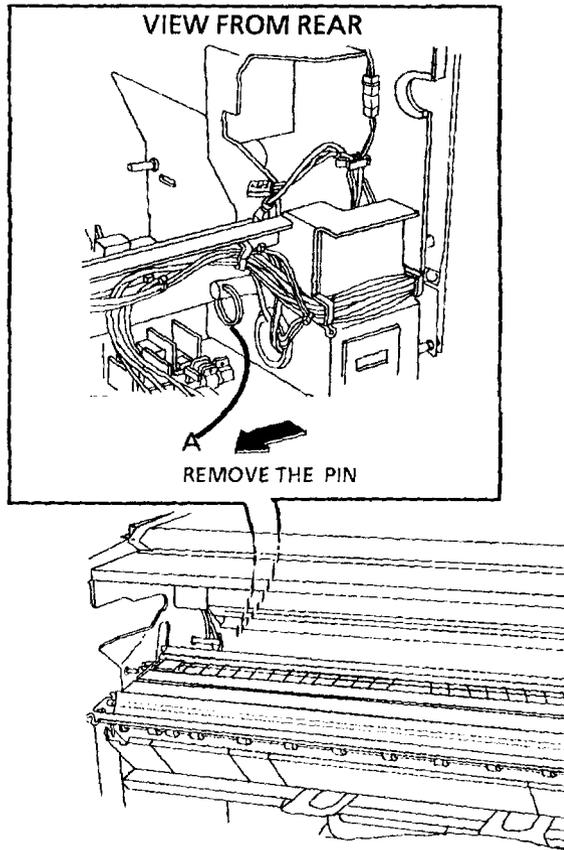


Figure 2. Remove the Retaining Clip

(Continued)

(Continued)

5. (FIGURE 3): PREPARE TO REMOVE THE MEDIA TRANSPORT ASSEMBLY.



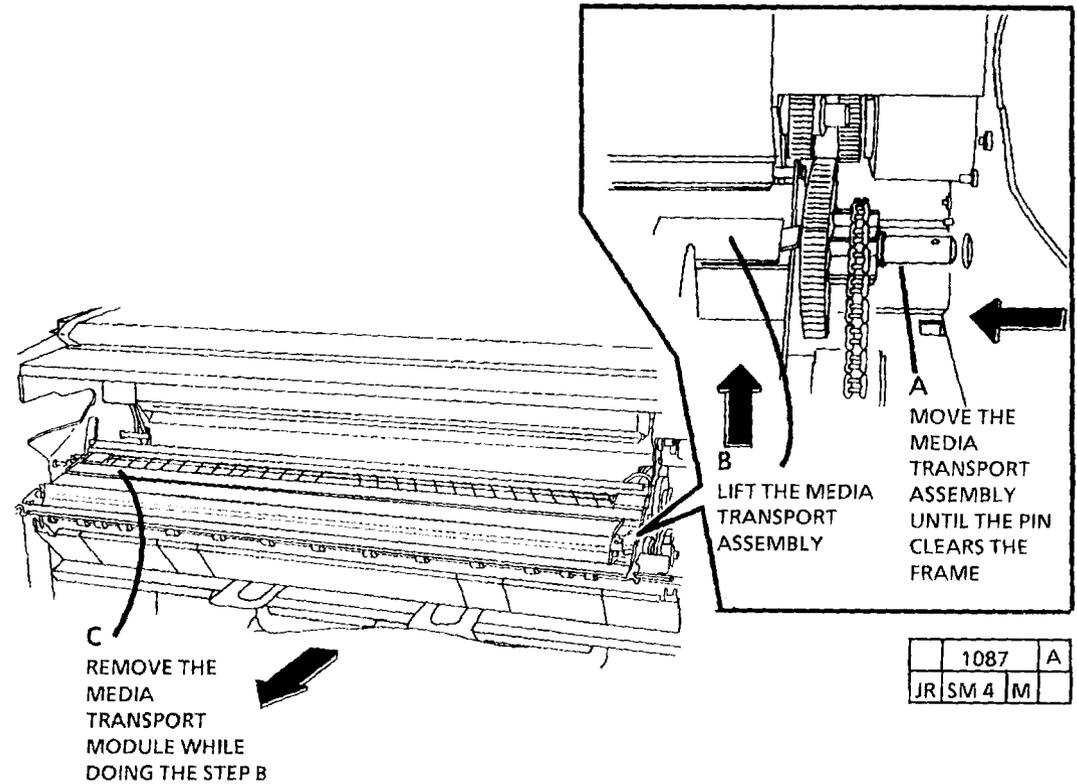
	1051	A
JR	SM 4	M

Figure 3. Prepare to Remove the Media Transport Assembly



Before removing the Media Transport Assembly, ensure that there is a clean area to place the assembly.

6. (FIGURE 4): REMOVE THE MEDIA TRANSPORT ASSEMBLY.



	1087	A
JR	SM 4	M

Figure 4. Remove the Media Transport Assembly

(Continued)

(Continued)

REPLACEMENT

1. (FIGURE 5): ALIGN THE GEARS.

2. THE REMAINDER OF THE REPLACEMENT IS THE REVERSE OF THE REMOVAL PROCEDURE.
3. (FIGURE 6): ENSURE THAT THE RETAINING CLIP IS INSTALL AS SHOWN TO PREVENT THE CLIP FROM SHORTING TO THE DRIVE MOTOR CONTROL PWB.

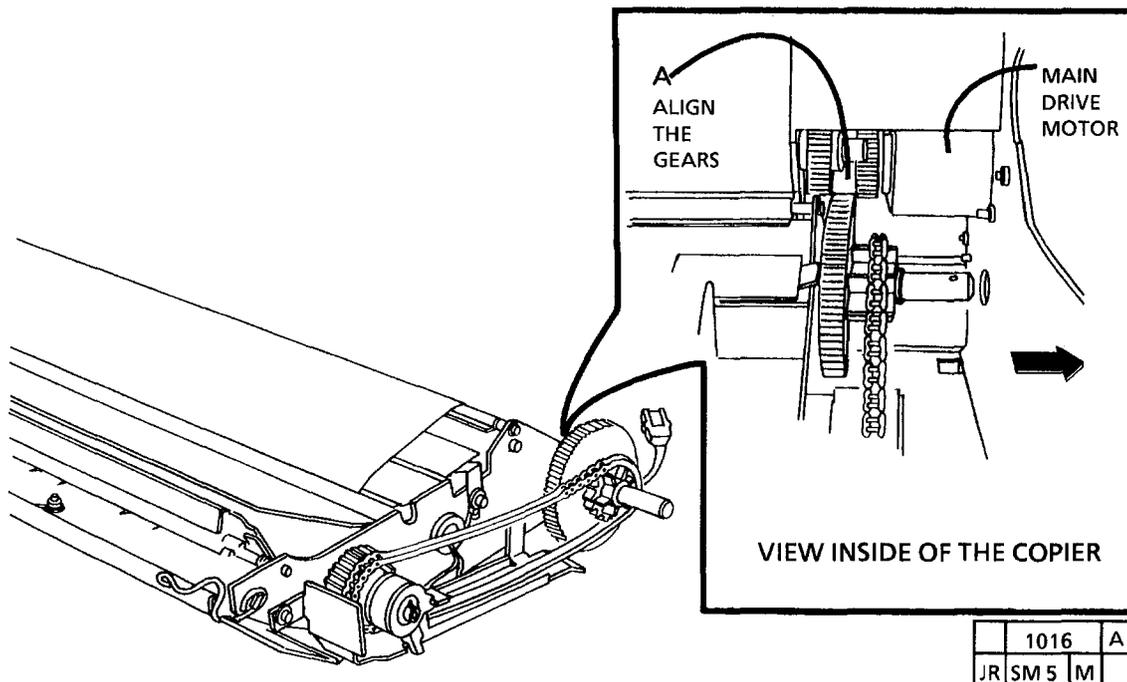


Figure 5 . Align the Gears

Figure 6 . Correct Retaining Clip Installation

REP 8.2 UPPER MEDIA FEED ROLL

PARTS LIST ON PL 8.1

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE LEFT AND RIGHT SIDE COVERS, THE UPPER AND LOWER REAR COVERS, AND THE SEPARATOR GUIDES.
3. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
4. REMOVE THE MEDIA TRANSPORT MODULE (REP 8.1).
5. (FIGURE 1): PREPARE TO REMOVE THE UPPER MEDIA FEED ROLL.

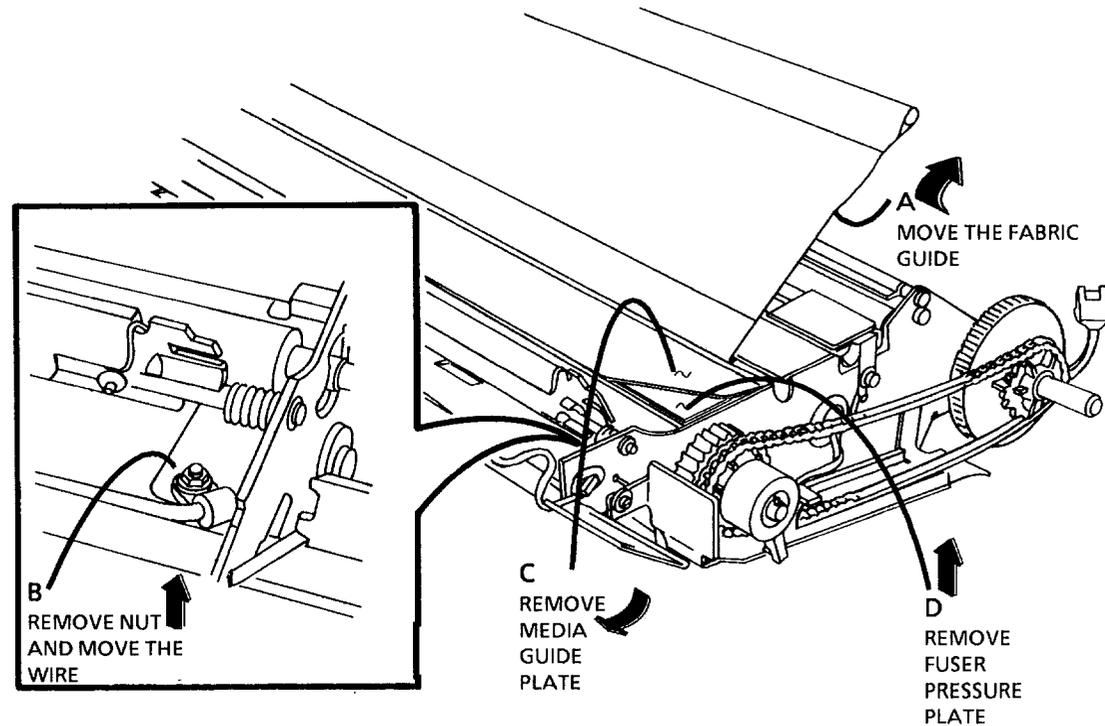


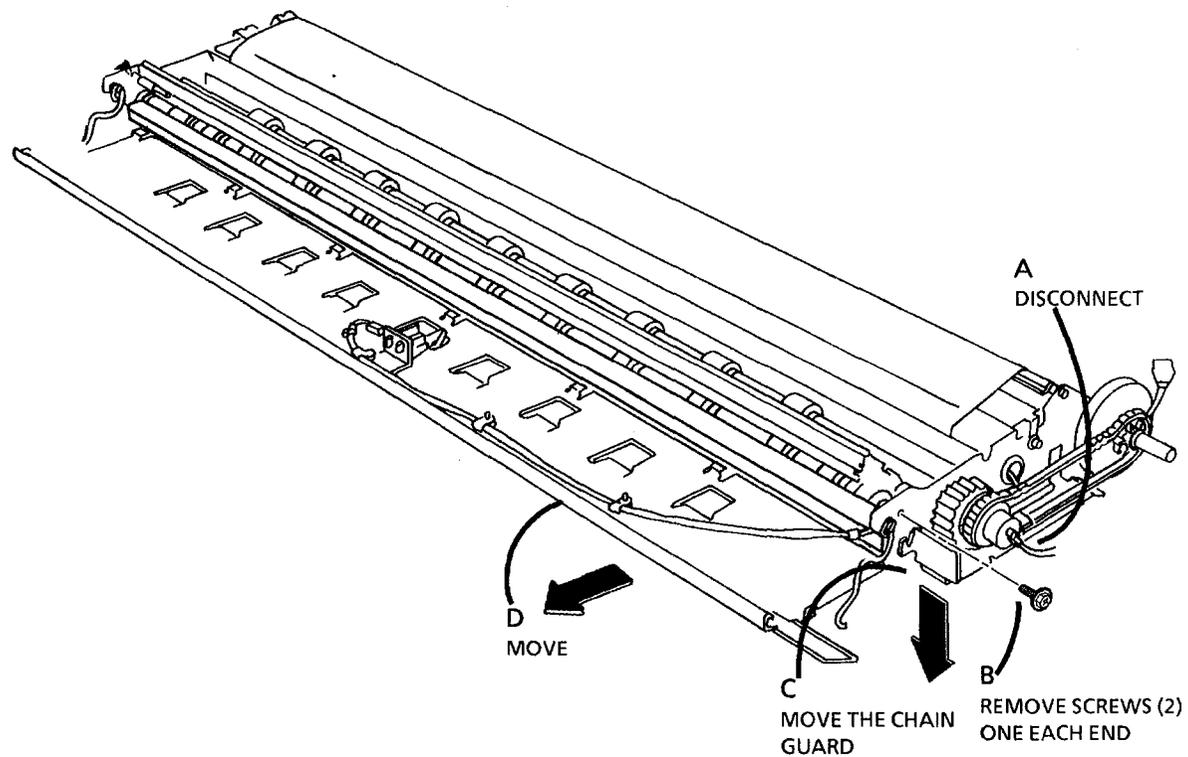
Figure 1. Prepare to Remove the Upper Feed Roll

	1017	A
JR	SM 4	M

(Continued)

(Continued)

6. (FIGURE 2): PREPARE TO REMOVE THE UPPER MEDIA FEED ROLL.



	1122	B
JR	SM 4	M

Figure 2. Prepare to Remove the Upper Media Feed Roll

(Continued)

(Continued)

7. (FIGURE 3): REMOVE THE UPPER MEDIA FEED ROLL.

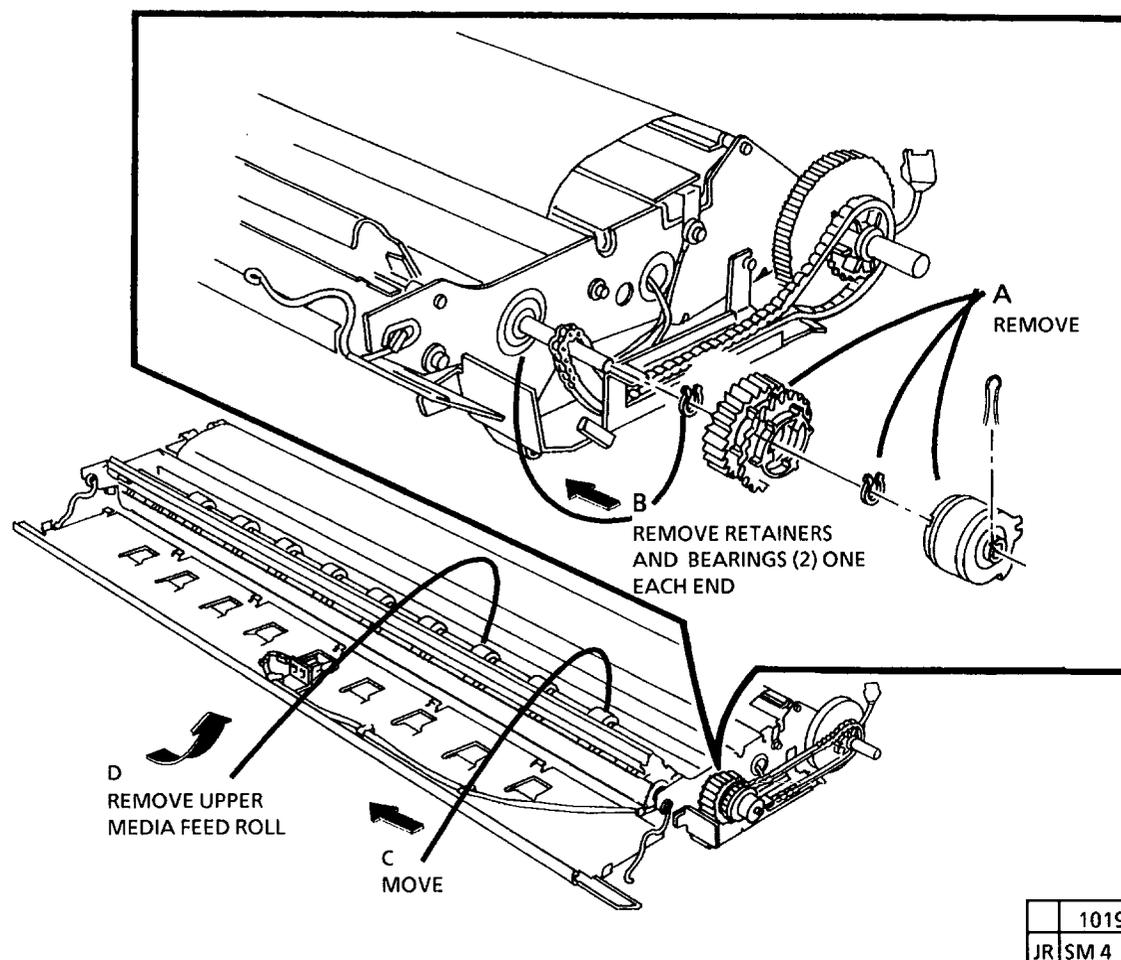


Figure 3. Remove the Upper Media Feed Roll

REPLACEMENT

- ⚠ Be careful not to damage the actuator arm on the Prefeed Sensor.
- ⚠ Ensure that the Brake Assembly is installed correctly. Refer to the Removal, Figure 2.

REP 8.3 MEDIA IDLER ROLL, SHAFT

PARTS LIST ON PL 8.1

REMOVAL

- WARNING: DISCONNECT THE POWER CORD.**
- REMOVE THE RIGHT AND LEFT SIDE COVERS, THE UPPER AND LOWER REAR COVERS, AND THE SEPARATOR GUIDES.

- REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
- REMOVE THE MEDIA TRANSPORT MODULE (8.1).
- TURN OVER THE MEDIA TRANSPORT.
- (FIGURE 1): REMOVE THE LOWER MEDIA FEED ROLLS.

REPLACEMENT

- (FIGURE 2): REINSTALL THE IDLER ROLLS.

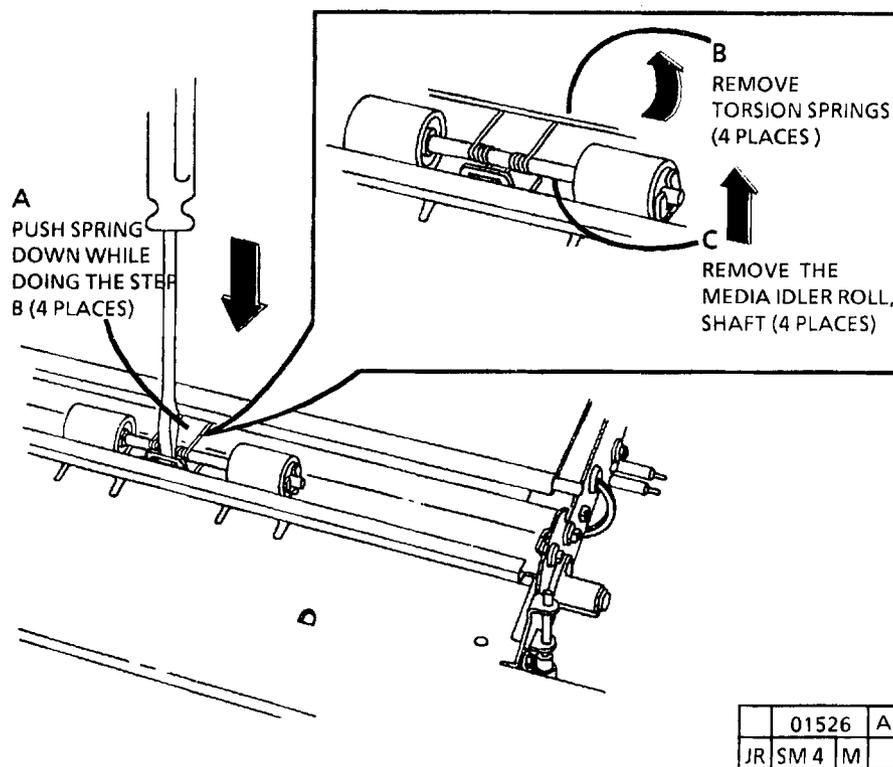


Figure 1. Remove the Lower Media Feed Rolls

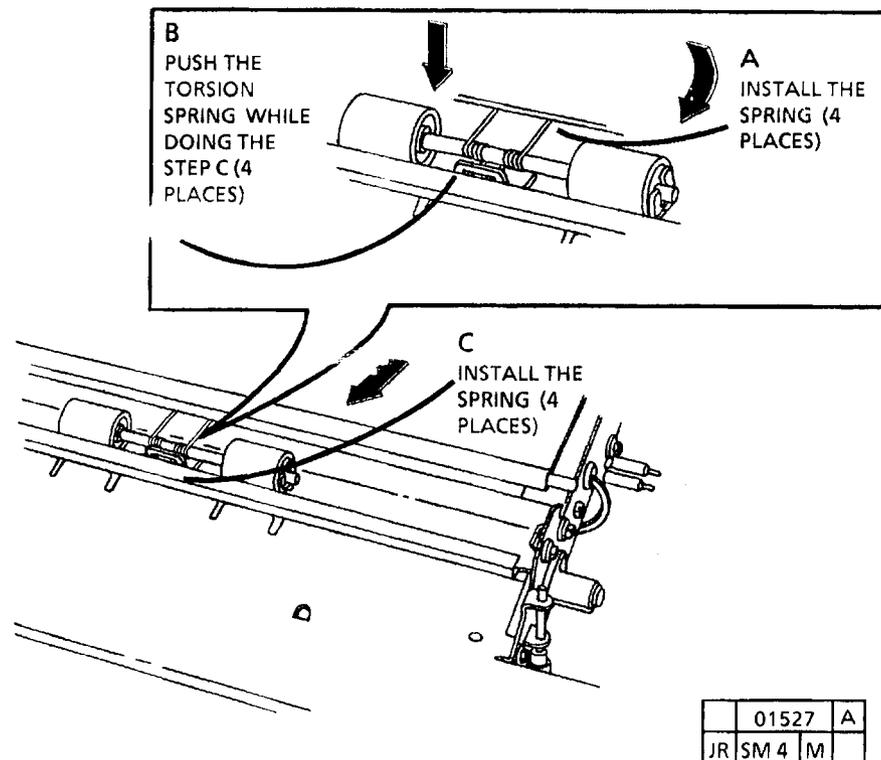


Figure 2. Reinstall the Lower Media Feed Rolls

REP 8.4 MOTION SENSOR

PARTS LIST ON PL 8.3

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE RIGHT AND LEFT SIDE COVERS, THE UPPER AND LOWER REAR COVERS, AND THE SEPARATOR GUIDES.
3. REMOVE XEROGRAPHIC MODULE (REP 9.1).

4. REMOVE MEDIA TRANSPORT (REP 8.1).
5. (FIGURE 1): PREPARE TO REMOVE MOTION SENSOR.

6. TURN OVER THE MEDIA TRANSPORT.
7. (FIGURE 2): PREPARE TO REMOVE MOTION SENSOR.

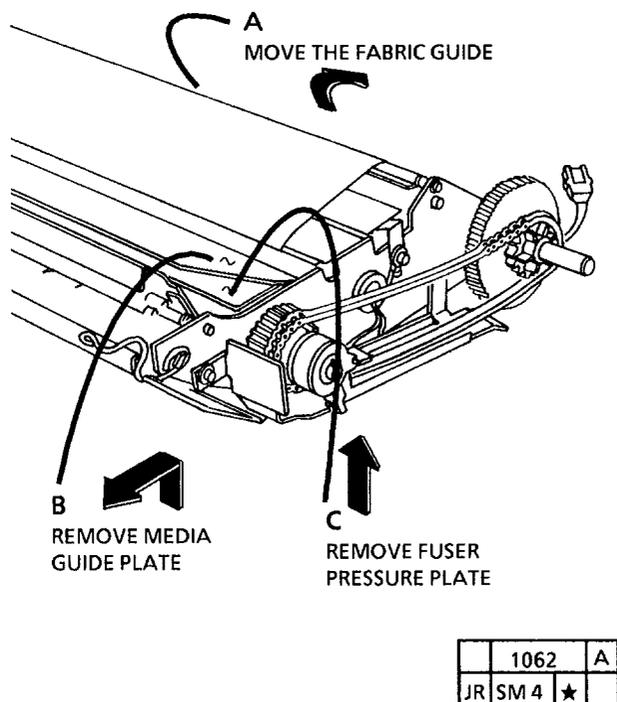


Figure 1. Prepare to Remove Motion Sensor

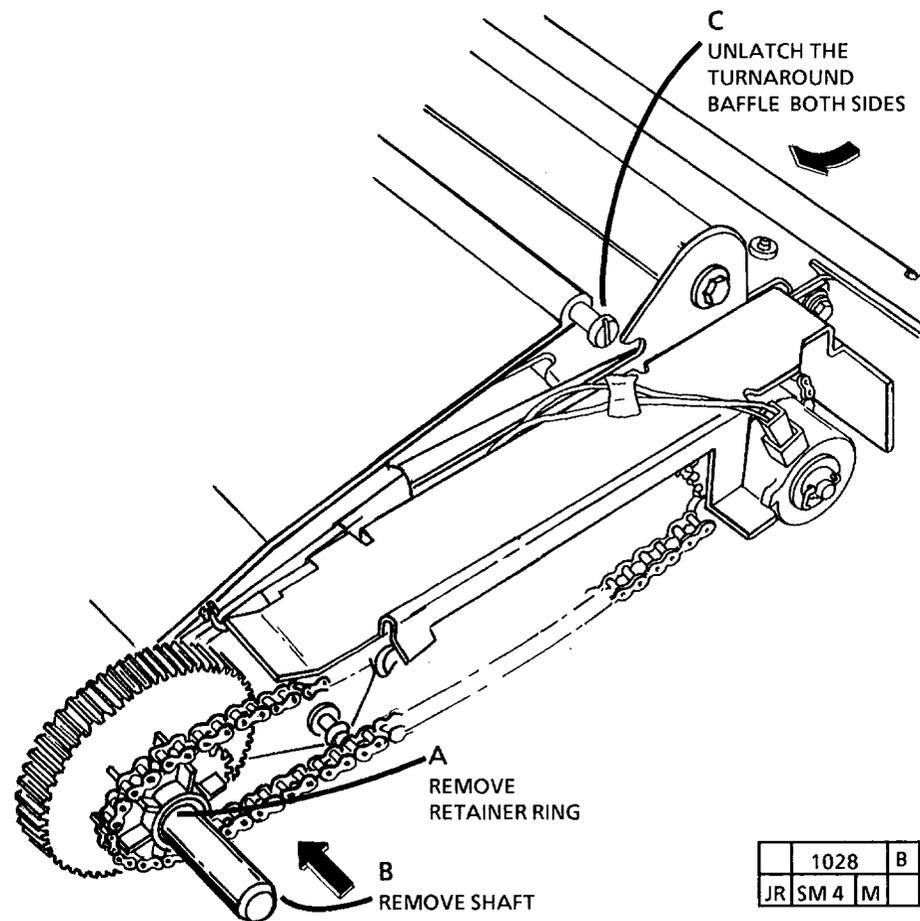


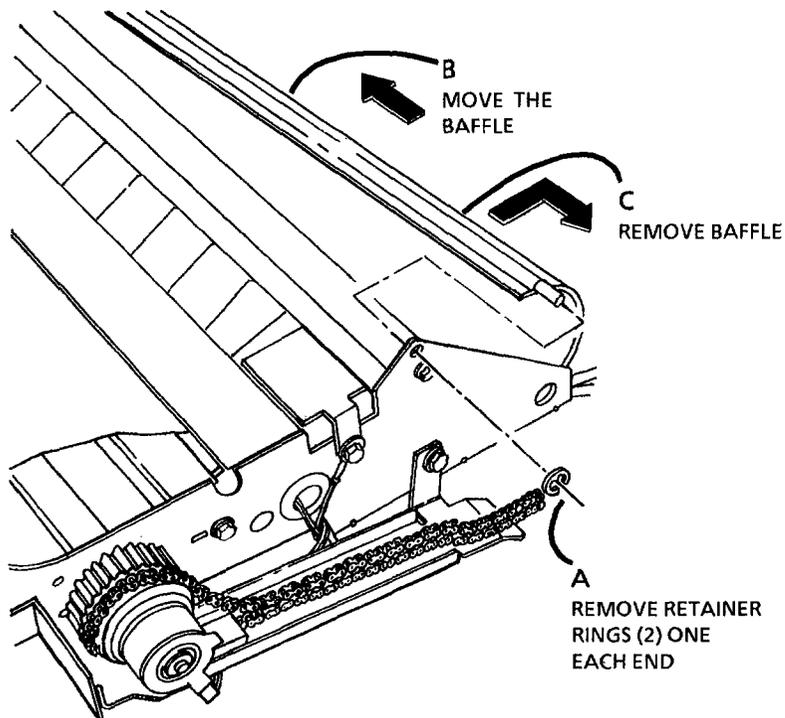
Figure 2. Prepare to Remove Motion Sensor

(Continued)

(Continued)

8. TURN OVER THE MEDIA TRANSPORT.

9. (FIGURE 3): PREPARE TO REMOVE MOTION SENSOR.

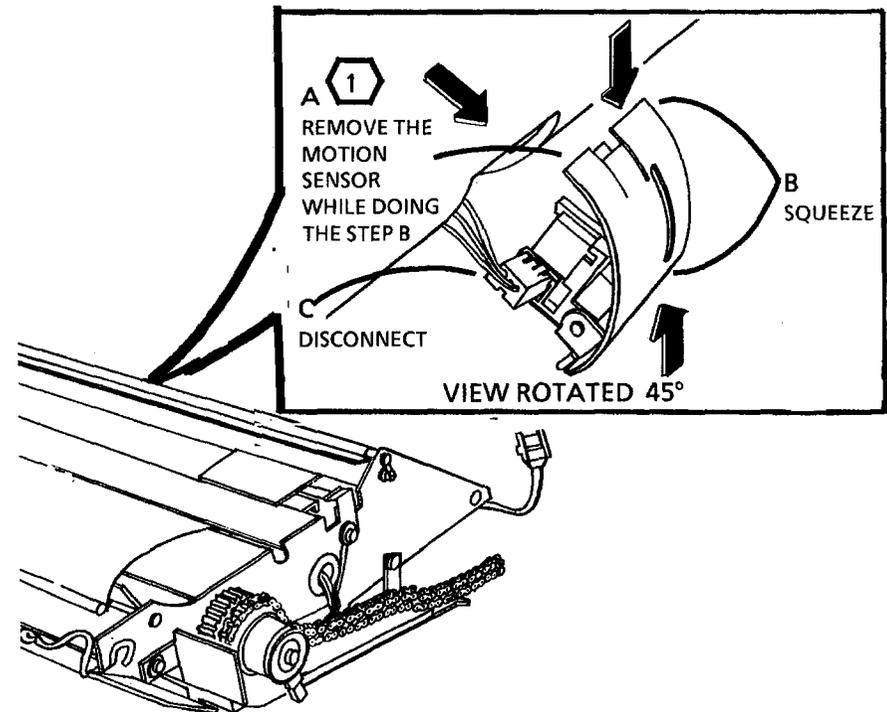


	1029	B
JR	SM 4	M

Figure 3. Prepare to Remove Motion Sensor

10. (FIGURE 4): REMOVE THE MOTION SENSOR.

1 STEP 10 A: Note the orientation of the motion sensor when removing for proper replacement.



	1030	B
JR	SM 5	M

Figure 4. Remove the Motion Sensor

REP 8.5 FABRIC GUIDE

PARTS LIST ON PL 8.2

REMOVAL

- WARNING: DISCONNECT THE POWER CORD.**

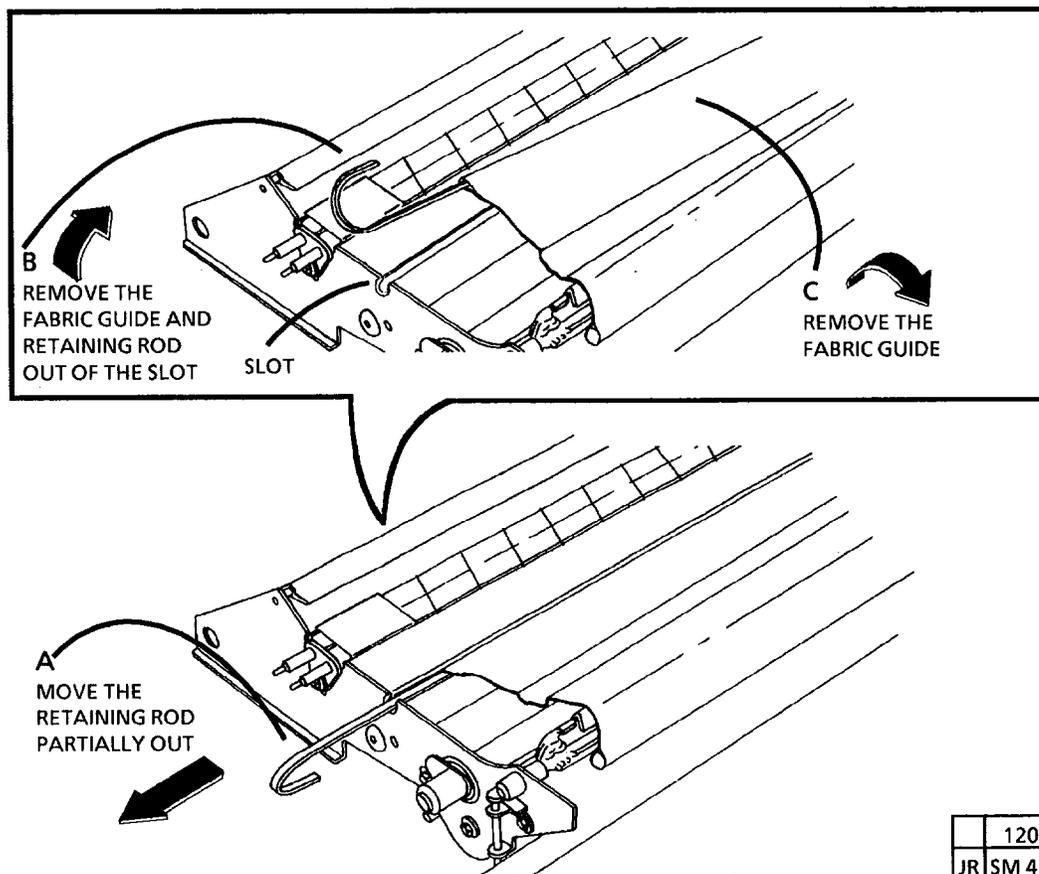


Figure 1. Remove the Fabric Guide

NOTE: The media transport is shown removed for clarity. The transport does not have to be removed to replace the fabric guide.

- (FIGURE 1): REMOVE THE FABRIC GUIDE.

REPLACEMENT

- STEP 1 A (USO ONLY):** The colored strip on the fabric guide is closer to the edge with the corner cut. This must be positioned toward the back of the copier to avoid damage to the fabric guide and possible media jams. Install the retaining rod on this side.

- (FIGURE 2): INSTALL THE RETAINING ROD AND THE WEIGHT BAR INTO THE FABRIC GUIDE.
- THE REMAINDER OF THE REPLACEMENT IS THE REVERSE OF THE REMOVAL PROCEDURE.

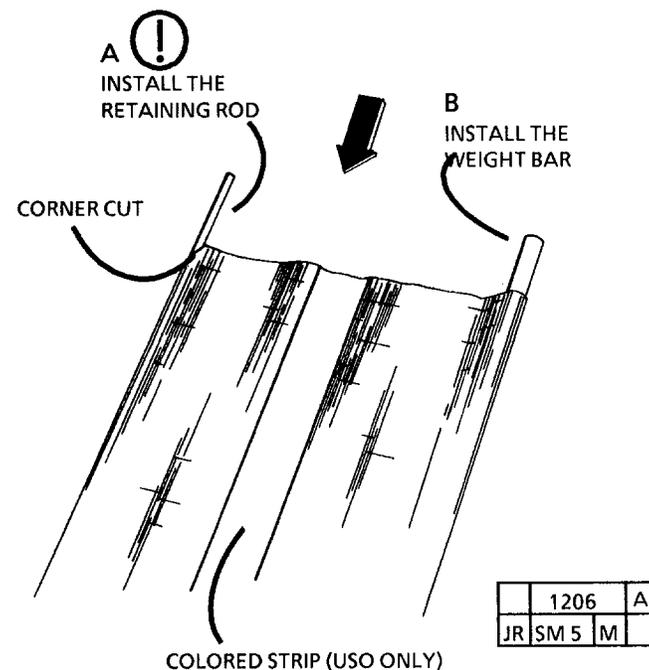


Figure 2. Install the Retaining Rod and the Weight Bar into the Fabric Guide

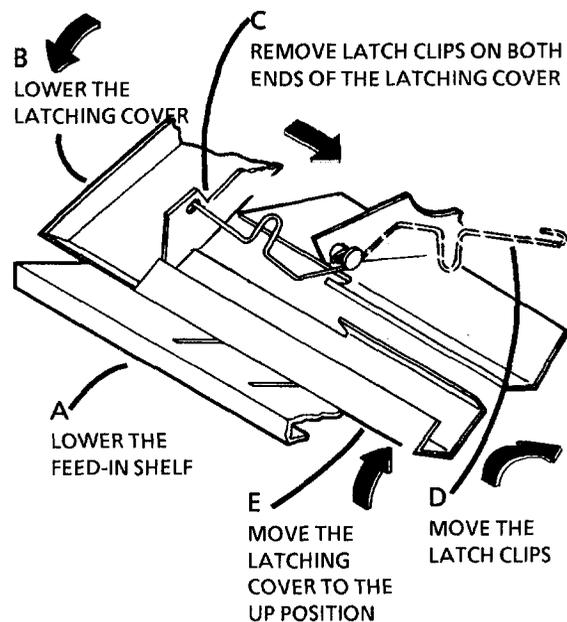
REP 9.1 XEROGRAPHIC MODULE

PARTS LIST ON PL 10.2

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE SEPARATOR GUIDES.
3. REMOVE THE RIGHT AND LEFT SIDE COVERS.

3. (FIGURE 1): REMOVE THE LATCH CLIPS FROM EACH END.



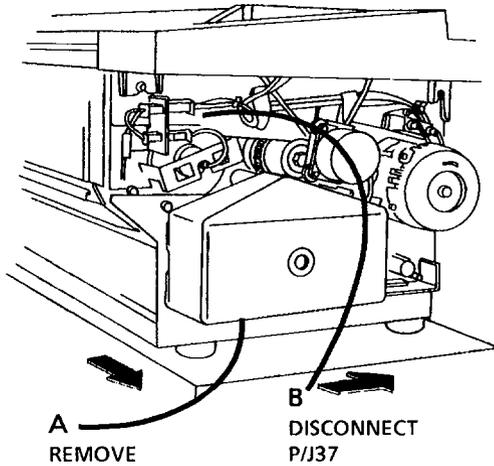
	1060	A
JR	SM 4	★

Figure 1. Remove the Latch Clips

(Continued)

(Continued)

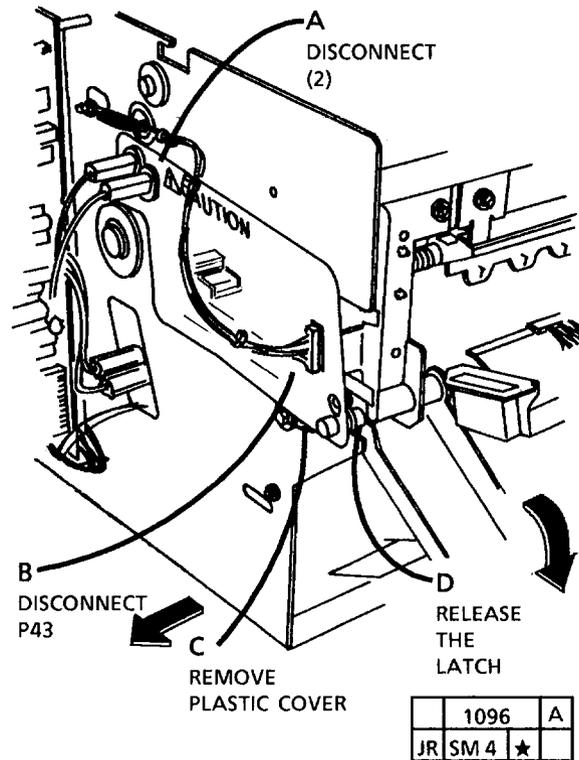
4. (FIGURE 2): DISCONNECT ELECTRICAL CONNECTOR ON THE RIGHT SIDE.



	1022	A
JR	SM 4	M

Figure 2. Disconnect Electrical Connector on the Right Side

5. (FIGURE 3): DISCONNECT ELECTRICAL CONNECTOR ON THE LEFT SIDE.



	1096	A
JR	SM 4	★

Figure 3. Disconnect Electrical Connectors on the Left Side

(Continued)

(Continued)



Before removing the Xerographic Module, ensure that there is a clean flat surface area to place the assembly.

6. (FIGURE 4): REMOVE THE XEROGRAPHIC MODULE



The Fuser may be hot. Use a cloth when supporting the center of the module.



Cover the Photoreceptor Drum with a light shield to prevent damage.



STEP 6 D: The module is heavy and it is difficult to handle. Be careful when removing the module.

REP 9.2 PHOTORECEPTOR DRUM ASSEMBLY

PARTS LIST ON PL 9.1

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

2. REMOVE THE SEPARATOR GUIDES, THE RIGHT SIDE COVER, AND THE LEFT SIDE COVER.
3. REMOVE THE XEROGRAPHIC MODULE (REP 9.1)

! Cover the Photoreceptor Drum with a light shield to prevent damage.

4. (FIGURE 1): REMOVE THE PHOTORECEPTOR DRUM ASSEMBLY.

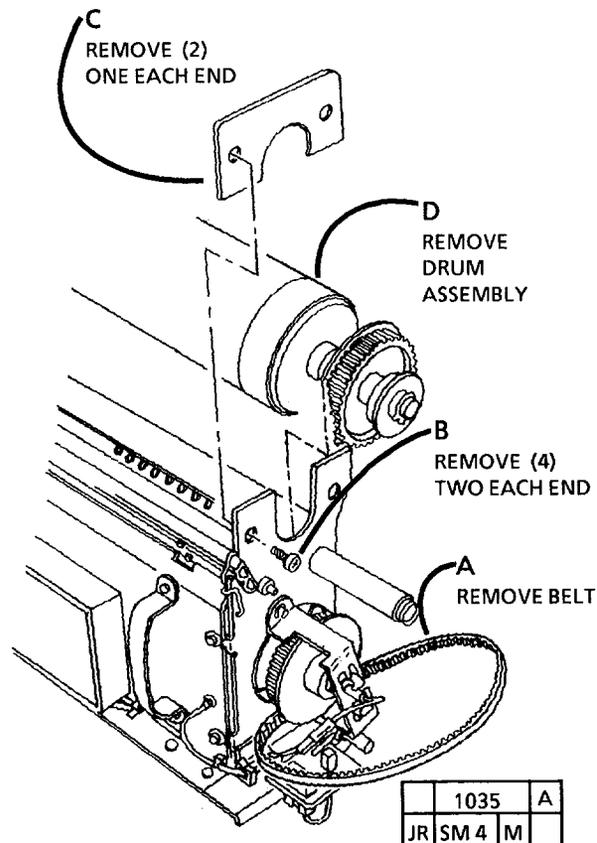
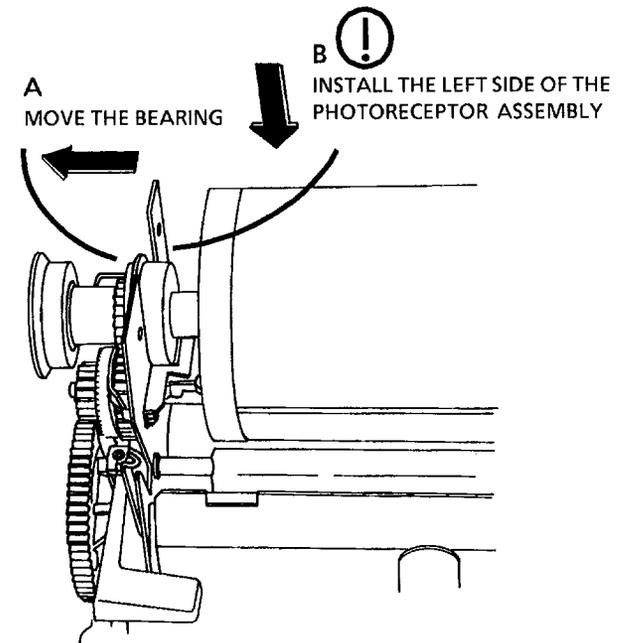


Figure 1. Remove the Photoreceptor Drum Assembly

REPLACEMENT

! STEP 1 B: Reinstall the left side of the drum assembly first to avoid damaging the drum ground bracket.

1. (FIGURE 2): REINSTALL THE PHOTORECEPTOR ASSEMBLY.
2. THE REMAINDER OF THE REPLACEMENT IS THE REVERSE OF THE REMOVAL.



	1208	A
JR	SM 4	M

Figure 2. Reinstall the Photoreceptor Drum Assembly

REP 9.3 PHOTORECEPTOR DRUM

PARTS LIST ON PL 9.1

REMOVAL

- WARNING: DISCONNECT THE POWER CORD.**
- REMOVE THE SEPARATOR GUIDES, THE RIGHT SIDE COVER, AND THE LEFT SIDE COVER.
- REMOVE THE XEROGRAPHIC MODULE (REP 9.1).

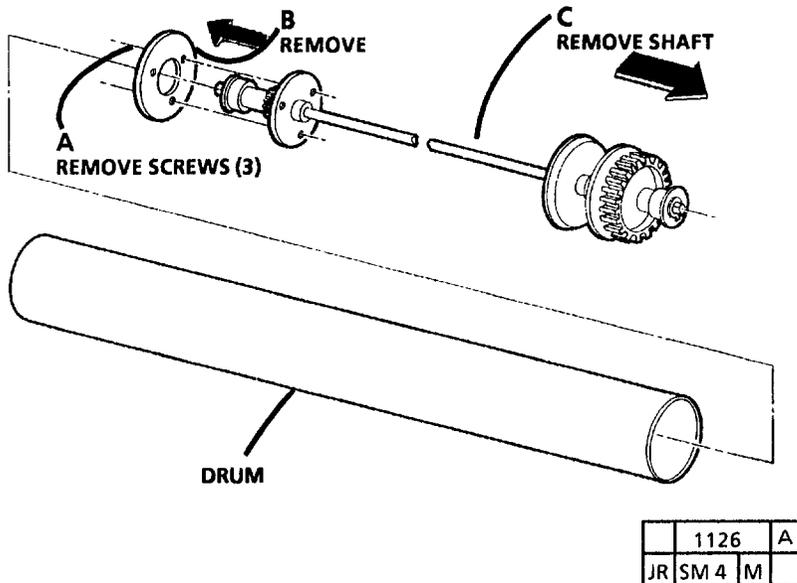


Figure 1. Remove Photoreceptor Drum Shaft

- REMOVE PHOTORECEPTOR DRUM ASSEMBLY (REP 9.2).
- (FIGURE 1): REMOVE PHOTORECEPTOR DRUM SHAFT.

REPLACEMENT



Do not remove the light shield until Step 2 when the photoreceptor is ready to be installed in the xerographic module.

- (FIGURE 2): INSTALL PHOTORECEPTOR DRUM SHAFT.



STEP 1A: Ensure that the top of the drum box is up before opening the box.



STEP 1D: The end shields (2) must be raised in order to position the Drum shaft end plates against the Drum fully.



STEP 1D: When installing the drum shaft, be sure to tighten the three retaining screws evenly and with equal pressure.

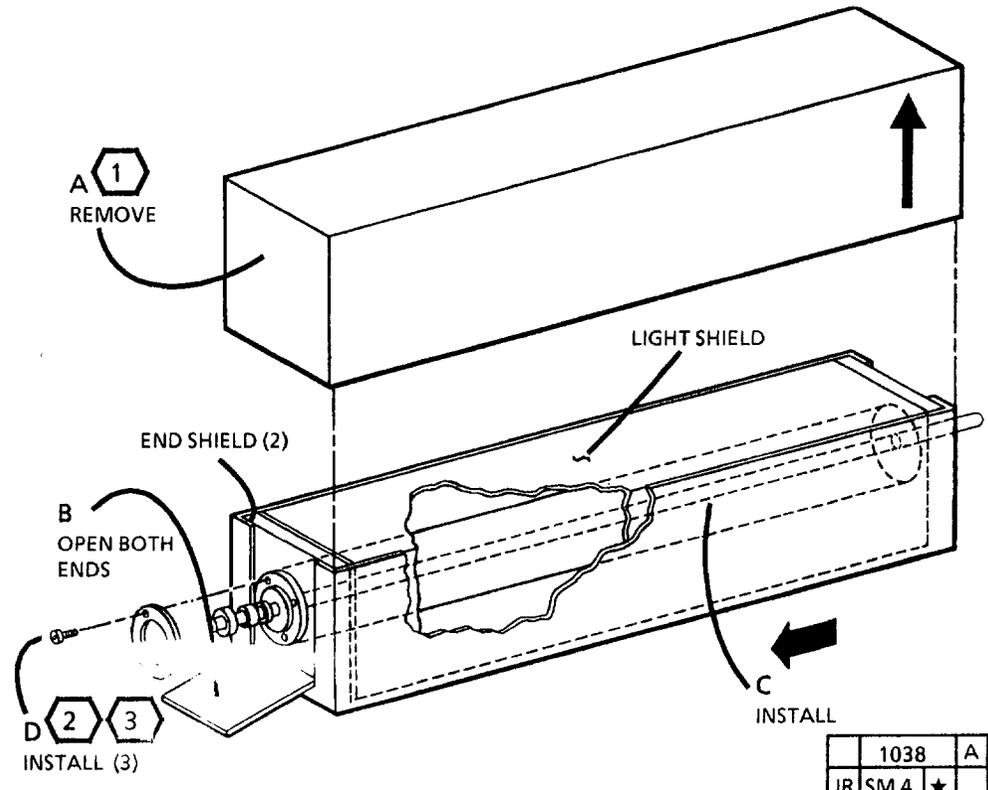
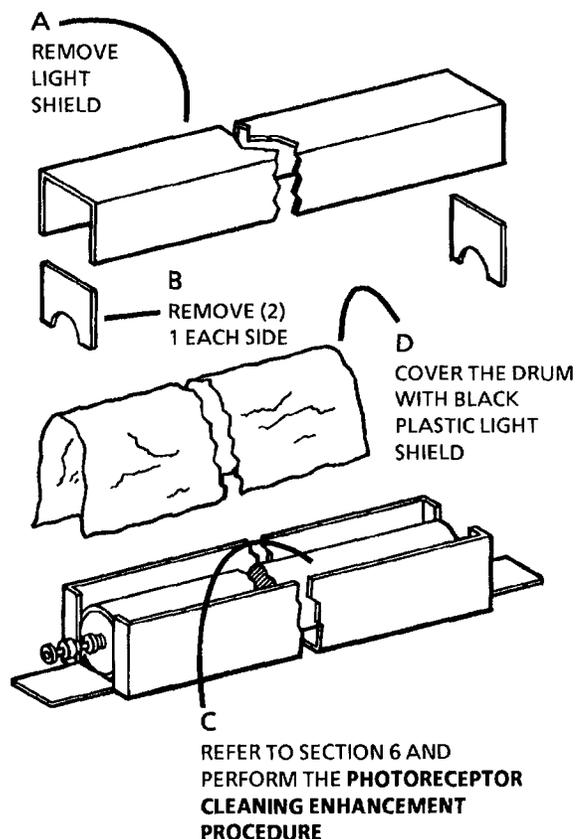


Figure 2. Install the Drum Shaft

(Continued)

(Continued)

2. (FIGURE 3): PREPARE DRUM FOR INSTALLATION.



	1039	A
JR	SM 4	★

Figure 3. Prepare Drum for Installation

4. Clean the photoreceptor seal (PL 9.3, Item 9) and move it towards the drum to provide a seal between the Photoreceptor and the auger extrusion. Replace the seal if it is damaged. Apply a light coating of zinc stearate to the photoreceptor drum and the cleaning blade.

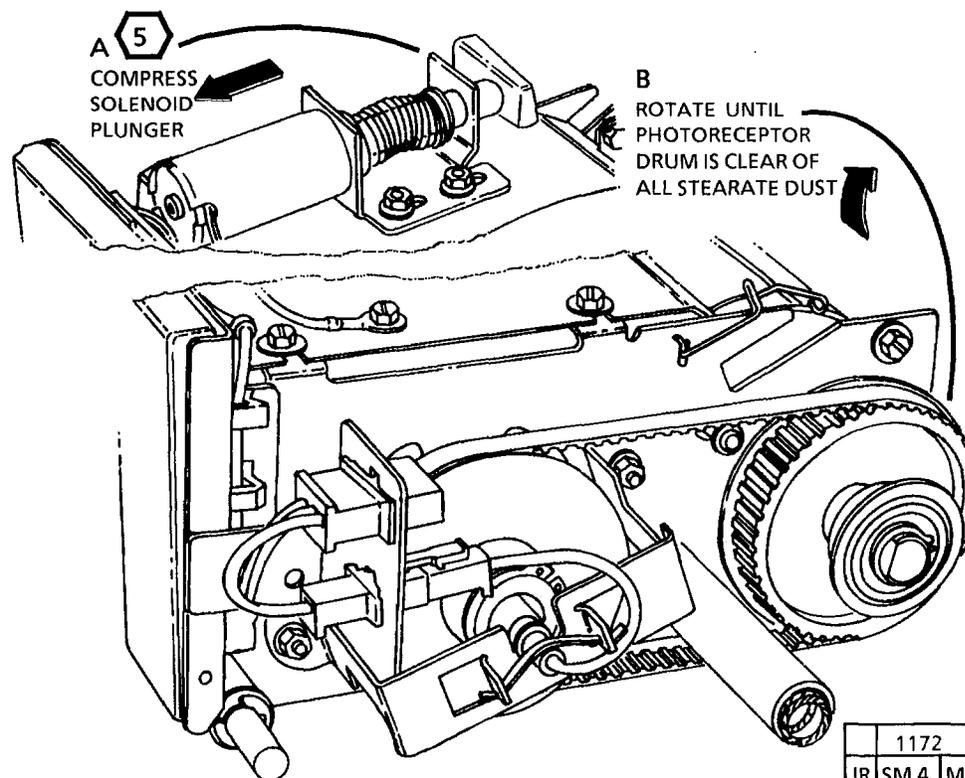
3. INSTALL PHOTORECEPTOR DRUM ASSEMBLY IN XEROGRAPHIC MODULE (REP 9.2).

4. (FIGURE 4): REMOVE THE STEARATE FROM THE PHOTORECEPTOR DRUM.

5. STEP 4 A: Compress the solenoid plunger so that the cleaner blade contacts with the photoreceptor drum.

5. INSTALL XEROGRAPHIC MODULE (REP 9.1).

6. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2).



	1172	A
JR	SM 4	M

Figure 4. Remove the Stearate from the Photoreceptor Drum

REP 9.4 CLEANER BLADE

PARTS LIST ON PL 9.3

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE PHOTORECEPTOR DRUM ASSEMBLY (REP 9.2).
3. (FIGURE 1): REMOVE TRANSITION GEAR AND WEIGHT.

1 STEP 3 A: *The cleaner blade assembly is spring loaded. Use care when removing the transition gear.*

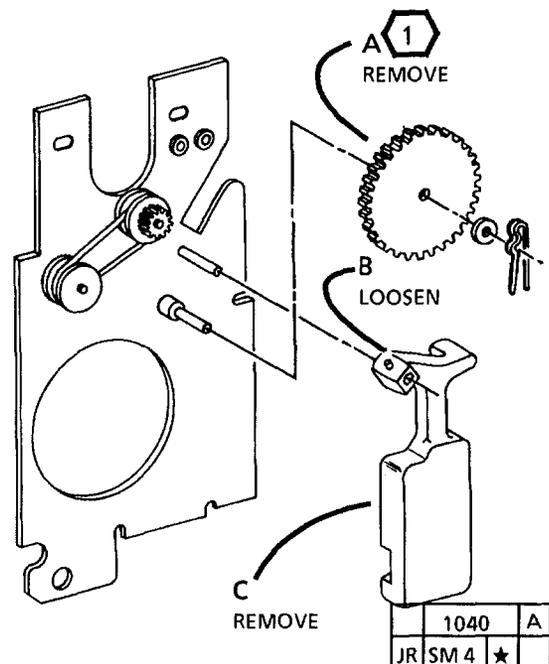


Figure 1. Remove Transition Gear and Weight

4. (FIGURE 2): REMOVE THE CLEANER BLADE ASSEMBLY .

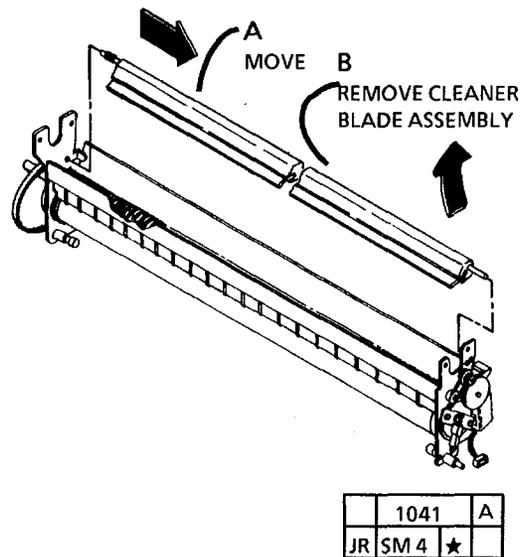


Figure 2. Remove the Cleaner Blade Assembly

5. (FIGURE 3): REMOVE THE CLEANER BLADE

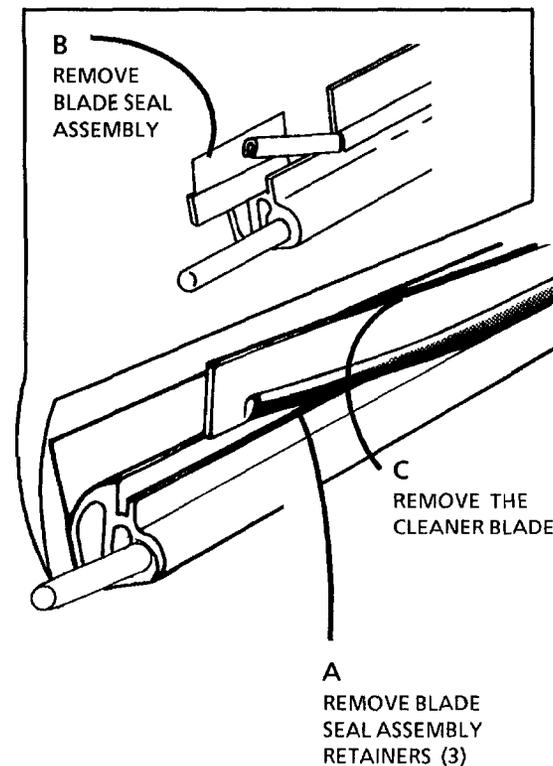


Figure 3. Remove the Cleaner Blade

REP 9.5 DEVELOPER MODULE

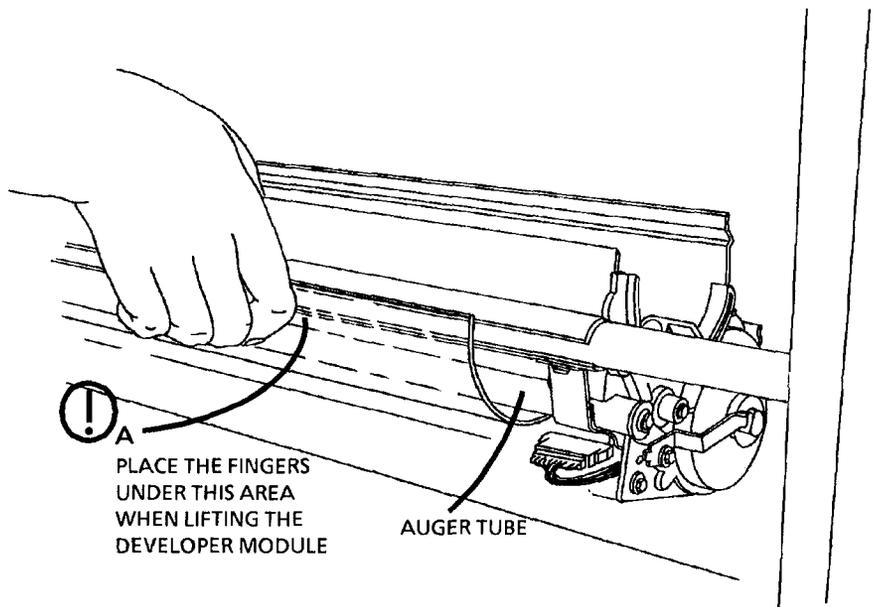
PARTS LIST ON PL 9.4

REMOVAL

1 Before removing the developer module, ensure that there is a clear area to place the assembly.

1. **WARNING: DISCONNECT THE POWER CORD.**

2. REMOVE THE LEFT AND RIGHT SIDE COVERS AND THE UPPER REAR COVER.



	1129	B
JR	SM 4	M

Figure 1. Hand Position for Removing the Developer Module

3. REMOVE THE TONER CARTRIDGE.

! STEPS 4 A AND 5 C: Do not lift the Developer Module by the auger tube.

4. (FIGURE 1): HAND POSITION FOR REMOVING THE DEVELOPER MODULE.

5. (FIGURE 2): REMOVE THE DEVELOPER MODULE.

2 STEP 5 B: When loosening, ensure that the screw is loosened enough that the end of the screw is inside the bracket to avoid interference when removing the developer module.

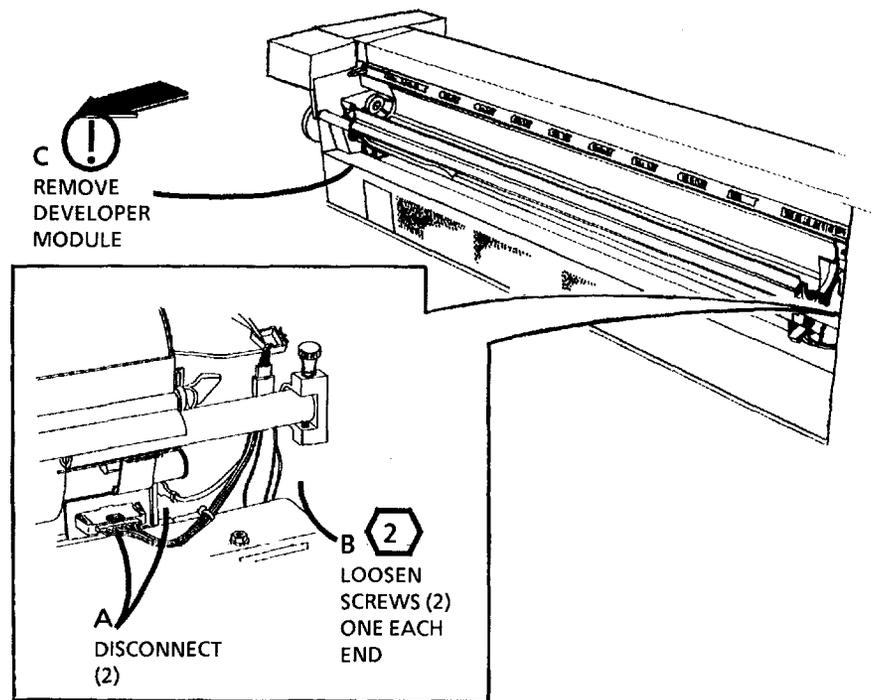


Figure 2. Remove the Developer Module

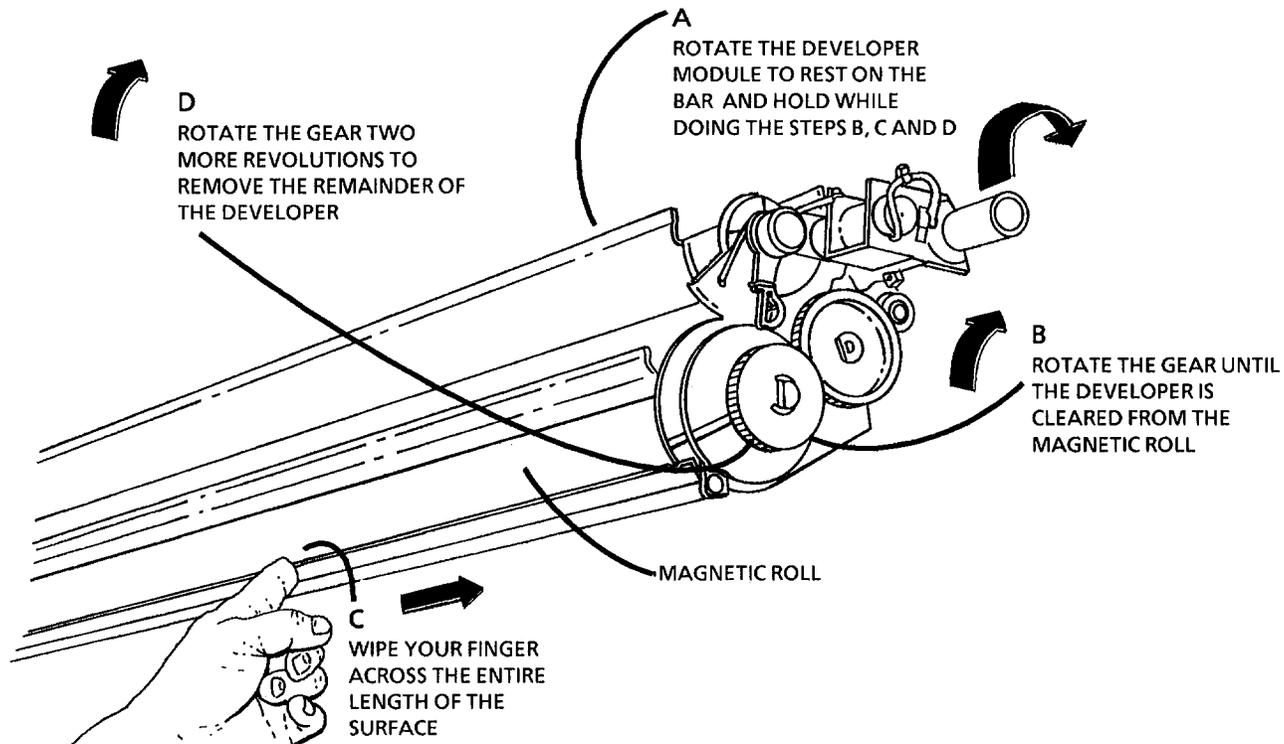
	1026	C
JR	SM 4	M

(Continued)

(Continued)
REPLACEMENT

1. (FIGURE 3): CLEAN THE DEVELOPER FROM THE MAGNETIC ROLL.

! Do not install the toner cartridge until the Developer Module is installed.



	1178	B
JR	SM 4	M

Figure 3. Clean the Developer from the Magnetic Roll

(Continued)

(Continued)

! Do not lift the Developer Module by the auger tube, refer to Figure 1.

2. (FIGURE 4): INSTALL THE DEVELOPER MODULE.

3 STEP 2 B: Ensure that the developer module is fully installed in the brackets.

3. IF THE DEVELOPER MODULE INSTALLED IN STEP 2 IS THE ONE REMOVED IN STEP 1 OF THIS REMOVAL, PROCEED TO STEP 5. IF A NEW DEVELOPER MODULE IS BEING INSTALLED, PROCEED TO STEP 4.

4 STEP 4 A: New developer modules are shipped with the toner dispense solenoid not installed. The toner dispense solenoid must be installed before installing the toner cartridge.

4. IF A NEW DEVELOPER MODULE HAS BEEN INSTALLED, PERFORM THE FOLLOWING:
A. INSTALL THE TONER DISPENSE SOLENOID (REP 9.6)
B. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2).

5. INSTALL THE TONER CARTRIDGE.

6. ADJUST THE TONER DISPENSE SOLENOID (ADJ 9.3).

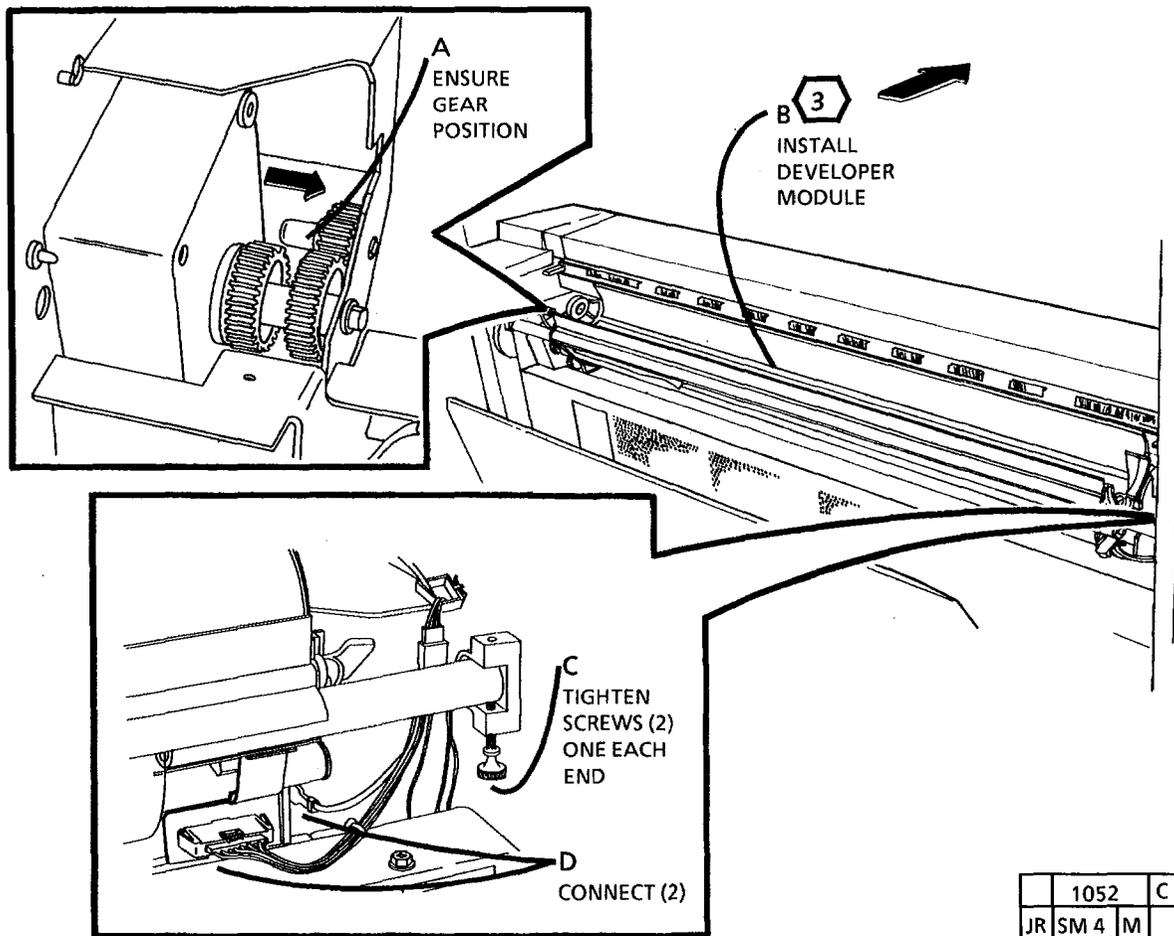


Figure 4. Install the Developer Module

REP 9.6 TONER DISPENSE SOLENOID

PARTS LIST ON PL 9.4

REMOVAL

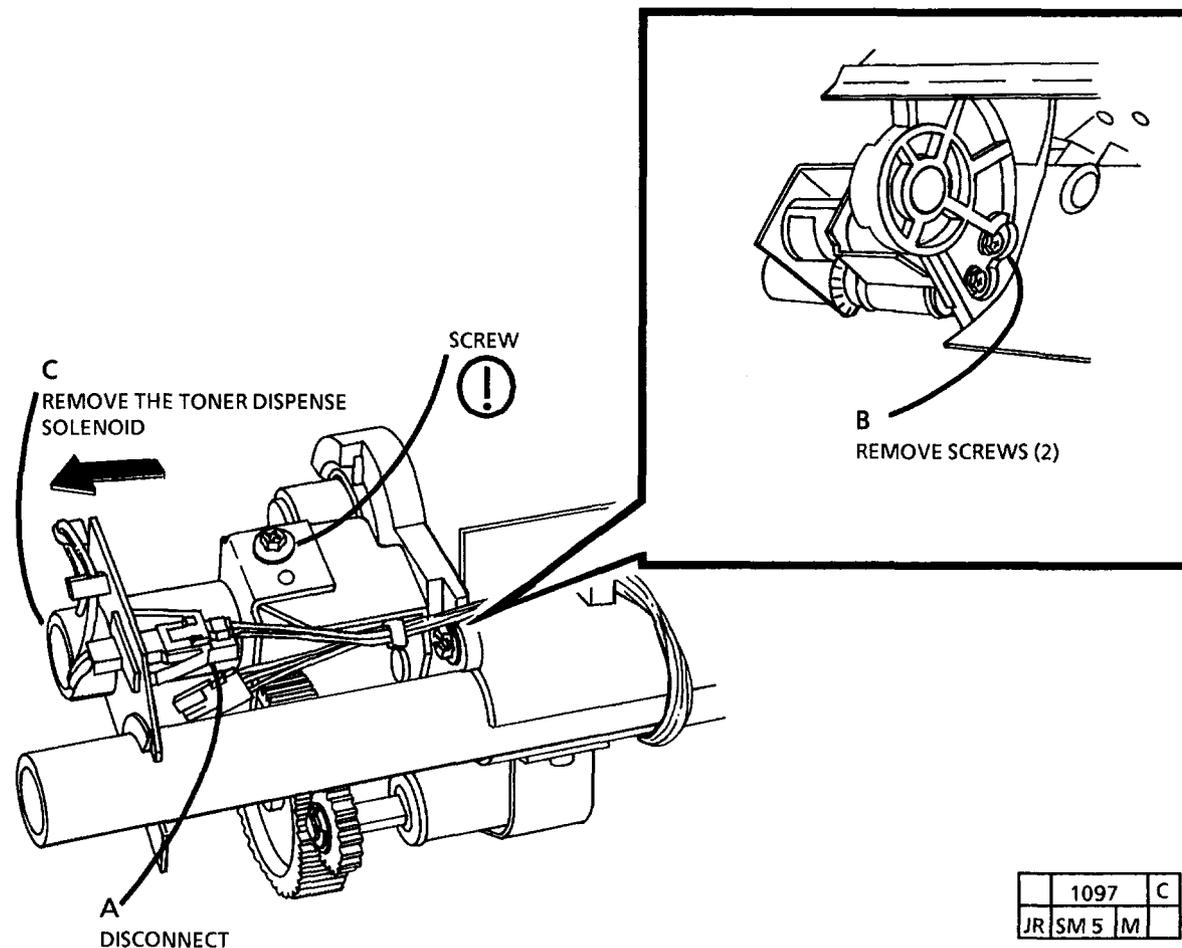
1. **WARNING: DISCONNECT THE POWER CORD.**

2. REMOVE THE DEVELOPER MODULE (REP 9.5).
3. (FIGURE 1): REMOVE TONER DISPENSE SOLENOID.

! *DO NOT loosen the screw. Loosening the screw may cause binding of the solenoid.*

REPLACEMENT

1. ADJUST THE TONER DISPENSE SOLENOID (ADJ 9.3).



	1097	C
JR	SM 5	M

Figure 1. Remove the Toner Dispense Solenoid

REP 9.7 DISPENSE ARM RETURN SPRING

PART LIST ON PL 9.4

REMOVAL

- WARNING: DISCONNECT THE POWER CORD.**

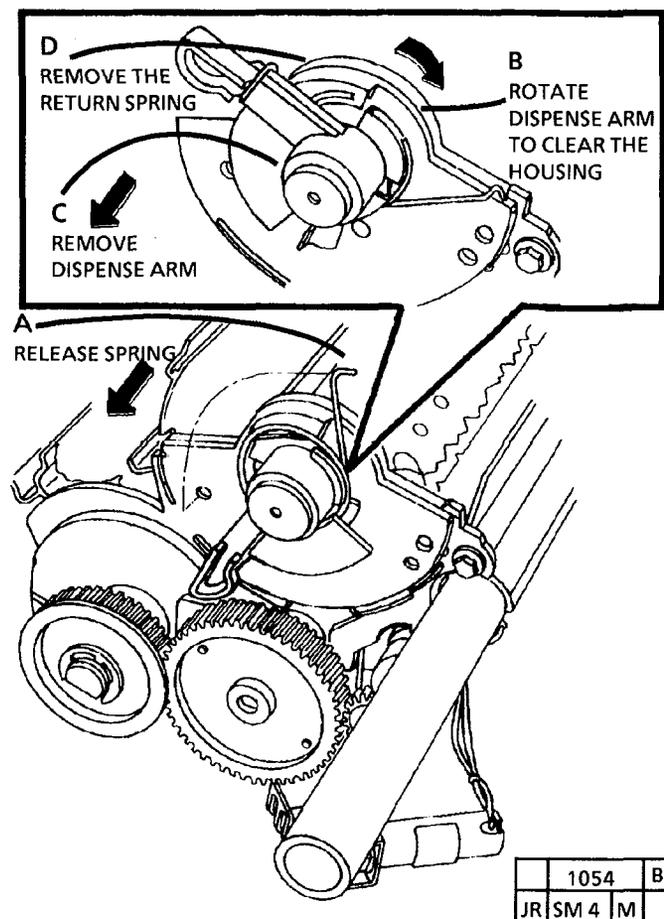


Figure 1. Remove the Return Spring

- REMOVE DEVELOPER MODULE (REP 9.5).
- REMOVE TONER DISPENSE SOLENOID (REP 9.6)
- (FIGURE 1): REMOVE THE RETURN SPRING.

REPLACEMENT

- (FIGURE 2): REPLACE THE RETURN SPRING.
 - STEP 1 E:** During replacement, ensure that the return spring is not crossed.
- REPLACE THE TONER DISPENSE SOLENOID.
- ADJUST THE TONER DISPENSE SOLENOID (ADJ 9.3).

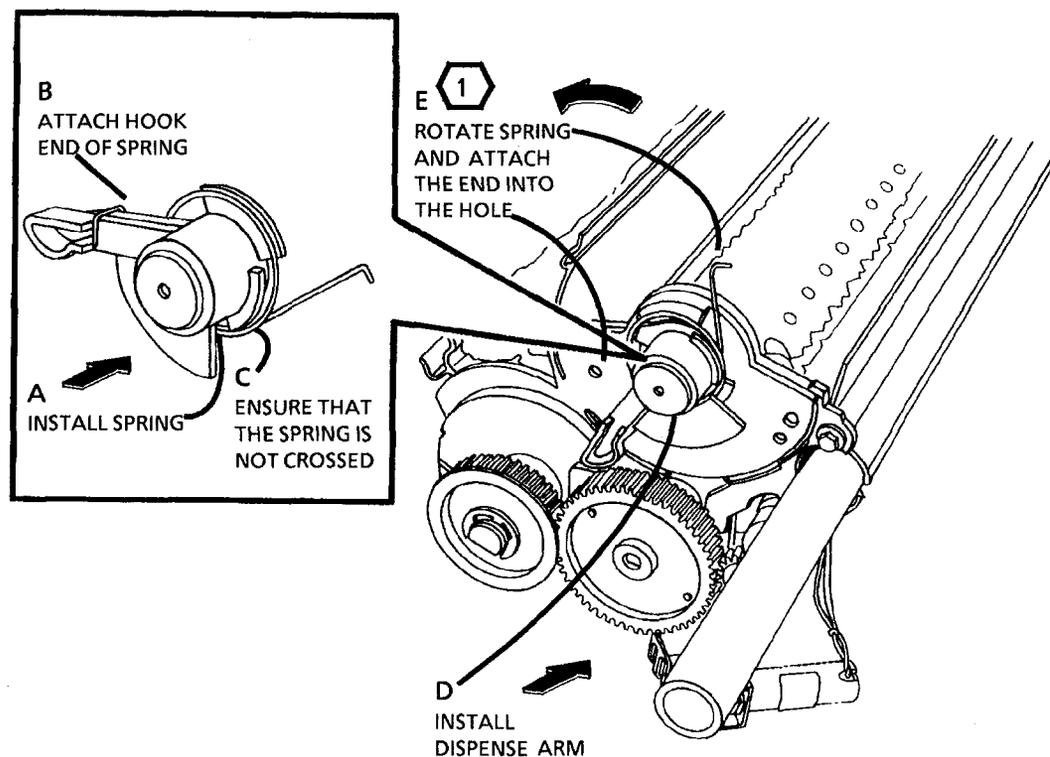


Figure 2. Replace the Return Spring

REP 9.8 DEVELOPER MATERIAL

PARTS LIST (REFER TO THE GENERAL TOOLS AND SUPPLIES, CONSUMABLES IN SECTION 6.)

REMOVAL

WARNING
DISCONNECT POWER CORD.

1. PLACE A LARGE SHEET OF PAPER ON THE FLOOR.
2. REMOVE THE DRY INK CARTRIDGE.
3. REMOVE THE DEVELOPER MODULE (REP 9.5).
4. (FIGURE 1): REMOVE THE PICKOFF BAFFLE.

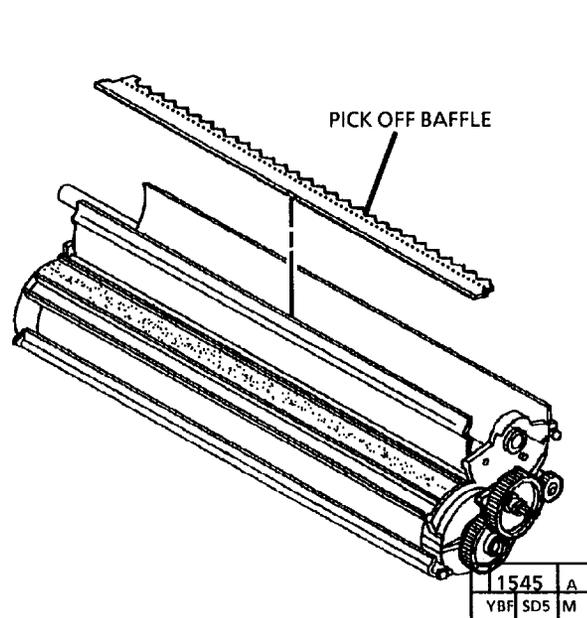


Figure 1. Remove the Pick Off Baffle

5. (FIGURE 2): DUMP THE DEVELOPER MATERIAL.
6. USING A VACUUM, ENSURE THAT THE DEVELOPER HOUSING IS CLEAN.

REPLACEMENT

NOTE: Ensure that the developer drive idler gear (PL 1.1a, item 13 is located against the frame or the drive will not occur.

1. INSTALL THE DEVELOPER MODULE (REP 9.5).
2. INSTALL THE DEVELOPER BY POURING EVENLY END-TO-END AS THE MAIN MOTOR IS TURNED, BY HAND, IN THE DIRECTION INDICATED BY THE ARROW ON THE FAN.

3. RECORD THE DEVELOPER MATERIAL BATCH NUMBER ON THE MACHINE LOG.
4. REINSTALL THE DRY INK/ TONER CARTRIDGE.
5. ADJUST THE TONER DISPENSE SOLENOID (ADJ 9.3).
6. PERFORM:
 - a. AUTOMATIC DETONING PROCEDURE (SECTION 6).
 - b. ELECTROSTATIC SERIES (ADJ 9.2)
 - c. IMAGE DENSITY (ADJ 9.4)

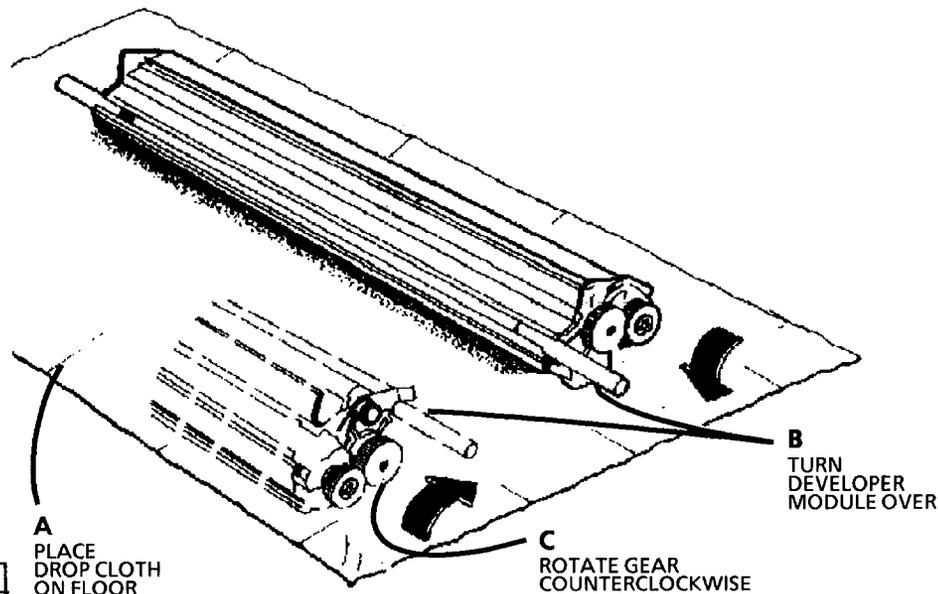


Figure 2. Dump the Developer Material

1064	A
YBF	SDS M

REP 9.9 CHARGE/PRECHARGE COROTRON

PARTS LIST ON PL 9.2

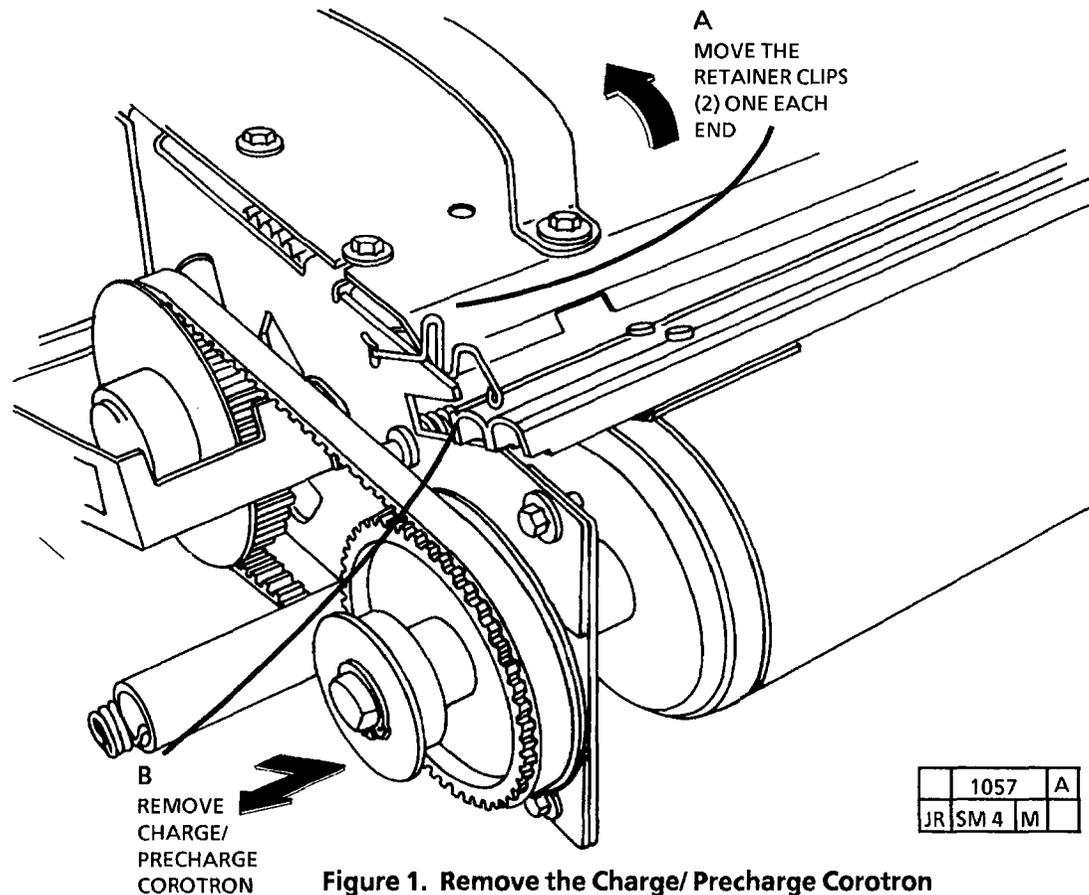
REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

2. REMOVE THE SEPARATOR GUIDES, THE RIGHT SIDE COVER, AND THE LEFT SIDE COVER.
3. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
4. (FIGURE 1): REMOVE THE CHARGE/PRECHARGE COROTRON.

REPLACEMENT

1. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2).



REP 9.10 TRANSFER/DETACK COROTRON

PARTS LIST ON PL 8.4

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

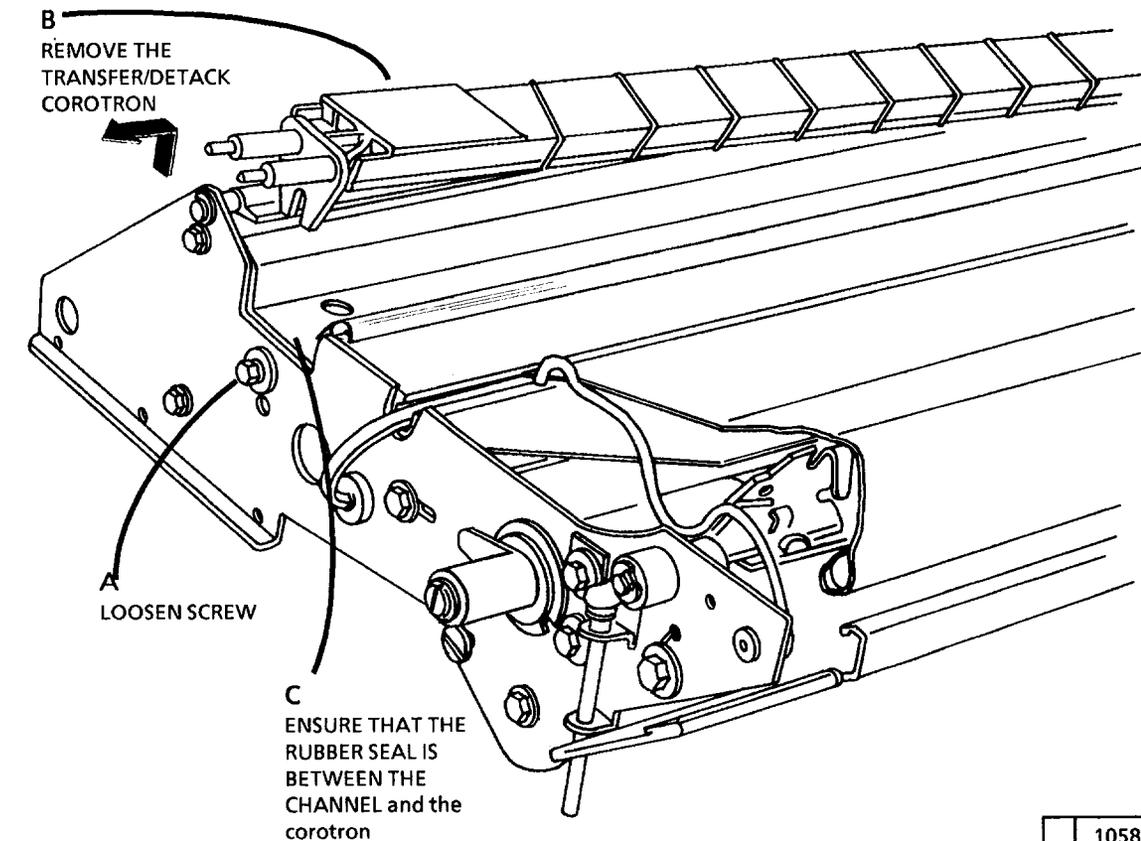


Figure 1. Remove the Transfer/ Detack Corotron

WARNING

STEP 2: THE FUSER MAY BE HOT. BE CAREFUL NOT TO BURN YOUR HANDS WHEN REMOVING THE TRANSFER/ DETACK COROTRON.



STEP 2: Use caution and do not damage the drum when removing the transfer/ detack corotron

2. (FIGURE 1): REMOVE THE TRANSFER/ DETACK COROTRON.

REPLACEMENT

1. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2).

	1058	B
JR	SM 4	M

REP 9.11 CONTAMINATION SEAL

PARTS LIST ON PL 9.3

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE SEPARATOR GUIDES, THE RIGHT SIDE COVER, AND THE LEFT SIDE COVER.
3. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
4. REMOVE THE PHOTORECEPTOR DRUM ASSEMBLY (REP 9.2).
5. REMOVE THE CLEANING BLADE ASSEMBLY (REP 9.4, STEPS 1 - 4)
6. REMOVE THE CHARGE/PRECHARGE COROTRON.
7. REMOVE THE CONTAMINATION SEAL.
8. VACUUM THE CLEANING AUGER AND THE AREA WHERE THE SEAL WILL BE INSTALLED.

REPLACEMENT.

1. (FIGURE 1): PLACE THE NEW CONTAMINATION SEAL IN THE XEROGRAPHIC MODULE.

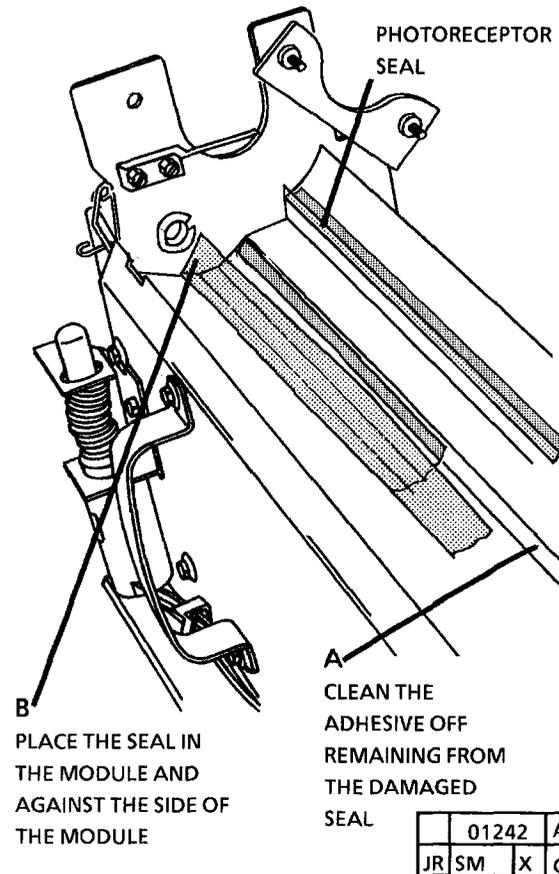


Figure 1. Install the Contamination Seal

1 STEP 2B: Ensure that the seal stays against side of the xerographic module.

2. (FIGURE 2): INSTALL THE CONTAMINATION SEAL.

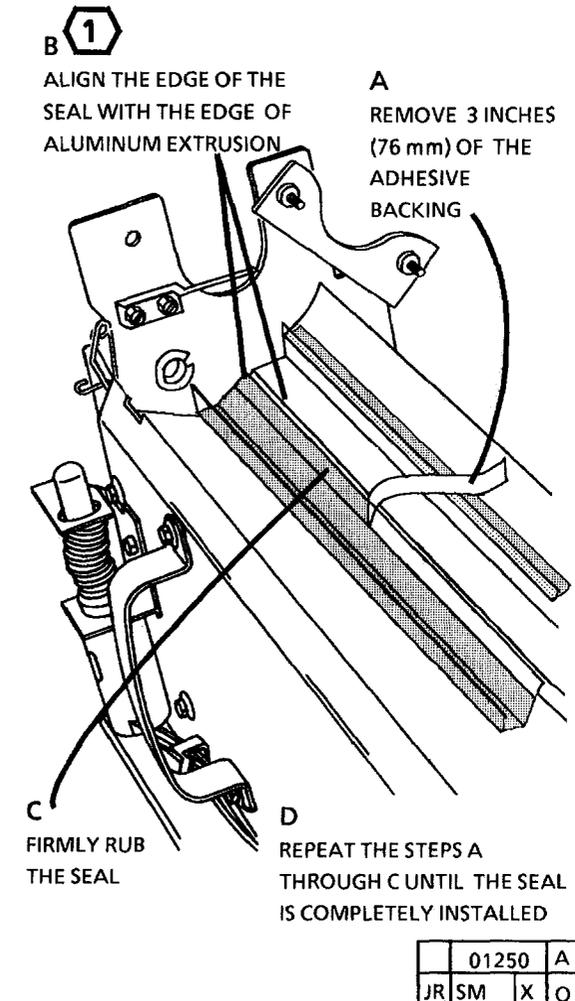


Figure 2. Install the Contamination Seal

REPLACEMENT.

2 STEP 3B: Areas of the seal raised off the cleaning blade should be less than 3 in. (76 mm) long and 3/16 in (4 mm) high. There should be no raised areas within 12 in. (300 mm) from either end of the cleaning blade.

3. (FIGURE 3): CHECK THE SEAL FOR CORRECT INSTALLATION.

4. REMOVE A RAISED AREA BY MOVING YOUR FINGER ACROSS THE TOP OF THE SEAL AND PUSH THE RAISED AREA TO EITHER END OF THE CLEANING BLADE ASSEMBLY.

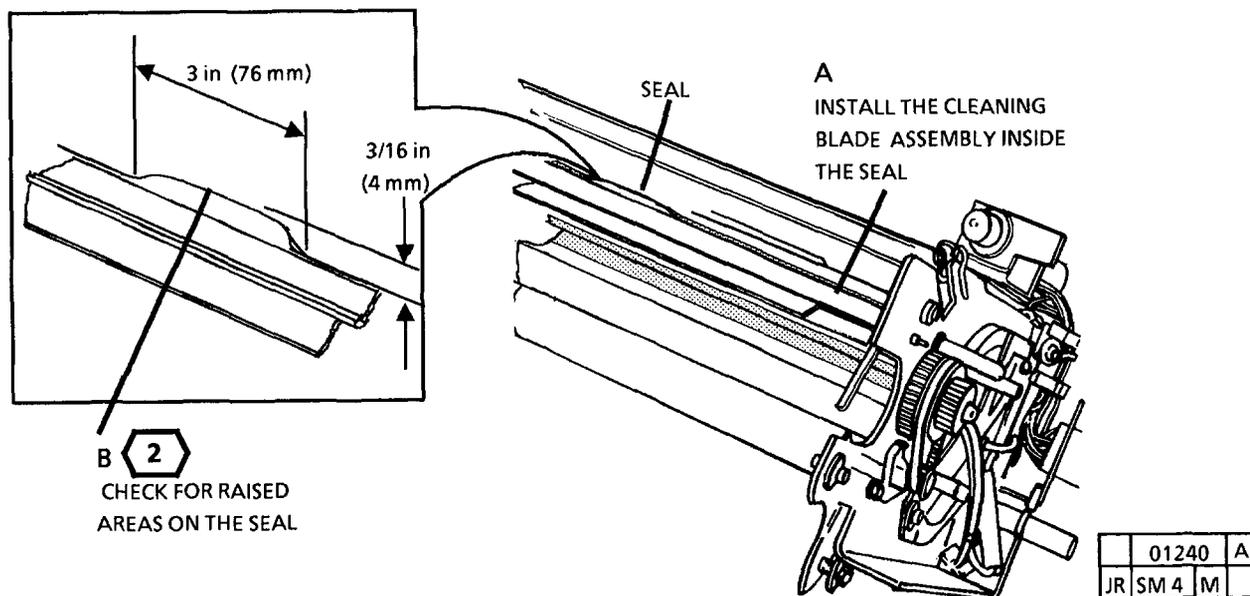


Figure 3. Check for the Proper Installation

REP 9.12 TONER SENSOR ASSEMBLY

PARTS LIST ON PL 9.4

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

 *The developer material must be removed before removing the toner sensor assembly.*

2. REMOVE THE DEVELOPER MODULE (REP9.5).
3. REMOVE THE DEVELOPER MATERIAL (REP 9.8).
4. REMOVE THE CLEAR PLASTIC COVER.
5. (FIGURE 1): REMOVE THE TONER SENSOR ASSEMBLY.

REPLACEMENT

NOTE: Do not force the Toner Sensor into the hole. If the sensor does not go in easily, order a new sensor.

1. INSTALL THE TONER SENSOR ASSEMBLY.
2. INSTALL THE CLEAR PLASTIC COVER.
3. INSTALL THE PICK OFF BAFFLE WITH THE CORRECT SIDE UP.
4. INSTALL THE DEVELOPER MODULE.
5. INSTALL THE DEVELOPER BY POURING EVENLY END-TO-END WHILE TURNING THE MAIN MOTOR, BY HAND, IN THE DIRECTION INDICATED BY THE ARROW ON THE FAN.
6. INSTALL THE TONER CARTRIDGE.
7. ADJUST THE TONER DISPENSE SOLENOID (ADJ 9.3).
8. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2) AND IMAGE DENSITY (ADJ 9.4).

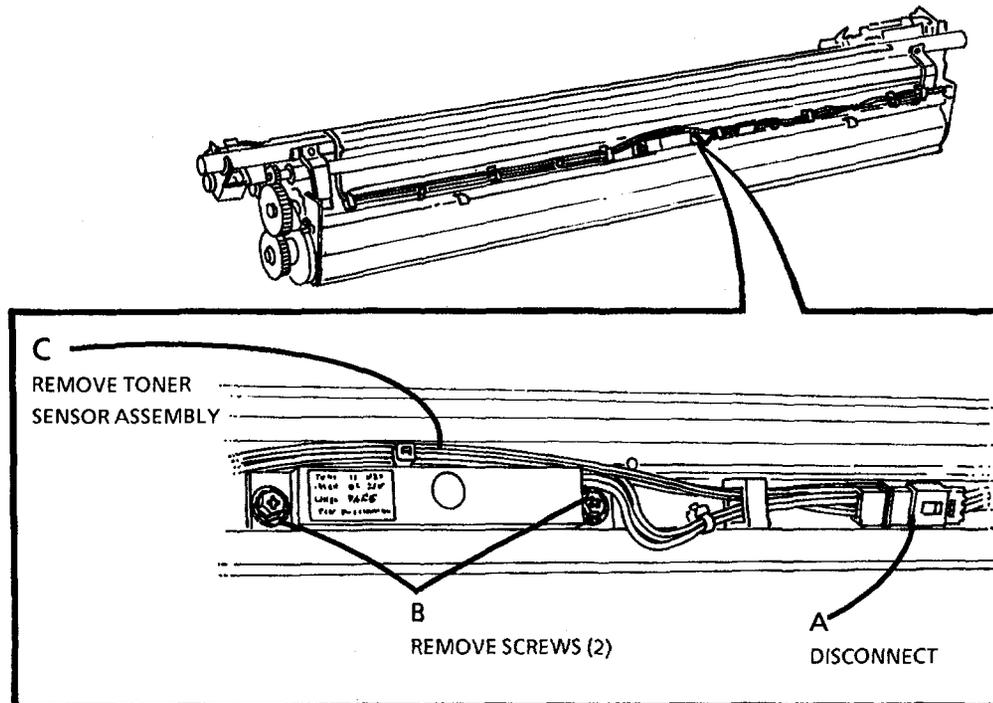


Figure 1. Remove the Toner Sensor Assembly

	01300	A
JR	SM	M O

REP 10.1 FUSER HEAT ROD

PARTS LIST ON PL 10.2

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

 Fuser may be hot. Allow fuser to cool before removing the Xerographic Module.

2. REMOVE THE SEPARATOR GUIDES, THE RIGHT SIDE COVER, AND LEFT SIDE COVER.
3. REMOVE THE OIL DISPENSE ASSEMBLY (REP 10.9).

4. REMOVE XEROGRAPHIC MODULE (REP 9.1).
5. (FIGURE 1): REMOVE HEAT ROD.

 **STEP 5 A:** Rotating the Heat Rod while removing it may aid getting the connector through the holes.

 **STEP 5 J:** Before doing the Step J, straighten the white lead on the Heat Rod to allow easier removal.

 **STEP 5 J:** Oil from your fingers can damage the heat rod. Wear gloves or wrap a sheet of paper around the heat rod when handling the heat rod.

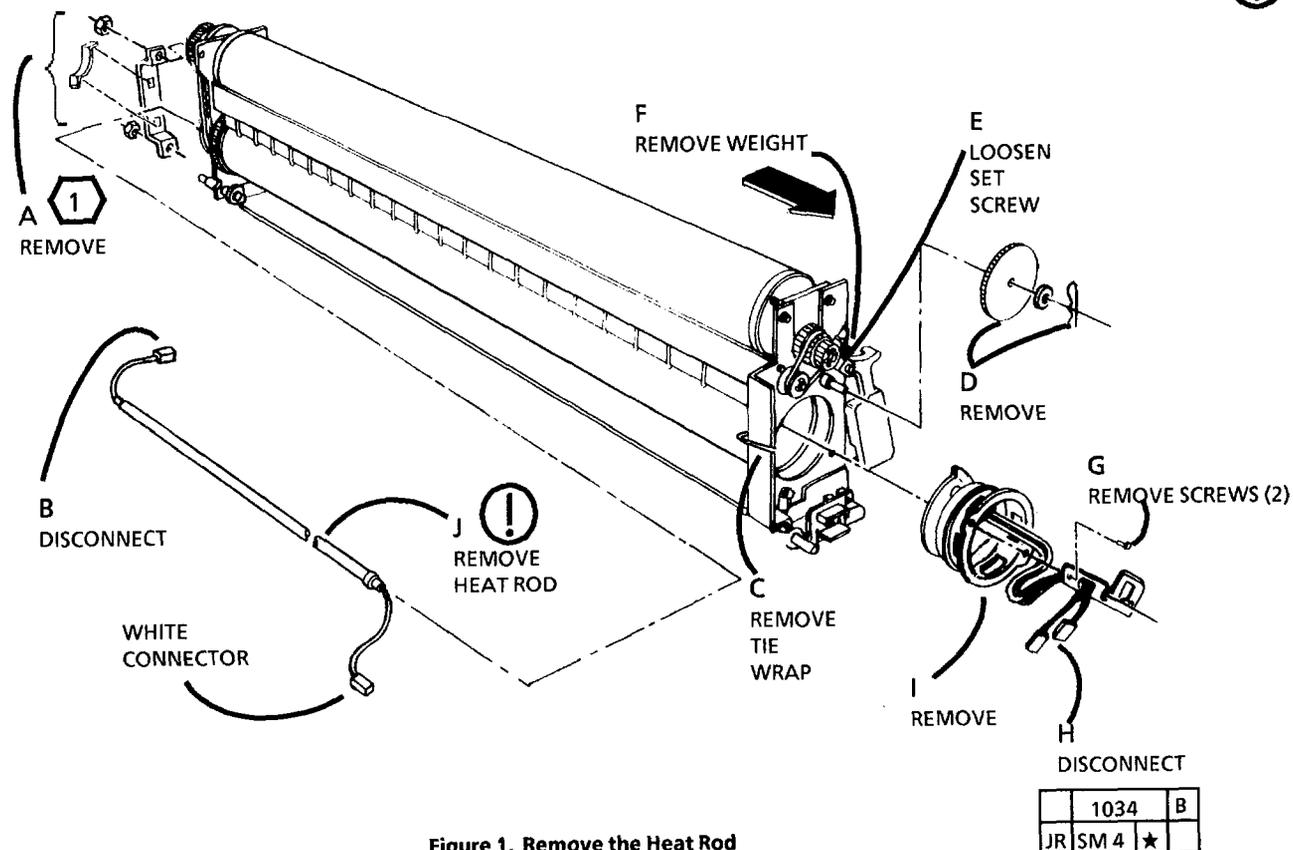


Figure 1. Remove the Heat Rod

(Continued)

(Continued)

REPLACEMENT

1. (FIGURE 2): INSTALL THE HEAT ROD.

! **STEP 1 C:** Oil from your fingers can damage the heat rod. Wear gloves or wrap a sheet of paper around the heat rod when handling the heat rod.

1 **STEP 1 C:** Install the Heat Rod, white connector first. **DO NOT** remove the connectors from the wires on the ends of the heat rod. The heating element inside the rod is closer to the end with the white connector.

2 **STEP 1 F:** When reinstalling the (2) screws, ensure that the head of the screws fit into the hole in the Fuser Roll.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

3 Enter diagnostic mode. Enter the code [10] and allow the copier to run for 15 minutes to allow the fuser oil to condition the fuser roll.

4 Ensure that the Thermistor is clean and touches the fuser roll after assembly.

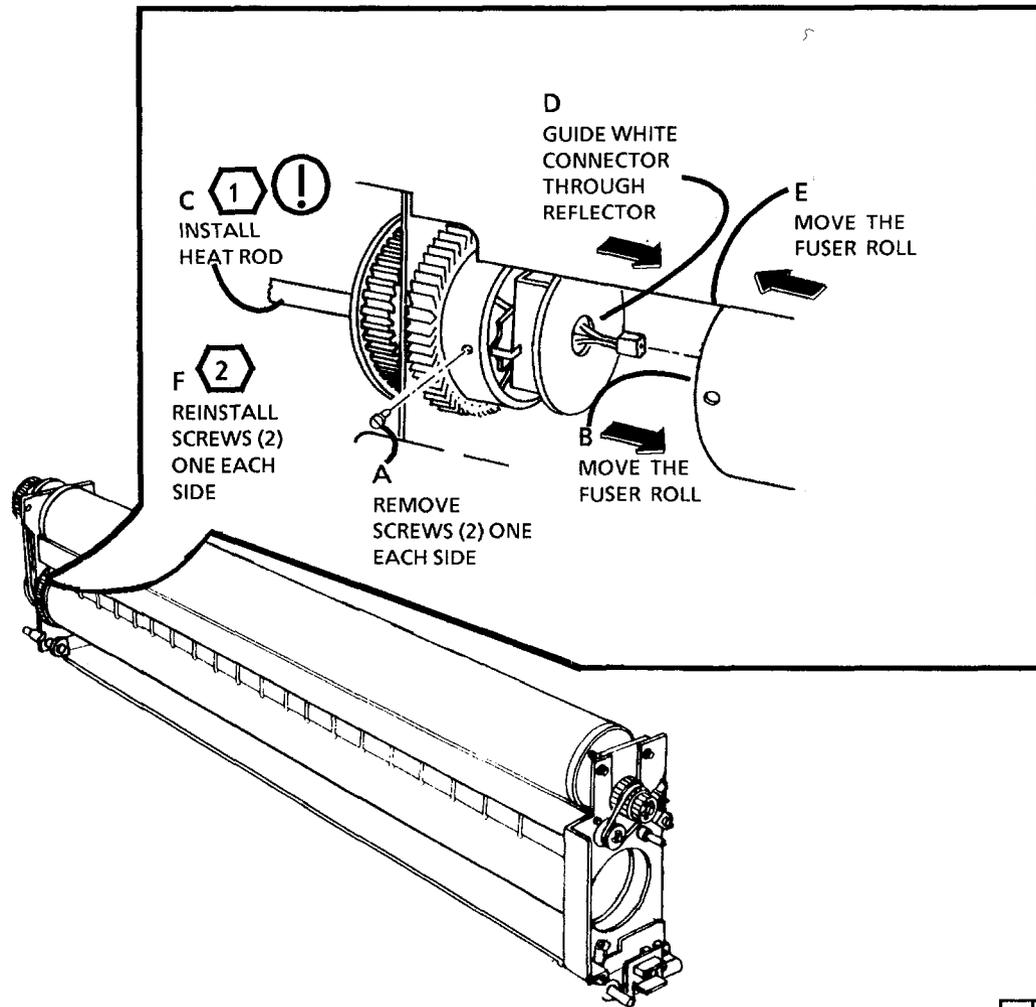


Figure 2. Install the Heat Rod

	1136	A
JR	SM 4	M

(Continued)

(Continued)

REPLACEMENT

⚠ **STEP 2 A:** Oil from your fingers can damage the heat rod. Wear gloves or wrap a sheet of paper around the heat rod when handling the heat rod.

⚠ **Step 2 F:** Be sure to replace the clip last when doing the Replacement Procedure. If the clip is installed before the other steps, it could damage the end of the heat rod.

1 **Step 2 B:** Position the overheat thermostat as shown. The overheat thermostat must be in the up position towards the Cleaning Blade Solenoid weight. The overheat thermostat connectors can be interchanged with no effect on their function.

2. (FIGURE 3): INSTALL THE FUSER BEARING.
3. ADJUST THE CLEANING BLADE SOLENOID (ADJ 9.1).
4. INSTALL THE XEROGRAPHIC MODULE (REP 9.1).
5. INSTALL THE OIL DISPENSER ASSEMBLY (REP 10.9).
6. ADJUST FUSER TEMPERATURE (ADJ 10.1).

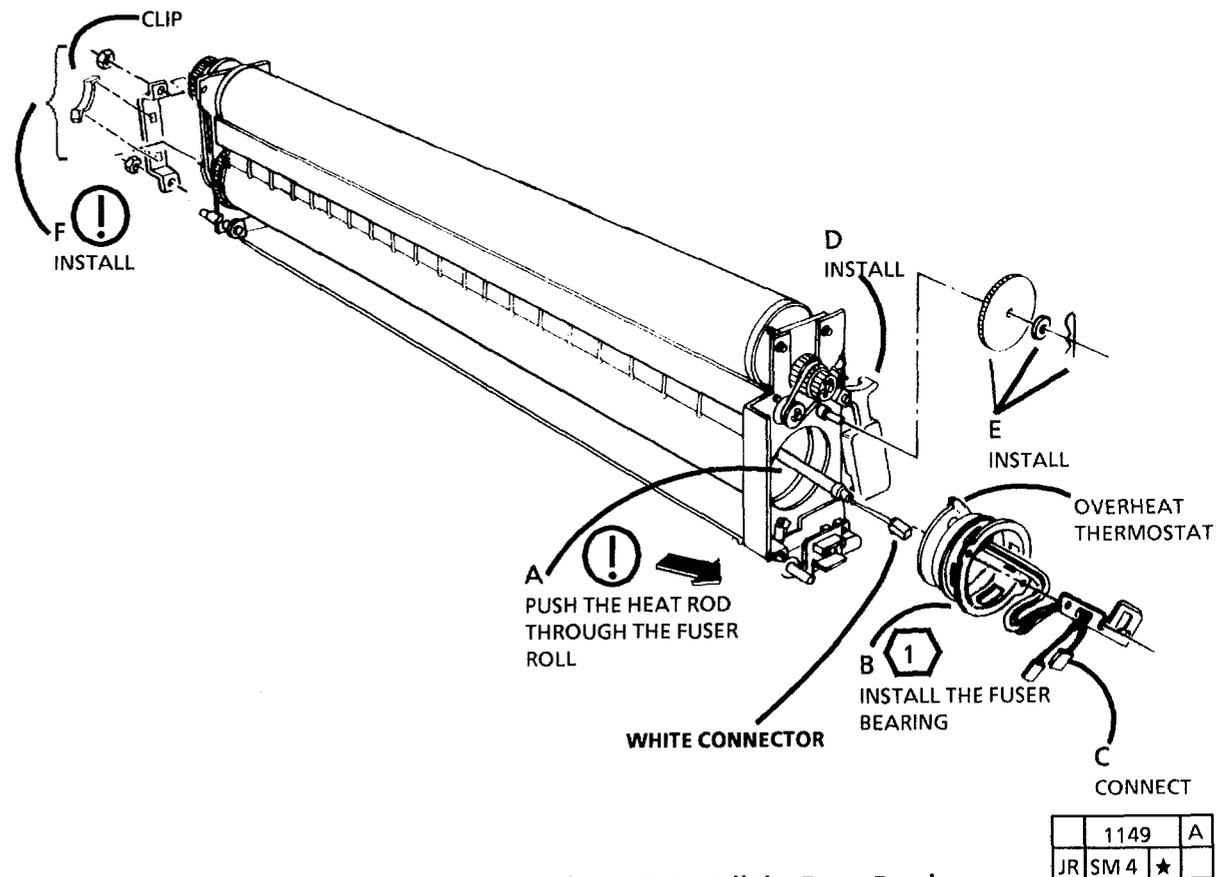


Figure 3. Install the Fuser Bearing

REP 10.2 FUSER ROLL

PARTS LIST ON PL 10.2

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

 *The fuser may be hot. Allow fuser to cool before removing the xerographic module.*

2. REMOVE OIL DISPENSER ASSEMBLY (REP 10.9).
3. REMOVE THE RIGHT AND THE LEFT SIDE COVERS, AND THE SEPARATOR GUIDES.
4. REMOVE XEROGRAPHIC MODULE (REP 9.1).
5. REMOVE HEAT ROD (REP 10.1).
6. (FIGURE 1): REMOVE FUSER ROLL.

 **STEP 6 C:** When removing the fuser roll, be careful not to damage the roll while removing the roll through the side frame of the xerographic module.

REPLACEMENT

 **STEP 6 C (FIGURE 1):** When installing a new fuser roll or reinstalling the fuser roll removed in this procedure, be careful not to damage the roll while installing the roll through side frame of the xerographic module.

 **STEP 6 A (FIGURE 1):** When reinstalling the (2) screws, ensure that the head of the screw fits into the hole in the Fuser Roll.

1. REINSTALL THE FUSER ROLL (REP 10.2).
2. REINSTALL THE HEAT ROD (REP 10.1).
3. PERFORM THE FUSER ROLL INITIALIZATION PROCEDURE (3001 SERVICE MANUAL, SECTION 6, GENERAL PROCEDURES).

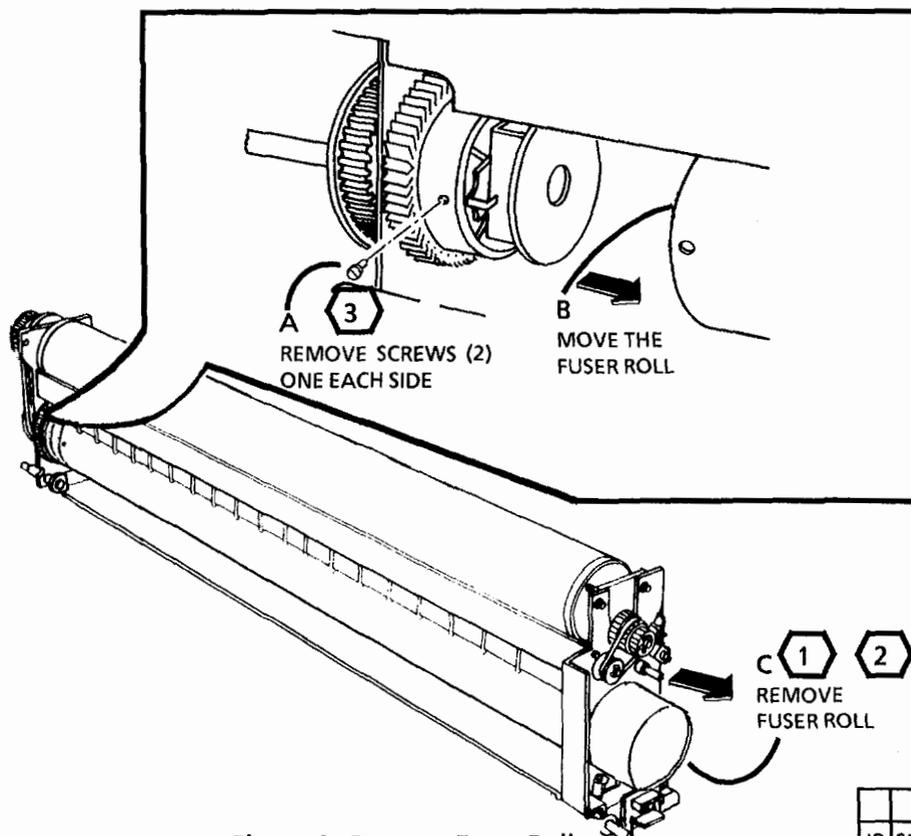


Figure 1. Remove Fuser Roll

REP 10.3 FUSER TRIAC

PARTS LIST ON PL 1.3

REPLACEMENT

1

Two different configurations of the fuser triac are available to the field and can be installed in the same way and function the same. Figure 1 shows the two configurations.

1. COVER THE ENTIRE SURFACE WHERE THE TRIAC MOUNTS TO THE FRAME WITH A FILM OF THERMAL COMPOUND.

2. (FIGURE 1): FUSER TRIAC.

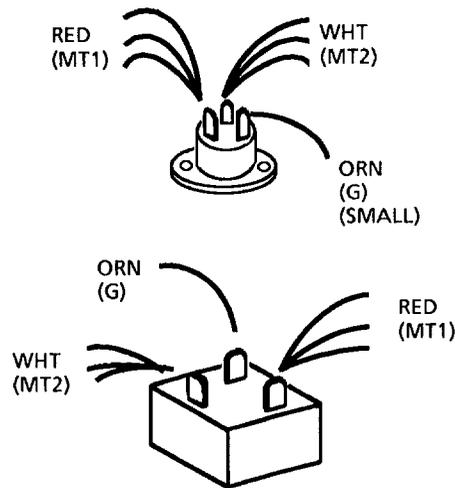


Figure 1. Fuser Triac

	1121	A
JR	SM 4	★

REP 10.6 FUSER DRIVE GEAR

PARTS LIST ON PL 10.2

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE FUSER ROLL (REP 10.2).
3. (FIGURE 1): REMOVE THE FUSER DRIVE GEAR.

REPLACEMENT

1 Step 3 A (FIGURE 1): The Shiny side of the reflector must be facing towards the Fuser Drive Gear when reinstalled.

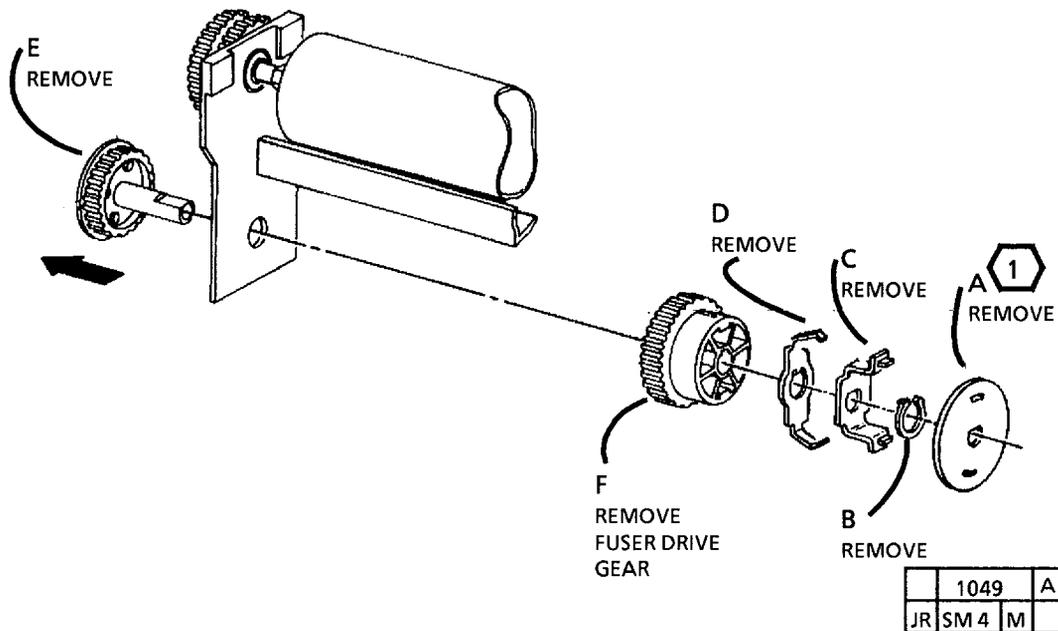


Figure 1. Remove the Fuser Drive Gear

REP 10.7 THERMISTOR ASSEMBLY PWB (RT1)

PARTS LIST ON PL 1.5

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE OIL DISPENSE ASSEMBLY (REP 10.9).
3. REMOVE THE RIGHT AND THE LEFT SIDE COVERS, AND THE SEPARATOR GUIDES.
4. REMOVE XEROGRAPHIC MODULE. (REP 9.1)

! *The fuser roll may be hot.*

5. (FIGURE 1): REMOVE THE THERMISTOR ASSEMBLY PWB (RT1).

REPLACEMENT

1. **!** *Lightly lubricate the Fuser Roll with Silicon Oil in the area where the Thermistor comes in contact with the roll.*

1. ADJUST THE FUSER TEMPERATURE (ADJ10.1).

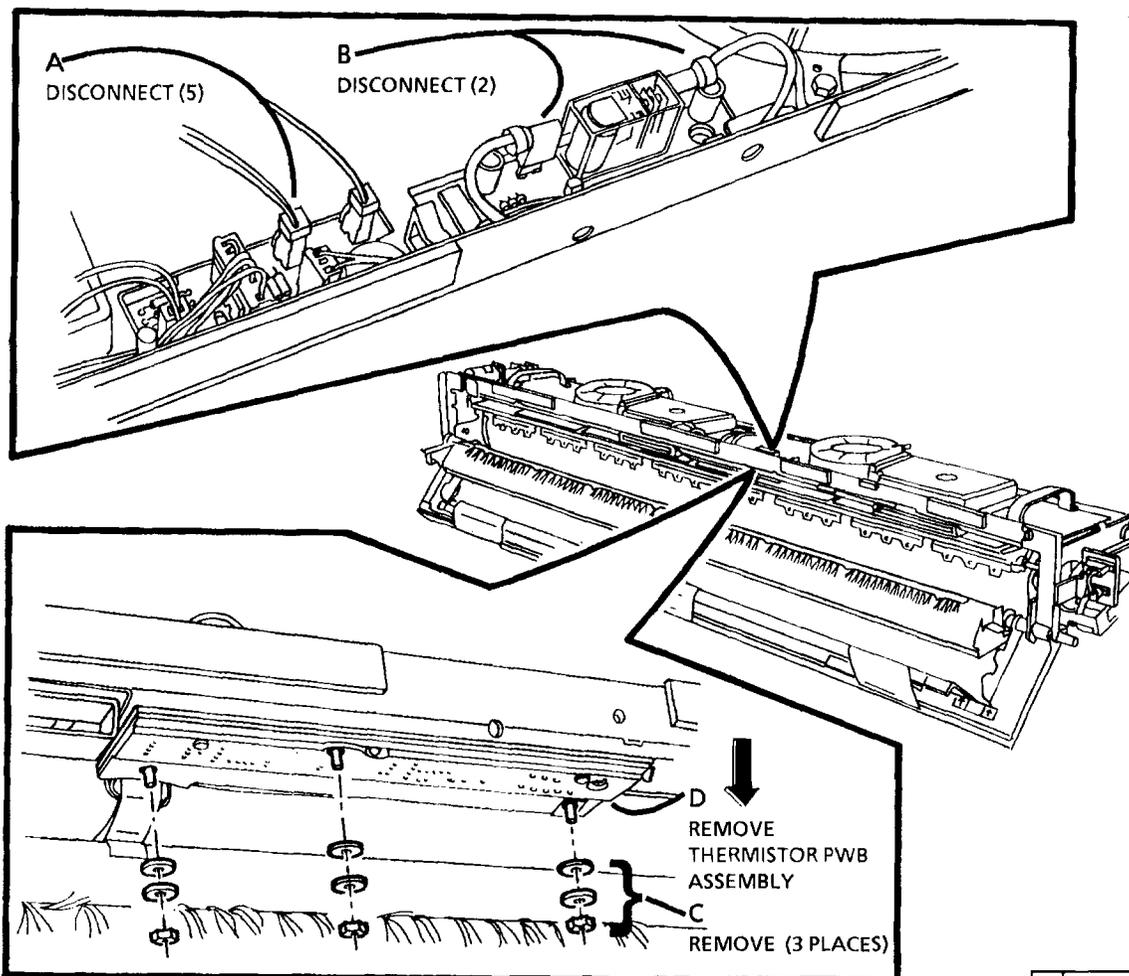


Figure 1. Remove the Thermistor Assembly

	1059	A
JR	SM 5	M

REP 10.8 MEDIA DEFLECTORS

PARTS LIST ON PL 10.3

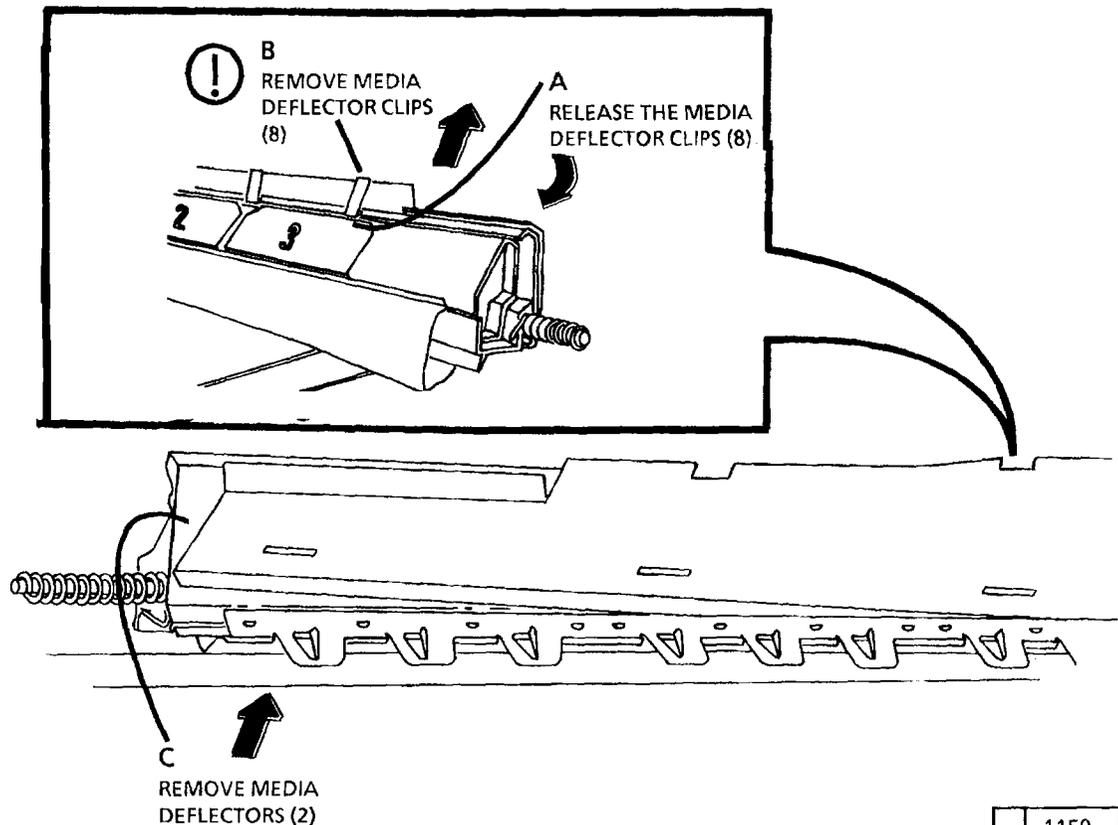
REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**
2. REMOVE THE OIL DISPENSE ASSEMBLY (REP 10.9).



STEP 3 B: *Handle the Media Deflector Clips with care in order to avoid bending them.*

3. (FIGURE 1): REMOVE THE MEDIA DEFLECTORS.



	1150	A
JR	SM 4	★

Figure 1. Remove the Media Deflectors (Continued)

(Continued)
REPLACEMENT

1. (FIGURE 2): INSTALL THE MEDIA DEFLECTORS.

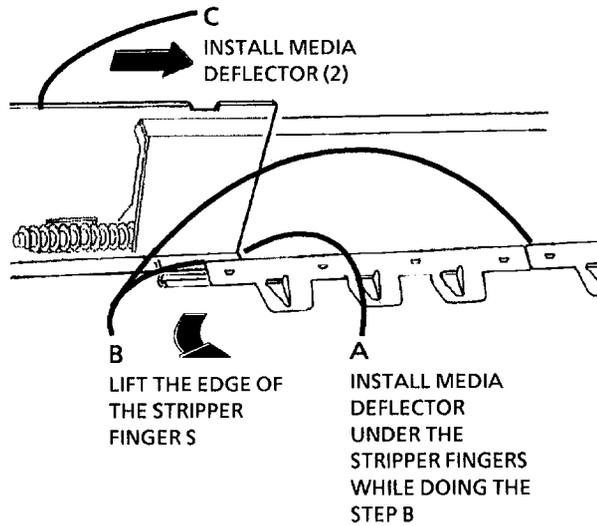


Figure 2. Install the Media Deflectors

2. (FIGURE 3): INSTALL THE MEDIA DEFLECTOR CLIPS.

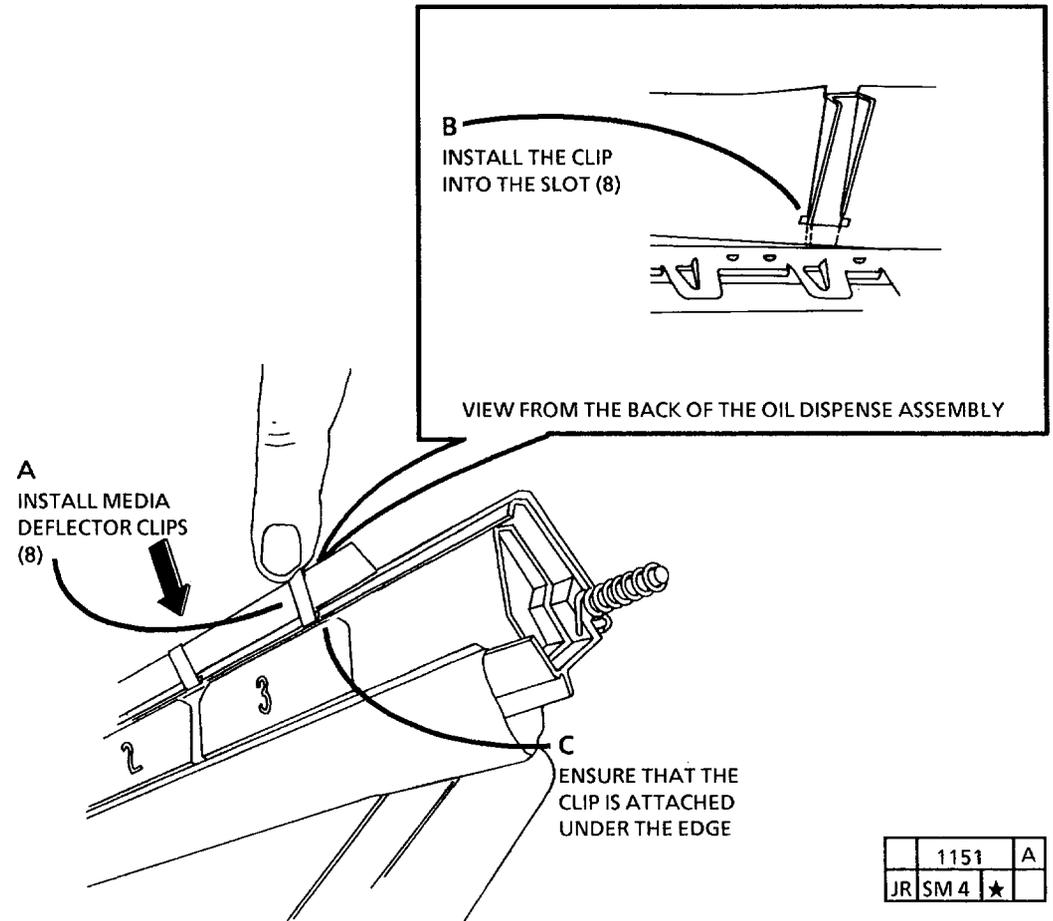


Figure 3. Install the Media Deflector Clips

REP 10.9 OIL DISPENSE ASSEMBLY

PARTS LIST ON PL 10.3

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

2. REMOVE THE SEPARATOR GUIDE ASSEMBLY.
3. (FIGURE 1): REMOVE THE OIL DISPENSE ASSEMBLY.

! *STEP 3 C: Handle the Oil Dispense Assembly with care to avoid bending the stripper fingers and the media deflectors.*

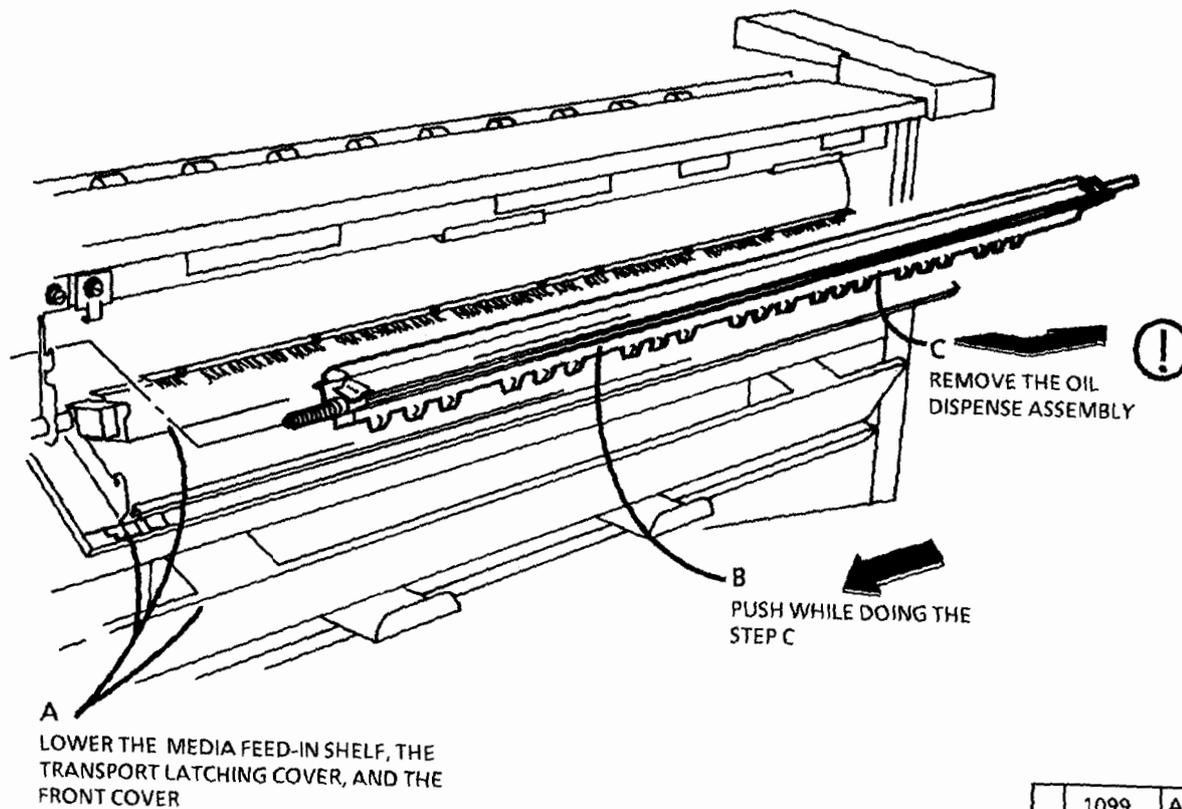


Figure 1. Remove the Oil Dispense Assembly

	1099	A
JR	SM 5	M

(Continued)

(Continued)

REPLACEMENT

1. CHECK THE STRIPPER FINGERS FOR TONER BUILD-UP OR DAMAGE AND CLEAN OR REPLACE AS REQUIRED.

2. (FIGURE 2): REINSTALL THE LEFT SIDE OF THE OIL DISPENSE ASSEMBLY.

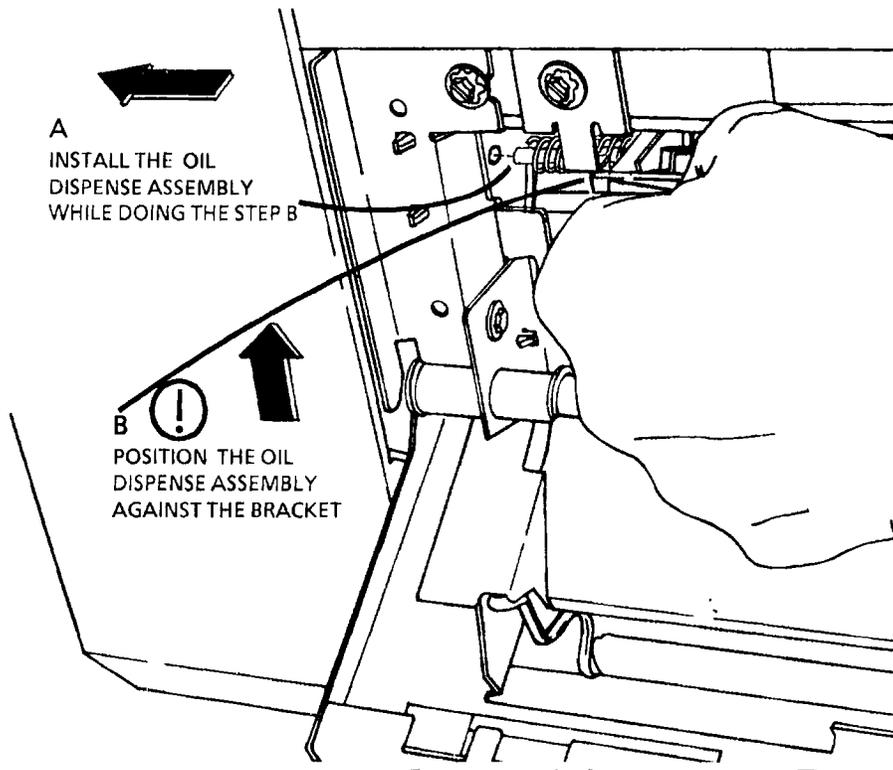


STEP 2 B: To avoid damage to the stripper fingers or the fuser heat roll, ensure that the oil dispense assembly is positioned up against the bracket as shown in Figure 2. Keep the oil dispense assembly as close to the fuser roll without touching the roll while installing the assembly.

3. (FIGURE 3): REINSTALL THE RIGHT SIDE OF THE OIL DISPENSE ASSEMBLY.

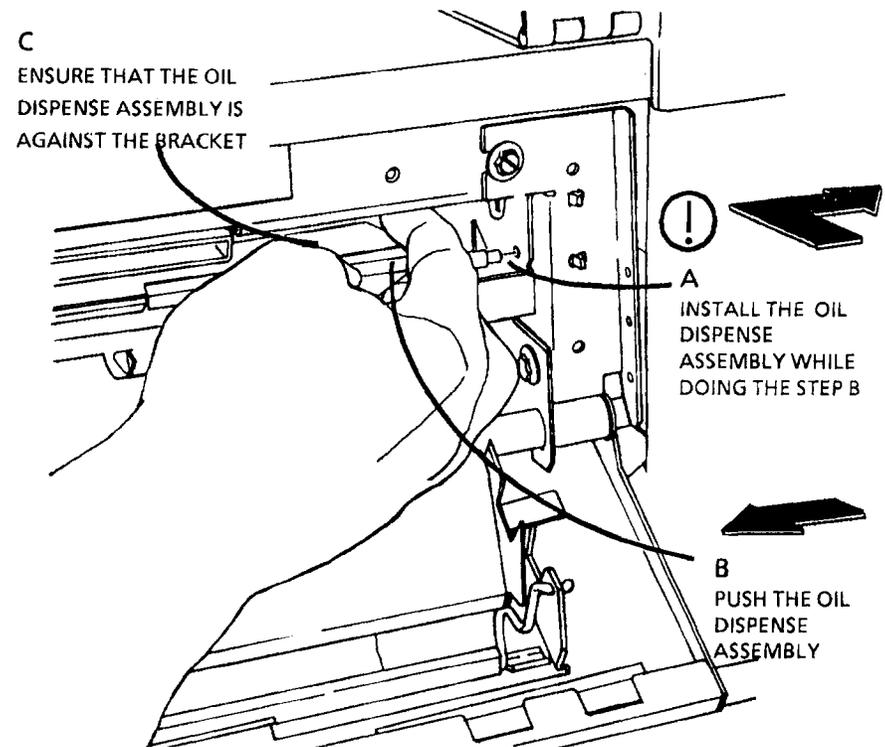


STEP 3 A: To avoid damage to the stripper fingers or the fuser heat roll, keep the oil dispense assembly positioned up against the bracket as shown in Figure 2. Keep the oil dispense assembly as close to the fuser roll without touching the roll while installing the assembly.



	1180	A
JR	SM 5	M

Figure 2. Reinstalling the Oil Dispense Assembly



	1181	A
JR	SM 5	M

Figure 3. Reinstalling the Oil Dispense Assembly

(Continued)

REP 10.11 OIL PADS

PARTS LIST ON PL 10.3

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**

 Handle the Oil Dispense Assembly with care to avoid bending the stripper fingers and the media deflectors.

2. REMOVE THE OIL DISPENSE ASSEMBLY (REP 10.9).
3. (FIGURE 1): REMOVE THE OIL PADS.

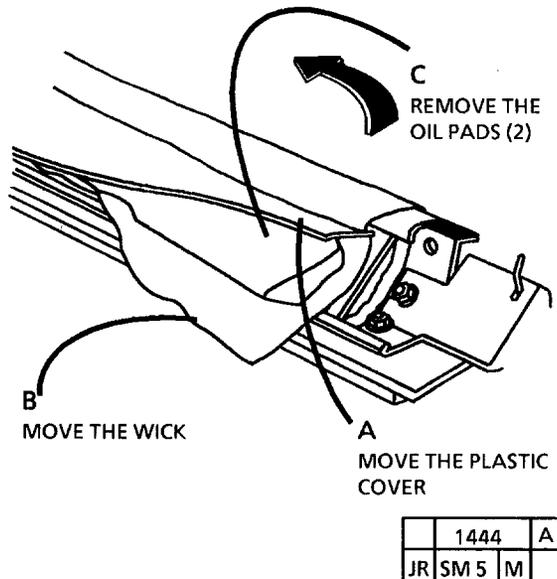


Figure 1. Remove the Oil Pads

REPLACEMENT

1. (FIGURE 2): INSTALL THE NEW OIL PADS.

 **STEP 2A:** Ensure that the edge of the plastic cover is under the edge of the extrusion.

 Ensure that the wick is not wrinkled and that the wick edge is a minimum of 5/8 inch (14mm).

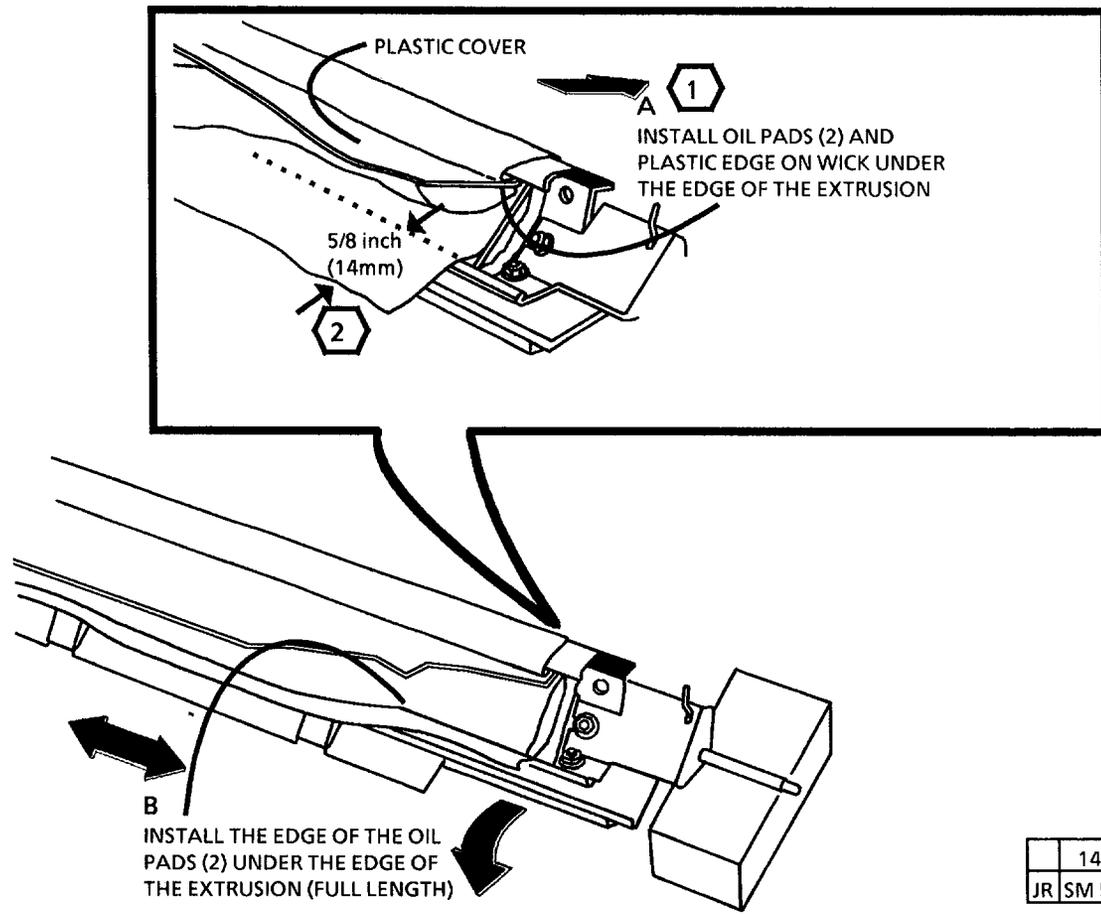


Figure 2. Install the New Oil Pads

(Continued)

(Continued)

2. (FIGURE 3): INSERT THE WICK EDGE UNDER THE PLASTIC COVER.

3 STEP 2B: *If the plastic cover is lifted too far, the narrow edge will come out from under the extrusion edge.*

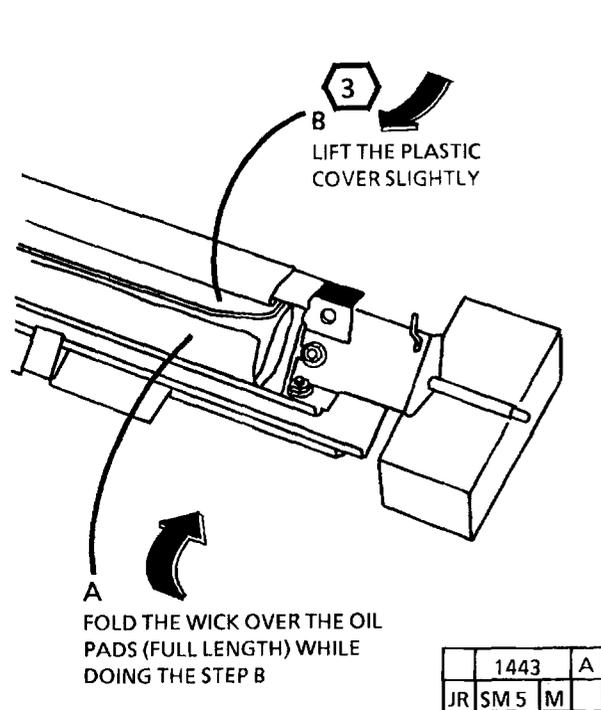


Figure 3. Insert the Wick Edge Under the Plastic Cover

3. (FIGURE 4): INSTALL THE PLASTIC COVER OVER THE OIL PADS.
4. INSTALL THE OIL DISPENSE ASSEMBLY.

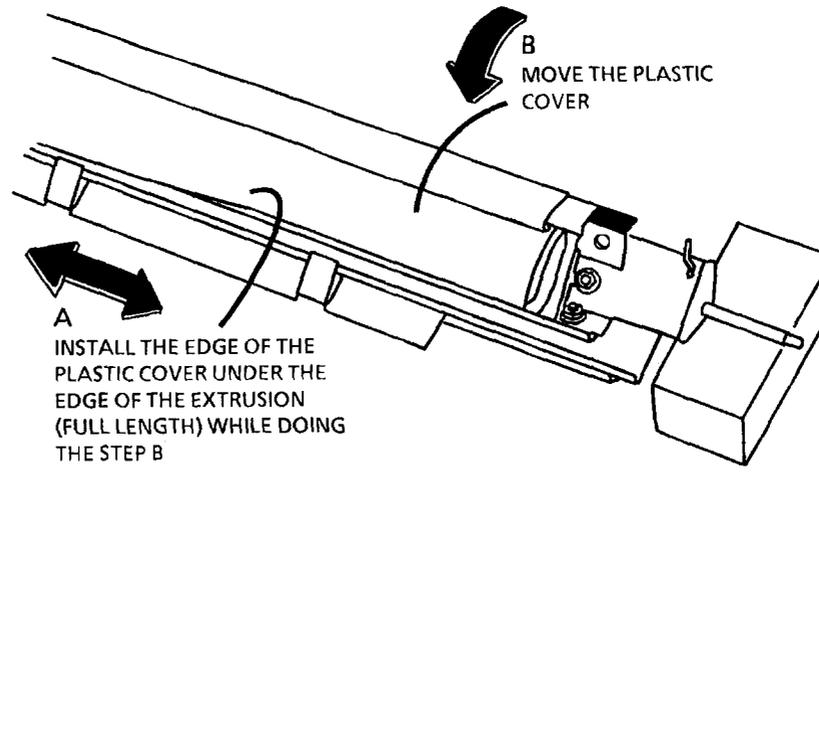


Figure 4. Install the Plastic Cover Over the Oil Pads

REP 10.12 WICK

PARTS LIST ON PL 10.3

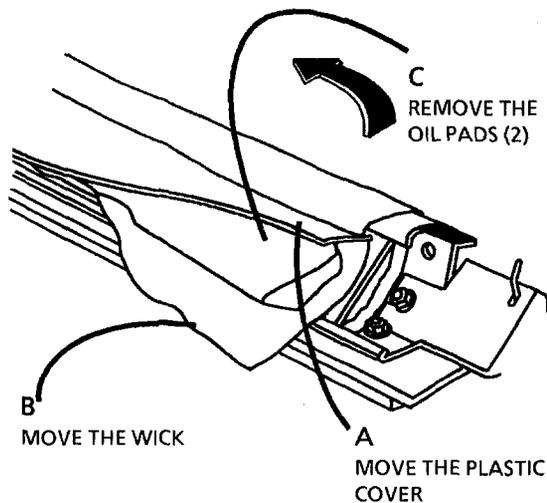
REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**



Handle the Oil Dispense Assembly with care to avoid bending the stripper fingers and the media deflectors.

2. REMOVE THE OIL DISPENSE ASSEMBLY (REP 10.9).
3. REMOVE THE OIL DISPENSE ROLL ASSEMBLY (REP 10.13).
4. (FIGURE 1): REMOVE THE OIL PADS.



	1444	A
JR	SM 5	M

Figure 1. Remove the Oil Pads

(Continued)

(Continued)

5. (FIGURE 2): REMOVE THE WICK.

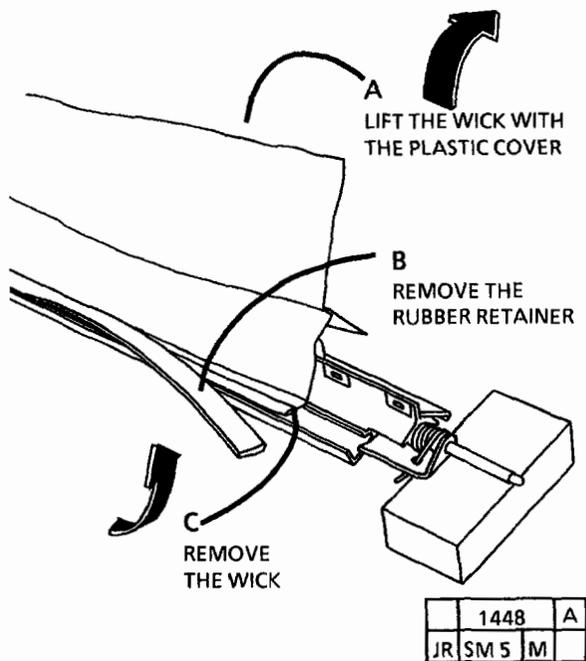


Figure 2. Remove the Wick

REPLACEMENT

1. (FIGURE 3): INSTALL THE WICK EDGE WITH THE NARROW PLASTIC STRIP.

1

Use care not to stretch the rubber retainer while installing it. After installing the rubber retainer, ensure that the rubber retainer is approximately the same length as the wick. Cut any excess off.

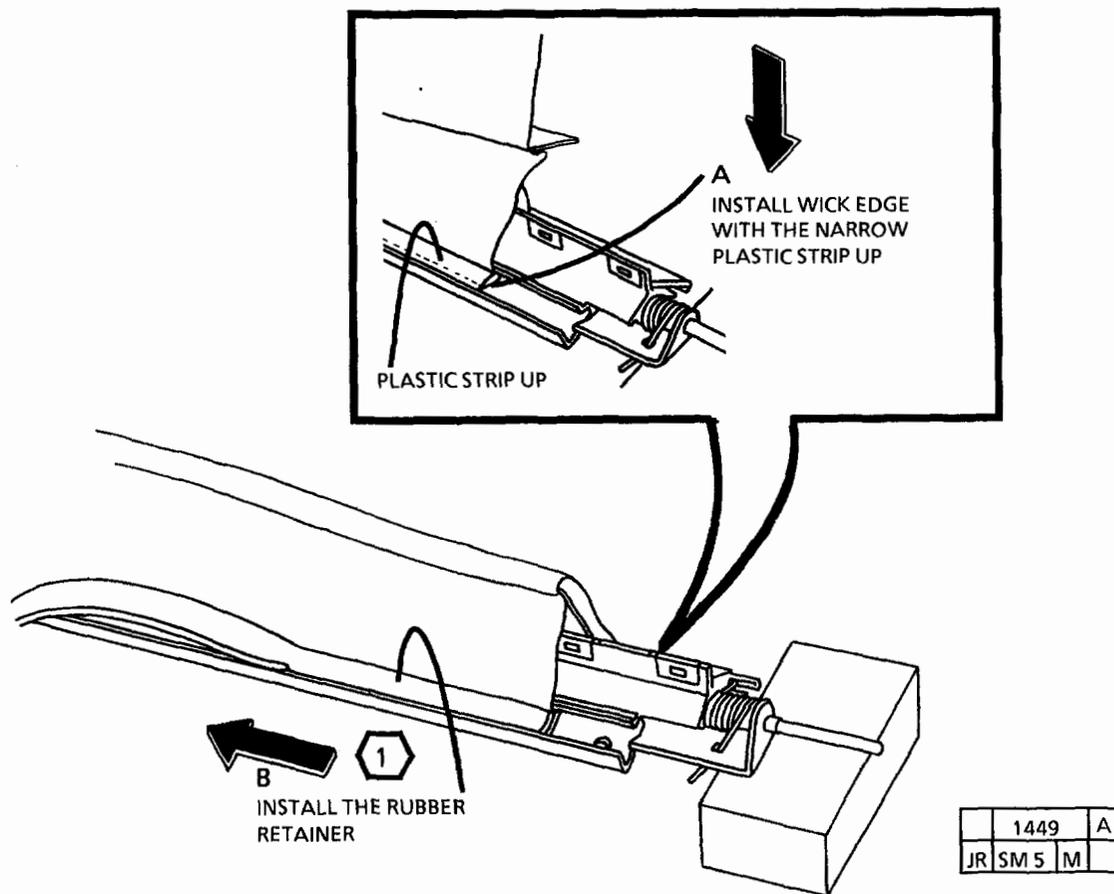


Figure 3. Install the Wick Edge with the Narrow Plastic Strip

(Continued)

(Continued)

2. (FIGURE 4): INSTALL THE OIL PADS.

2 STEP 2A: Ensure that the edge of the plastic cover is under the edge of the extrusion.

3 Ensure that the wick is not wrinkled and that the wick edge is a minimum of 5/8 inch (14mm).

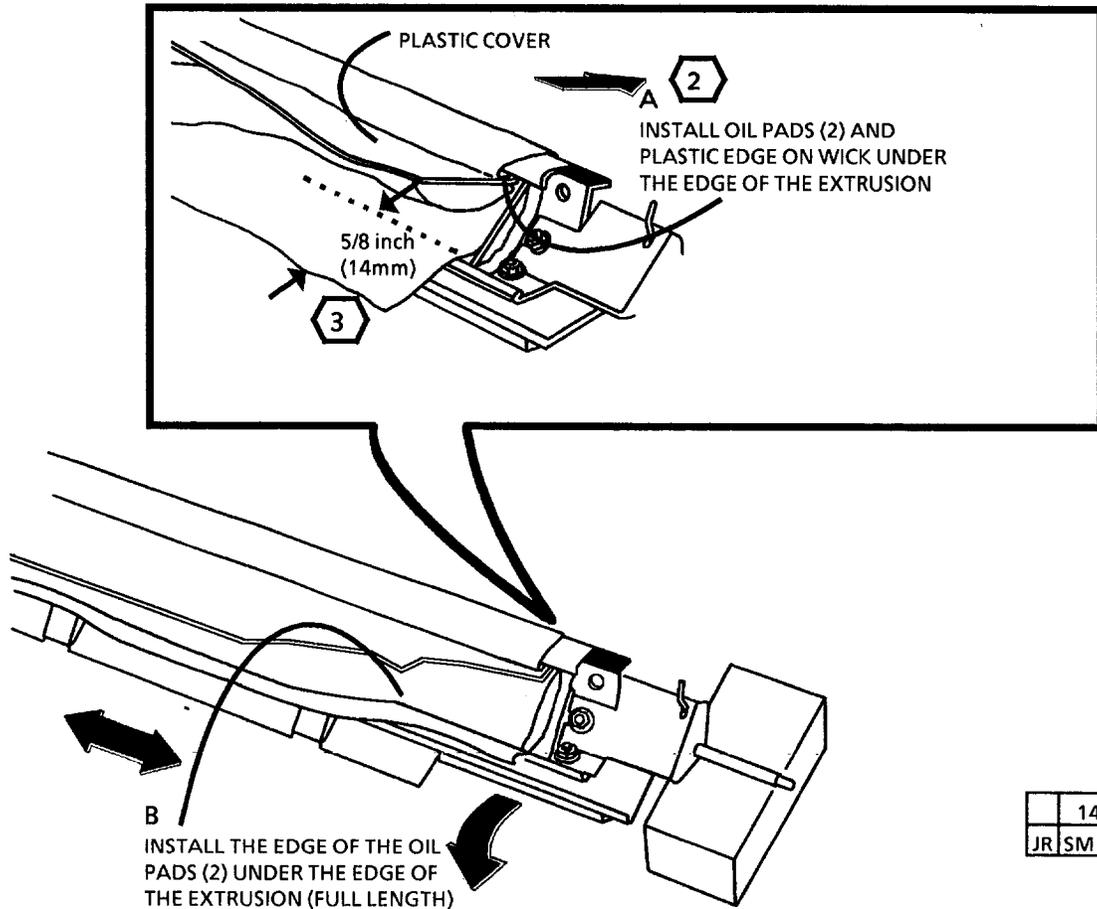


Figure 4. Install the New Oil Pads

3. (FIGURE 5): INSERT THE WICK EDGE UNDER THE PLASTIC COVER.

4 STEP 3 B: If the plastic cover is lifted too far, the narrow edge will come out from under the extrusion edge.

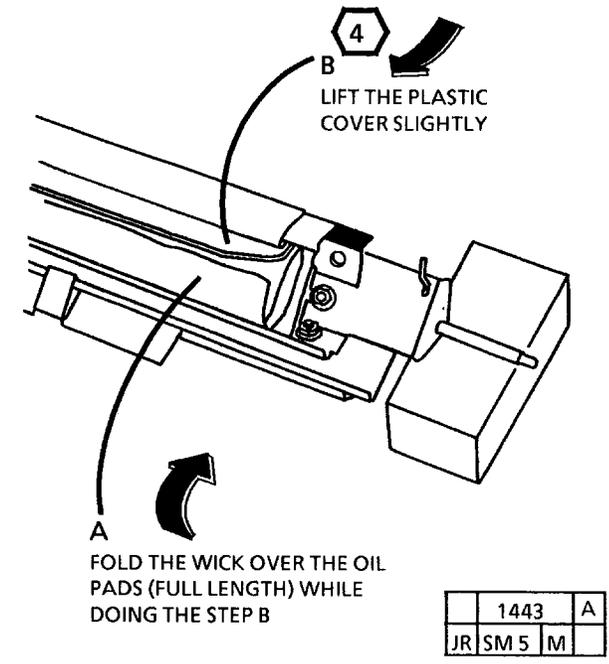
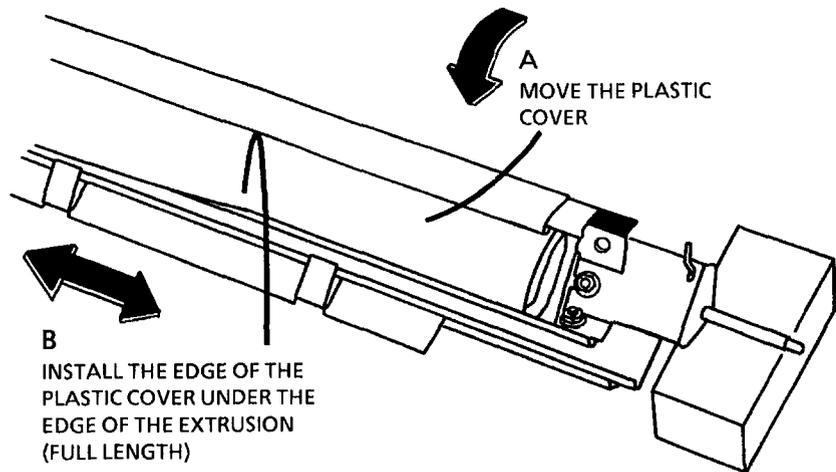


Figure 5. Insert the Wick Edge Under the Plastic Cover

(Continued)

(Continued)

4. (FIGURE 6): INSTALL THE PLASTIC COVER OVER THE OIL PADS.
5. REINSTALL THE OIL DISPENSE ROLL ASSEMBLY (REP10.13)
6. REINSTALL THE OIL DISPENSE ASSEMBLY.



	1447	A
JR	SM 5	M

Figure 6. Install the Plastic Cover Over the Oil Pads

REP 10.13 OIL DISPENSE ROLL ASSEMBLY

PARTS LIST ON PL 10.3

REMOVAL

1. **WARNING: DISCONNECT THE POWER CORD.**



Handle the Oil Dispense Assembly with care to avoid bending the stripper fingers and the media deflectors.

2. REMOVE THE OIL DISPENSE ASSEMBLY (REP 10.9).
3. (FIGURE 1): REMOVE THE OIL DISPENSE ROLL ASSEMBLY.

REPLACEMENT



Install the black end of the oil dispense roll assembly in the end of the oil dispense assembly that has the black bracket.

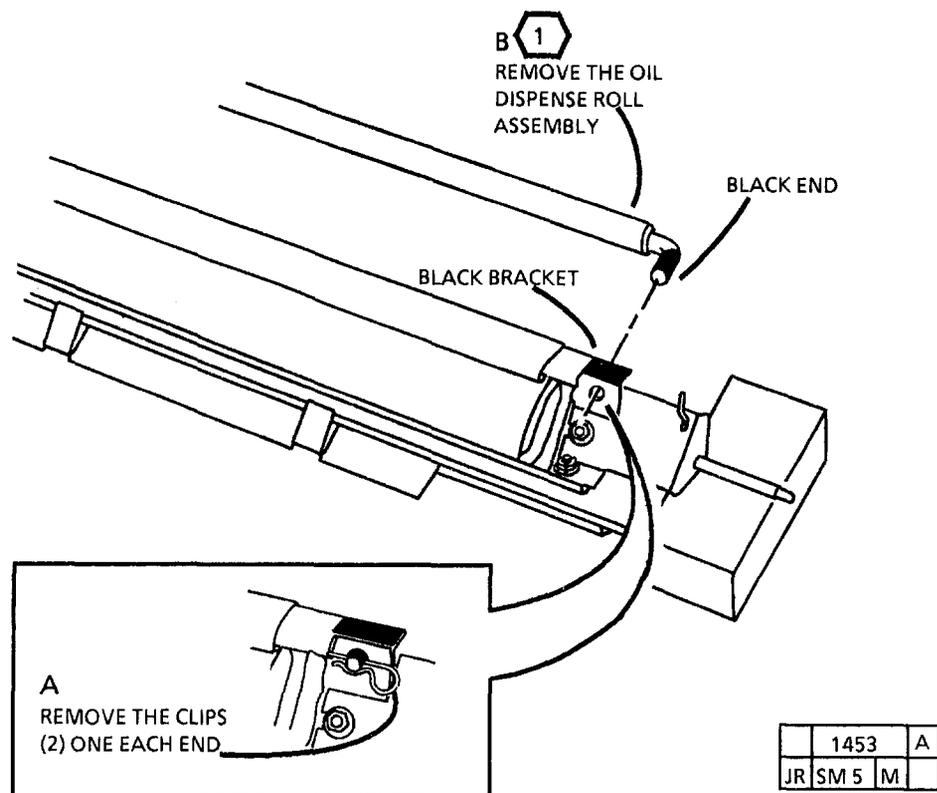


Figure 1. Remove the Oil Dispense Roll Assembly

**REP 10.14 OIL DISPENSER ASSEMBLY
W/TAG/MOD 83**

PARTS LIST ON PL 10.1

REMOVAL

1. **WARNING: SWITCH OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER CORD.**

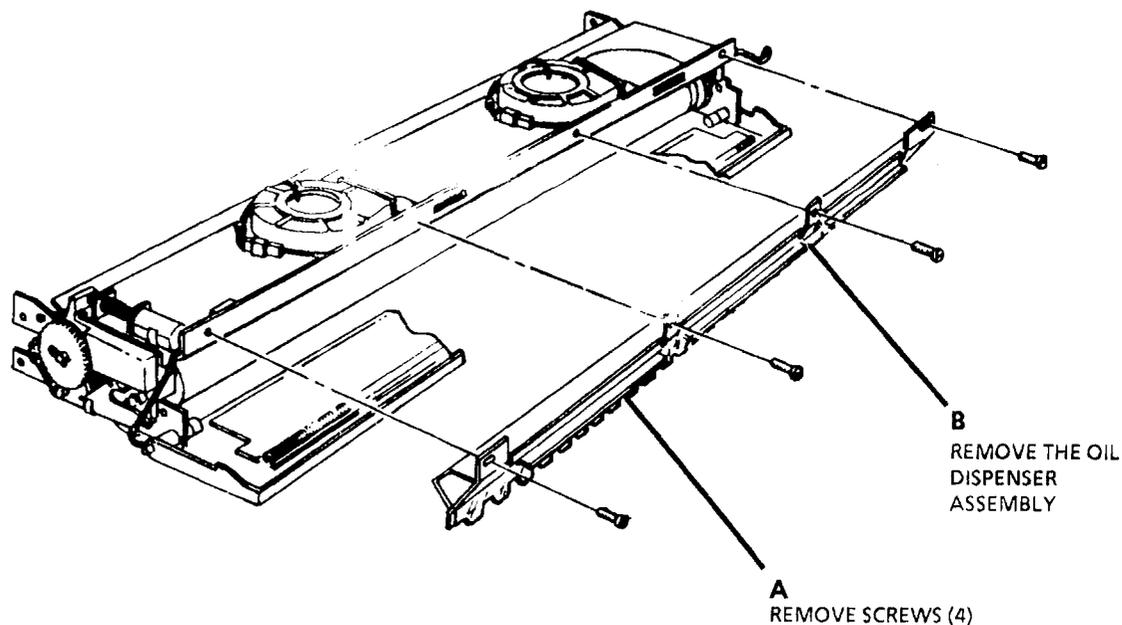
CAUTION

FUSER MAY BE HOT. ALLOW FUSER TO COOL BEFORE REMOVING THE DISPENSER ASSEMBLY.

2. (FIGURE 1): REMOVE OIL DISPENSER ASSEMBLY.

CAUTION

HANDLE THE OIL DISPENSER ASSEMBLY WITH CARE TO AVOID BENDING THE STRIPPER FINGERS.



1060	A
YBF SDS	M

Figure 1. Remove the Dispenser Assembly

REP 10.15 OIL PADS W/TAG/ MOD 83

PARTS LIST ON 10.2

REMOVAL

1. **WARNING: SWITCH OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER CORD.**

CAUTION

Fuser may be hot.

CAUTION

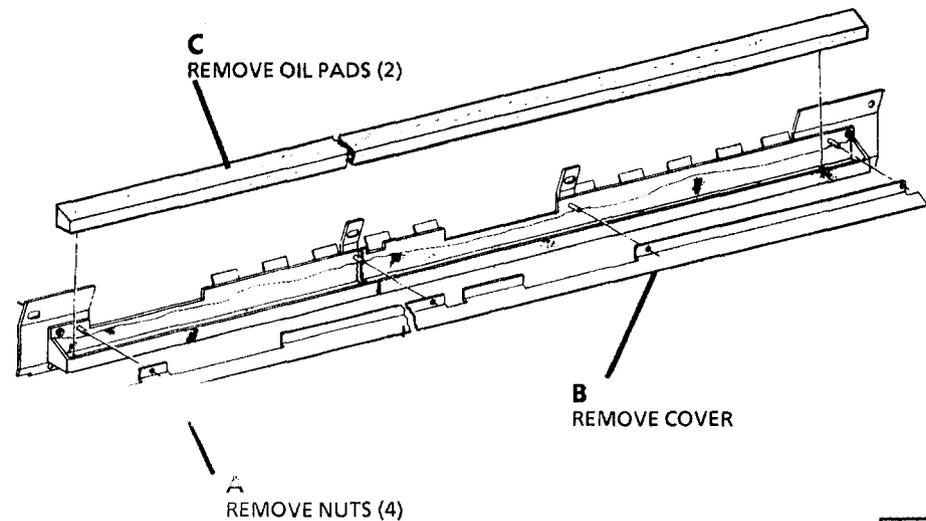
Handle the Oil Dispenser Assembly with care to avoid bending the stripper fingers.

2. LOWER THE COPY FEED SHELF.

3. LOWER THE TRANSPORT LATCHING COVER.

4. (FIGURE 1): REMOVE OIL DISPENSER ASSEMBLY.

5. (FIGURE 2): REMOVE OIL PADS.



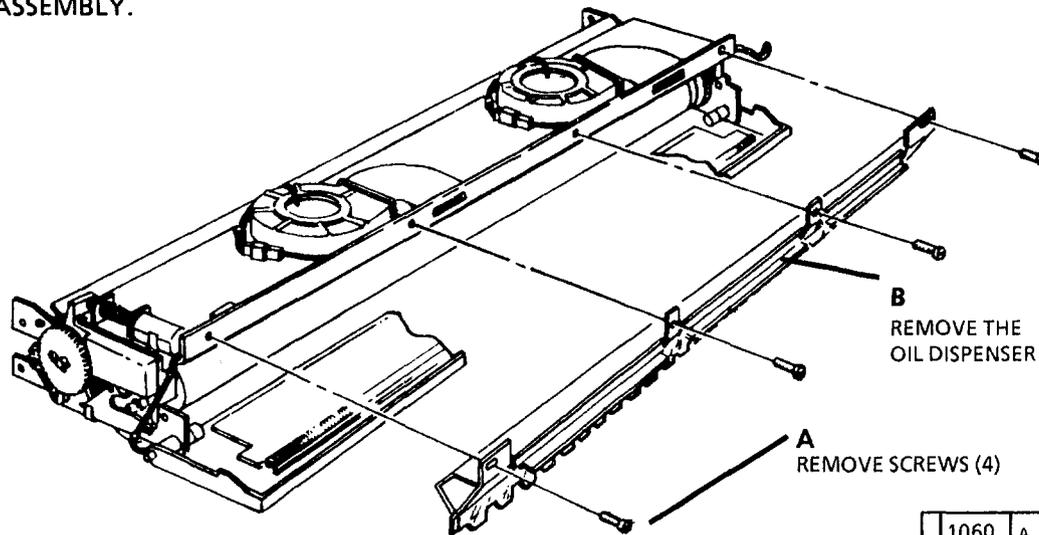
1081	A
YBF	SD5 M

Figure 2. Remove Oil Pads

NOTE: Ensure that the Fuser Roll screw heads clear the oil dispense assembly bracket.

NOTE: If an old oil wick is used, gently scrape it with a piece of .030 inch shim stock or feeler gauge material and wipe the wick with a towel.

NOTE: When a new wick is installed, or if the old wick is dry, prime it with fuser oil prior to use. To prime the wick, rub the wick surface with a new oil pad prior to installing the pad in to the oil dispenser assembly. This is necessary due to fact that it takes approximately 24 hours for the oil to travel from the pads to the wick.



1060	A
YBF	SD5 M

Figure 1. Remove Oil Dispenser Assembly

ADJ 3.1 TIMEOUT INTERVAL TO REST MODE

Purpose

The purpose is to set the amount of time it takes the copier to return to the Power Saver from the Power Saver Mode.

Introduction

The timeout interval should be set to the requirements of the customer. The time is preset by manufacturing for 25 minutes. The time interval can be set from 5 minutes to 45 minutes.

Adjust

1. ENTER THE DIAGNOSTIC MODE.
2. USING THE ARROW BUTTONS, ENTER THE CODE [8]. PRESS THE **Start** BUTTON.

 *Increasing the value displayed will increase the timeout interval. One number will increase or decrease the interval by 15 minutes.*

3. USE THE  BUTTON IN ORDER TO INCREASE OR THE  BUTTON IN ORDER TO DECREASE THE VALUE DISPLAYED ON THE CONTROL PANEL.
4. PRESS THE **Start** BUTTON TO STORE NEW SETTING.
5. EXIT THE DIAGNOSTIC MODE.

ADJ 3.2 TIMEOUT INTERVAL TO POWER SAVER MODE - (USO), (AO 60 Hz); LOW POWER MODE - (EO), (AO 50 Hz)

Purpose

The purpose is to set the amount of time it takes the copier to return to the Power Saver Mode from the Run Mode.

Introduction

The timeout interval should be set to the requirements of the customer. The time is preset by manufacturing for 1 minute. The time interval can be set from 45 seconds to 3 1/2 minutes.

Adjust

1. ENTER THE DIAGNOSTIC MODE.
2. USING THE + OR - BUTTONS, ENTER THE CODE [1]. PRESS THE **Start** BUTTON.

 *Increasing the value displayed will increase the run time interval after the last copy was made. One number will increase or decrease the interval by 15 seconds.*

3. USE THE  BUTTON IN ORDER TO INCREASE OR THE  BUTTON IN ORDER TO DECREASE THE VALUE DISPLAYED ON THE CONTROL PANEL.
4. PRESS THE **Start** TO STORE NEW SETTING.
5. EXIT THE DIAGNOSTIC MODE.

ADJ 3.3 COUNTRY CONFIGURATION

Purpose

The purpose of this procedure is to set up the correct Country Configuration for the copier.

Adjust

1. ENTER THE DIAGNOSTIC MODE.

2. USING THE  OR  BUTTONS, ENTER THE CODE [9]. PRESS THE **Start** BUTTON.

3. USING THE + OR - BUTTONS, SELECT THE APPROPRIATE CONFIGURATION CODE, AND PRESS THE **Start** BUTTON TO STORE THE NEW CONFIGURATION VALUE.

Code	Configuration
1	120V, 60 Hz
2	220V or 230V, 50 Hz
3	240V, 50 Hz
4	100V, 50/60 Hz

4. EXIT THE DIAGNOSTIC MODE.

ADJ 5.1 COPY SIZE ADJUSTMENT

Purpose

The purpose of this adjustment is to obtain a size for size copy using the customer's media. This adjustment compensates for the media stretching or shrinking to make the image the same size as the original.

Check

1. **1** The test pattern 82E 5980 must be fed lead edge first in the 36 inch (914 mm) direction. Keep the copy media within the 36 inch (914 mm) marks on the feed-in shelf.

1. MAKE A COPY OF 82E5980 ON THE CUSTOMER'S 20 POUND (USO) 80 GSM (RX) BOND PAPER.

2. PLACE THE COPY ON TOP OF THE TEST PATTERN.

3. (FIGURE 1): CHECK THE VERTICAL MAGNIFICATION SCALE REFERENCE MARKS ON THE TEST PATTERN TO THE MARKS ON THE COPY.

Adjust

4. ENTER THE DIAGNOSTIC MODE.

5. SET THE SPECIAL TEST CODES [21], [22] AND [23] TO ZERO.

- SELECT THE CODE.
- PRESS Start.
- SET THE VALUE DISPLAYED TO 0.
- PRESS Start.

6. USING THE ARROW BUTTONS, ENTER CODE [24]. PRESS THE Start BUTTON.

2 Increasing the value displayed on the control panel will increase the length of the image on the copy. Decreasing the value displayed will shorten the image on the copy.

7. USE THE \blacktriangle BUTTON IN ORDER TO INCREASE OR THE \blacktriangledown BUTTON IN ORDER TO DECREASE THE VALUE DISPLAYED ON THE CONTROL PANEL.

8. PRESS THE Start BUTTON TO STORE THE NEW SETTING.

3 When making a copy to check the adjustment, ensure that the correct Copy Media button is pressed. This will ensure the correct document speed is selected.

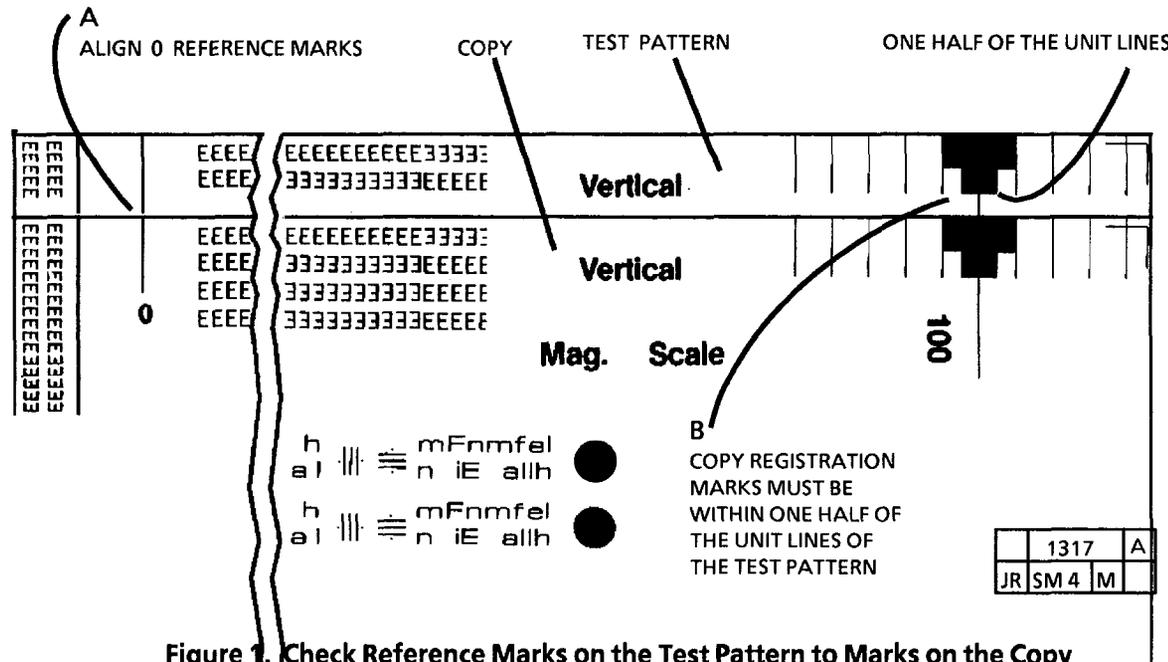
9. EXIT THE DIAGNOSTIC MODE AND MAKE A COPY OF THE TEST PATTERN.

10. REPEAT ALL THE STEPS UNTIL THE REGISTRATION MARKS ON THE COPY ALIGN WITHIN ONE HALF OF THE UNIT LINES OF THE TEST PATTERN (FIGURE 1).

11. IF THE CUSTOMER INDICATES THAT VELLUM (USO) TRACING PAPER (RX) OR FILM WILL BE USED, PERFORM THE FOLLOWING STEPS:

A. VELLUM (USO) TRACING PAPER (EO) - USE THE ARROW BUTTONS TO ENTER THE CODE [22] AND PERFORM THIS PROCEDURE USING VELLUM (USO) TRACING PAPER (RX) FOR THE COPY.

B. FILM - USE THE ARROW BUTTONS TO ENTER THE CODE [23] AND PERFORM THIS PROCEDURE USING FILM FOR THE COPY.



ADJ 8.1 REGISTRATION

Purpose

The purpose is to adjust the timing of the copier to obtain correct registration of the copy material and the document image for the copy modes Sets and Multiple Copies.

Check

1. SELECT **Sets** MODE AND MAKE A COPY OF THE TEST PATTERN (82E5020).
2. SELECT MULTIPLE COPY MODE AND MAKE A COPY OF THE TEST PATTERN (82E5020).

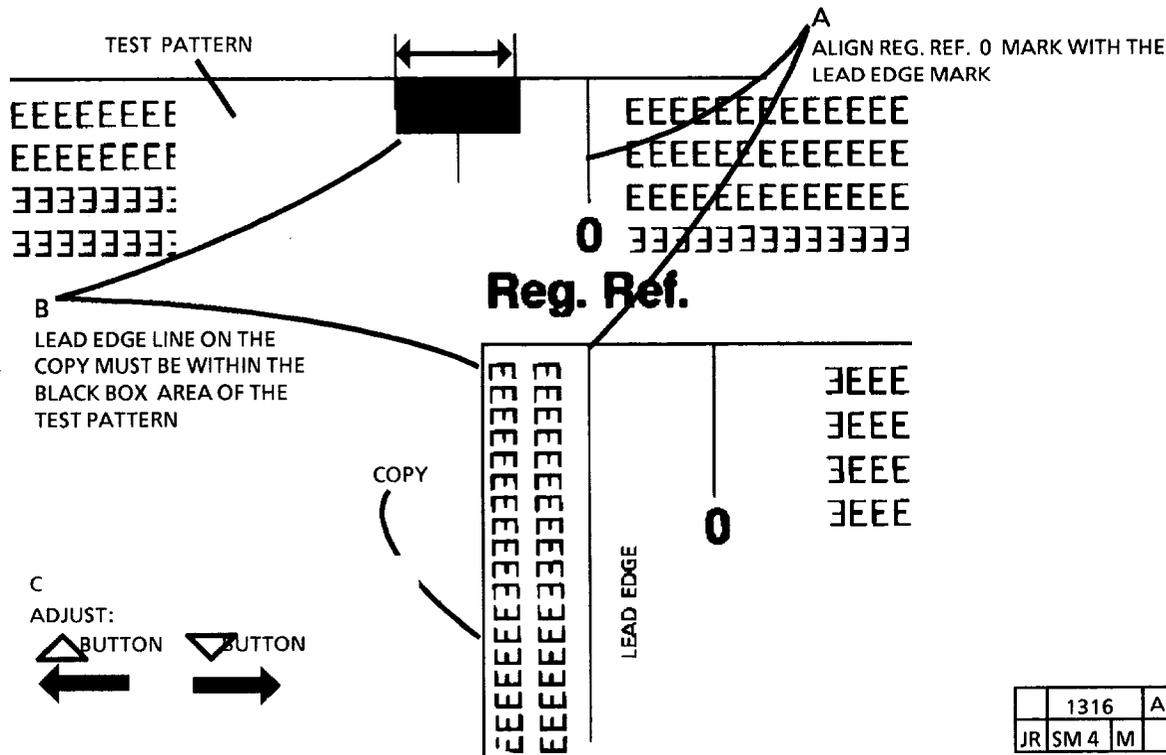


Figure 1. Check the Registration

3. (FIGURE 1): CHECK THE REGISTRATION OF THE TWO COPIES.
4. IF THE REGISTRATION ON THE COPY IS OUT OF SPECIFICATION, PERFORM THE ADJUSTMENT.

Adjustment (Sets)

1. ENTER THE DIAGNOSTIC MODE.
2. USING THE ▲ OR ▼ BUTTONS, ENTER CODE [33] TO ADJUST THE **Sets** COPY MODE. PRESS **Start**.

1 Each increment will change the lead edge by approximately 1/8 inch (3.17 mm). The (▼) button will make the lead edge longer and the (▲) button will make the lead edge shorter.

3. (FIGURE 1): USE THE (▲) BUTTON IN ORDER TO MOVE REGISTRATION TO THE LEFT OR THE (▼) BUTTON IN ORDER TO MOVE IT TO THE RIGHT.
4. PRESS THE **Start** BUTTON TO ENTER THE NEW SETTING.
5. EXIT THE DIAGNOSTIC MODE.
6. PERFORM THE CHECK IN THE **Sets** MODE.
7. REPEAT THIS ADJUSTMENT UNTIL REGISTRATION IS WITHIN SPECIFICATION.

Adjustment (Multiple Copy)

1. ENTER THE DIAGNOSTIC MODE.
2. USING THE (▲) OR (▼) BUTTONS, ENTER CODE [7] TO ADJUST THE MULTIPLE COPY MODE. PRESS **Start**.
3. (FIGURE 1): USE THE (▲) BUTTON IN ORDER TO MOVE REGISTRATION TO THE LEFT OR THE (▼) BUTTON IN ORDER TO MOVE IT TO THE RIGHT.
4. PRESS THE **Start** BUTTON TO ENTER THE NEW SETTING.
5. EXIT THE DIAGNOSTIC MODE.
6. PERFORM THE CHECK IN THE MULTIPLE COPY MODE.
7. REPEAT THIS ADJUSTMENT UNTIL REGISTRATION IS WITHIN SPECIFICATION.

ADJ 8.2 LEAD EDGE MARGIN

Purpose

The purpose is to adjust the timing of the copier for the correct registration of the copy material and the document image in order to create the desired lead edge. This desired lead edge is pre-set and can be selected by the operator by pressing the **Lead Margin** button. When **Lead Margin** is not selected the copier defaults to the registration set in ADJ 8.1, **REGISTRATION**.

Adjustment

1. ASK THE OPERATOR HOW MUCH LEAD EDGE IS DESIRED.
2. PRESS THE **LEAD EDGE** BUTTON.
3. MAKE FIVE COPIES OF TEST PATTERN 82E5020.
4. (FIGURE 1): MEASURE THE MARGIN ON THE LEAD EDGE.

① If the distance is not what the operator desires, proceed to the following steps.

5. ENTER THE DIAGNOSTIC MODE.
6. USING THE \triangle OR ∇ BUTTONS, ENTER CODE [2]. PRESS THE **Start** BUTTON.

② The setting of number 5 will equal 1.25 inches (32 mm). Each number over or under 5 will change the lead edge by 0.25 inch (6 mm). The larger the number the larger the lead margin.

7. USE THE \triangle BUTTON IN ORDER TO INCREASE OR THE ∇ BUTTON IN ORDER TO DECREASE THE THE AMOUNT OF LEAD EDGE MARGIN.
8. PRESS THE **Start** BUTTON TO ENTER THE NEW SETTING.
9. EXIT THE DIAGNOSTIC MODE.
10. REPEAT THE STEPS 2 THROUGH 9 UNTIL THE DESIRED LEAD EDGE IS OBTAINED.

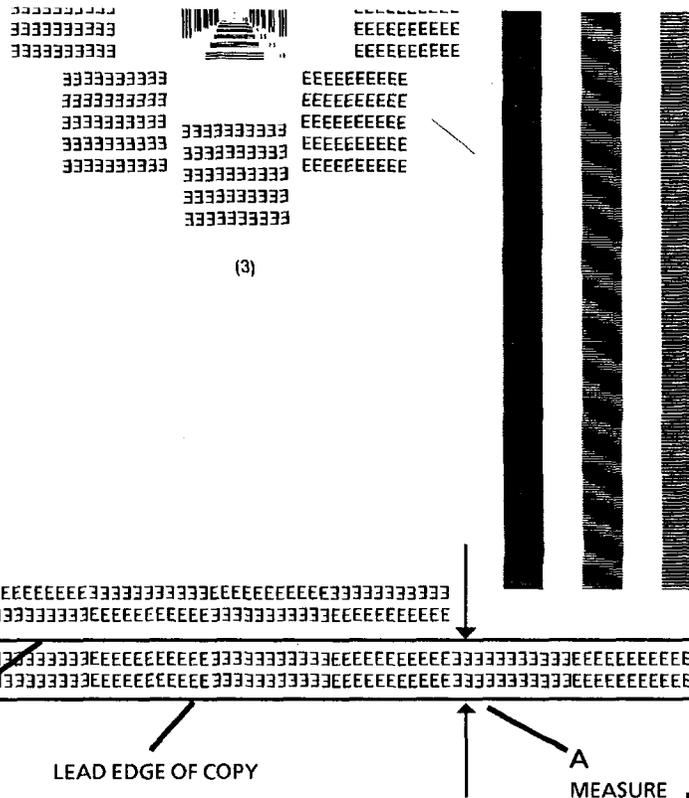
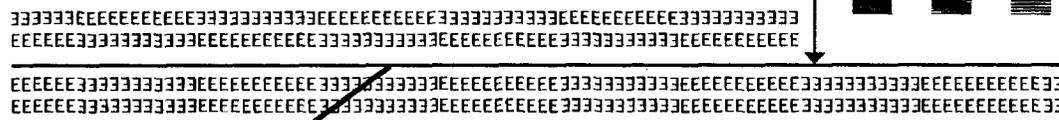


Figure 1. Registration Specification

	1078	A
JR	SM 4	★

Lead Edge



ADJ 9.1 CLEANER BLADE SOLENOID

Purpose

The purpose is to adjust the cleaner blade solenoid to ensure that the cleaner blade applies the correct force to clean the drum.

Check

1. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).

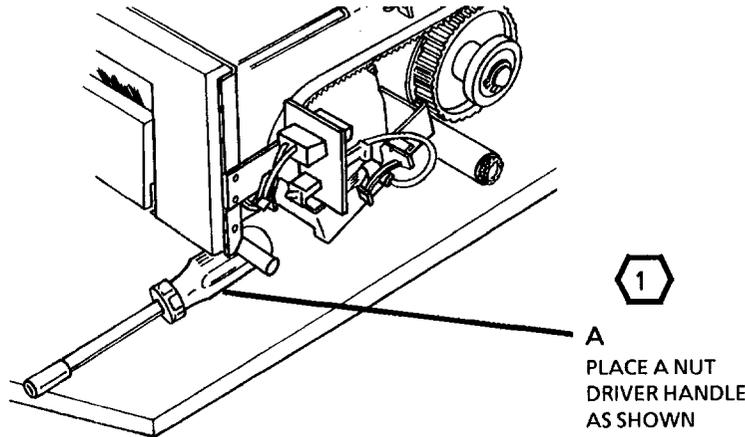


Figure 1. Position of Nut Driver

	1310	A
JR	SM 4	★

2. (FIGURE 1): PHOTORECEPTOR 3 POINT STAND.

1 Ensure that the drum is in the xerographic module before performing this check or adjustment. Place a nut driver handle under the right side frame in front of the fuser gear to obtain a 3 point stand for the assembly. This avoids a twist in the assembly which could result in an improper 0.050 inch (1.2 mm) gap.

3. MANUALLY COMPRESS THE PLUNGER OF THE SOLENOID FULLY AND HOLD.
4. CHECK FOR 0.050 ± 0.005 (01.2 mm \pm 0.1 mm) BETWEEN THE PLUNGER AND THE WEIGHT.

Adjustment

1. (FIGURE 2): ADJUST THE CLEANER BLADE SOLENOID.

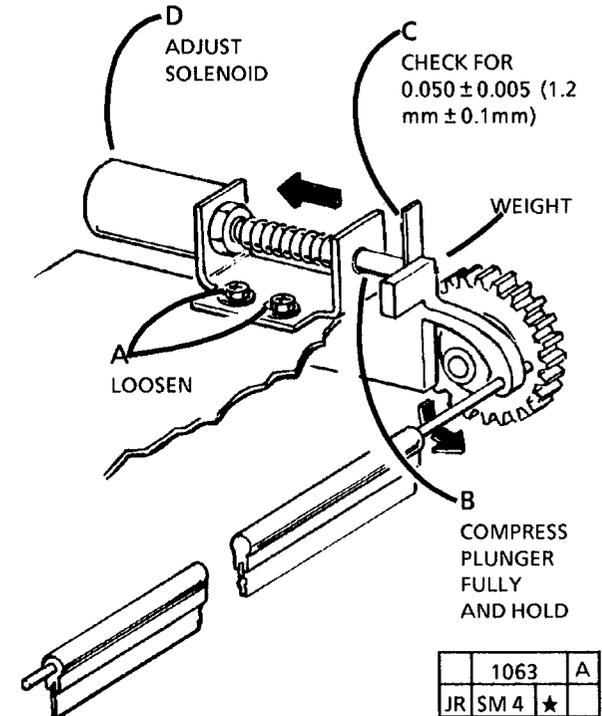


Figure 2. Adjust the Cleaner Blade Solenoid

2. CHECK THE CLEANER BLADE FOR CORRECT CLEANING ACTION.
 - A. DUST THE DRUM WITH ZINC STEARATE.
 - B. MANUALLY COMPRESS THE SOLENOID PLUNGER WHILE ROTATING THE DRUM AND OBSERVE THE CLEANING ACTION. THE ZINC STEARATE SHOULD BE CLEANED OFF THE DRUM.

	1063	A
JR	SM 4	★

ADJ 9.2 ELECTROSTATIC SERIES

1

Series must be performed in order exactly as written.

PURPOSE

The purpose is to adjust the corotron and exposure voltages to specification in order to obtain good copy quality.

2

When the Electrostatic Series is completed with a new photoreceptor drum, the image density will be slightly lighter than when the Electrostatic Series is completed with a photoreceptor drum previously used. Do not make further adjustments at this time.

1. **USED PHOTORECEPTOR DRUM:** RUN ONE COPY AND ALLOW THE COPIER TO GO INTO LOW POWER MODE.

NEW PHOTORECEPTOR DRUM: RUN 25 FEET (7.6 meters) OF COPY AND ALLOW THE COPIER TO GO INTO LOW POWER MODE.

2. THOROUGHLY CLEAN THE COROTRONS AND LENS.

3. REMOVE THE FOLLOWING:
 - A. DOCUMENT HANDLER
 - B. LEFT SIDE COVER
 - C. RIGHT SIDE COVER
 - D. UPPER REAR COVER
4. REMOVE DEVELOPER MODULE (REP 9.5).
5. (FIGURE 1): INSTALL ELECTROMETER PROBE IN THE PROBE HOLDER

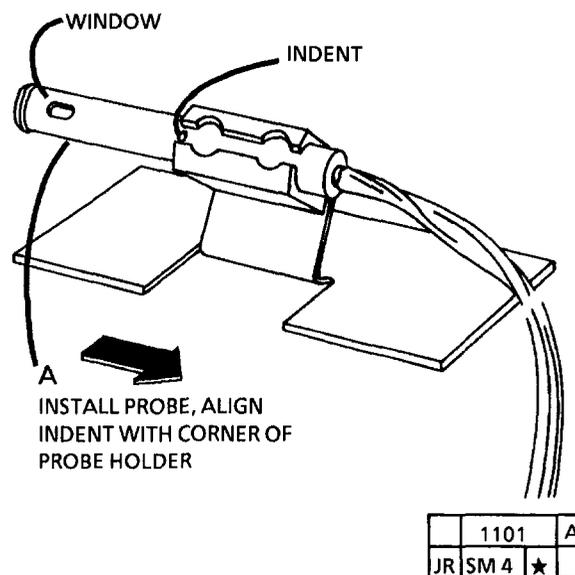


Figure 1. Install the Electrometer Probe in the Probe Holder

(Continued)

(Continued)

6. (FIGURE 2): INSTALL ELECTROMETER PROBE.

3 STEP 6 A: Insert four (4) sheets of 20 pound (80 gsm) paper between the electrometer probe holder and the photoreceptor drum. This establishes the correct distance between the probe and the photoreceptor drum. Remove the paper, being careful not to disturb the position of the probe.

4 STEP 6 A: Window in the probe must face the photoreceptor.

7. PLACE TWO (2) SHEETS OF CLEAN 20 POUND (80 gsm) PAPER ON THE ENTIRE SURFACE OF THE PLATEN BEFORE INSTALLING THE DOCUMENT HANDLER.

8. INSTALL THE DOCUMENT HANDLER.

9. (FIGURE 3): THE CORRECT POSITION OF THE ELECTROMETER, METER AND THE LEADS.

5 STEP 9 B: The electrometer, meter and the leads must be positioned away from the HVPS in order to obtain correct voltage measurement. The meter and electrometer must also be separated as shown in Figure 3. Position the electrometer, meter and the leads this way for the remainder of the procedure. Do not connect the meter and electrometer at this time. The purpose of this illustration is to show the proper position. Attach the components as needed in subsequent steps.

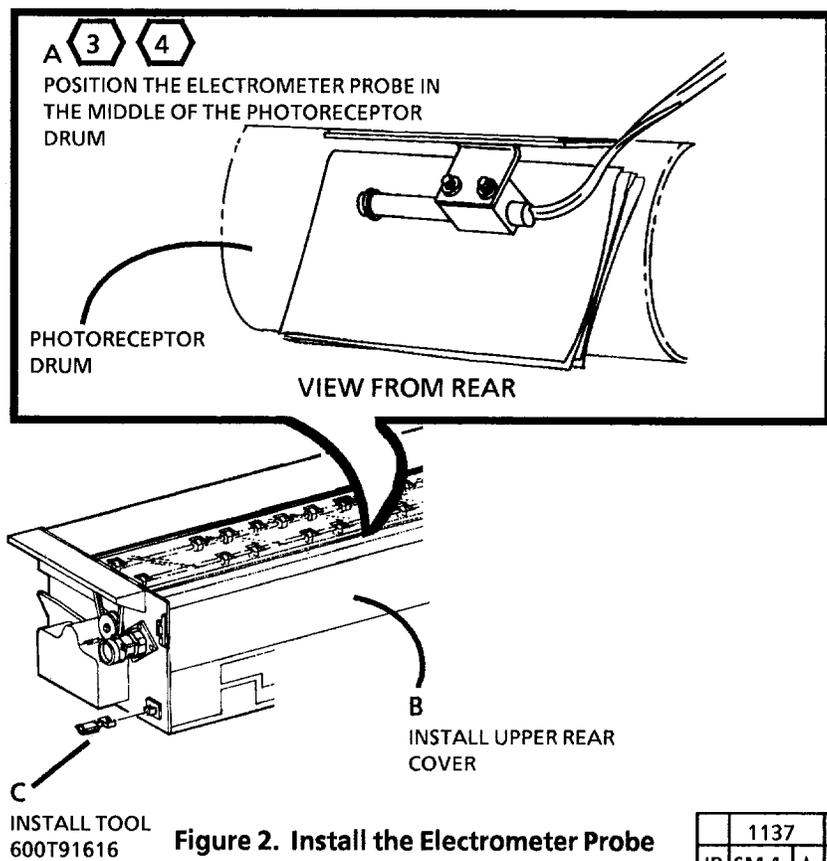


Figure 2. Install the Electrometer Probe

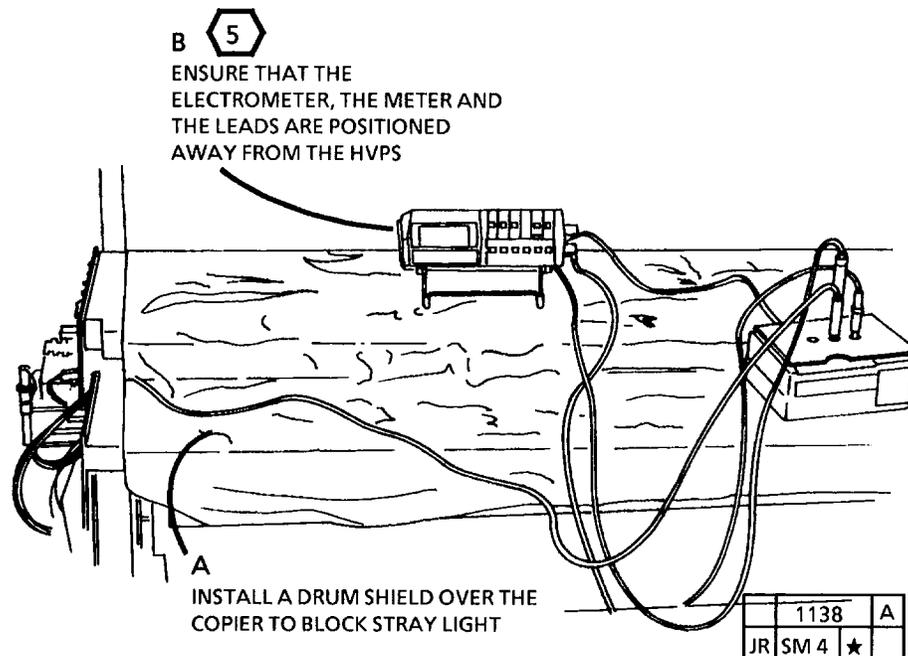


Figure 3. The Correct Position of the Electrometer, Meter and the Leads

(Continued)

(Continued)

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

10. ENTER DIAGNOSTIC MODE. USING THE + OR - BUTTONS, ENTER THE CODE [6], THEN PRESS THE Start BUTTON.

6 The Electrometer, meter, and the leads are shown in this position only for clarity. Figure 3 of this procedure shows proper position when performing the Electrostatic Series.

11. (FIGURE 4): ADJUST PRECHARGE AND DETACK COROTRON VOLTAGE.

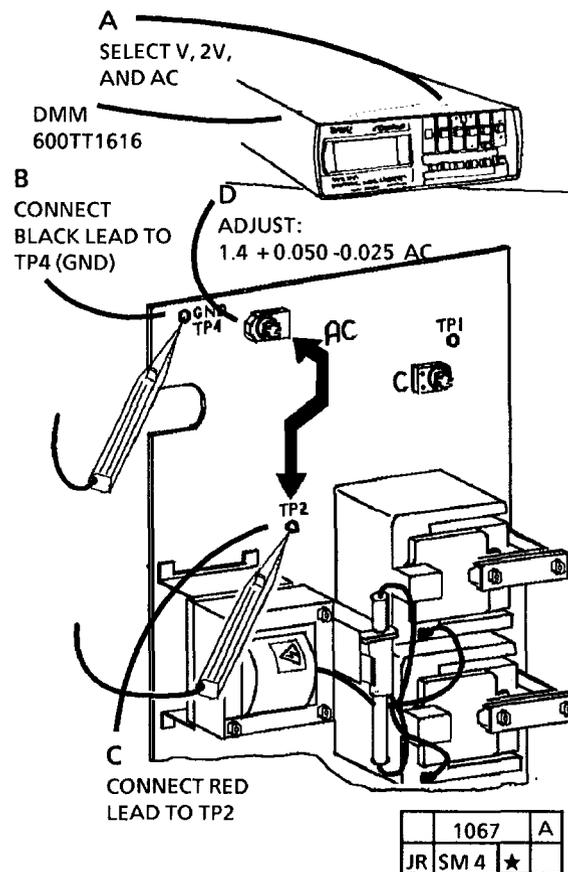


Figure 4. Adjustment of Precharge and Detack Corotrons

6 The Electrometer, meter, and the leads are shown in this position only for clarity. Figure 3 of this procedure shows proper position when performing the Electrostatic Series.

12. (FIGURE 5): ADJUST TRANSFER COROTRON VOLTAGE.

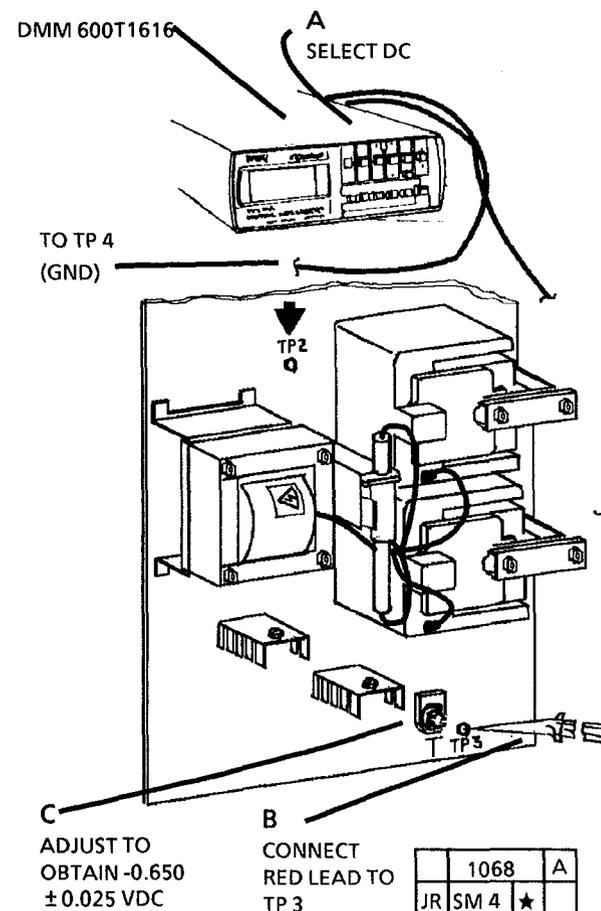


Figure 5. Adjustment of Transfer Corotrons (Continued)

(Continued)

13. (FIGURE 6): CONNECT DMM TO ELECTROMETER.

6 If the LOW BATTERY light stays on, replace the batteries. DO NOT continue the electrostatic series if the LOW BATTERY light is on.

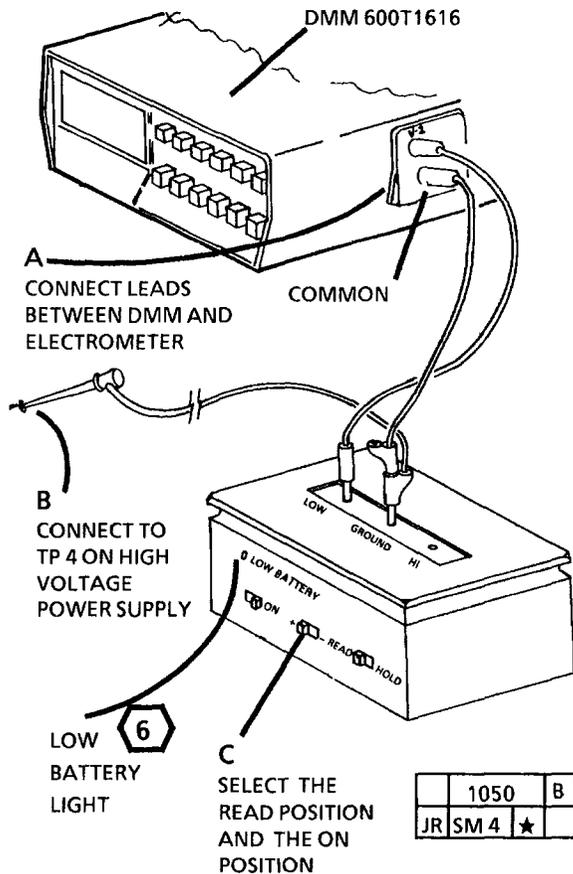


Figure 6. Connecting the Electrometer

7 The Electrometer, meter, and the leads are shown in this position only for clarity. Figure 3 of this procedure shows proper position when performing the Electrostatic Series.

14. (FIGURE 7): ADJUST CHARGE VOLTAGE.

8 If the voltage cannot be set to specification, refer to Charge Voltage RAP.

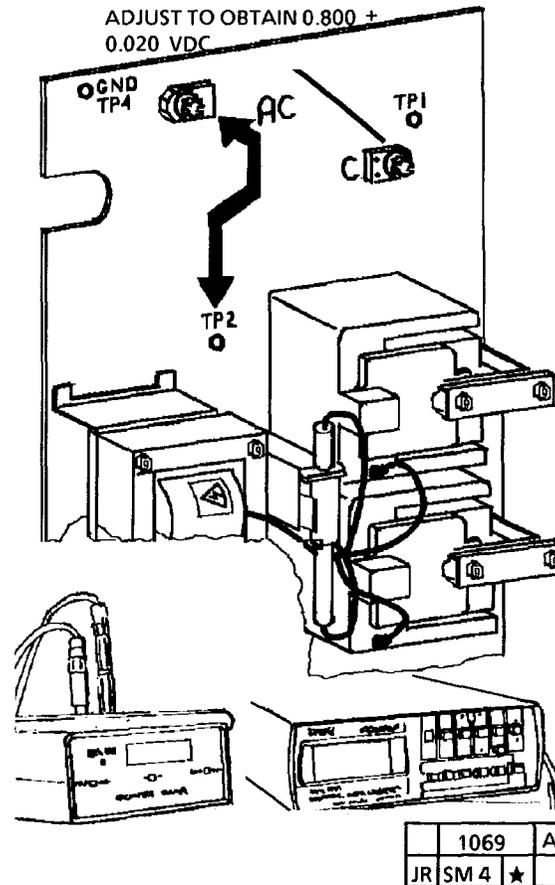


Figure 7. Adjust the Charge Voltage

15. PRESS THE Stop BUTTON.

(Continued)

(Continued)

8 Position the DMM and the Electrometer as shown in Step 7, Figure 3.

16. ADJUST THE EXPOSURE VOLTAGE.

WARNING

There will be a time delay between the time the code [5] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

A. ENTER THE CODE [5], THEN PRESS THE Start BUTTON.

B. SCROLL TO[9] AND PRESS THE Start BUTTON.

C. AFTER 3 MINUTES RECORD THE AVERAGE METER READING.

9 Leave the PEAK HOLD function selected until Step 18

D. IF THE VOLTAGE MEASURED IN STEP C IS MORE THAN 0.200 VDC CHECK THE FOLLOWING:

- LEADS ARE IN THE PROPER POSITION (REFER TO FIGURE 3)
- EXPOSURE LAMP IS FULLY ACTUATED
- DOCUMENT HANDLER IS IN PLACE
- ENSURE THAT THE CORRECT PHOTORECEPTOR DRUM IS INSTALLED (1R81)
- ENSURE THAT THE LENS IS CLEAN
- ENSURE THAT THE (2) SHEETS OF PAPER ARE ON THE ENTIRE SURFACE OF THE PLATEN.

10 Step 16 E: If a set point displays a value that is 0.020 to 0.050 VDC higher than the value of set point 9, but is more than 0.200 VDC, go back to the Step D.

E. SCROLL DOWN FROM [9] STOPPING AT EACH SET POINT (8,7,6,...). AT EACH SET POINT, PRESS THE Start BUTTON, WAIT 15 SECONDS AND NOTE THE METER READING. STOP THE SCROLLING AT THE FIRST SET POINT THAT DISPLAYS A READING 0.020 TO 0.050 VDC HIGHER THAN SET POINT 9.

17. PRESS THE Stop BUTTON AND SWITCH OFF ELECTROMETER.

18. REMOVE THE ELECTROMETER.

19. REMOVE THE DOCUMENT HANDLER AND THE TWO (2) SHEETS OF CLEAN 20 POUND (80 GSM) PAPER.

20. REINSTALL THE DOCUMENT HANDLER AND THE DEVELOPER MODULE.

21. CHECK/ADJUST THE FOLLOWING :

- a. ADJ 9.3 TONER DISPENSE SOLENOID
- b. ADJ 9.4 IMAGE DENSITY

ADJ 9.3 TONER DISPENSE SOLENOID

PURPOSE

The purpose is to adjust the Toner Dispense Solenoid so that toner is dispensed to the developer module at the correct rate and to compensate for wear at each developer change.

CHECK

1. REMOVE THE UPPER REAR COVER AND PLACE A MAGNET ON THE INTERLOCK SWITCH.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

2. ENTER DIAGNOSTICS AND ENTER THE CODE [10].
3. PRESS Start.
4. CHECK THE TIME REQUIRED FOR THE TONER CARTRIDGE TO ROTATE 1/4 REVOLUTION.
5. PRESS Stop.
6. IF THE ELAPSED TIME IN STEP 4 IS BETWEEN 30 AND 60 SECONDS, THERE IS NO NEED FOR AN ADJUSTMENT.

VIEW WITH THE DEVELOPER MODULE REMOVED FOR CLARITY

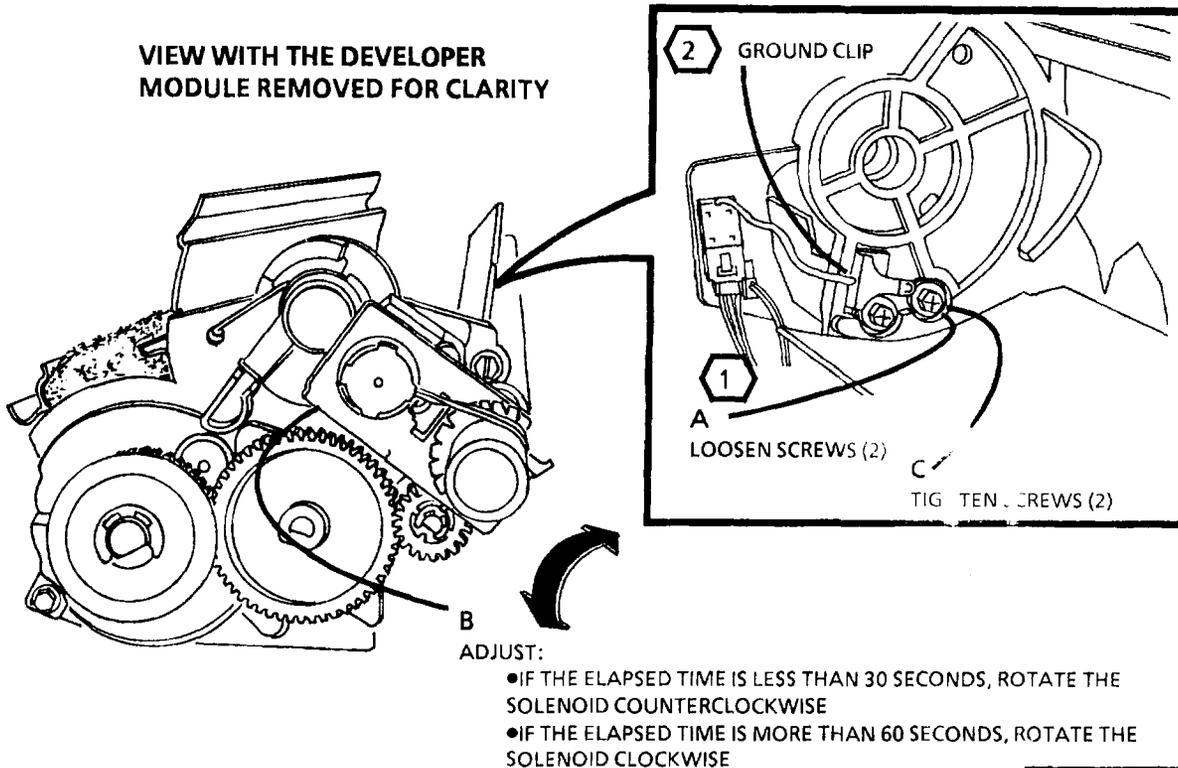


Figure 1. Adjust the Toner Dispense Solenoid

	1524	A
JR	SM 4	X

ADJUST

7. REMOVE THE TONER CARTRIDGE.
- 1 Loosen the screws enough that the solenoid will move freely.
8. (FIGURE 1): ADJUST THE TONER DISPENSE SOLENOID.
9. REINSTALL THE TONER CARTRIDGE.
- 2 Ensure the ground clip is making good contact with metal ring on the end of the toner cartridge.
10. REPEAT STEP 3 THROUGH STEP 9 UNTIL THE TONER CARTRIDGE ROTATES 1/4 TURN WITHIN 30 AND 60 SECONDS.
11. EXIT DIAGNOSTICS, REMOVE THE MAGNET, AND REINSTALL THE UPPER REAR COVER.

ADJ9.4 IMAGE DENSITY

PURPOSE

The purpose is to adjust the toner concentration in order to get the image density into specification.

1. CHECK/ADJUST THE TONER DISPENSE SOLENOID ADJ 9.3.
2. PREPARE TO CHECK THE IMAGE DENSITY.
 - a. REMOVE THE RIGHT SIDE AND UPPER REAR COVERS.
 - b. ENTER THE DIAGNOSTIC CODE [1] AND MAKE A RECORD OF THE VALUE. SET THE COPIER TO RUN FOR 2 MINUTES BY SETTING A VALUE OF [5].
 - c. SET THE TONER CONCENTRATION TO A NOMINAL VALUE BY SETTING THE CODE [4] TO VALUE OF [5].
3. EXIT THE DIAGNOSTIC MODE.
4. SWITCH ON THE COPIER AND PRESS **Start**. 5 SECONDS AFTER THE MAIN DRIVE MOTOR STARTS THE TONER CARTRIDGE SHOULD BE MOVING SLOW. IF IT IS MOVING FAST, CONTINUE TO CYCLE THE COPIER UNTIL THE CARTRIDGE BEGINS MOVING SLOW.
5. REINSTALL THE UPPER REAR AND LEFT SIDE COVERS.
6. MAKE A COPY OF TEST PATTERN 82E5980. CHECK THAT THE DENSITY OF THE .70G5 PARAGRAPH IS BETWEEN PARAGRAPHS 24.0 AND 31.2. ON THE 82E5040 TEST PATTERN.
 - a. IF THE DENSITY IS LESS THAN 24.0, GO TO STEP 7.
 - b. IF THE DENSITY IS GREATER THAN 31.2, GO TO STEP 8.
 - c. REPEAT THE STEP 6. IF THE DENSITY IS STILL GREATER THAN 31.2 AFTER REACHING THE LIMIT OF THE ADJUSTMENT, GO TO CQ1 UNIFORM BACKGROUND.
7. INCREASE THE DENSITY.
 - a. ENTER DIAGNOSTIC, ENTER THE CODE [4] AND INCREASE THE VALUE BY 1.
 - b. SCROLL TO CODE [47] AUTOMATIC TONE UP.
 - (1). EXIT THE DIAGNOSTIC MODE.
 - (2). LOOSEN AND LIFT THE RIGHT SIDE OF THE UPPER REAR COVER TO VIEW THE TONER CARTRIDGE. CYCLE THE COPIER UNTIL THE CARTRIDGE BEGINS MOVING SLOW FOR ONE MINUTE, APPROXIMATELY HALF OF THE COPIER CYCLE TIME.
 - c. REPEAT THE STEP 6. IF THE DENSITY IS STILL LESS THAN 24.0 AFTER REACHING THE LIMIT OF THE ADJUSTMENT, GO TO CQ11 LIGHT COPY RAP.
8. DECREASE THE DENSITY.
 - a. ENTER DIAGNOSTIC, ENTER THE CODE [4] AND DECREASE THE VALUE BY 1.
 - b. SCROLL TO CODE [46] AUTOMATIC DETONE.
9. ENTER THE DIAGNOSTIC CODE [1]. SET VALUE TO THE VALUE RECORDED IN STEP 2B.

ADJ 10.1 FUSER TEMPERATURE

PURPOSE

The purpose is to adjust the fuser heat for correct fusing of copies.

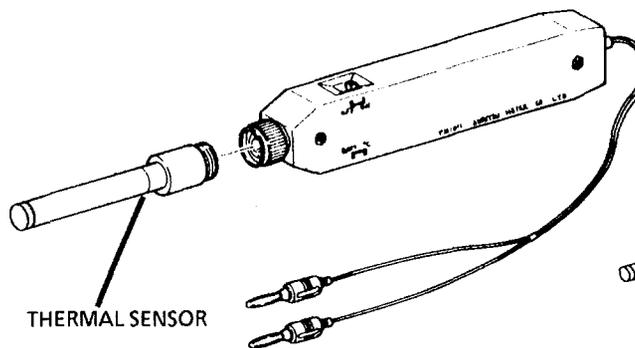
TOOLS REQUIRED: DMM, Temperature Probe Set, Adapter Plugs.

1 This procedure must be performed after the machine becomes ready.

2 Ensure that the fuser thermistor RT1 is in positive contact with the fuser roll

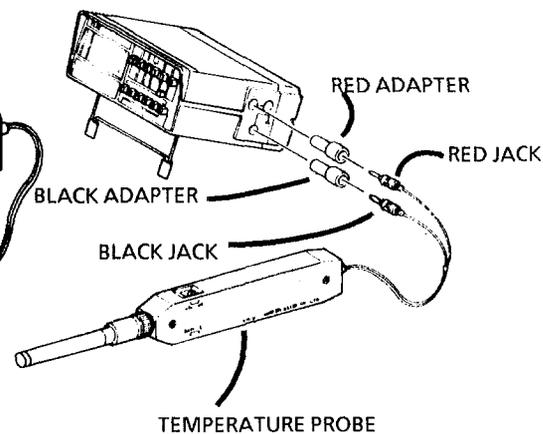
HOW TO SET UP TEMPERATURE PROBE

1. (FIGURE 1): CONNECT THE THERMAL SENSOR TO THE TEMPERATURE PROBE.



THERMAL SENSOR

2. (FIGURE 2): CONNECT TEMPERATURE PROBE TO THE DMM.



BLACK ADAPTER

BLACK JACK

TEMPERATURE PROBE

	1072	A
JR	SM 4	★

	1071	A
JR	SM 4	★

Figure 2. Connect Temperature Probe to DMM
(Continued)

Figure 1. Connect the Thermal Sensor to the Temperature Probe

(Continued)

- SWITCH ON THE DMM AND THEN SWITCH ON THE TEMPERATURE PROBE.
- SWITCH THE FUNCTIONAL SWITCH OF THE DMM TO THE DC VOLTAGE MEASUREMENT MODE.
- PRESS 20V RANGE SWITCH OF DMM.
- ROTATE THE SELECT SWITCH OF THE TEMPERATURE PROBE TO **BATT TEST**. IF THE VOLTAGE IS LOWER THAN 1.7V, REPLACE THE BATTERY OF THE TEMPERATURE PROBE WITH A NEW ONE.
- TURN THE SELECT SWITCH OF THE TEMPERATURE PROBE TO "°C" POSITION, AND PRESS THE 200mV RANGE SWITCH OF THE DMM.

3 You are now ready to check the temperature after you expose the fuser roll for easy access.

CHECK

- REMOVE THE OIL DISPENSE ASSEMBLY (REP 10.9).
- RAISE THE FRONT COVER, THE TRANSPORT LATCHING COVER, AND THE COPY FEED SHELF.
- PRESS THE **Sets** BUTTON.

4 It is not necessary to run a copy at this time.

- SWITCH ON THE 3001, PRESS THE **Start** BUTTON, AND WAIT APPROXIMATELY 30 SECONDS AFTER THE READY SIGNAL AND THEN INSERT A SHEET OF BOND PAPER. WAIT APPROXIMATELY 30 SECONDS AGAIN BEFORE BEGINNING THE TEMPERATURE READINGS.
- (FIGURE 3): CHECK THE FUSING TEMPERATURE.

CAUTION

The Metal strips of the temperature probe must be oriented vertically in order to avoid scratching the surface of fuser roll.

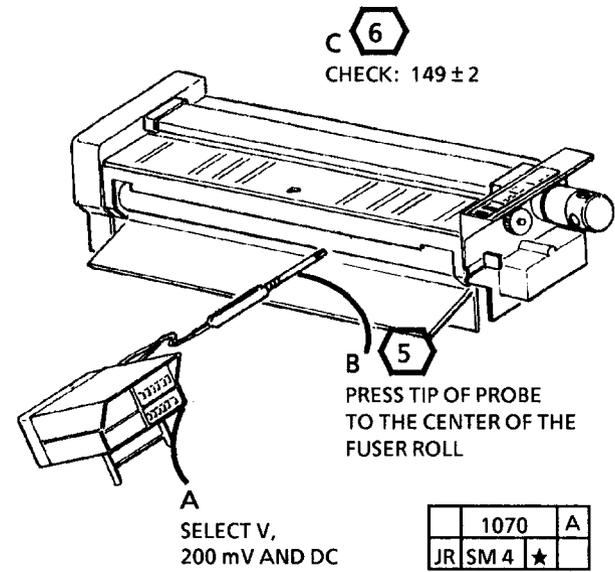


Figure 3. Check the Fusing Temperature

5 STEP 5 B: Press the temperature sensor firmly to the surface of the fuser roll for an accurate reading.

6 STEP 5 C: The 149 ± 2 reading on the 200 mV scale is 149 °C.

ADJUSTMENT

- ENTER THE DIAGNOSTIC MODE.
- ENTER THE CODE [0] AND PRESS THE **Start** BUTTON TO ENTER THE TEMPERATURE MODE.
- NOTE THE CURRENT SETTING DISPLAYED ON THE CONTROL PANEL (1-9).
- USE THE **▲** BUTTON IN ORDER TO INCREASE OR THE **▼** BUTTON IN ORDER TO DECREASE THE VALUE DISPLAYED ON THE CONTROL PANEL. AN INCREASE OF ONE NUMBER WILL INCREASE THE FUSER TEMPERATURE BY APPROXIMATELY 3°C.
- PRESS THE **Start** BUTTON TO STORE THE NEW SETTING.
- EXIT THE DIAGNOSTIC MODE.
- CHECK THE TEMPERATURE WITH THE TEMPERATURE PROBE TO ENSURE THAT THE CORRECT ADJUSTMENT HAS BEEN MADE.
- REINSTALL THE OIL DISPENSE ASSEMBLY (REP 10.9).

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ELECTRICAL CONNECTORS AND FASTENERS

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COMMON HARDWARE

Common Hardware 5-34

Introduction

Overview

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

Organization

Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

Electrical Connectors and Fasteners

This section contains the illustrations and descriptions of the plugs, jacks, and fasteners used in the machine. A part number listing of the connectors is included.

Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimeters unless otherwise identified.

Part Number Index

This index lists all the spared parts in the machine in numerical order. Each number is followed by a reference to the parts list on which the part may be found.

Other Information

Abbreviations

Abbreviations are used in the parts lists and the exploded view illustrations to provide information in a limited amount of space. The following abbreviations are used in this manual:

Table 1

Abbreviation	Meaning
A	Amp
AC	Alternating Current
AMG	American Wire Gauge
HZ	Hertz
M	Millimeter
P/O	Part of
PWB	Printed Wiring Board
USO	United States Operations
V	Volt
W/	With
W/O	Without
XL	Xerox Limited
XLA	Xerox Latin America

Symbology

Symbology used in the Parts List section is identified in the Symbology section.

Subsystem Information

Use of the Term "Assembly"

The term "assembly" will be used for items in the part number listing that include other itemized parts in the part number listing. When the word "assembly" is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

Brackets

A bracket is used when an assembly or kit is spared, but is not shown in the illustration. The item number of the assembly or kit precedes the bracket; the item numbers of the piece parts follow the bracket.

Tag

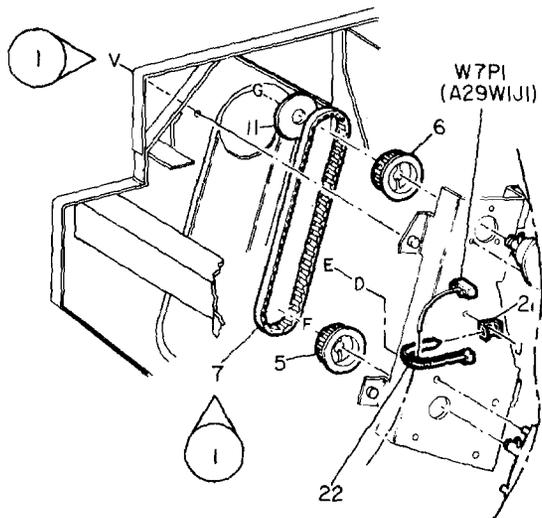
The notation "W/Tag" in the parts description indicates that the part configuration has been updated. Check the change Tag index in the General Information section of the Service Data for the name and purpose of the modification.

In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available is listed as "W/Tag," install the Tag kit or all of the piece parts. The Change Tag Index tells you which kit or piece parts you need.

Whenever you install a Tag kit or all the piece parts that make up a Tag, mark the appropriate number on the Tag matrix.

Symbology

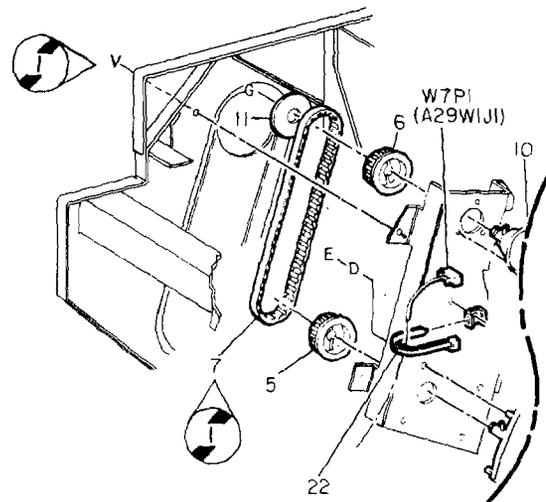
A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.



O	Z004	A
850	PL	M I

Figure 1 With Tag Symbol

A Tag number within a circle having a shaded bar and pointing to an item number shows that the configuration of the part shown is the configuration before the part was changed by the Tag number within the circle (Figure 2).



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850	PL	M I

Figure 2 Without Tag Symbol

A tag number within a circle with no apex shows that the entire drawing has been changed by the tag number within the circle (Figure 3). Information on the modification is in the Change Tag Index.

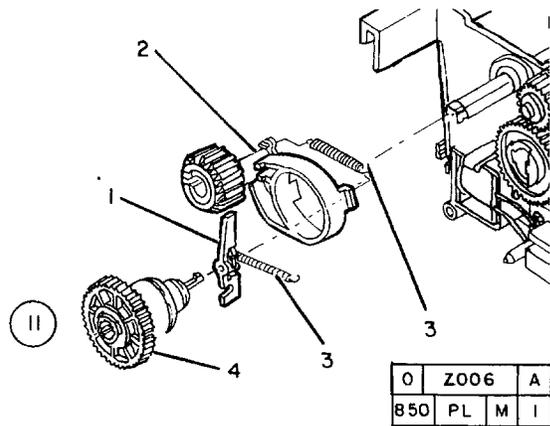


Figure 3 Entire Drawing With Tag Symbol

A tag number within a circle with no apex and having a shaded bar shows that the entire drawing was the configuration before being changed by the tag number within the circle (Figure 4).

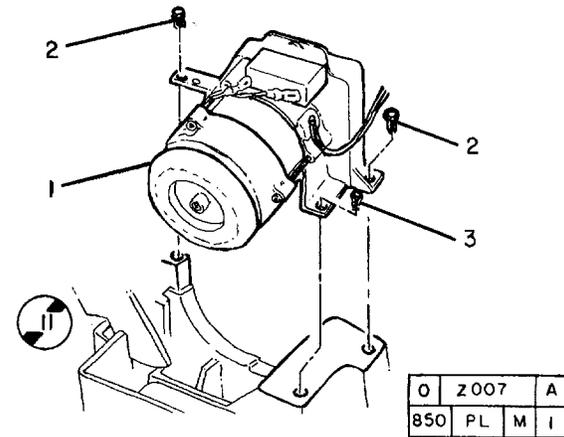
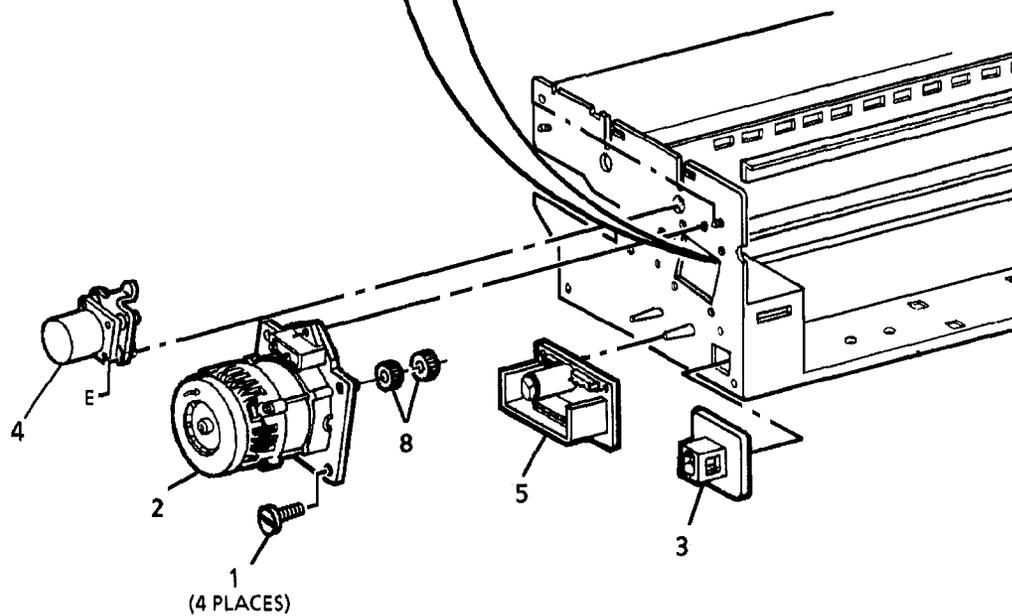
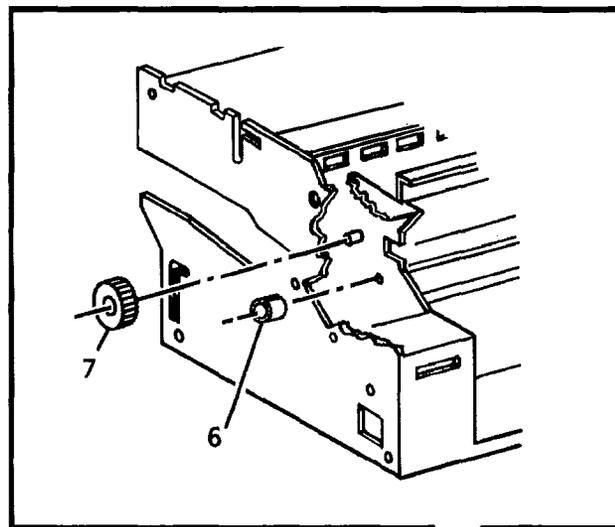


Figure 4 Entire Drawing Without Tag Symbol

PL 1.1 ELECTRICAL COMPONENTS/DRIVES

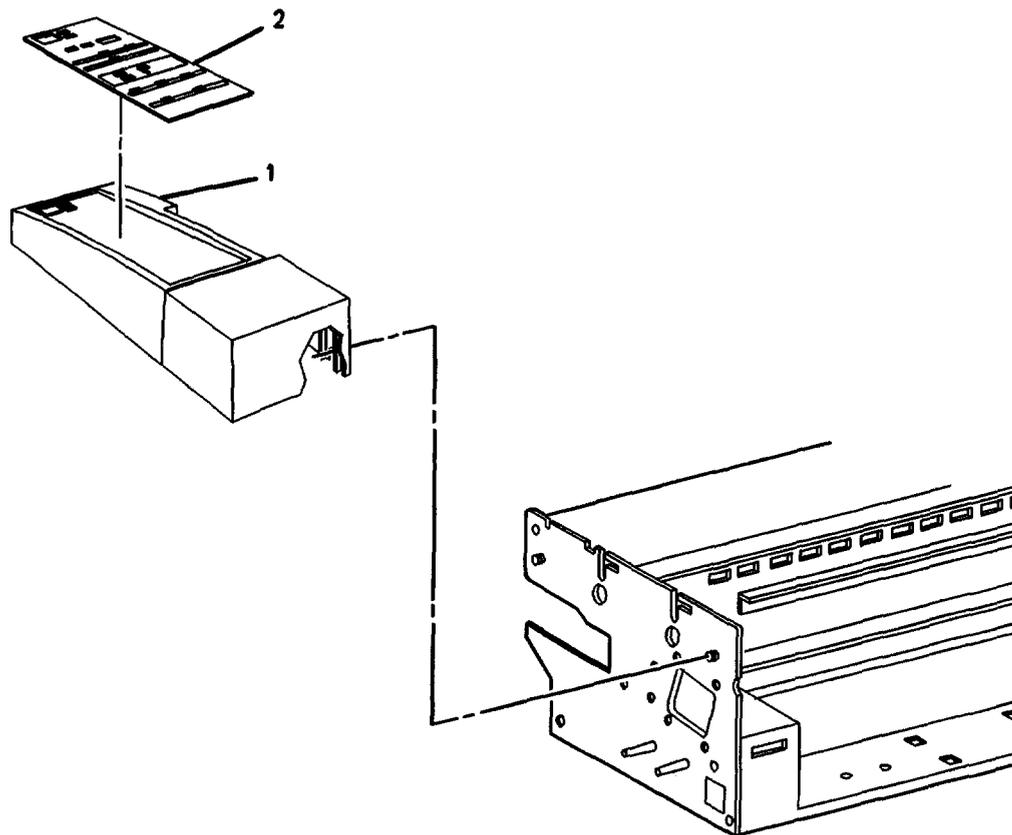
Item	Part	Description
1	26E3460	SCREW
2	127E833	MAIN DRIVE MOTOR (60HZ)
-	127E2360	MAIN DRIVE MOTOR (50HZ)
3	110P61609	AC INTERLOCK SWITCH
4	127K7242	DOCUMENT DRIVE MOTOR (REP 5.3)
5	140K15953	DOCUMENT DRIVE PWB
6	413W15555	SPLIT BUSHING
7	7E3980	IDLER GEAR
8	7E4010	GEAR



000001A-KER

PL 1.2 CONTROL PANEL

Item	Part	Description
1	160K54800	CONTROL PANEL (60HZ)
-	160K54810	CONTROL PANEL (50HZ)
2	891E74990	CONTROL PANEL LABEL (60HZ) (USO)
-	92P5800	CONTROL PANEL LABEL (FRENCH)(XL)
-	92P5801	CONTROL PANEL LABEL (GERMAN)(XL)
-	92P5802	CONTROL PANEL LABEL (ITALIAN)(XL)
-	92P5803	CONTROL PANEL LABEL (DUTCH)(XL)
-	92P5804	CONTROL PANEL LABEL (FINNISH)(XL)
-	92P5805	CONTROL PANEL LABEL (DANISH)(XL)
-	92P5806	CONTROL PANEL LABEL (SWEDISH)(XL)
-	92P5807	CONTROL PANEL LABEL (NORWEGIAN)(XL)
-	92P5808	CONTROL PANEL LABEL (PORTUGUESE)(XL)
-	92P5809	CONTROL PANEL LABEL (SPANISH)(XL)
-	92P5810	CONTROL PANEL LABEL (GREEK)(XL)

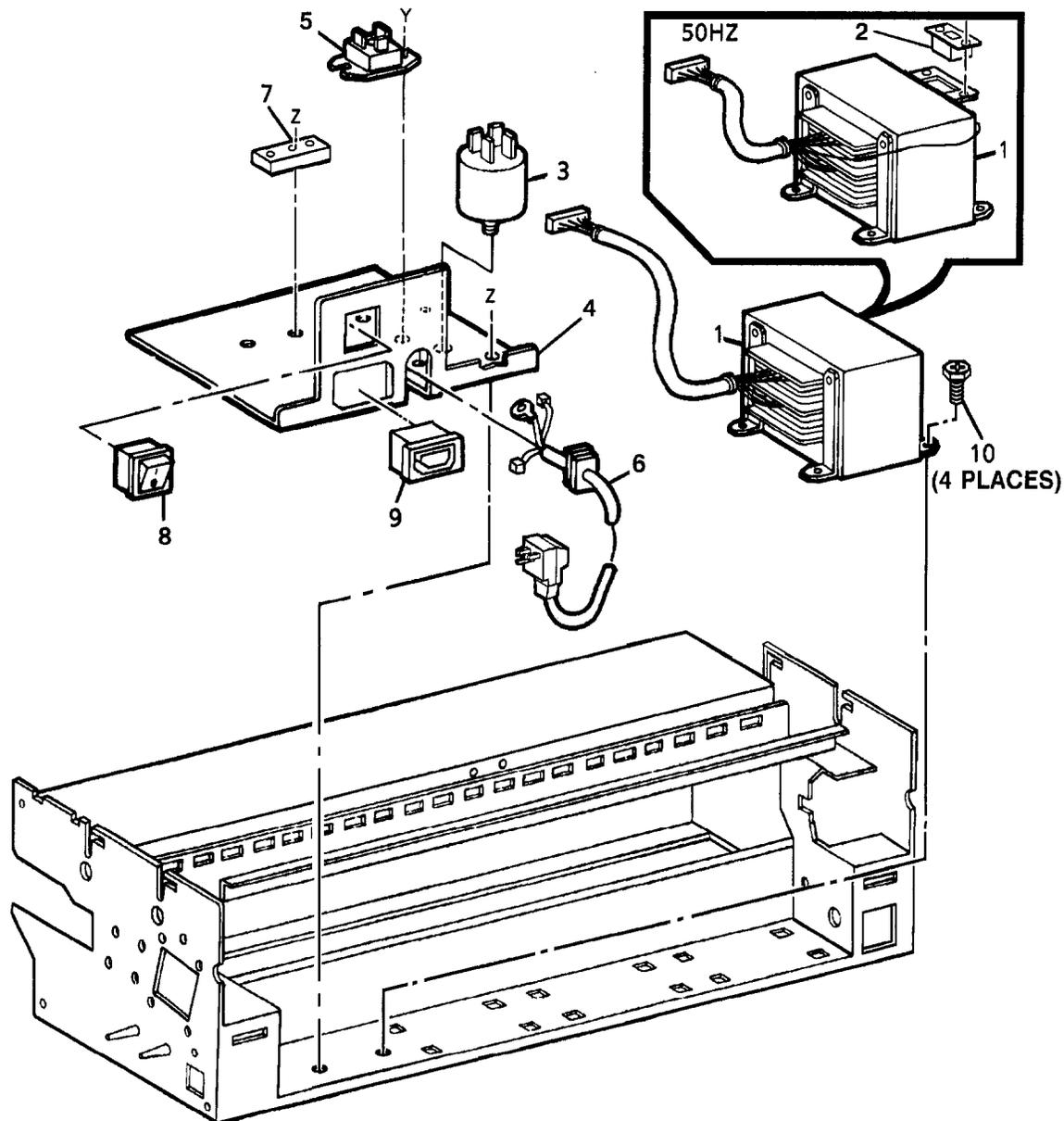


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PL 1.3 ELECTRICAL COMPONENTS

Item	Part	Description
1	105K833	TRANSFORMER (60HZ)
-	105K1084	TRANSFORMER (50HZ)
2	110E7290	VOLTAGE SWITCH (XL ONLY)
3	142P60142	LINE FILTER (60HZ)
-	142E480	LINE FILTER (50HZ)
4	-	BRACKET (NOT SPARED)
5	707W1651	TRIAC (60HZ) (REP 10.3)
-	707W1634	TRIAC (50HZ) (REP 10.3)
-	707W1652	TRIAC (ALTERNATE)(50HZ)
-	107E140	TRIAC (ALTERNATE)(50HZ)
6	117K13892	POWER CORD (GFI) (60HZ)
-	117P24303	POWER CORD (XL, 240V)
-	117P24088	POWER CORD (50HZ, 220V)
-	117K14141	POWER CORD (GFI) (XL)
7	108E1131	THERMAL FUSE (60HZ)
8	110E1240	ON/OFF POWER SWITCH
9	113K1070	AC POWER OUTLET (60HZ)
10	26E3460	SCREW

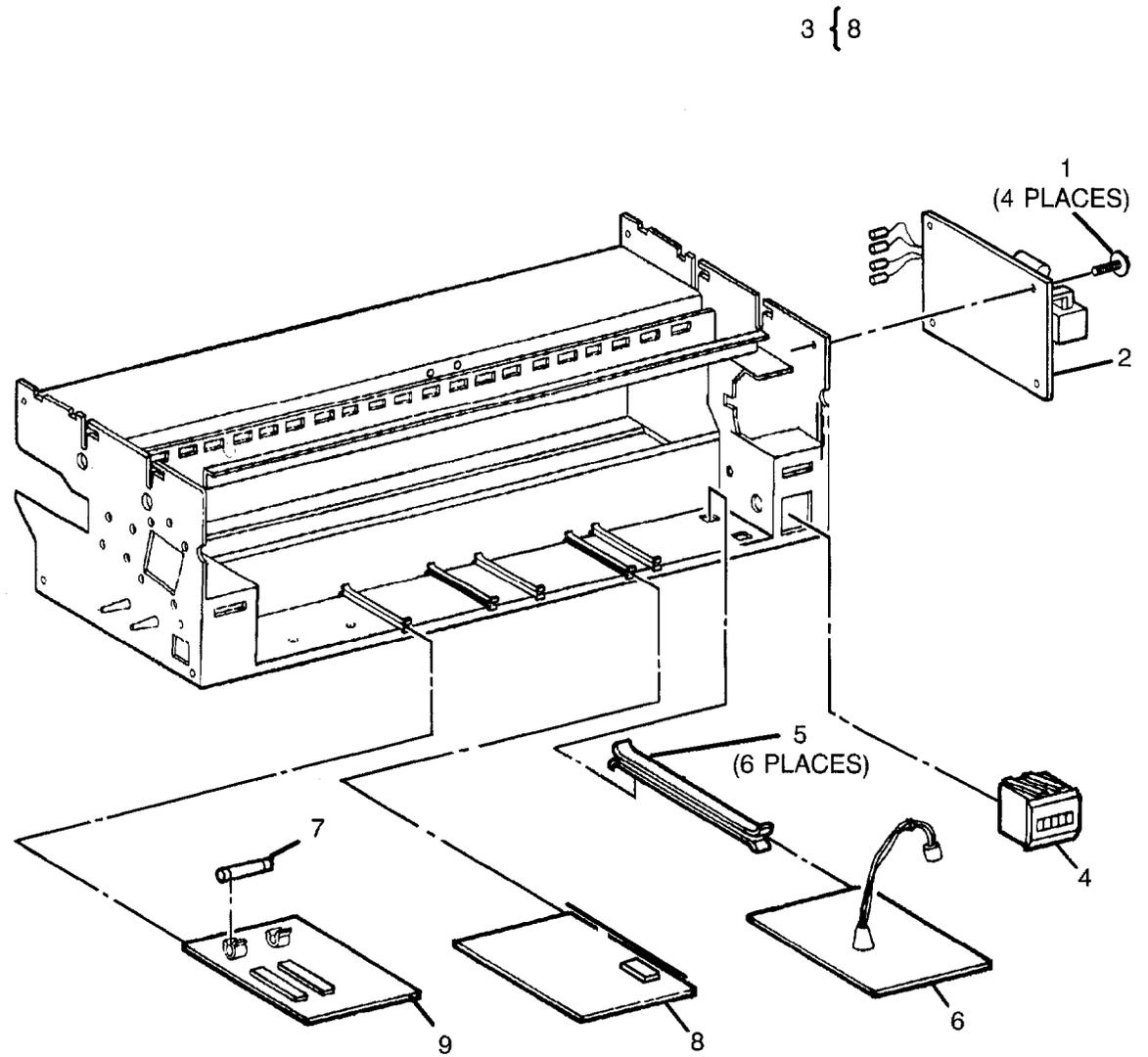
NOTE: THE FOLLOWING HARNESES ARE NOW AVAILABLE. 152K8863 HVPS HARNESS 152K8874 DC RIGHT FRAME HARNESS 152K11291 DC LEFT FRAME HARNESS.



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PL 1.4 ELECTRICAL COMPONENTS

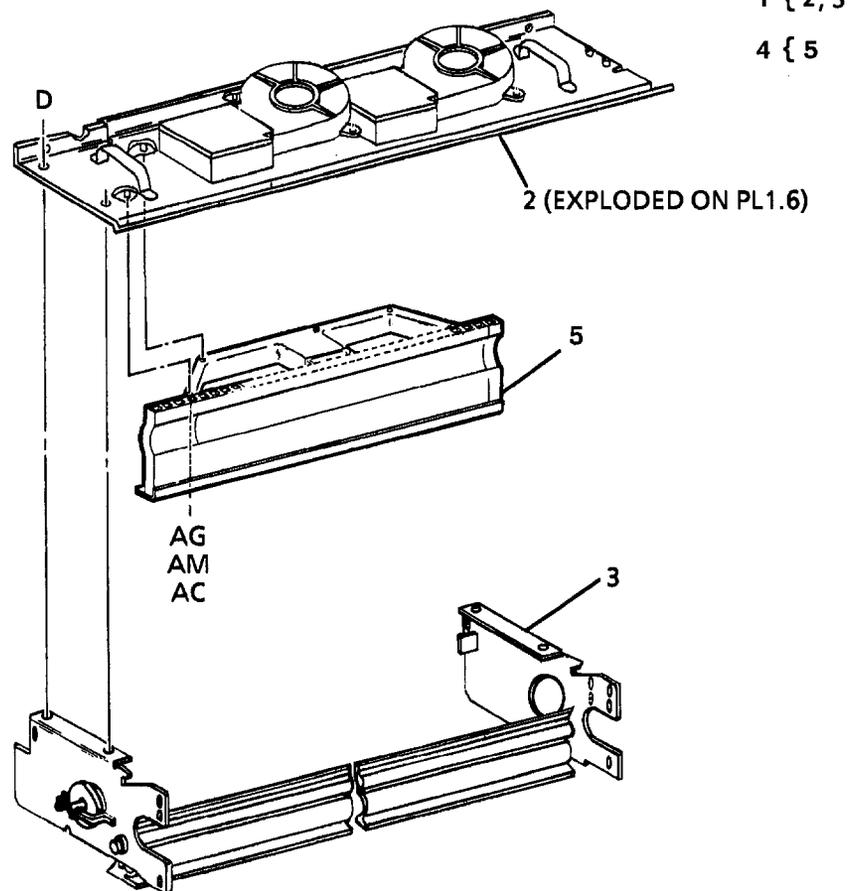
Item	Part	Description
1	26E3460	SCREW
2	105K2251	HIGH VOLTAGE POWER SUPPLY (REP 3.2)
3	140K62670	CONTROL PWB ASSEMBLY
4	111K21	COPY COUNT METER
5	101E1020	PWB GUIDE
6	104K53	EXPOSURE LAMP BALLAST
7	708W4501	SLO-BLO FUSE (2.0 AMP) (60HZ)
-	708W4001	SLO-BLO FUSE (1.0 AMP) (50HZ)
8	140K27841	CONTROL PWB (REP 3.1)
9	140K21431	LOW VOLTAGE POWER SUPPLY
-	140K7902	LOW VOLTAGE POWER SUPPLY (ALTERNATE) (USO)
-	140K21430	LOW VOLTAGE POWER SUPPLY (ALTERNATE)



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PL 1.5 COOLING

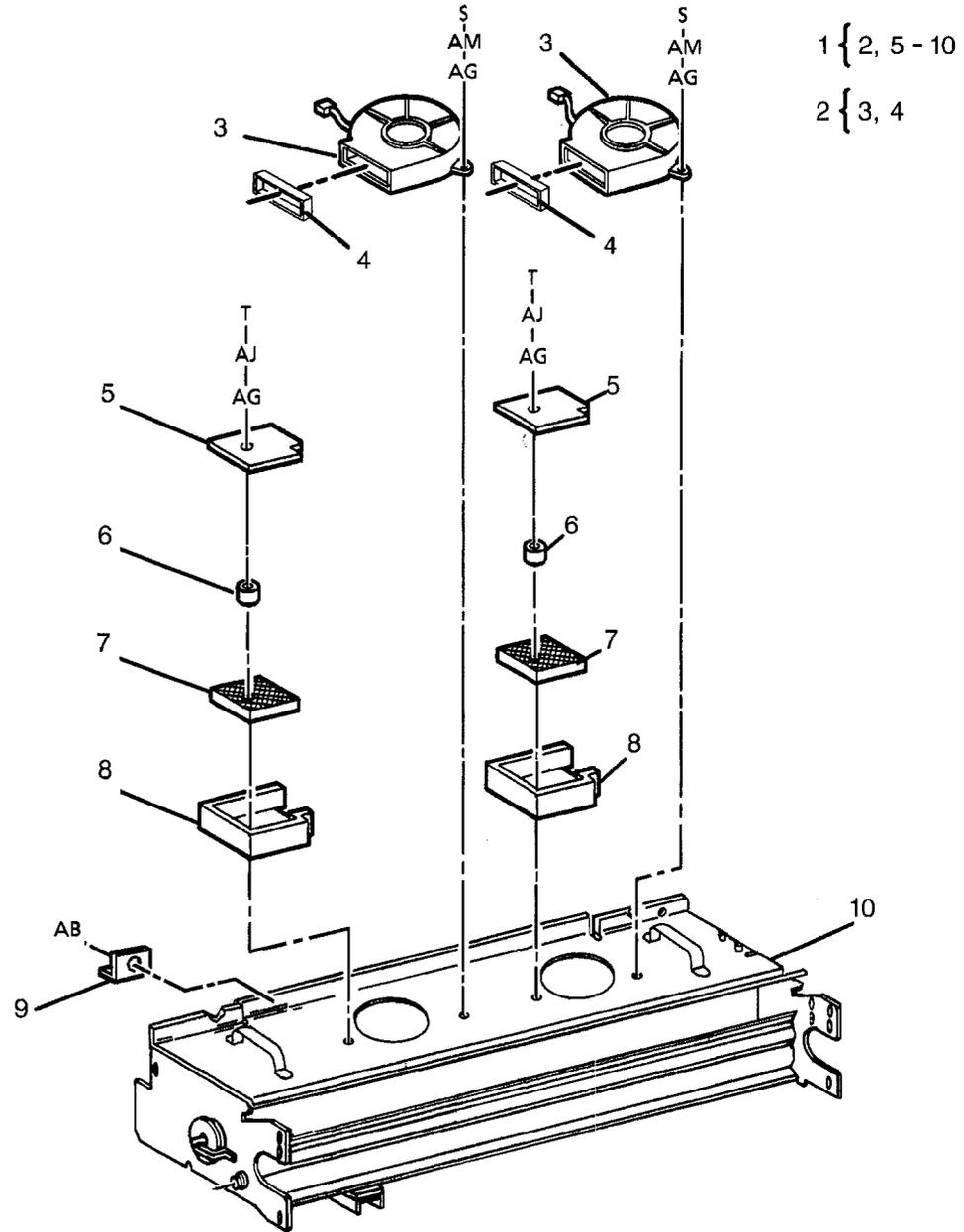
Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	-	MACHINE COOLING (P/O PL 1.5 item 1)
3	-	XEROGRAPHIC FRAME (P/O PL 1.5 item 1)
4	600K52780	AIR FLOW MANIFOLD KIT
5	-	AIR FLOW MANIFOLD (P/O PL 1.5 item 4)



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PL 1.6 COOLING

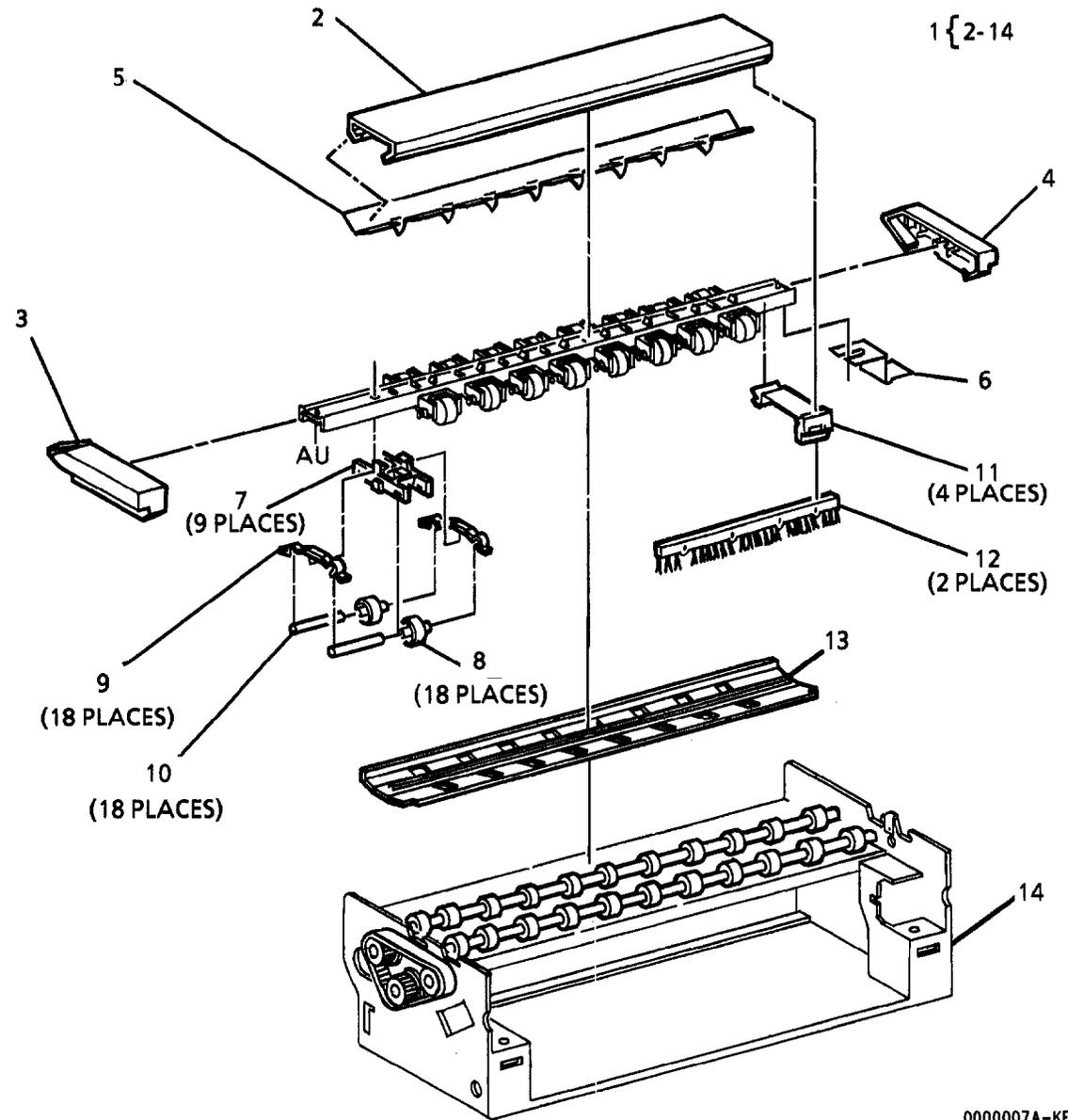
Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	127K2671	COOLING FAN ASSEMBLY
3	127K17160	COOLING FAN
4	-	SEAL (P/O PL 1.6 item 2)
5	2E13120	FILTER COVER
6	4E1000	FILTER DAMPER
7	53E690	OZONE FILTER
8	2E13110	FILTER HOUSING
9	110K771	TRANSPORT LATCHING COVER INTERLOCK SWITCH
10	-	XEROGRAPHIC FRAME (P/O PL 1.6 item 1)



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PL 5.1 DOCUMENT HANDLER

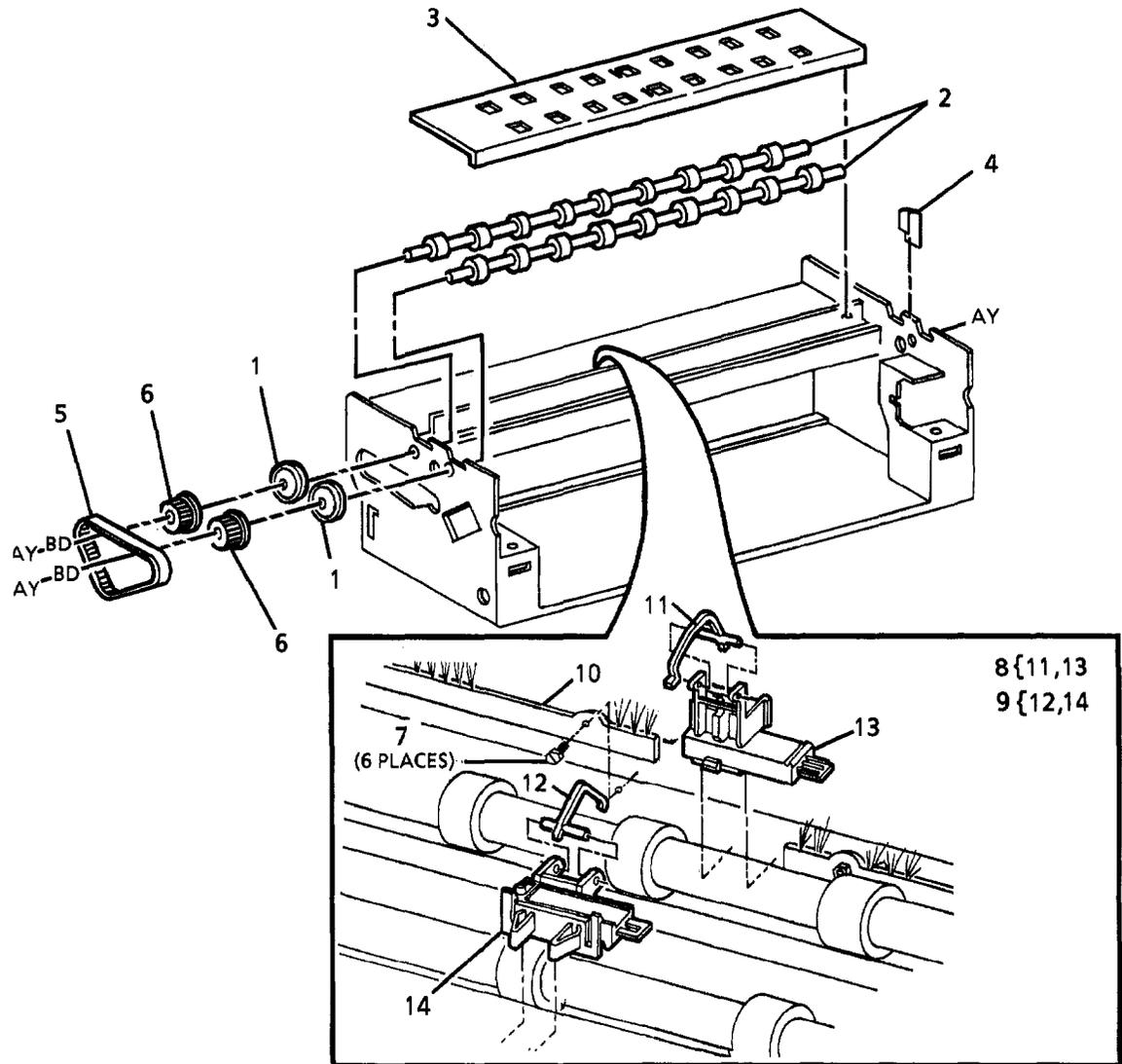
Item	Part	Description
1	22K13913	DOCUMENT HANDLER ASSEMBLY
2	-	DOCUMENT HANDLER HOUSING (P/O PL 5.1 item 1)
3	21E8270	RIGHT END CAP
4	21E8280	LEFT END CAP
5	38E7360	PLASTIC STRIPPER
6	30E61992	GROUND CLIP
7	31E3561	IDLER ROLL SUPPORT
8	22E7280	IDLER ROLLER (REP 5.1)
9	9E21410	FLAT SPRING (REP 5.1)
10	6E19570	IDLER SHAFT (REP 5.1)
11	19E14671	STATIC ELIMINATOR CLIP (4 PLACES)
12	115E1410	STATIC ELIMINATOR (2 PLACES)
13	17E3700	TRANSPORT PLATEN
14	-	DOCUMENT HANDLER FRAME (P/O PL 5.1 item 1)



000007A-KER

PL 5.2 DOCUMENT DRIVE

Item	Part	Description
1	413W30854	BEARING
2	6K6961	LOWER DOCUMENT FEED ROLL (REP 5.2)
3	90E581	PLATEN
4	30E62001	GROUND CLIP
5	23E4880	DOCUMENT TRANSPORT DRIVE BELT
6	20E10561	DRIVE PULLEY
7	26E10540	SCREW
8	110K3802	REAR DOCUMENT SENSOR ASSEMBLY
9	110K3980	FRONT DOCUMENT SENSOR ASSEMBLY
10	115E2160	STATIC ELIMINATOR
11	110E3452	SWITCH ACTUATOR
12	110E3680	SWITCH ACTUATOR
13	-	REAR DOCUMENT SENSOR (P/O PL 5.2 item 8)
14	-	FRONT DOCUMENT SENSOR (P/O PL 5.2 item 9)

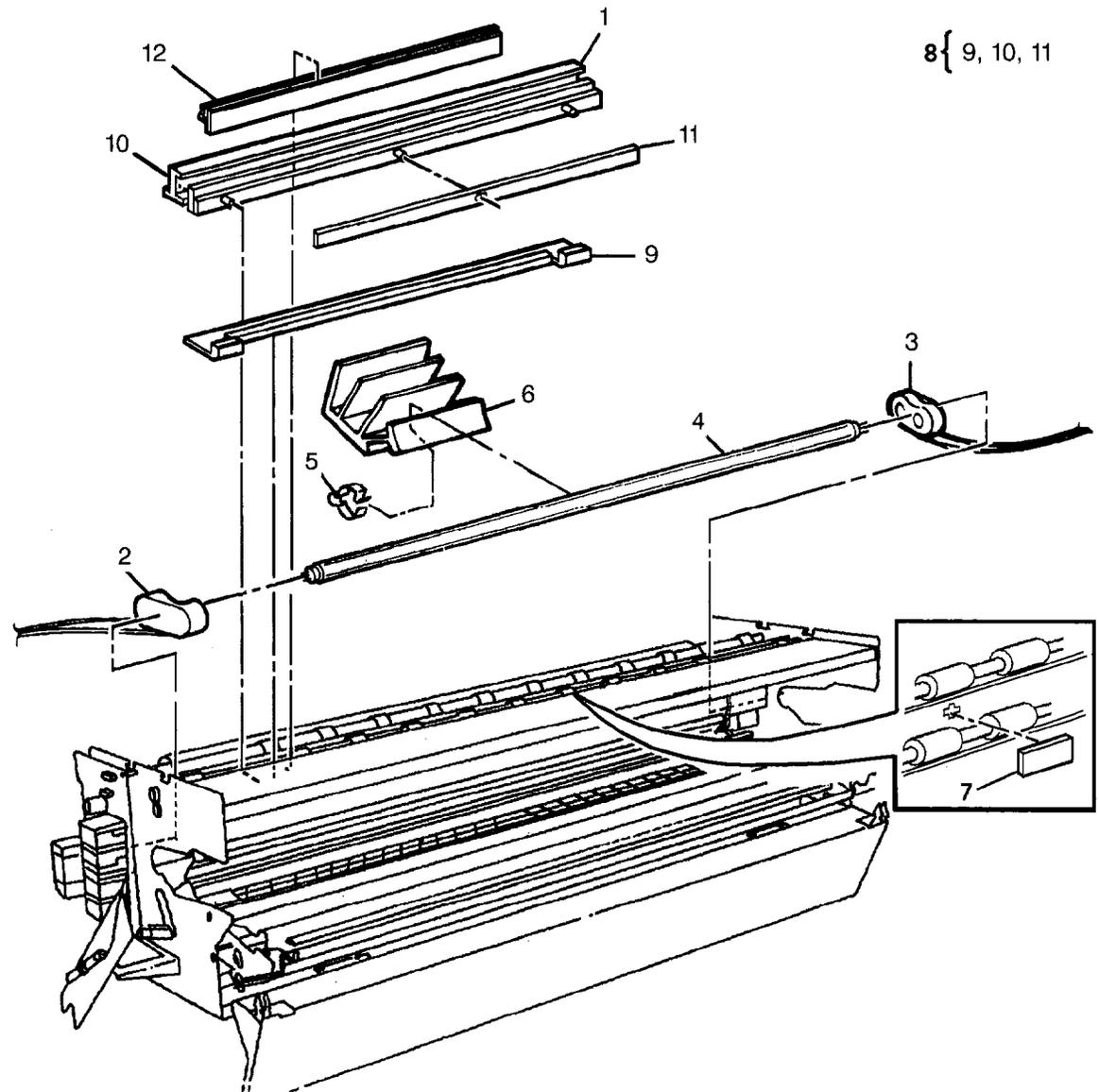


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9 {12,14

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PL 6.1 OPTICS

Item	Part	Description
1	62K4821	LENS (REP 6.2)
2	113K183	LEFT EXPOSURE LAMP SOCKET
3	113K193	RIGHT EXPOSURE LAMP SOCKET
4	122E302	EXPOSURE LAMP (REP 6.1)
5	19E6980	HEAT SINK MOUNTING SPRING
6	120E2470	HEAT SINK
7	130K52840	ILLUMINATION SENSOR
8	600K24052	LIGHT LEAK REPAIR KIT
9	-	SEAL (P/O PL 6.1 item 8)
10	-	SHIELD (P/O PL 6.1 item 8)
11	-	MAGNET (P/O PL 6.1 item 8)
12	35K4101	LIGHT LENS SEAL

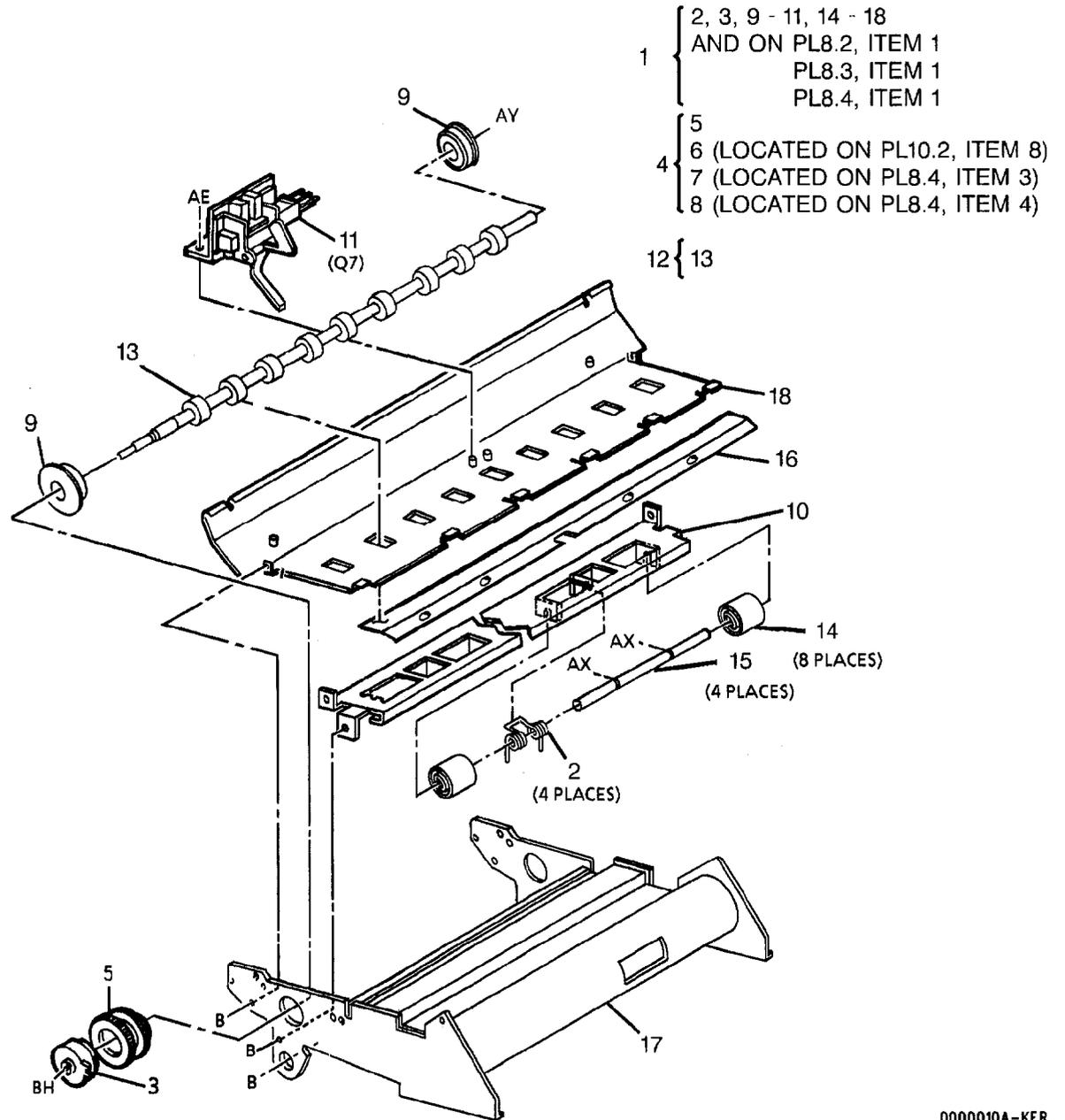


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PL 8.1 MEDIA TRANSPORT

Item	Part	Description
1	22K16156	MEDIA TRANSPORT ASSEMBLY (60HZ) (REP 8.1)
-	22K18906	MEDIA TRANSPORT ASSEMBLY (50HZ) (REP 8.1)
2	9E38200	TENSION SPRING (REP 8.3)
3	121E942	MEDIA FEED CLUTCH
4	600K3773	DRIVE GEAR KIT (USO) (REF: PL 10.2 item 7)
5	7K412	GEAR/SPROCKET (XL)
6	-	FUSER DRIVE GEAR (XL) (P/O PL 8.1 item 4) (REF: PL 10.2 item 8)
7	-	LEFT LATCH SPRING (P/O PL 8.1 item 4) (REF: PL 8.4 item 3)
8	-	RIGHT LATCH SPRING (P/O PL 8.1 item 4) (REF: PL 8.4 item 4)
9	413W31054	BEARING
10	-	BRACKET (P/O PL 8.1 item 1)
11	110K3731	PREFEED SENSOR (Q7)
12	600K30921	TRANSPORT UPGRADE KIT (USO)
-	600K36790	TRANSPORT UPGRADE KIT (XL)
13	6K10251	UPPER MEDIA FEED ROLL (REP 8.2)
14	22E9390	MEDIA IDLER ROLL (REP 8.3)
15	6E31560	IDLER ROLL SHAFT (REP 8.3)
16	38E9210	LEAD IN GUIDE
17	-	MEDIA TRANSPORT FRAME (P/O PL 8.1 item 1)
18	-	BAFFLE (P/O PL 8.1 item 1)

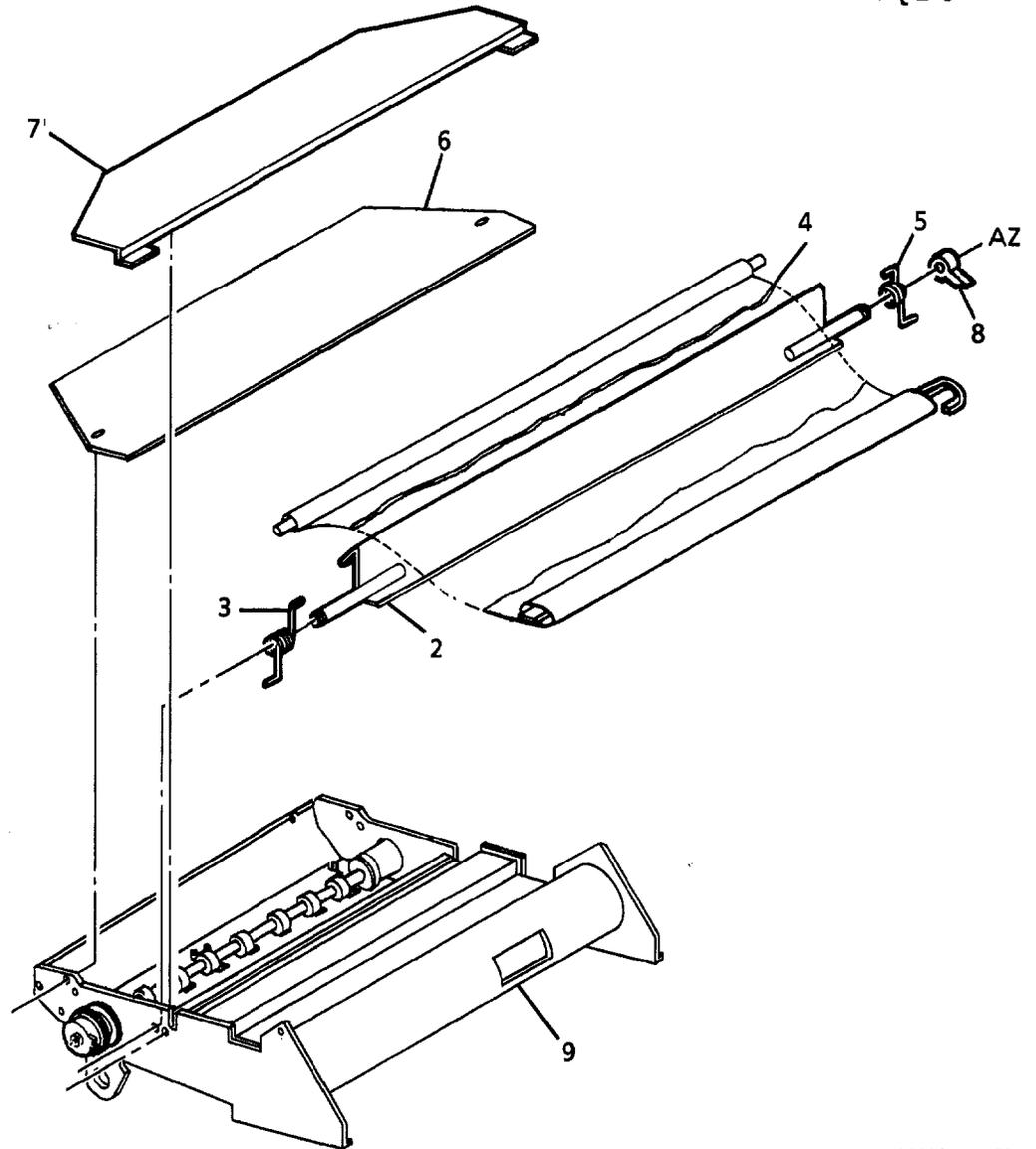


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PL 8.2 FABRIC GUIDE AND MEDIA FEED

Item	Part	Description
1	-	PART OF MEDIA TRANSPORT ASSEMBLY (REF: PL 8.1 item 1)
2	30K23302	FABRIC GUIDE TENSIONING ASSEMBLY
3	9E4011	RIGHT SPRING
4	8R3822	FABRIC GUIDE (60HZ) (REP 8.5)
-	23E3941	FABRIC GUIDE (50HZ) (REP 8.5)
5	9E4021	LEFT SPRING
6	9E23560	FUSER PRESSURE PLATE (60HZ)
-	9E3782	FUSER PRESSURE PLATE (50HZ)
7	55E9991	MEDIA GUIDE PLATE
8	31E1310	RETRACT ARM
9	-	MEDIA TRANSPORT FRAME (P/O PL 8.2 item 1)

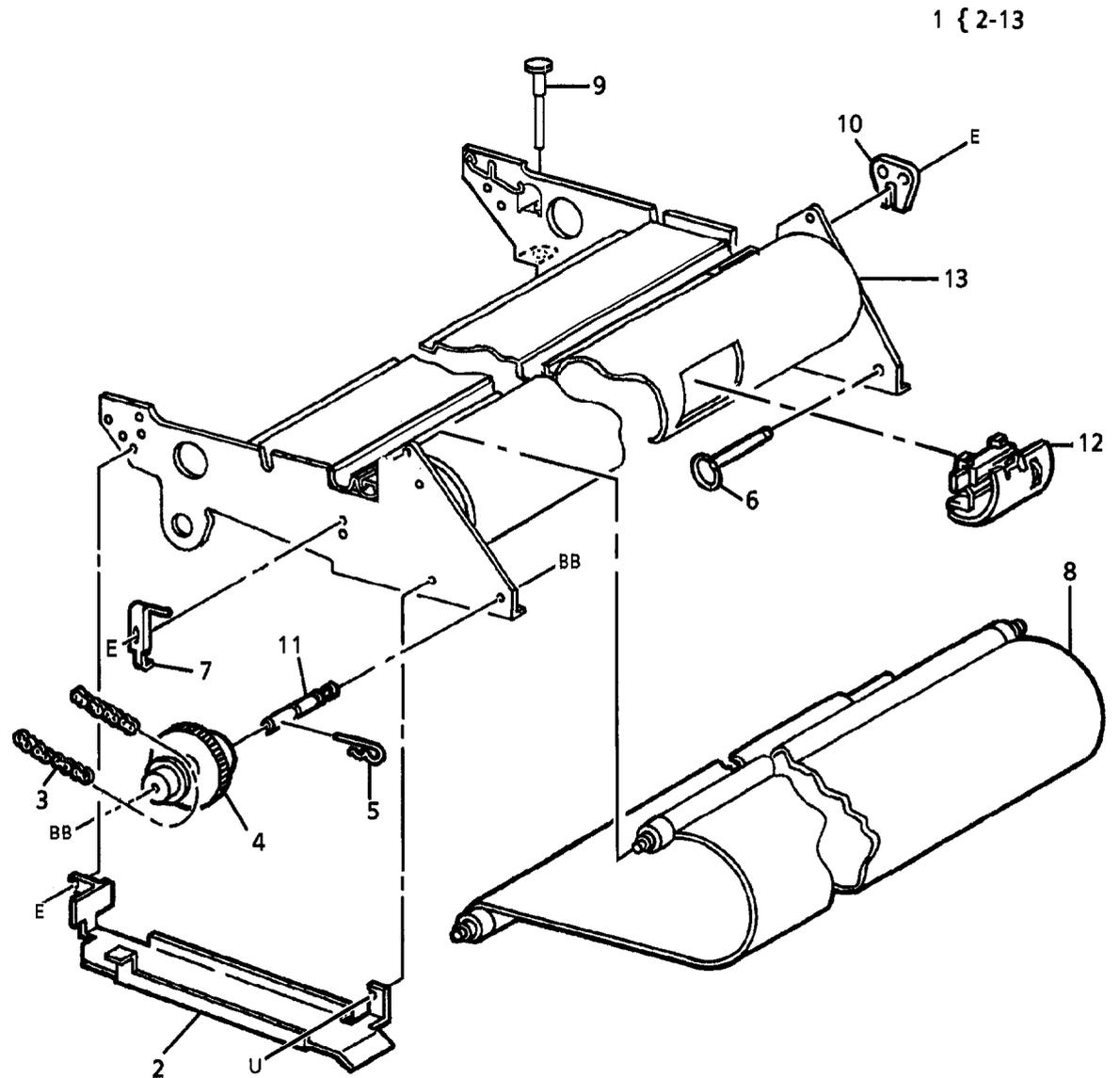
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PL 8.3 COROTRONS AND DRIVES

Item	Part	Description
1	-	PART OF MEDIA TRANSPORT ASSEMBLY (REF: PL 8.1 item 1)
2	55E8380	CHAIN GUARD
3	23E1360	CHAIN
4	7E2151	MAIN DRIVE GEAR
5	29E3360	PIN
6	29K530	LEFT HAND PIVOT SHAFT
7	19E3080	COROTRON CLIP
8	-	TURNAROUND BAFFLE (P/O PL 8.3 item 1)
9	10E2481	RETRACT PIN
10	19E3090	COROTRON CLAMP
11	6E3031	RIGHT HAND PIVOT SHAFT
12	130K16232	MOTION SENSOR (REP 8.4)
13	-	MEDIA TRANSPORT FRAME (P/O PL 8.3 item 1)

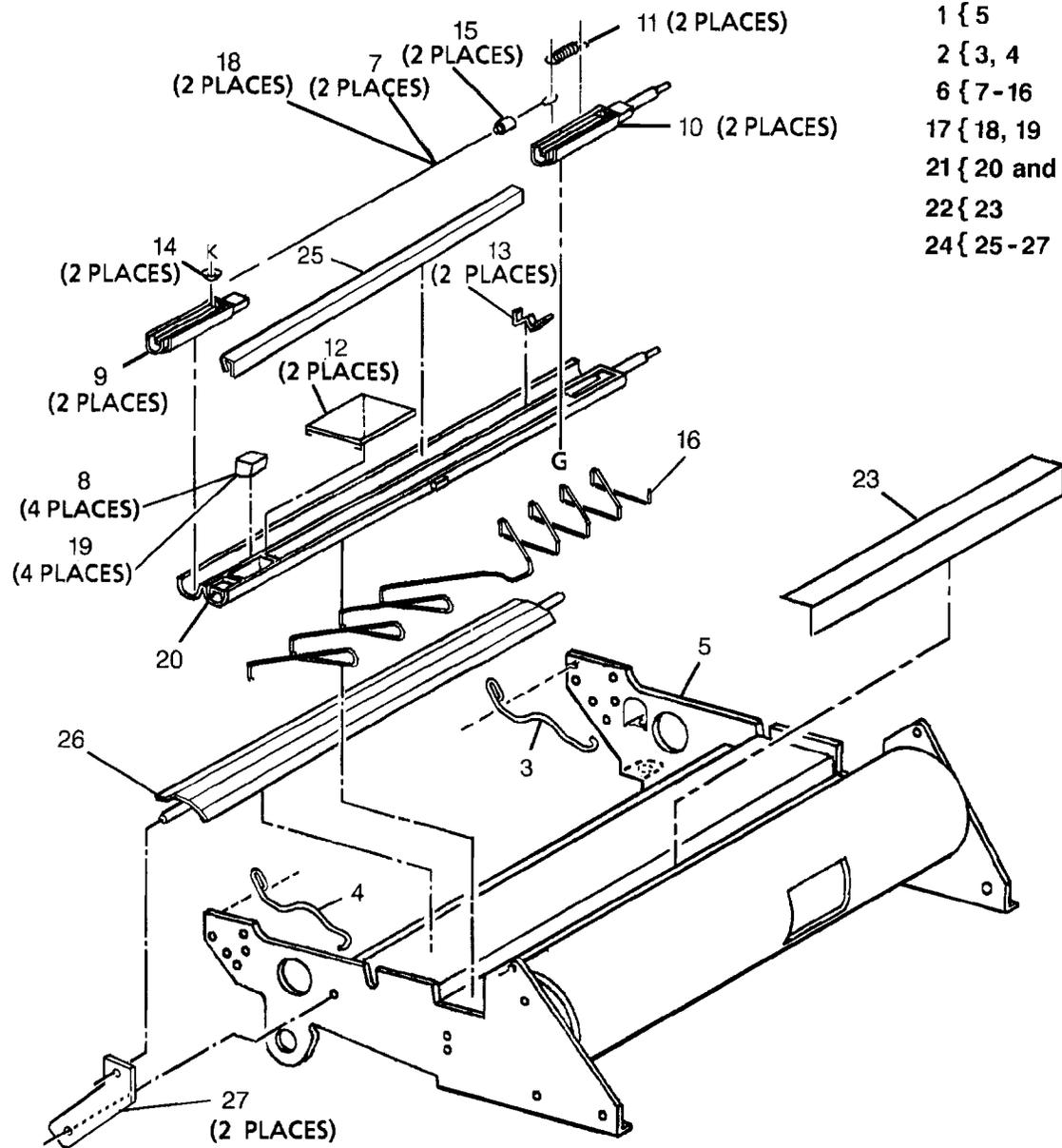


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PL 8.4 COROTRONS

Item	Part	Description
1	-	PART OF MEDIA TRANSPORT ASSEMBLY (REF: PL 8.1 item 1)
2	600K37360	LATCH REPAIR KIT
3	9E49190	LEFT LATCH SPRING (REF: PL 8.1 item 7) (REF :PL 10.2 item 10)
4	9E49180	RIGHT LATCH SPRING (REF: PL 8.1 item 8) (REF :PL 10.2 item 11)
5	-	MEDIA TRANSPORT FRAME (P/O PL 8.4 item 1)
6	600K19352	COROTRON REPAIR KIT (SEE NOTE)
7	-	COROTRON WIRE (2/KIT) (P/O PL 8.4 item 6)
8	-	FOAM DAMPER (4/KIT) (P/O PL 8.4 item 6)
9	-	FRONT BLOCK (2/KIT) (P/O PL 8.4 item 6)
10	-	REAR BLOCK (2/KIT) (P/O PL 8.4 item 6)
11	9E18551	COROTRON EXTENSION SPRING (2/ KIT)
12	-	ARC SHIELD (2/ KIT) (P/O PL 8.4 item 6)
13	-	WIRE RETAINER (2/ KIT) (P/O PL 8.4 item 6)
14	-	COROTRON WIRE CLAMP (2/ KIT) (P/O PL 8.4 item 6)
15	-	FERRITE BEAD (2/ KIT) (P/O PL 8.4 item 6)
16	117E6911	COROTRON YARN
17	600K15861	COROTRON WIRE KIT (SEE NOTE)
18	-	COROTRON WIRE (2/KIT) (P/O PL 8.4 item 17)
19	-	FOAM DAMPER (4/KIT) (P/O PL 8.4 item 17)
20	-	SHIELD (P/O PL 8.4 item 21)
21	125K184	TRANSFER/DETACK COROTRON (USO)
-	125K1051	TRANSFER/DETACK COROTRON (XL)
22	600K24350	MEDIA GUIDE KIT
23	-	GUIDE (P/O PL 8.4 item 22)
24	600K45680	SNAKE DELETION KIT
25	55E30940	COROTRON SHIELD
26	-	CORROGATOR (P/O PL 8.4 item 24)
27	-	BRACKET (P/O PL 8.4 item 24)



- 1 { 5
- 2 { 3, 4
- 6 { 7-16
- 17 { 18, 19
- 21 { 20 and 7-16
- 22 { 23
- 24 { 25-27

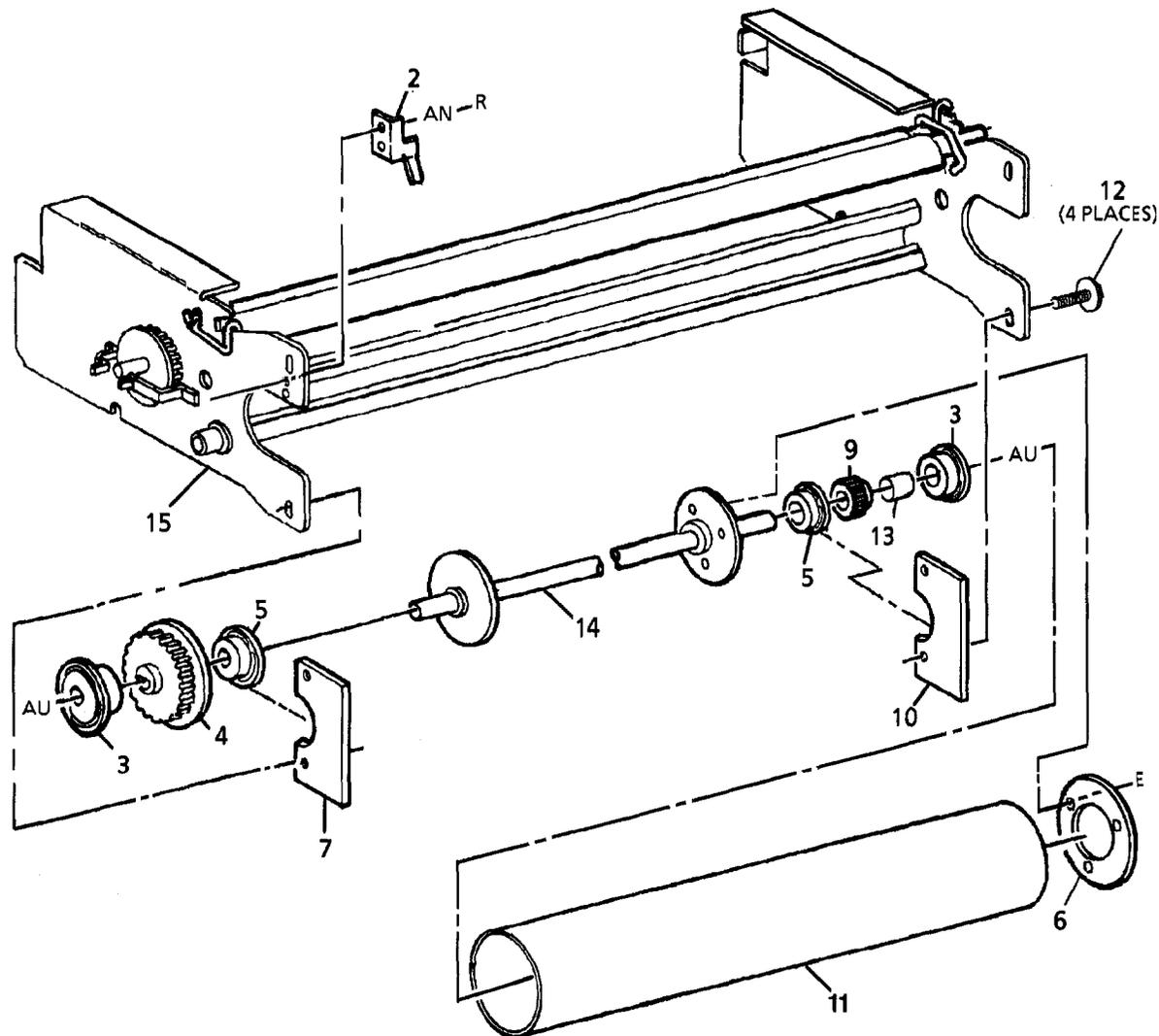
NOTE: ITEM 6 MUST BE IN PLACE BEFORE USING ITEM 17.

0000013A-KER

PL 9.1 PHOTORECEPTOR DRUM

Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	30E16161	GROUND BRACKET
3	13K380	BEARINGS
4	20E2311	INNER DRUM PULLEY
5	413W31553	BEARING
6	-	DRUM END PLATE (P/O PL 9.1 item 8)
7	-	LEFT DRUM BRACKET (P/O PL 9.1 item 1)
8	6K6571	PHOTORECEPTOR DRUM ASSEMBLY (REP 9.2, ADJ 9.3)
9	7E1340	AUGER DRIVE GEAR
10	-	RIGHT DRUM BRACKET (P/O PL 9.1 item 1)
11	1R552	PHOTORECEPTOR DRUM (REP 9.3, ADJ 9.2)
12	26E3460	SCREW (M4)
13	-	SPACER (P/O PL 9.1 item 8)
14	-	PHOTORECEPTOR SHAFT (P/O PL 9.1 item 8)
15	-	XEROGRAPHIC FRAME (P/O PL 9.1 item 1)

1 { 2, 7, 8, 10-12, 15
8 { 3-6, 9, 13, 14

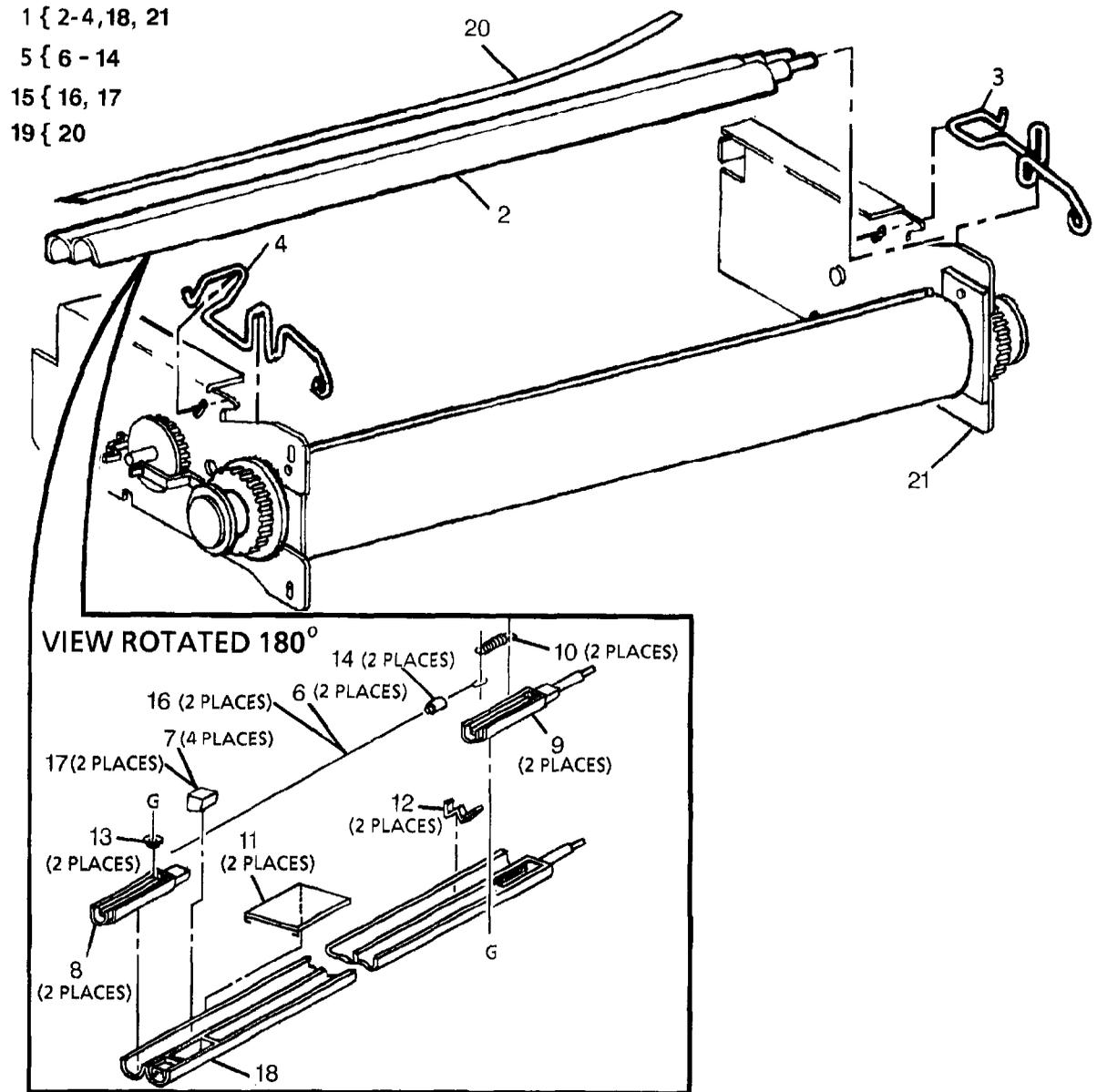


0000014A-KER

PL 9.2 PHOTORECEPTOR MODULE

Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	125K992	CHARGE/PRECHARGE COROTRON (REP 9.9, ADJ 9.2)
3	9E8590	RIGHT COROTRON RETAINING SPRING
4	9E8600	LEFT COROTRON RETAINING SPRING
5	600K19352	COROTRON REPAIR KIT (SEE NOTE)
6	-	COROTRON WIRE (2/KIT) (P/O PL 9.2 item 5)
7	-	FOAM DAMPER (4/KIT) (P/O PL 9.2 item 5)
8	-	FRONT BLOCK (2/KIT) (P/O PL 9.2 item 5)
9	-	REAR BLOCK (2/KIT) (P/O PL 9.2 item 5)
10	9E18551	COROTRON EXTENSION SPRING (2/KIT)
11	-	ARC SHIELD (2/KIT) (P/O PL 9.2 item 5)
12	-	WIRE RETAINER (2/KIT) (P/O PL 9.2 item 5)
13	-	COROTRON WIRE CLAMP (2/KIT) (P/O PL 9.2 item 5)
14	-	FERRITE BEAD (2/KIT) (P/O PL 9.2 item 5)
15	600K15861	COROTRON WIRE KIT (SEE NOTE)
16	-	COROTRON WIRE (2/KIT) (P/O PL 9.2 item 15)
17	-	FOAM DAMPER (4/KIT) (P/O PL 9.2 item 15)
18	-	SHIELD (NOT SPARED)
19	600K20990	LIGHT LEAK REPAIR KIT (USO)
20	-	TAPE (P/O PL 9.2 item 19)
21	-	XEROGRAPHIC FRAME (P/O PL 9.2 item 1)

NOTE: ITEM 5 MUST BE IN PLACE BEFORE USING ITEM 15.

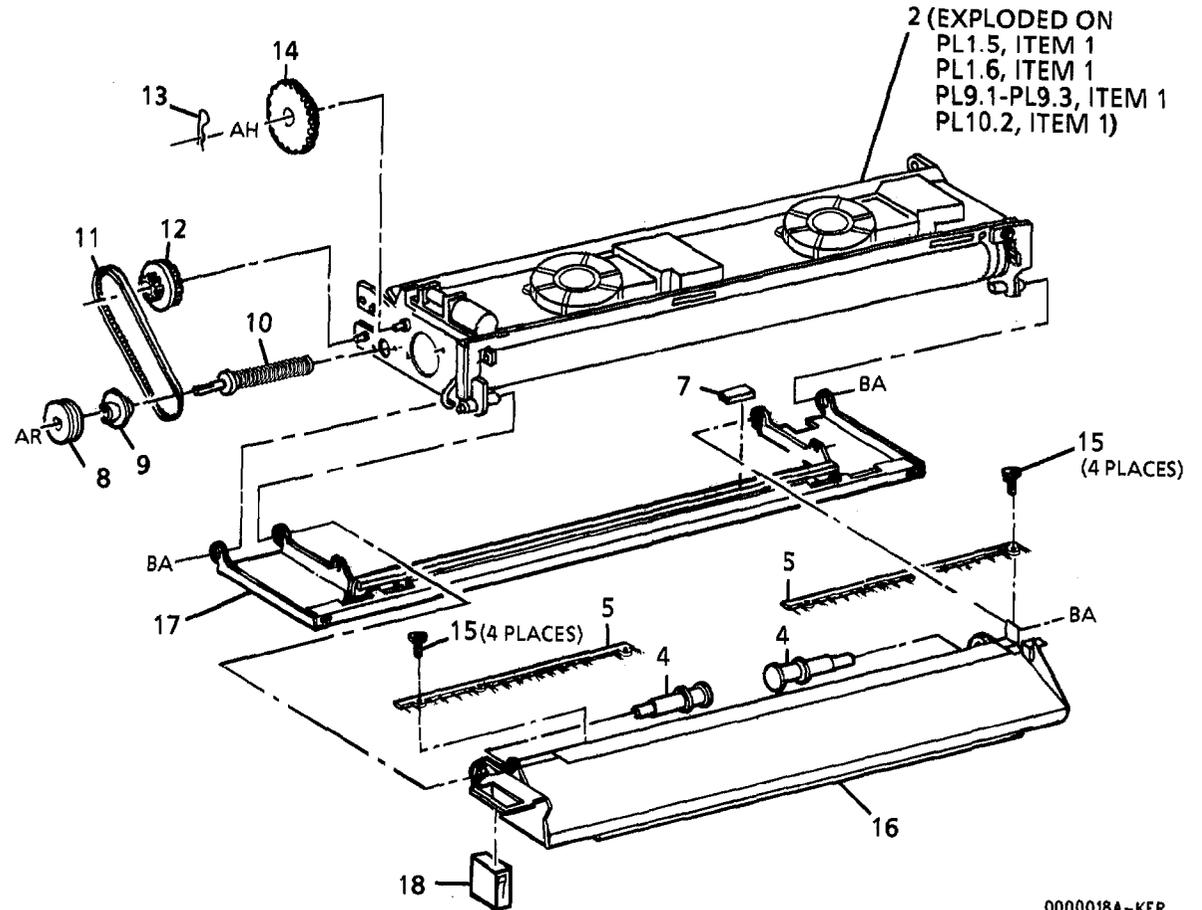


000015A-KER

PL 10.1 FUSER

Item	Part	Description
1	2K21519	XEROGRAPHIC MODULE ASSEMBLY (60HZ) (REP 9.1)
-	2K29508	XEROGRAPHIC MODULE ASSEMBLY (50HZ) (REP 9.1)
2	-	XEROGRAPHIC FRAME (P/O PL 10.1 item 1)
3	2K23402	FRONT COVER ASSEMBLY (60HZ)
-	2K31940	FRONT COVER ASSEMBLY (50HZ)
4	-	PIN (P/O PL 10.1 item 1)
5	115E1410	ANTI-STATIC BRUSH
6	3K9270	TRANSPORT LATCHING COVER ASSEMBLY
7	121E2400	INTERLOCK MAGNET
8	20E4350	AUGER PULLEY
9	13E803	AUGER BEARING
10	94K85	AUGER
11	23E1620	AUGER DRIVE BELT
12	7E5221	PULLEY/GEAR
13	29E3560	COTTER PIN
14	7E1331	TRANSITION GEAR
15	26E17000	SCREW
16	48E57930	FRONT COVER (60HZ)
17	3E44690	TRANSPORT LATCHING COVER MAGNET
18	3P2243	MAGNET

1 { 2,4,8-14
 3 { 5,15,16,18
 6 { 7,17

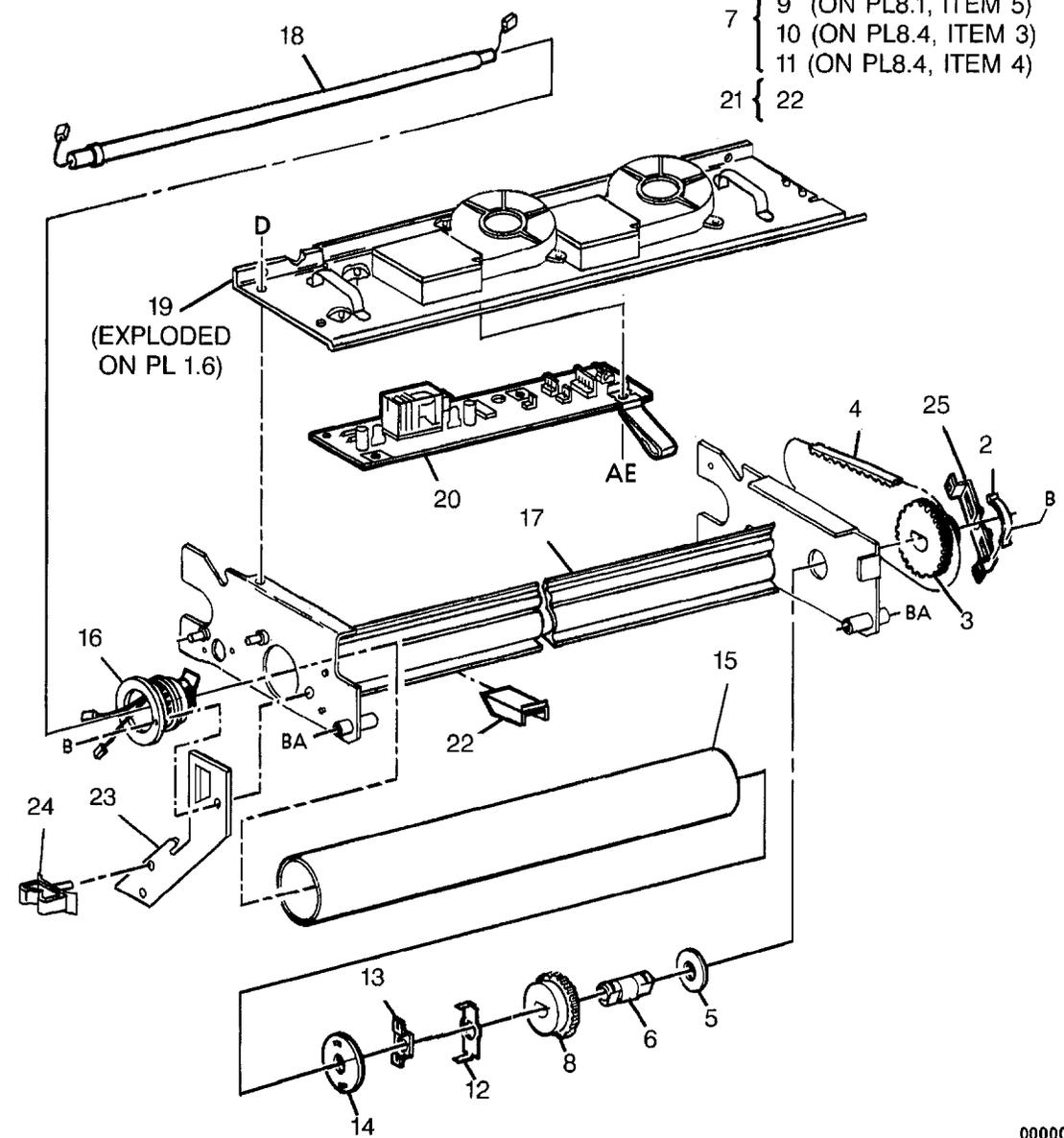


0000018A-KER

PL 10.2 FUSER COMPONENTS

Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	9E2701	HEAT ROD RETAINER
3	20E2290	FUSER PULLEY
4	423W59202	DRUM DRIVE BELT
5	115E2230	GROUND RING
6	-	SHAFT (P/O PL 10.2 item 1)
7	-	DRIVE GEAR KIT (USO) (REF: PL 8.1 item 4)
8	7K762	FUSER DRIVE GEAR (REP 10.6)
9	-	GEAR/SPROCKET (P/O PL 10.2 item 7) (REF: PL 8.1 item 5)
10	-	LEFT LATCH SPRING (P/O PL 10.2 item 7) (REF: PL 8.4 item 3)
11	-	RIGHT LATCH SPRING (P/O PL 10.2 item 7) (REF: PL 8.4 item 4)
12	-	HEAT REFLECTOR MOUNTING BRACKET (P/O PL 10.2 item 1)
13	30E19880	FUSER GROUND
14	-	HEAT REFLECTOR (P/O PL 10.2 item 1)
15	22K3483	FUSER ROLL (REP 10.2)
16	13K442	FUSER ROLL BEARING
17	-	XEROGRAPHIC FRAME (P/O PL 10.2 item 1)
18	126E112	FUSER HEAT ROD (60HZ) (REP 10.1, ADJ 10.1)
-	126E121	FUSER HEAT ROD (50HZ) (REP 10.1, ADJ 10.1)
19	-	MACHINE COOLING (P/O PL 10.2 item 1)
20	130K33352	THERMISTOR PWB (REP 10.7, ADJ 10.1)
21	600K8481	MEDIA GUIDE DEFLECTOR KIT
22	-	MEDIA GUIDE (7/KIT) (P/O PL 10.2 item 21)
23	-	FUSER ROD BRACKET (P/O PL 10.2 item 1)
24	120E5540	WIRE SADDLE (CLIP)
25	-	BRACKET (P/O PL 10.2 item 1)

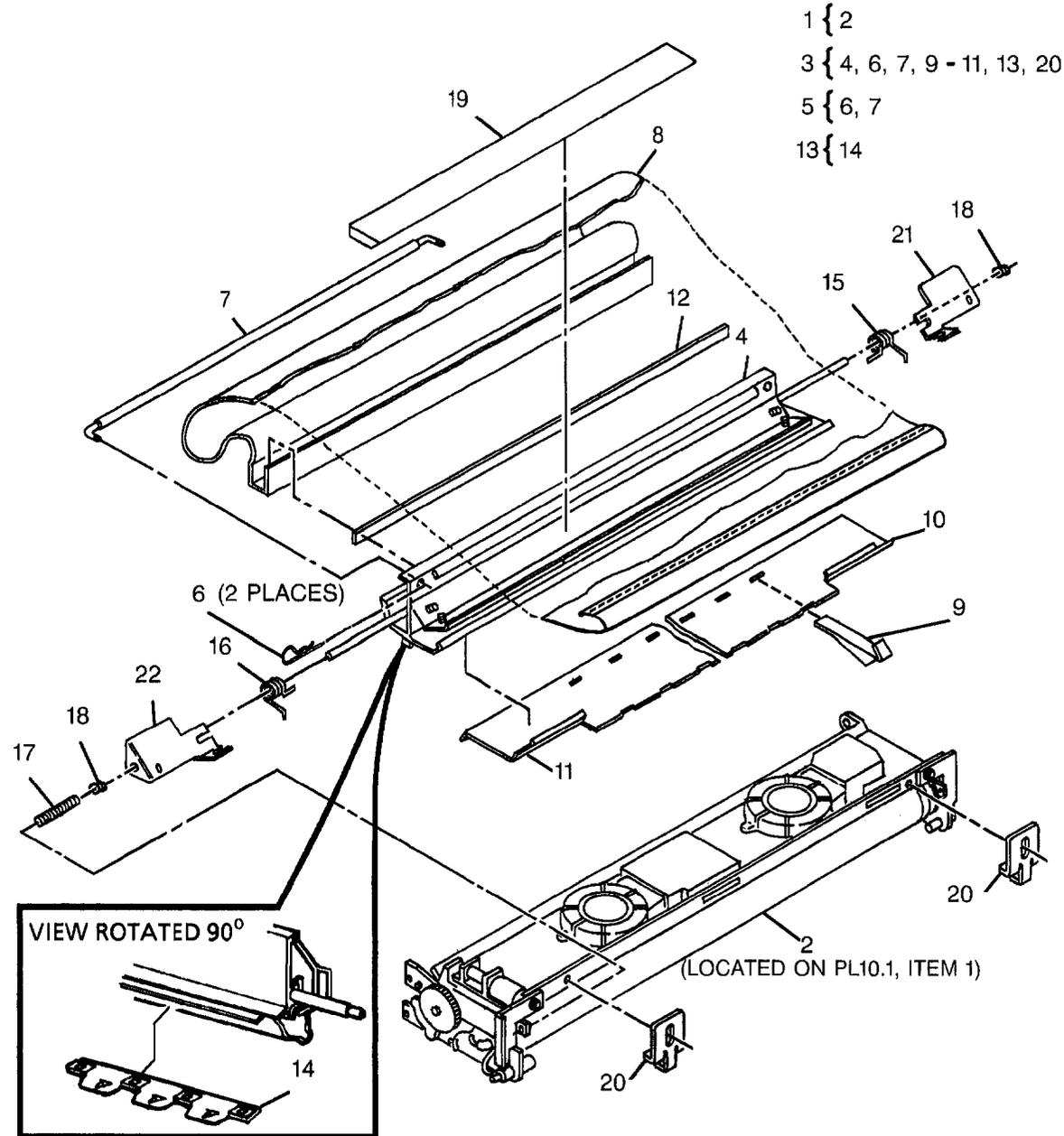
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- 7 { 8 AND
- 9 (ON PL8.1, ITEM 5)
- 10 (ON PL8.4, ITEM 3)
- 11 (ON PL8.4, ITEM 4)
- 21 { 22



000019A-KER

PL 10.3 OILER

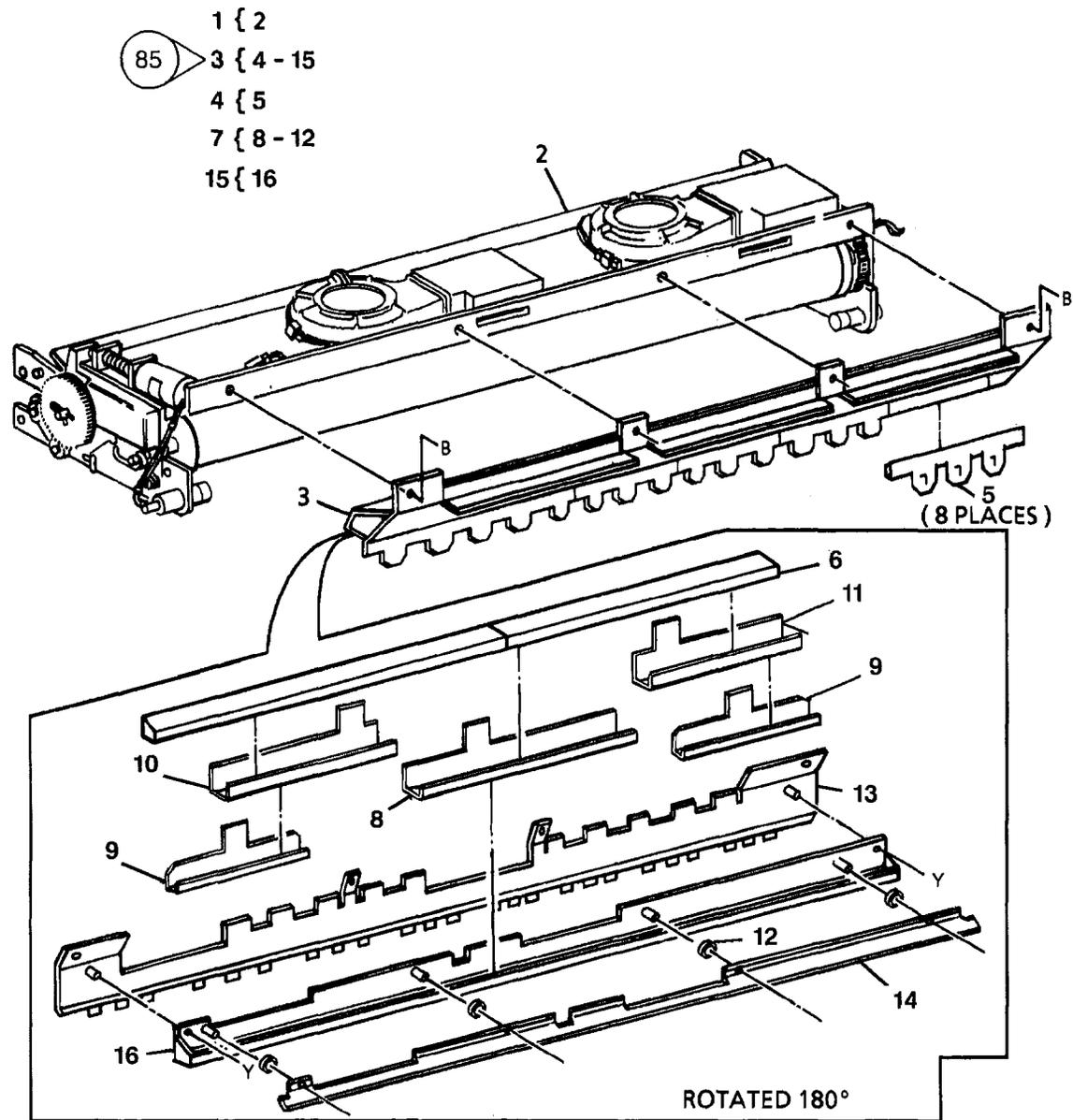
Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	-	XEROGRAPHIC MODULE FRAME (P/O PL 10.3 item 1)
3	600K29600	OIL DISPENSE RETRO-FIT KIT
4	-	OILER EXTRUSION (P/O PL 10.3 item 3)
5	600K31170	DONOR ROLL KIT
6	29E14780	COTTER PIN (2/KIT)
7	-	OIL DISPENSE ROLL (P/O PL 10.3 item 5) (REP 10.3)
8	94K1940	WICK (REP 10.12)
9	19E13922	MEDIA DEFLECTOR CLIP
10	38E10020	RIGHT MEDIA DEFLECTOR (REP 10.3)
11	38E10030	LEFT MEDIA DEFLECTOR (REP 10.3)
12	19E17080	PRESSURE PAD
13	600K8931	STRIPPER FINGER KIT
14	-	STRIPPER FINGER (9/KIT) (P/O PL 10.3 item 13)
15	9E33030	RIGHT TORSION SPRING
16	9E33040	LEFT TORSION SPRING
17	9E38060	COMPRESSION SPRING
18	13P519	PLASTIC BEARING
19	19K2660	OIL PAD (REP 10.11)
20	68E23610	ADJUSTING BRACKET
21	-	BRACKET (NOT SPARED)
22	-	BRACKET (NOT SPARED)



0000021A-KER

PL 10.4 HIGH VOLUME OILER (TAG 85)

Item	Part	Description
1	-	PART OF XEROGRAPHIC MODULE ASSEMBLY (REF: PL 10.1 item 1)
2	-	XEROGRAPHIC MODULE FRAME (P/O PL 10.4 item 1)
3	600K39660	HIGH VOLUME OILER KIT (TAG 85)
4	600K8931	STRIPPER FINGER KIT
5	-	STRIPPER FINGER (9/KIT) (P/O PL 10.4 item 4)
6	19E3032	OIL PAD (REP 10.11)
-	19K1420	OIL PAD (XBRA) (REP 10.4)
7	600K12030	OIL DISPENSER METERING KIT
8	-	CENTER METERING TRAY (P/O PL 10.4 item 7)
9	-	METERING TRAY (P/O PL 10.4 item 7)
10	-	RIGHT ADJUSTABLE METERING TRAY (P/O PL 10.4 item 7)
11	-	LEFT ADJUSTABLE METERING TRAY (P/O PL 10.4 item 7)
12	-	WASHER (P/O PL 10.4 item 7)
13	38E1945	OIL DISPENSER MOUNTING BRACKET
14	15E5022	OIL PAD COVER
-	2E14512	OIL PAD COVER (XBRA)
15	600K12020	OIL DISPENSER KIT
16	-	OIL DISPENSER (P/O PL 10.4 item 15)

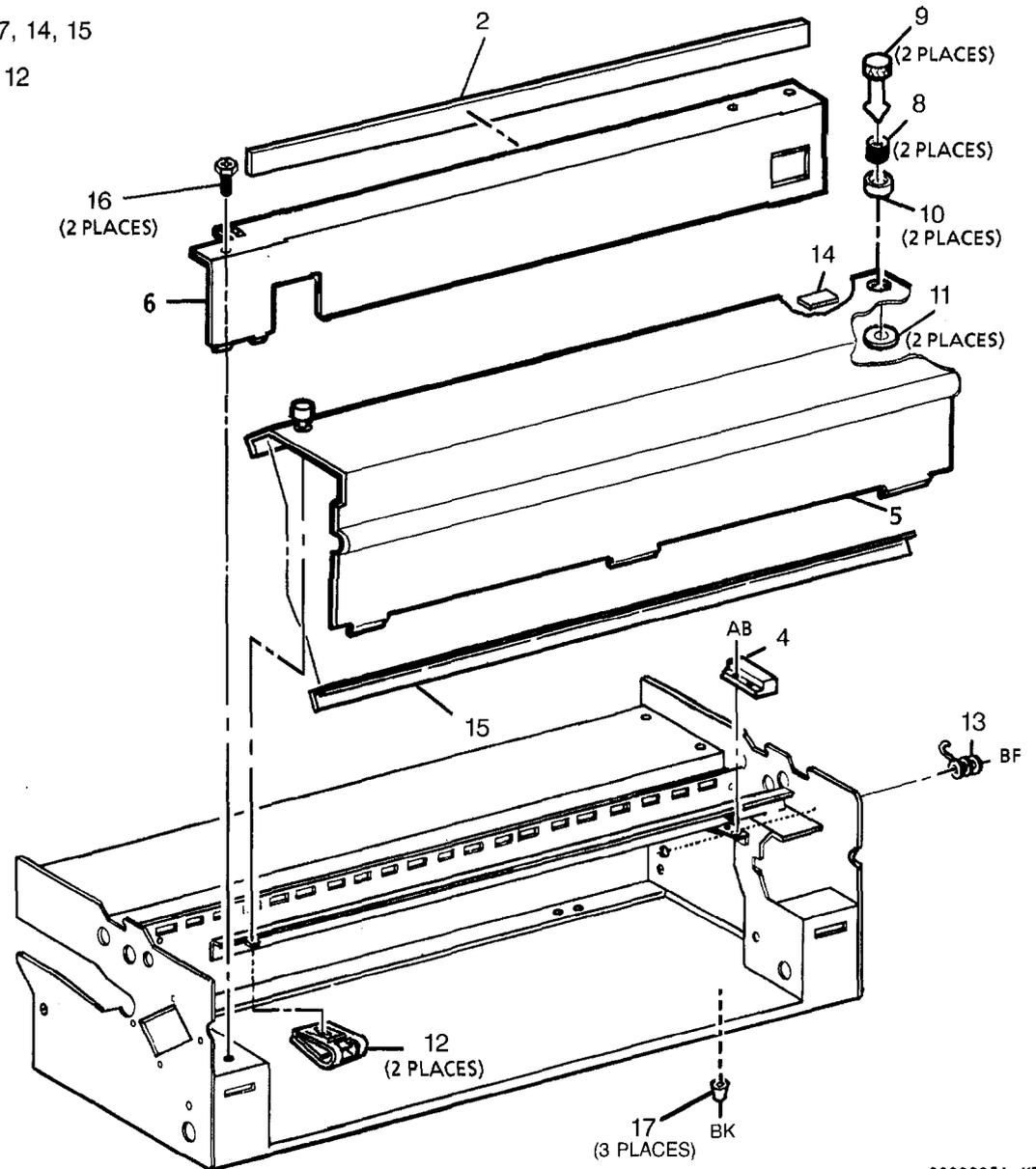


000022A-KER

PL 14.1 REAR COVER

Item	Part	Description
1	600K35190	SEAL KIT
2	-	SEAL (P/O PL 14.1 item 1)
3	802K630	UPPER REAR COVER ASSEMBLY
4	110K771	UPPER REAR COVER INTERLOCK SWITCH
5	-	UPPER REAR COVER (P/O PL 14.1 item 3)
6	2K30190	LOWER REAR COVER (60HZ)
-	2K29150	LOWER REAR COVER (50HZ)
7	600K6830	REAR COVER 1/4 TURN FASTENER KIT
8	-	SPRING (P/O PL 14.1 item 7)
9	-	1/4 TURN FASTENER (P/O PL 14.1 item 7)
10	-	WASHER (P/O PL 14.1 item 7)
11	-	RETAINER (P/O PL 14.1 item 7)
12	-	SPRING NUT (P/O PL 14.1 item 7)
13	9E7570	LATCH SPRING
14	121E2921	MAGNET
15	35K3770	SEAL
16	26E3460	SCREW
17	17K280	FOOT

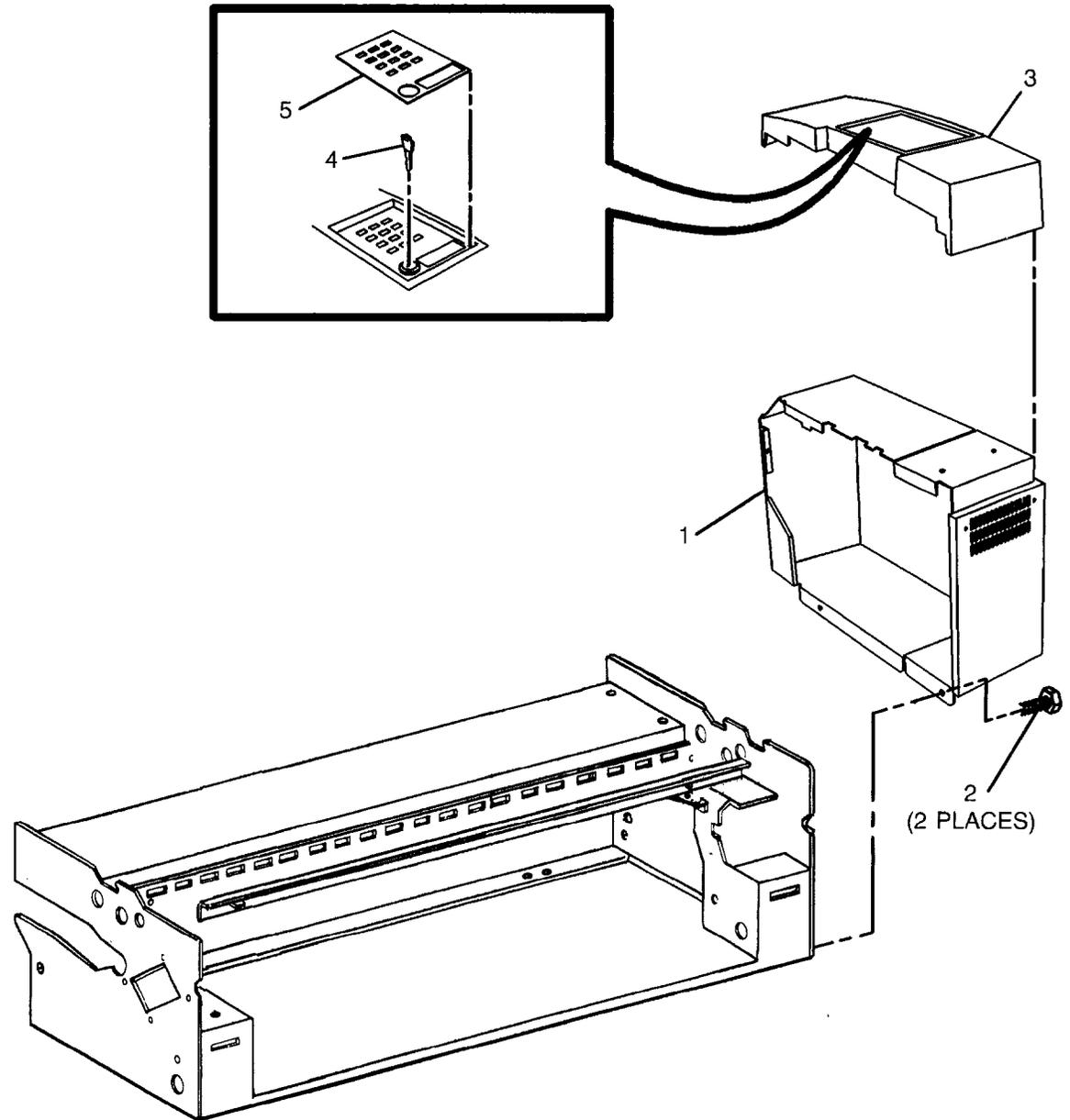
1 { 2
 3 { 5, 7, 14, 15
 7 { 8-12



000023A-KER

PL 14.2 LEFT SIDE COVER

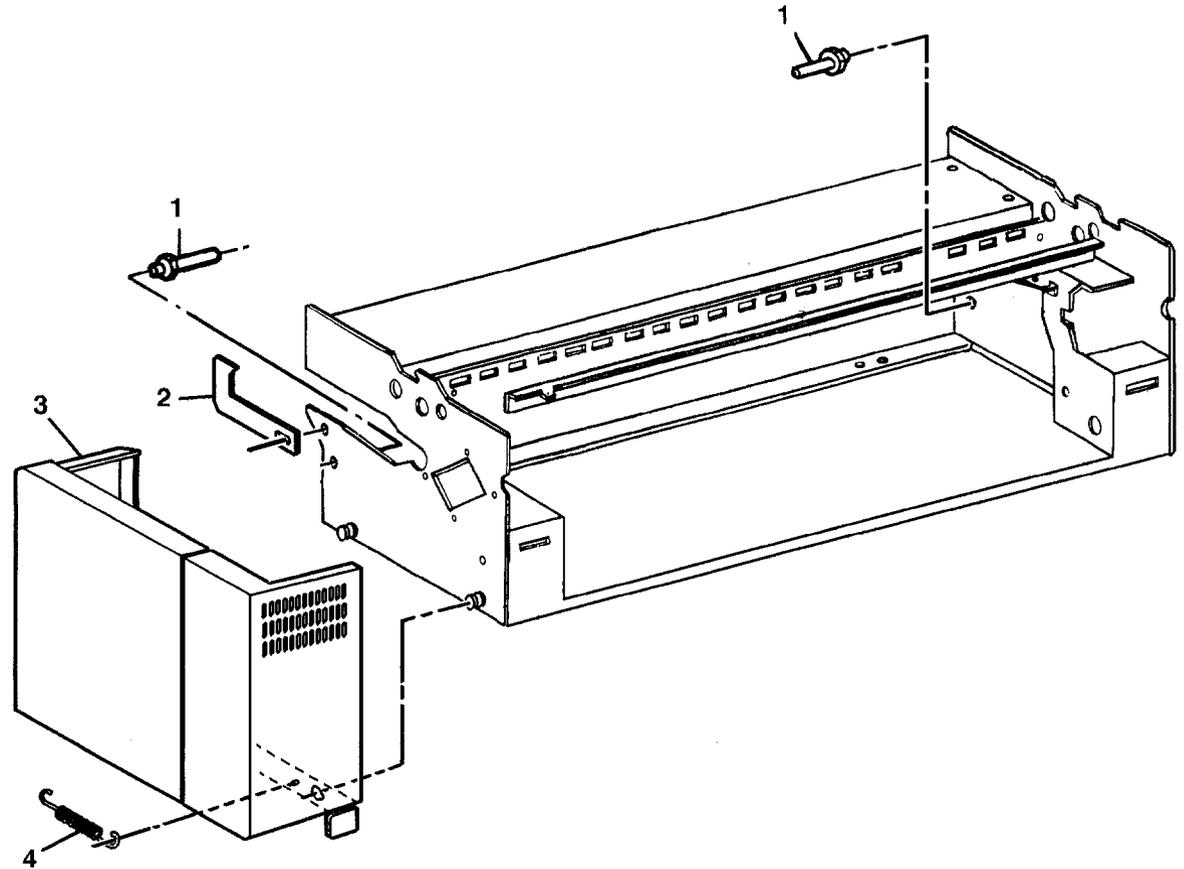
Item	Part	Description
1	48K79170	LEFT SIDE COVER
2	26E3460	SCREW
3	21K2340	LEFT END CAP
4	-	KEY (NOT SPARED)
5	-	LABEL (NOT SPARED)



0000020A-KER

PL 14.3 RIGHT SIDE COVER

Item	Part	Description
1	29E3800	LATCH PIN
2	30E62400	RETAINING BRACKET
3	48K79150	RIGHT SIDE COVER ASSEMBLY
4	409W3125	SPRING

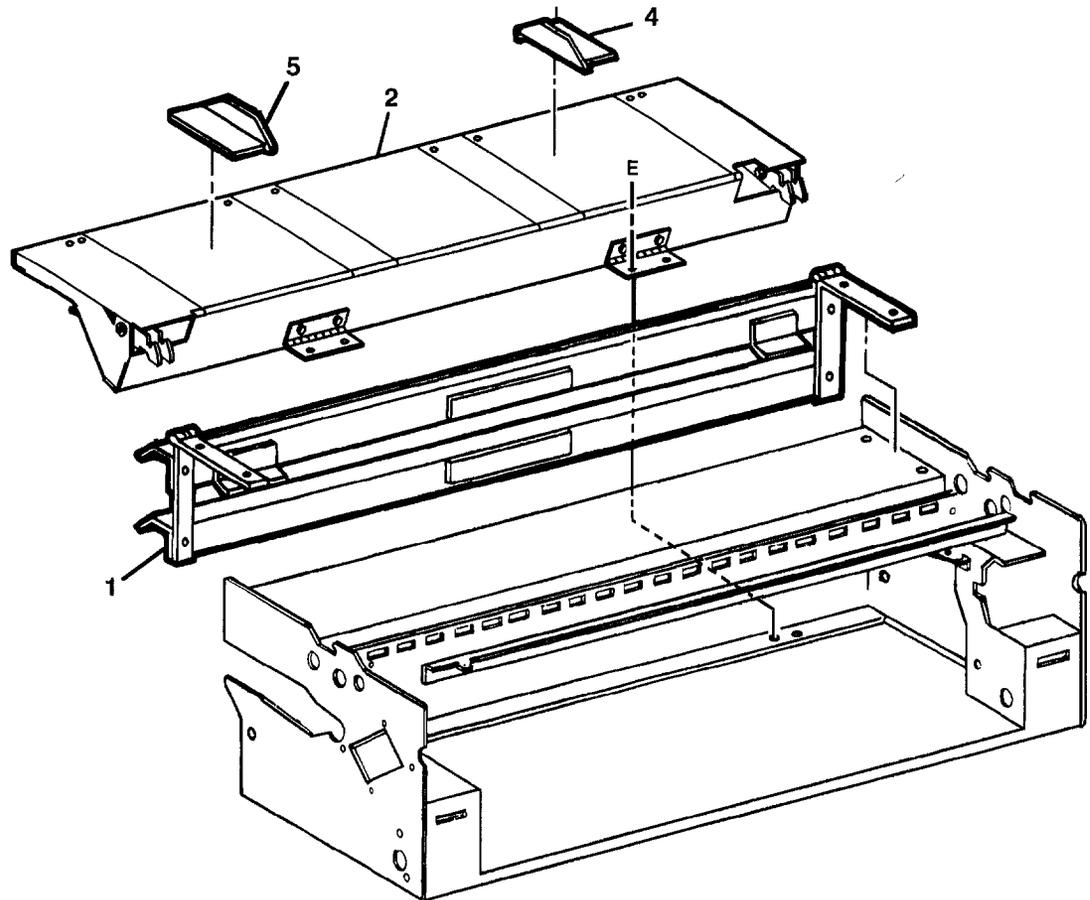


000024A-KER

PL 14.4 MEDIA FEED-IN SHELF

Item	Part	Description
1	38K6043	SEPARATOR GUIDE
2	68K16821	MEDIA FEED-IN SHELF
3	600K20690	MEDIA GUIDES KIT
4	-	LEFT MEDIA GUIDE (P/O PL 14.4 item 3)
5	-	RIGHT MEDIA GUIDE (P/O PL 14.4 item 3)

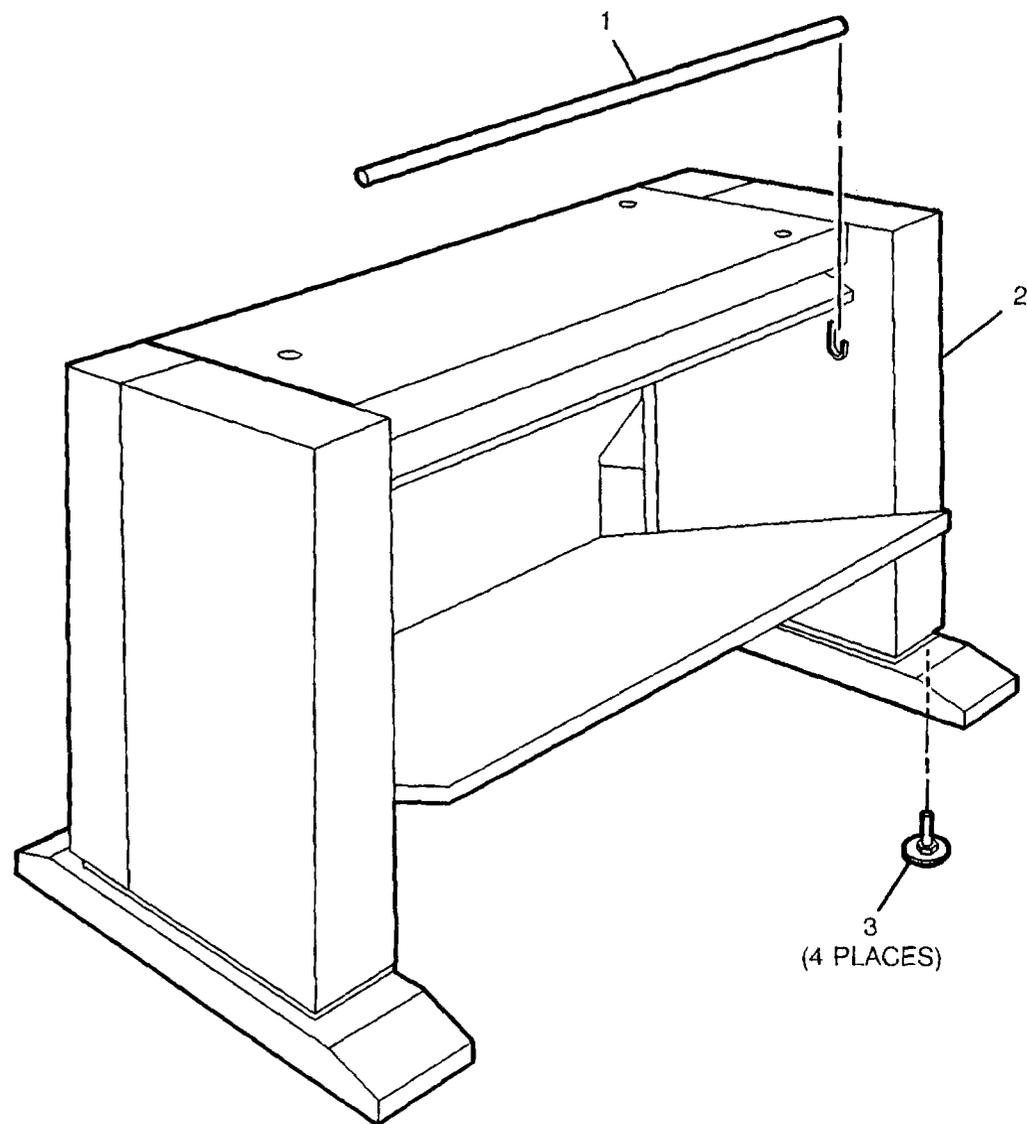
3 { 4, 5



0000025A-KER

PL 14.5 STAND

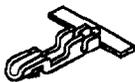
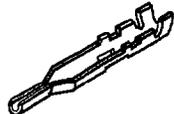
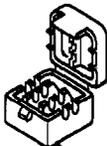
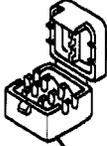
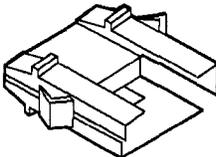
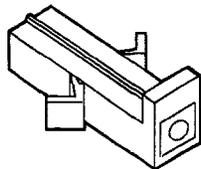
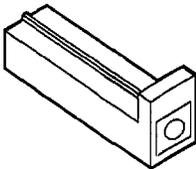
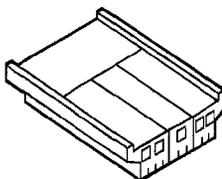
Item	Part	Description
1	24E2720	PAPER ROLL SHAFT
2	-	STAND (NOT SPARED)
3	11K2580	LEVELER



0000026A-KER

PL 15.1 MISCELLANEOUS ELECTRICAL CONNECTORS AND FASTENERS

Item	Part	Description
1	115P60155	CONTACT SOCKET (20-26 AWG)
2	115P60182	CONTACT PIN (20-26 AWG)
3	600K2060	WIRE AND CONNECTOR REPAIR KIT
4	-	SOCKET WIRE (10/KIT) (P/O PL 15.1 item 3)
5	-	CONNECTOR (20/KIT) (P/O PL 15.1 item 3)
6	600K2070	WIRE AND CONNECTOR REPAIR KIT
7	-	PIN WIRE (10/KIT) (P/O PL 15.1 item 6)
8	-	CONNECTOR (20/KIT) (P/O PL 15.1 item 6)
9	114P67208	DC CONNECTOR (J43)
10	113P60984	AC CONNECTOR (J38)
11	113P60312	AC CONNECTOR (J40)
12	114P60303	DC CONNECTOR (P43)
13	114P60111	AC CONNECTOR (P37)
14	115P60080	AC CONNECTOR (P37 PINS)
-	115P537	(ALTERNATE)
15	113P60251	AC CONNECTOR (J37)
16	115P60081	AC CONNECTOR (J37 PINS)

1 	2 	3  5  4	6  8  7
9 	10 	11 	12 
13 NO PHOTO	14 NO PHOTO	15 NO PHOTO	16 NO PHOTO
13	14	15	16

0000027A-KER

Common Hardware

Item	Part	Description
A	-	SCREW
B	112W7255	SCREW (M4 X 8)
C	112W25155	SCREW (M3 X 6)
D	112W27255	SCREW (M4 X 8)
E	112W27355	SCREW (M4 X 10)
F	112W27455	SCREW (M4 X 12)
G	113W6055	SCREW (M3 X 4)
H	113W6455	SCREW (M3 X 10)
J	113W35858	SCREW (M4 X 8)
K	113W54055	SCREW (M3 X 4)
M	113W58955	SCREW (M5 X 25)
N	121W30455	SET SCREW (M4 X 6)
-	121W30655	ALTERNATE
P	131W4053	SCREW (M3 X 40)
R	131W37153	SCREW (M4 X 8)
S	131W37553	SCREW (M4 X 16)
T	131W37853	SCREW (M4 X 30)
U	153W17452	SCREW (M4.2 X 9.5)
V	153W23352	SCREW (M2.9 X 6.5)
W	153W42353	SCREW (M4 X 12)
X	156W23455	SCREW (M2.9 X 9.5)
Y	158W35452	SCREW (M3 X 8)
Z	158W40452	SCREW (M4 X 8)
AA	190W30352	STUD (M4 X 8)
AB	201W355	NUT (M3)
AC	201W455	NUT (M4)
AD	210W354	NUT (M3)
AE	220W450	NUT (M4)
AF	251W10355	WASHER (M3)
AG	251W10455	WASHER (M4)
AH	251W10655	WASHER (M6)
AJ	251W20454	WASHER
AK	256W20354	LOCKWASHER (M3)
AM	256W20454	LOCKWASHER (M4)
AN	259W30351	LOCKWASHER (M4)
AP	286W3954	SPIRAL PIN (3 X 22)
AR	351W10651	RETAINING RING (M6)
AS	351W10851	RETAINING RING (M8)
AT	351W11051	RETAINING RING (M10)
AU	351W11551	RETAINING RING (M15)
AV	351W12551	RETAINING RING (M25)
AW	354W20752	RETAINING RING (4-5MM)
AX	354W20852	RETAINING RING (5-7MM)
-	354W24251	ALTERNATE
AY	354W21052	RETAINING RING (7-9MM)
AZ	354W21152	RETAINING RING (8-11MM)
BA	354W21252	RETAINING RING (9-12MM)
BB	354W21352	RETAINING RING (10-14MM)
BC	354W21452	RETAINING RING (10MM)

BD	265W850	LOCKWASHER (M8)
BE	156W23355	SCREW (M2.9 X 6.5)
BF	156W27555	SCREW (M4.2 X 14)
BG	113W25658	SCREW (M3 X 6)
BH	275W14201	COTTER PIN (1/16 X 3/4)
BJ	153W13853	SCREW (M4.48 X 20)
BK	132W10953	SCREW (M6 X 25)

Part Number Index

Table 1 Part Number Index

Part Number	Part List
1R552	PL 9.1
2E13110	PL 1.6
2E13120	PL 1.6
2E14512	PL 10.4
2K21519	PL 10.1
2K23402	PL 10.1
2K29150	PL 14.1
2K29508	PL 10.1
2K30190	PL 14.1
2K31940	PL 10.1
3P2243	PL 10.1
3K9270	PL 10.1
3E44690	PL 10.1
4E1000	PL 1.6
6E3031	PL 8.3
6K6571	PL 9.1
6K6961	PL 5.2
6K10251	PL 8.1
6E19570	PL 5.1
6E31560	PL 8.1
7K412	PL 8.1
7K762	PL 10.2
7E1331	PL 10.1
7E1340	PL 9.1
7E2151	PL 8.3
7E3980	PL 1.1
7E4010	PL 1.1
7E5221	PL 10.1
7E12710	PL 9.4
7E12721	PL 9.4
7E12730	PL 9.4
7E14510	PL 9.4
8R3822	PL 8.2
9E2701	PL 10.2
9E3782	PL 8.2
9E3840	PL 9.4
9E4011	PL 8.2
9E4021	PL 8.2
9E6960	PL 9.3

Table 1 Part Number Index

Part Number	Part List
9E7570	PL 14.1
9E8590	PL 9.2
9E8600	PL 9.2
9E18551	PL 8.4
	PL 9.2
9E21410	PL 5.1
9E23480	PL 9.4
9E23560	PL 8.2
9E33030	PL 10.3
9E33040	PL 10.3
9E38060	PL 10.3
9E38200	PL 8.1
9E49180	PL 8.4
9E49190	PL 8.4
10E2481	PL 8.3
11K2580	PL 14.5
13K380	PL 9.1
13K442	PL 10.2
13P519	PL 10.3
13E803	PL 10.1
13K1050	PL 9.4
13E1571	PL 9.3
14K2650	PL 9.4
15E5022	PL 10.4
17K280	PL 14.1
17E3700	PL 5.1
19E1162	PL 9.4
19K1420	PL 10.4
19K2660	PL 10.3
19E3032	PL 10.4
19E3080	PL 8.3
19E3090	PL 8.3
19E6980	PL 6.1
19E13922	PL 10.3
19E14671	PL 5.1
19E17080	PL 10.3
20E2290	PL 10.2
20E2311	PL 9.1
20E4350	PL 10.1
20E10561	PL 5.2
21K2340	PL 14.2

Table 1 Part Number Index

Part Number	Part List
21E8270	PL 5.1
21E8280	PL 5.1
22K3483	PL 10.2
22E7280	PL 5.1
22E9390	PL 8.1
22K13913	PL 5.1
22K16156	PL 8.1
22K18906	PL 8.1
23E1360	PL 8.3
23E1620	PL 10.1
23E3941	PL 8.2
23E4880	PL 5.2
24E2720	PL 14.5
26E3460	PL 1.1
	PL 1.3
	PL 1.4
	PL 9.1
	PL 14.1
	PL 14.2
26E3931	PL 9.4
26E10540	PL 5.2
26E17000	PL 10.1
26E31690	PL 9.4
28E7640	PL 9.4
29K530	PL 8.3
29E3360	PL 8.3
29E3560	PL 10.1
29E3800	PL 14.3
29E14780	PL 10.3
30E16161	PL 9.1
30E19880	PL 10.2
30K23302	PL 8.2
30E61992	PL 5.1
30E62001	PL 5.2
30E62400	PL 14.3
31E1310	PL 8.2
31E3561	PL 5.1
35K1222	PL 9.3
35E3580	PL 9.3
35K3770	PL 14.1
35K4101	PL 6.1

Table 1 Part Number Index

Part Number	Part List
36E93	PL 9.3
38E1945	PL 10.4
38K6043	PL 14.4
38E7360	PL 5.1
38E9210	PL 8.1
38E10020	PL 10.3
38E10030	PL 10.3
42K1390	PL 9.3
48E57930	PL 10.1
48K79150	PL 14.3
48K79170	PL 14.2
53E310	PL 9.4
53E690	PL 1.6
53E2351	PL 9.4
55E8380	PL 8.3
55E9991	PL 8.2
55E10096	PL 9.4
55E30940	PL 8.4
62K4821	PL 6.1
68K16821	PL 14.4
68E23610	PL 10.3
90E581	PL 5.2
92P5800	PL 1.2
92P5801	PL 1.2
92P5802	PL 1.2
92P5803	PL 1.2
92P5804	PL 1.2
92P5805	PL 1.2
92P5806	PL 1.2
92P5807	PL 1.2
92P5808	PL 1.2
92P5809	PL 1.2
92P5810	PL 1.2
93K940	PL 9.3
93K950	PL 9.3
94K85	PL 10.1
94K1940	PL 10.3
101E1020	PL 1.4
104K53	PL 1.4
105K833	PL 1.3
105K1084	PL 1.3

Table 1 Part Number Index

Part Number	Part List
105K2251	PL 1.4
107E140	PL 1.3
108E1131	PL 1.3
110K771	PL 1.6
	PL 14.1
110E1240	PL 1.3
110E3452	PL 5.2
110E3680	PL 5.2
110K3731	PL 8.1
110K3802	PL 5.2
110K3980	PL 5.2
110E7290	PL 1.3
110P61609	PL 1.1
111K21	PL 1.4
113K183	PL 6.1
113K193	PL 6.1
113K1070	PL 1.3
113P60251	PL 15.1
113P60312	PL 15.1
113P60984	PL 15.1
114P60111	PL 15.1
114P60303	PL 15.1
114P67208	PL 15.1
115K521	PL 9.4
115P537	PL 15.1
115E1410	PL 5.1
	PL 10.1
115E2160	PL 5.2
115E2230	PL 10.2
115P60080	PL 15.1
115P60081	PL 15.1
115P60155	PL 15.1
115P60182	PL 15.1
117E6911	PL 8.4
117K13892	PL 1.3
117K14141	PL 1.3
117P24088	PL 1.3
117P24303	PL 1.3
120E2470	PL 6.1
120E5540	PL 10.2
121E942	PL 8.1

Table 1 Part Number Index

Part Number	Part List
121K1751	PL 9.3
121E2400	PL 10.1
121E2921	PL 14.1
121K5891	PL 9.4
121K5925	PL 9.4
122E302	PL 6.1
125K184	PL 8.4
125K992	PL 9.2
125K1051	PL 8.4
126E112	PL 10.2
126E121	PL 10.2
127E833	PL 1.1
127E2360	PL 1.1
127K2671	PL 1.6
127K7242	PL 1.1
127K17160	PL 1.6
130K16232	PL 8.3
130K33352	PL 10.2
130K45680	PL 9.4
130K52840	PL 6.1
140K7902	PL 1.4
140K15953	PL 1.1
140K21430	PL 1.4
140K21431	PL 1.4
140K27841	PL 1.4
140K62670	PL 1.4
142E480	PL 1.3
142P60142	PL 1.3
160K54800	PL 1.2
160K54810	PL 1.2
600K2060	PL 15.1
600K2070	PL 15.1
600K3773	PL 8.1
600K6830	PL 14.1
600K8481	PL 10.2
600K8931	PL 10.3
	PL 10.4
600K12020	PL 10.4
600K12030	PL 10.4
600K15861	PL 8.4
	PL 9.2

Table 1 Part Number Index

Part Number	Part List
600K19352	PL 8.4
	PL 9.2
600K20690	PL 14.4
600K20990	PL 9.2
600K24052	PL 6.1
600K24350	PL 8.4
600K25780	PL 9.3
600K29600	PL 10.3
600K29981	PL 9.3
600K30921	PL 8.1
600K31170	PL 10.3
600K32840	PL 9.4
600K35190	PL 14.1
600K36790	PL 8.1
600K37360	PL 8.4
600K39660	PL 10.4
600K40990	PL 9.4
600K45680	PL 8.4
600K52780	PL 1.5
707W1634	PL 1.3
707W1651	PL 1.3
707W1652	PL 1.3
708W4001	PL 1.4
708W4501	PL 1.4
802K630	PL 14.1
891E74990	PL 1.2

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Diagnostic Tests

This section contains the Input and Output diagnostic test procedures.

To Enter the Diagnostic Mode:

The diagnostic mode is entered by pressing and holding the **Bond** and **Film** buttons while switching on the copier. Once the copier is in the diagnostic mode, all the lamps on the control panel will light for approximately three seconds, then they will no longer be lit. After about 3 seconds a 7L, 6L, or another number may be displayed. This 7L number indicates the software level of the control PWB. A zero, 0, will then be displayed indicating that the diagnostic mode is ready.

Use the  button, next to the Display Window, to scroll up through the list of diagnostic code numbers and use the  button to scroll down through the list of diagnostic code numbers.

Press the **Start** button to start the diagnostic test.

To Exit the Diagnostic Mode:

Press the **Stop** button in order to exit the diagnostic test. Enter the code [17] in order to exit the diagnostic mode.

Input Diagnostic Test Procedure

The code [37] is the input diagnostic test that is used to check the electrical input signals from switches or sensors.

1. Enter the diagnostic mode.
2. Enter the code [37].
3. Refer to the following table to determine which LED will indicate the signal level for the component that is being tested.

LED	Component Tested
Vellum (USO)	Motion Sensor  
Tracing (EO)	Motion Sensor
Film	Front Document Sensor
Scale Adjust	Rear Document Sensor
Bond	Media Prefeed Sensor

4. Manually operate the component being tested.
5. The LED will light when the sensor is blocked.
6. Press the **Stop** button in order to exit the Diagnostic Test.

 *In order to test the motion sensor, enter the code [10] to run the main drive motor and then enter the code [11] to energize the media feed clutch. Enter the code [37] and insert a sheet of media. The Tracing/Vellum LED will go off and on.*

Output Diagnostic Test Procedure

The output diagnostic test is used to ensure that the electrical signals for output components are operating correctly. The output diagnostic test allows operation of the individual output component to verify its operation.

1. Enter the diagnostic mode.
2. Use the  button to scroll up through the list of diagnostic code numbers and use the  button to scroll down through the list of diagnostic code numbers.
3. Press the **Start** button in order to check the component.
4. Press the **Stop** button in order to exit the Diagnostic Test.
5. Enter the code [17] in order to exit the diagnostic mode.

Code Component Tested

10	Main Drive Motor 
11	Media Feed Clutch
12	High Voltage Power Supply Enable
13	Toner Dispense Solenoid
14	Transfer Corotron
15	Exposure Lamp
16	Control Panel Beeper Test
18	Cooling Fan
19	Cleaner Blade Solenoid
20	Copy Counter

 Code 10 should be used in conjunction with codes 12, 14, 15, and 19. This is necessary to help prevent damage to the photoreceptor. After using diagnostics remember to use code 17 to exit.

 *The fuser must be at the correct temperature in order to switch on the main drive motor.*

Special Tests

Code	Description	Value
0	Fuser Temperature Adjustment. In order to increase the fuser temperature, press the  button. In order to reduce the temperature, press the  button. The value is between 1 and 9.	5
1	Timeout to Power Saver (USO), (XLA 60 Hz) or Low Power (RX), (XLA 50 Hz) Mode. This is the amount of time from the ready mode to the power saver (USO), (XLA 60 Hz) or low power (RX), (XLA 50 Hz) mode and P (USO), (XLA 60 Hz) or L (RX), (XLA 50 Hz) is displayed. The time is 45 seconds plus 15 multiplied by this value. In order to increase the time, press the  button. In order to reduce the time, press the  button. Each increment represents 15 seconds. The value is between 1 and 9. The range of values is from 60 to 180 seconds.	1

Code	Description	Value
2	Lead Edge Margin. The length of the lead edge margin is adjustable. The length is equal to 0.25 inches (6.4mm) times this value. The value is between 1 and 12.	6
3	The Default Features Selected. This test will allow the default selection of the control panel to be changed. Use the control panel buttons to select the desired features, cut sheet feeder select, and the copy count. Press the Start button to enter this selection into memory. The control panel will be cleared and the diagnostic test code will be displayed.	
4	Toner Concentration. The toner concentration can be selected. The value is between 1 and 9. The toner concentration is adjusted while performing the adjustment Image Density ADJ 9.4	5

NOTE: This test will switch on the main drive motor. In order for the main drive motor to run, the fuser must be at the correct temperature.

Code	Description	Value
5 See the note.	Illumination Set-up. This test is used with an electrometer to measure the background voltage. The  and  buttons are used to increase or decrease the amount of exposure. The value is between 1 and 9.	3
6	Charge Set-up. (See the note.) This test is used to adjust the charge corotron current. The adjustment is made on the high voltage power supply.	
7	The Multiple Copy Registration Set-up. This test is used to adjust the registration for the multiple copy mode. Refer to Registration ADJ 8.1.	5

Continued

Special Tests (Continued)

Code	Description	Value	Code	Description	Value	Code	Description	Value
8	Timeout Interval To Rest Mode (USO), (AO 60 Hz). This is the amount of time from the power saver (USO), (AO 60 Hz) or low power (EO), (XLA 50 Hz) mode to the rest mode and a moving segment is displayed. The time is 5 minutes multiplied by this value. In order to increase the time, press the  button. In order to reduce the time, press the  button. Each increment represents 5 minutes. The value is between 1 and 9. The range of values is from 5 to 45 minutes.	5	21	Bond Size Adjust. This will allow the adjustment of the image size so that the copy will be the same size as the image on the original document. This is for bond media. The value is between -9 and +9.	0	25	Toner Concentration This test displays the toner sensor output voltage that corresponds to the setpoint number in Code 4. The value displayed is not valid until the number stops flashing, Do NOT chain this code with Code 10.	
9	Country Configuration. 1 120 VAC, 60 Hz 2 220 to 230 VAC, 50 Hz 3 240 VAC, 50 Hz 4 100 VAC, 50 or 60 Hz	1	22	Vellum (USO) or tracing (RX) Size Adjust. This will allow the adjustment of the image size so that the copy will be the same size as the image on the original document. This is for vellum (USO) or tracing (RX) media. The value is between -9 and +9.	0	26	Line Voltage Test. This is a percentage of full scale reading of the AC line (mains) voltage. The values 54 to 80 represent the following line voltages: USO 104 to 127 VAC EO 198 to 242 VAC (220) EO 216 to 264 VAC (240)	
13	Toner Dispense Solenoid (See note)		23	Film Size Adjust. This will allow the adjustment of the image size so that the copy will be the same size as the image on the original document. This is for film media. The value is between -9 and +9.	0			
17	Watchdog Timer Test. This test is used to exit the diagnostic mode.		24	Master Size Adjust. This will allow the adjustment of the image size so that the copy will be the same size as the image on the original document.	0			

Note: Enter the code [10] first.

(Continued)

Special Tests (Continued)

Code	Description	Value
27	Fuser Voltage Test. This is a coarse measurement for the fuser AC voltage and is used for low temperature readings. Enter the code [10] to switch on the main drive motor and then the code [27] to check the fuser temperature. The range of values is from 99 to 40. The number will decrease as the fuser temperature increases.	
28	Fuser Voltage Display. This test is used to control the fuser temperature near the normal control temperature. Enter the code [10] to switch on the main drive motor and then the code [28] to check the fuser temperature. The range of values will be 35 to 95 depending on fuser NVM value.	

Code	Description	Value
29	Illumination Voltage Display. This is a test to check the operation of the illumination sensor. Enter the code [15] to switch on the exposure lamp and then enter the code [29] to record the illumination value. The range of values will be 75 to 34 depending on the illumination NVM value. This test will take two to three minutes for the lamp to stabilize.	
30	Document Handler Test. This test will cycle the document through the document handler.	
31	Copier Configuration 1 Count the media in feet 3 Count the media in metres, no cutter	

Code	Description	Value
32	Main Drive Motor. This test will switch on the main drive motor before the fuser is at the correct temperature. (Only to be used with the Xero Mod out of the copier.)	
33	Single Copy (Sets Mode) Registration. This test is used to adjust the registration for the single copy mode (Sets Mode). Refer Registration ADJ 8.1	5

(Continued)

Special Tests (Continued)

Code	Description	Value
35	Relative Humidity. This test is used to display the relative humidity. A low number indicates a low relative humidity.	
36	Reset the NVM. This test is used to reset the NVM values to their default values. A tone will sound for two seconds while this test is being run.	
37	This test is used to check the operation of the following input switches: Front Document Sensor, Rear Document, Media Prefeed Sensor, Cut Sheet Feeder Select, and Motion Sensor. Refer to the Input Diagnostic Test Procedure.	

Code 39	Description	Value
	CVA or Foreign Accessory enabled and a 450 ms output pulse after the motion sensor detects the trail edge of the copy.	1
	CVA or Foreign Accessory not enabled.	2
	CVA or Foreign Accessory enabled and a 450 ms output pulse each time the copy counter increments. This is used to allow the accessory to count the length of media used.	3
40	Media image limit. Used only in conjunction with code 39 enabled. Depending on the setting in code 31, the value set in code 40 indicates the number of feet or metres of image that will be copied. If value is set to 15 there is no limit. Value set will also be sent to the foreign accessory.	15

Code	Description	Value
41	Keyboard Beep Enabled. Customer option that has the beeper sound whenever a button is pushed. Not to be used as a test for the buttons.	
42	Cut Sheet Feeder Motor. This test will allow the cut sheet feeder to partially feed a sheet of media and then to stop. The feed assembly will retract from the stack of media. Enter the test and then press the feeder select button.	
44	Feed clutch on time. With this code enabled, the feed clutch will be deenergized after 46 inches of media has been fed. 0 Disabled 1 Enabled	

Special Tests (Continued)

Code	Description	Value	Code	Description	Value
45	<p>Copy Volume/Toner Dispense Level This test allows the toner concentration level to be adjusted for the copy volume</p> <p>0 for standard copy volumes less than: 2.5K/month 125 ft/day 16 ft / hour</p> <p>1 for high copy volumes : 2.5 to 5.0K/month 250 ft/day 31 ft/hr</p>	0	47	<p>Automatic Tone Up This test automatically increases the toner concentration to within the control range set in Code 4. The main drive will come on after the fuser is at run temperature, and the toner and cleaning blade solenoids will be energized. The copier will continue running until one of the following conditions is met:</p> <ol style="list-style-type: none"> 1. the toner concentration is within the control point set in Code 4 2. The Stop button is pressed 3. the 15 minute timeout limit is reached 	
46	<p>Automatic Detoning This test automatically brings down the toner concentration to within the control range set in Code 4. (See Note)</p>				

NOTE: If the time to detone the developer approaches the 15 minute time limit, this is an indication that there is a problem. Refer to CQ 25 Developer Bias RAP.

Combined Output Diagnostic Test

This procedure allows the testing of two or more components at the same time.

1. Enter the diagnostic mode.
2. Use the  button to scroll up through the list of diagnostic code numbers, and use the  button to scroll down through the list of diagnostic code numbers. Use the  or  button until the code for the component to be tested appears on the display.
3. Press the **Start** button and the component will operate.
4. Repeat the Steps 2 and 3 for the remaining components to be tested.
5. Press the **Stop** button in order to exit the Diagnostic Test.

Combined Output Diagnostic Test

Image on Drum Procedure

This procedure allows you to isolate the copy quality problems by observing the image on the drum before transfer. If the defect is visible on the drum before transfer, the defect is related to the charge, the image, or the developer. If the defect is visible on the copy after transfer, the defect is related to the transfer or fuser.

1. Make a copy of the test pattern; press the **Stop** button when the test pattern is almost half way into the document handler.
2. Remove the developer module.
3. If the defect is visible on the developed image, the defect cause is related to the charge, the image, or the developer. If the defect is not visible, the defect cause is related to the transfer or the fuser.

Automatic Detoning Procedure

1. Enter the diagnostic code [46].

The main drive will come on after the fuser is at run temperature. The HVPS will be on and the cleaning blade solenoid will be energized. The exposure lamp will not be on. The copier will continue running and the value displayed will flash until one of the following conditions is met:

- a. The toner concentration is within the control point set in Code 4. (The display will stop flashing.)
 - b. The **Stop** button is pressed.
 - c. The 15 minute timeout limit is reached.
2. Refer to the CQ25 Developer Bias RAP if the detone time approaches the 15 minute time limit.
 3. Make a copy of test pattern 82E5980. Check that the density of the **.70G5** paragraph is between paragraphs 24.0 and 31.2 on the 82E7030 test pattern. If required, perform the Image Density Procedure (ADJ 9.4).

TapeTransfer (Developer Material Failure) Procedure

Purpose

The purpose of this procedure is to determine the failure of the developer material.

Materials Required

Test Pattern 82E5980
Scotch™ Brand 810 Magic™ Tape
4024 white bond media

1. Check/Adjust the Electrostatic Series (ADJ 9.2). and Image Density (ADJ 9.4).
2. Select the **Document Light Input and Copy Contrast** middle LED.
3. Make a copy of test pattern 82E5980. when the copy begins to exit the copier, press the **Stop** button.
4. Remove the following:
 - Right Side Cover
 - Upper Rear Cover
 - Developer Module
5. Cut off approximately eight inches of tape. Fold one end over to make a half inch tab.
6. Rotate the Main Drive Motor backwards in order to access the developed image on the photoreceptor.

7. Apply the tape horizontally over the image on the photoreceptor. Gently rub the tape to ensure adhesion to the photoreceptor. Be careful not to touch the photoreceptor.
8. Using the tab on the tape, remove the tape from the photoreceptor.
9. Place the tape (tape transfer) on a clean sheet of 4024 white bond paper.
10. Compare the tape transfer to the 0.1 density gray circles on the 82E5980. If the background (non-image area) on the tape transfer is darker than the circles. replace the developer material.

Automatic Toning Procedure

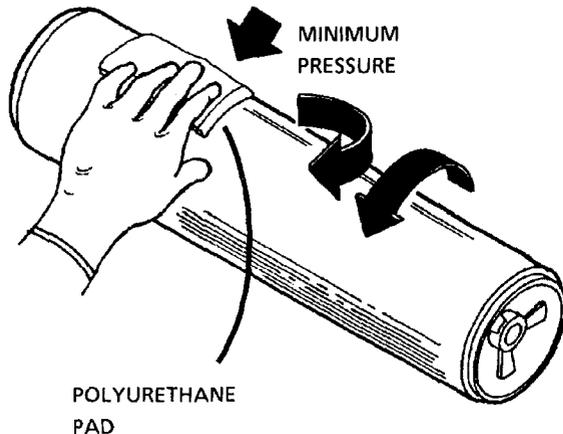
1. Enter the diagnostic code [47].

The main drive will come on after the fuser is at run temperature. The toner and cleaning blade solenoids will be energized. The copier will continue running and the value displayed will flash until one of the following conditions is met:

- a. The toner concentration is within the control point set in Code 4. (The display will stop flashing.)
 - b. The **Stop** button is pressed.
 - c. The 15 minute timeout limit is reached.
2. Refer to the J1 Low Toner Fault RAP if the detone time approaches the 15 minute time limit.
 3. Make a copy of test pattern 82E5980. Check that the density of the **.70G5** paragraph is between paragraphs 24.0 and 31.2 on the 82E7030 test pattern. If required, perform the Image Density Procedure (ADJ 9.4).

5. (Figure 1): Wash the drum from end-to-end using a circular movement.

Note: Ensure that the ends of the drum are washed.



	1106	A
JR	SM 6	M

Figure 1. Washing the Drum

6. Using the clean side of the polyurethane pad, continue washing the drum until the entire surface of the drum is covered with film remover.
7. Allow enough time for the air to dry the surface of the drum.
8. Use the dusting pouch to apply a thin layer of zinc stearate over the entire surface of the drum.

9. Buff the surface of the drum using the clean side of the dry polyurethane pad.

NOTE: Ensure that the ends of the drum are buffed as well as the center of the drum.

10. Continue to buff the surface of the drum for three complete revolutions of the drum.
11. Apply a final thin layer of zinc stearate over the entire surface of the drum.
12. Reinstall the drum.

WARNING

There will be a time delay between the time the code [A] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

13. Enter diagnostic mode. Enter the code [10]. Wait at least 2 minutes enter the codes [12], [14], [15], and [19]; and allow the copier to run for 5 more minutes.
14. Place the used washing materials in the disposal bag.
15. Wash your hands.

Photoreceptor Drum Maintenance

The Polishing Procedure

The polishing materials:

Photoreceptor Maintenance Kit,
Photoreceptor Polish

NOTE: This procedure can be used to remove large areas of filming or fine scratches.

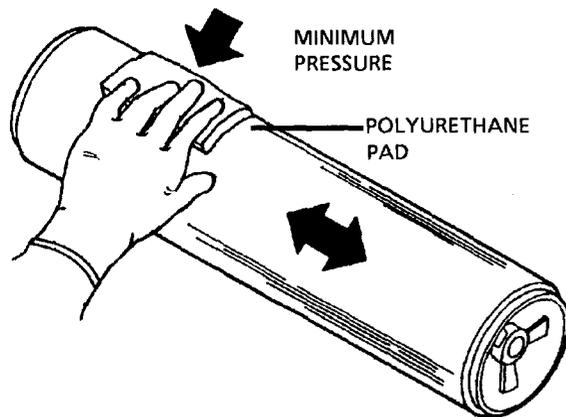
CAUTION

Do not allow compounds to become dry on the drum. Small scratches on the surface of the drum will occur.

1. Remove the photoreceptor drum assembly from the xerographic module (REP 9.2).
2. Put on gloves.
3. Gently remove any dry ink / toner and developer from the surface of the drum using a dry polyurethane pad.
4. Completely soak two sponges with water.
5. Using a paper towel, remove some water from one of the sponges until the sponge is only slightly damp.
6. Using another paper towel, remove some water from the second sponge until it is drier than the first sponge.
7. Shake the container of polish thoroughly.
8. Put a large amount of polish on a clean polyurethane pad. (Continued)

Photoreceptor Drum Maintenance (Continued)

9. (Figure 2): Polish the drum.



0	1107	A
QJR	SM 6	M 0

Figure 2. Polishing the Drum

2 Ensure that the entire surface of the drum is polished.

10. Remove the polish from the drum using the first sponge (EO use a dry polyurethane pad). Then remove any residual polish using the second sponge (USO).
11. Buff the surface of the drum using the clean side of the dry polyurethane pad.

12. Use the dusting pouch in order to apply a thin layer of zinc stearate over the entire surface of the drum.

13. Buff the surface of the drum again.

3 Ensure that the ends of the drum are buffed as well as the center of the drum.

14. Continue to buff the surface of the drum for three complete revolutions of the drum.
15. Apply a final thin layer of zinc stearate over the entire surface of the drum.

CAUTION

After completing the polishing procedure, the drum must be used immediately. If the drum is stored, crystallization problems may occur.

16. Reinstall the drum.

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

17. Enter diagnostic mode. Enter codes [10], [12], [14], [15], [18], and [19] and allow the copier to run for 5 minutes.

18. Place the used polishing materials in the disposal bag.

19. Wash your hands.

20. Perform the Photoreceptor Cleaning Enhancement procedure that follows.

Photoreceptor Cleaning Enhancement Procedure

1. Remove the Photoreceptor Drum Assembly (REP 9.2).
2. Use the dusting pouch (8R171) to apply a thin layer of zinc stearate over the entire surface of the photoreceptor.
3. With a new lint free cloth (600S4372), wipe the entire surface of the photoreceptor using moderately heavy pressure. Use a back and forth motion of 6 - 10 strokes while revolving the photoreceptor 3 revolutions.
4. Repeat steps 2 and 3 one time and then continue with step 5.
5. Apply a thin layer of zinc stearate over the entire surface of the photoreceptor.
6. Reinstall the Photoreceptor Drum Assembly (REP 9.2).

Initialization of the Fuser Roll

Purpose

Correct operation of the Fuser Roll requires that the Fuser Roll be initialized by coating the roll evenly with fuser oil. The fuser roll must be at operating temperature as the oil is applied. The following steps specify the correct technique for initializing the fuser roll. Perform the procedure exactly as written and do not omit any steps.

Items Required

- 1 tube (8cc) fuser oil
- 1 pair disposable gloves
- Heavy duty towels (blue absorbant)

WARNING

The Fuser Roll may be hot. Use extreme caution when working in the fuser area and do not touch any heated components.

WARNING

Fuser oil can cause severe eye irritation. Wear protective gloves when handling parts with fuser oil on them. Use caution and do not allow the fuser oil to contact your eyes. Wash hands after handling components covered with fuser oil.

Initialization Procedure

1. Lower the Feed in Shelf, the Latching Cover, and the Front Cover.
2. Remove the Oil Dispense Assembly (REP10.9).

NOTE: To protect the media guide plate, the fuser pressure plate, and the media feed rolls from excess fuser oil, you will insert folded sheets of media under the fabric guide.

NOTE (Step 3B): Use 2 sheets of either C or D size bond media. Fold the C size bond lengthwise in half; fold the D size lengthwise in thirds.

3. (Figure 1) : Install the 2 sheets of media under the full length of the fabric guide, with the sheets overlapping in the center.

4. Lower the front cover.
5. Connect the main power cord (if disconnected).
6. Apply approximately 1/3 of an 8 cc tube of fuser oil directly on the surface of the fuser roll.
7. Raise the front cover and latching cover.

(Continued)

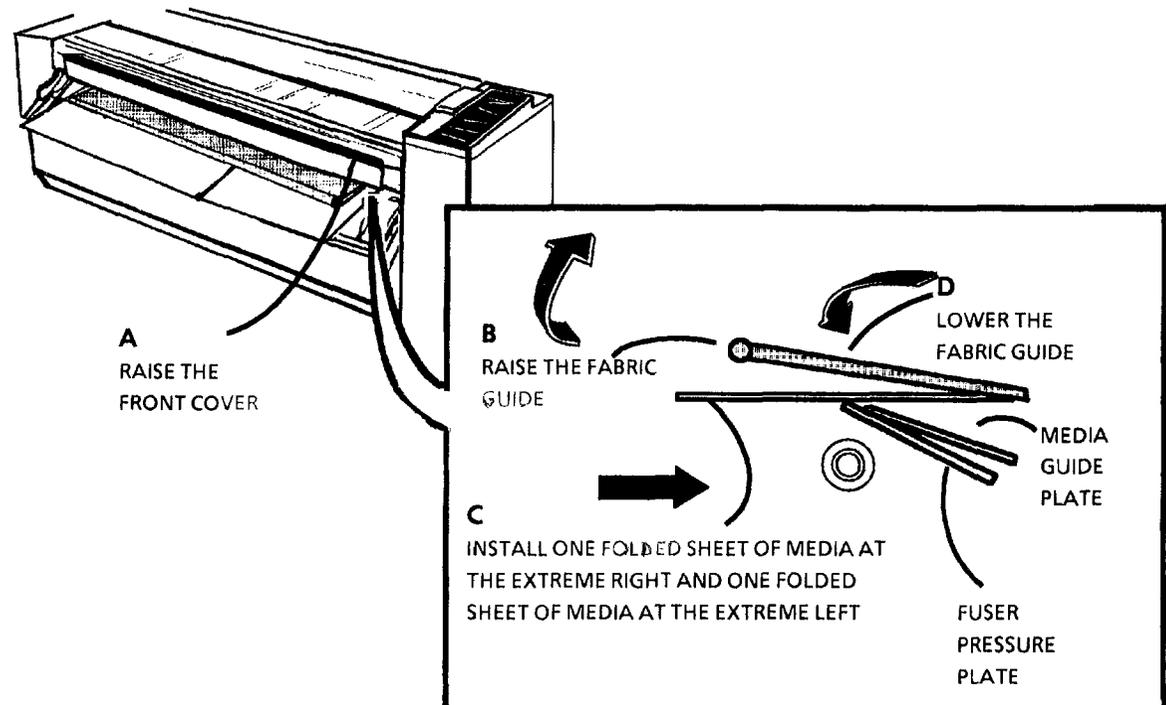


Figure 1. Installing the Media Under the Fabric Guide

0	1327	B
OJR	SM 6	M 0

(Continued)

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

8. Enter diagnostics and enter the Code [10]. Press **Start**.
 9. Allow the 3001 to run for approximately 15 seconds and press **Stop**.
 10. Lower the transport latching cover and the front cover and perform steps 6 through 9 two more times or until the 8cc tube of oil is empty.
 11. Lower the transport latching cover and the front cover.
 12. Rotate the fuser roll and inspect the entire surface of the roll for dry areas.
-  *Dry areas appear as dull spots, as opposed to oiled areas that appear as glossy areas.*
13. If there are dry areas on the fuser roll, wipe the oil from the surrounding areas to the dry areas with a towel.
 14. Raise the transport latching cover and the front cover.
 15. While in the code [10]. and press **Start**.
 16. Allow the 3001 to operate for a minimum of 10 minutes.

17. Lower the transport latching cover.
18. Wipe the excess oil off the fabric guide with towels.
19. Remove and discard the media from under the fabric guide.
20. Lift the fabric guide and wipe the excess oil off the fuser pressure plate, the media guide plate, and under the fabric guide with towels.
21. Ensure that the fuser pressure plate and the media guide plate are located correctly.
22. Lower the Front Cover.
23. Reinstall the Oil Dispense Assembly.
23. Raise the transport latching cover, the front cover and the feed in shelf.
24. Wash your hands to remove any fuser oil that may remain on them.
25. In order to remove the excess oil from the fuser roll, perform the following:
 - a. While in the code [10]. and press **Start**.
 - b. Enter the code [11]. and press **Start**.
 - c. Feed a minimum of 2 sheets of bond copy media approximately 1 inch (25mm) **LEFT** of the extreme left mark on the feed in shelf.
 - D. feed a minimum of 2 sheets of bond copy media approximately 1 inch (25mm) **RIGHT** of the extreme right mark on the feed in shelf.
26. Exit diagnostics.

Sanding the Fuser Roll

Purpose

The purpose is to recondition the heat roll surface to improve media feed through the fuser.

Procedure

Use Scotch Brite or 220 to 300 grit abrasive paper to roughen the roll. Use light uniform pressure while roughening the roll. Do not use a circular motion but, use long straight strokes over the length of the roll. Roughen the complete surface, then clean with film remover and apply oil over the surface.

3001 INSTALLATION AND REMOVAL

Ground and AC Voltage Check

! Before installing the 3001 Copier, check for correct voltage, polarity and the grounding of the AC outlet provided by the customer. Use the Polarity Checker (600T467) or a multi meter. Incorrect voltage applied to the 3001 could result in poor performance or damage to the copier.

1 (USO) and (XLA 60Hz): The power line outlet must be a 15 - 20 amp single dedicated line (wired directly to the circuit breaker panel) with no shared neutral and on a different phase from the lighting circuits. A 20 amp line and duplex outlet are preferred because they will allow an available cutter accessory to be installed with no change to the electrical service.

! If specifications are not met, the AC outlet is wired or grounded incorrectly. Inform the Customer and request that a licensed electrician correct the problem. DO NOT make the correction yourself.

THE APPLIANCE COUPLER (POWER SUPPLY CORD) IS THE DISCONNECT DEVICE FOR THIS EQUIPMENT. ENSURE THAT THE INSTALLATION IS NEAR THE OUTLET AND IS EASILY ACCESSIBLE.

NOTES:

1. When installing a (USO) or (XLA 60 Hz) configuration 3001 Copier, one 115 VAC outlet is required at the customer site.
2. When installing a (XLA 50 Hz) configuration 3001 Copier with a cut sheet feeder accessory, two 220 VAC outlets are required at the customer site. The 3001 Copier requires a separate power lines.
3. When installing a (XLA 50 Hz) configuration 3001 Copier with a cutter accessory, three 220 VAC outlets are required at the customer site. The 3001 Copier requires a single dedicated power line. The cutter accessory may share a power line.

1. (FIGURE 1): CHECK THE GROUND AND THE AC VOLTAGE (USO), (XLA 60Hz).

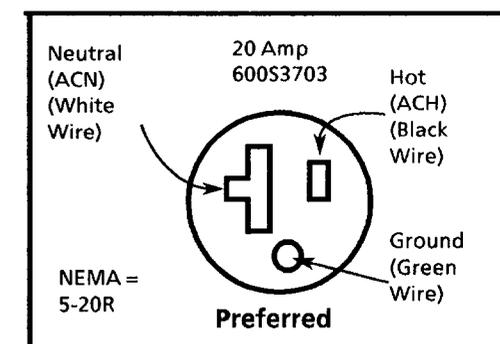
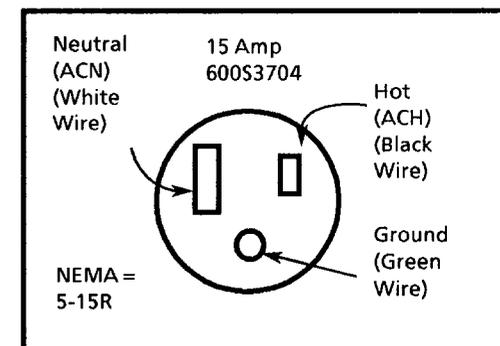


Figure 1. Check the Ground and the AC Voltage (USO), (XLA 60Hz)

- A. Check for 115 VAC between AC Hot and AC neutral.
- B. Check for 115 VAC between AC Hot and ground.
- C. Check for less than 2 VAC between AC neutral and ground.

Floor Space Required:

104 inches x 92 inches (2642 mm x 2337 mm)

2. (FIGURE 2): THIS SHOWS THE MINIMUM ALLOWABLE SPACE REQUIREMENTS.

This product will produce ozone during normal operation. The ozone produced is dependent on copy volume and is heavier than air. Providing the proper environmental parameters as specified in Xerox installation procedures will ensure that concentration levels meet safe limits. If additional information concerning ozone is needed, contact your branch office.

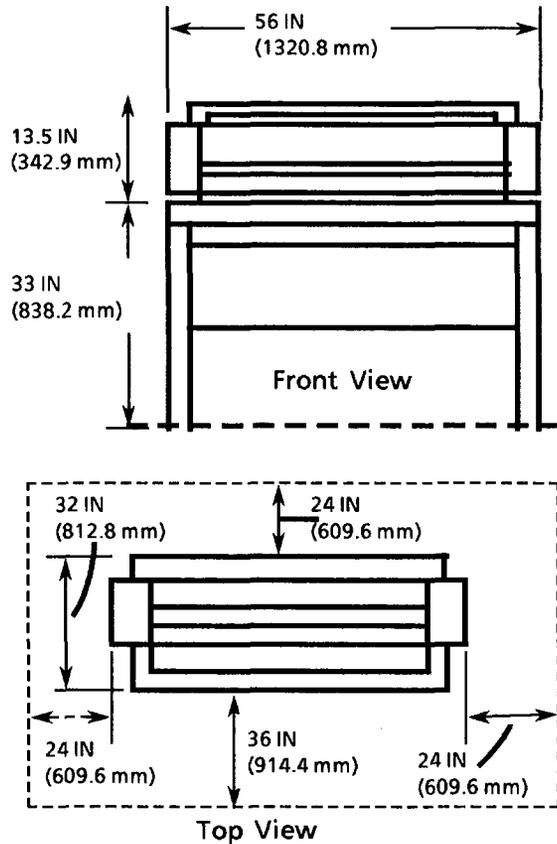


Figure 2. Minimum Space Requirements

(Continued)

1. (FIGURE 1): REMOVE THE FOAM BLOCKS.

2 STEP 3B: Do not discard the foam blocks. The foam blocks will be used later in the installation.

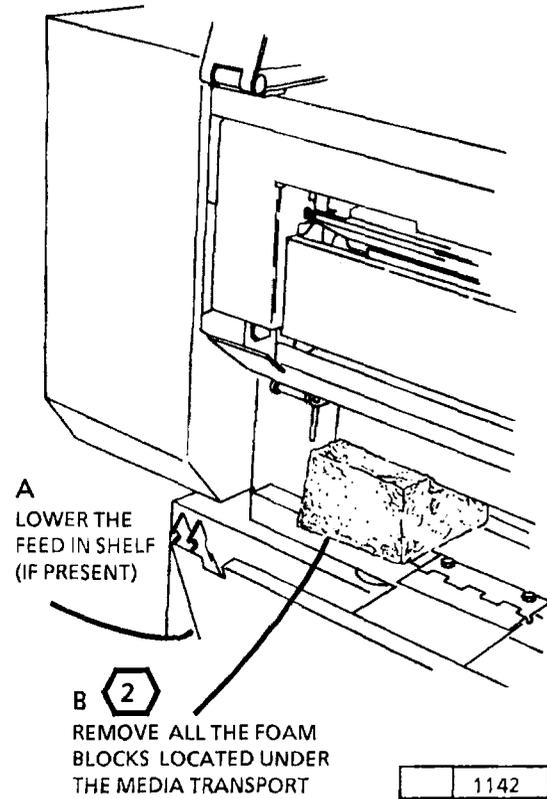
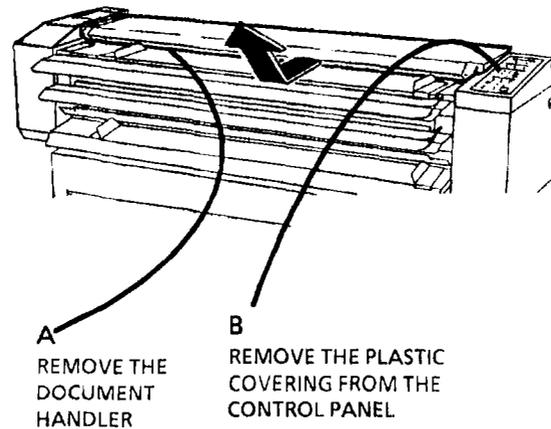


Figure 1. Remove the Foam Blocks

2. (FIGURE 2): REMOVE THE DOCUMENT HANDLER AND THE PLASTIC COVERING ON THE CONTROL PANEL.

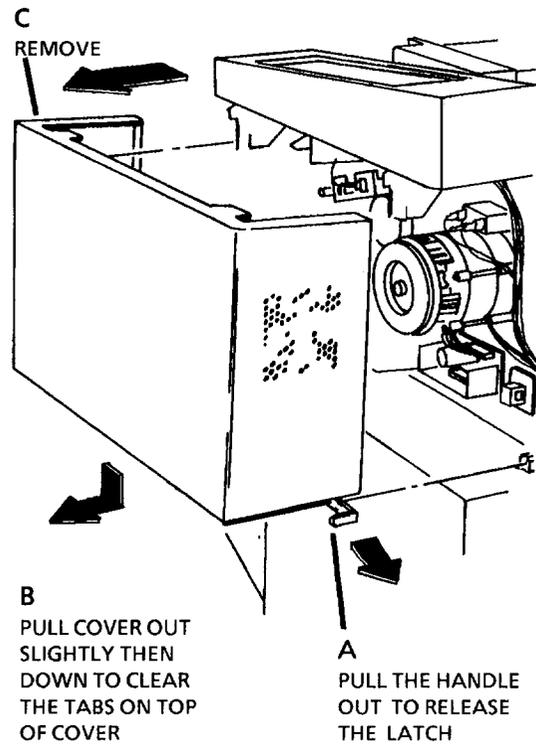


	1152	
JR	SM 6	★

Figure 2. Remove the Document Handler and the Plastic Covering

3. REMOVE THE SEPARATOR GUIDE ASSEMBLY.

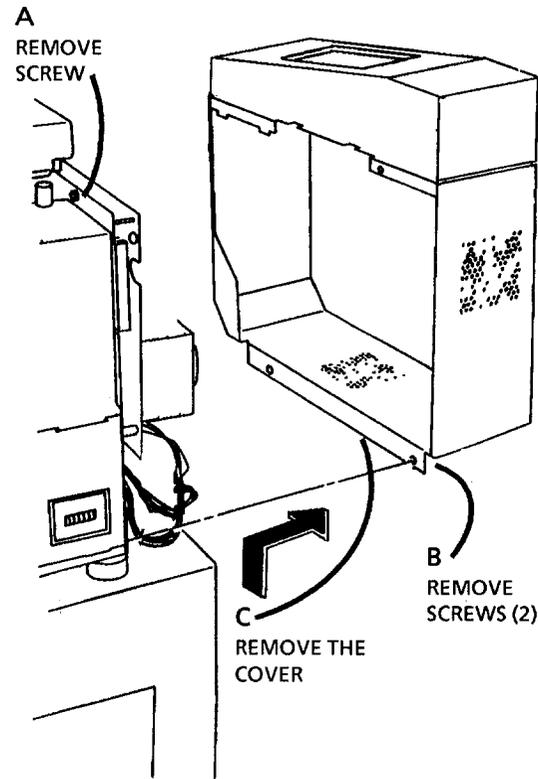
4. (FIGURE 3): REMOVE THE RIGHT END COVER.



1139K

Figure 3. Remove the Right End Cover

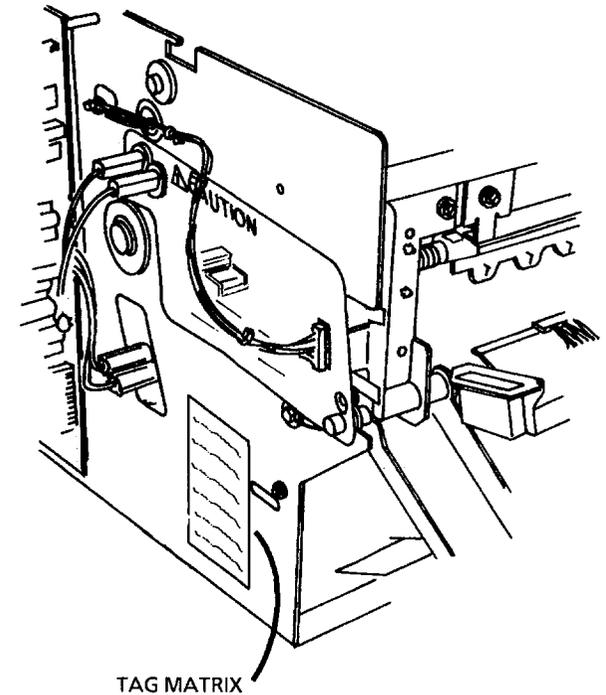
5. (FIGURE 4): REMOVE THE LEFT END COVER.



1141K

Figure 4. Remove the Left Cover

6. (FIGURE 5): ENSURE TAG MATRIX IS INSTALLED.



	1153	A
JR	SM 6	★

Figure 5. Ensure Tag Matrix is Installed

7. (FIGURE 6): REMOVE THE OIL DISPENSER ASSEMBLY.

! STEP 7 D: Handle the Oil Dispenser with care to avoid damaging the Stripper Fingers and the Media Deflectors.

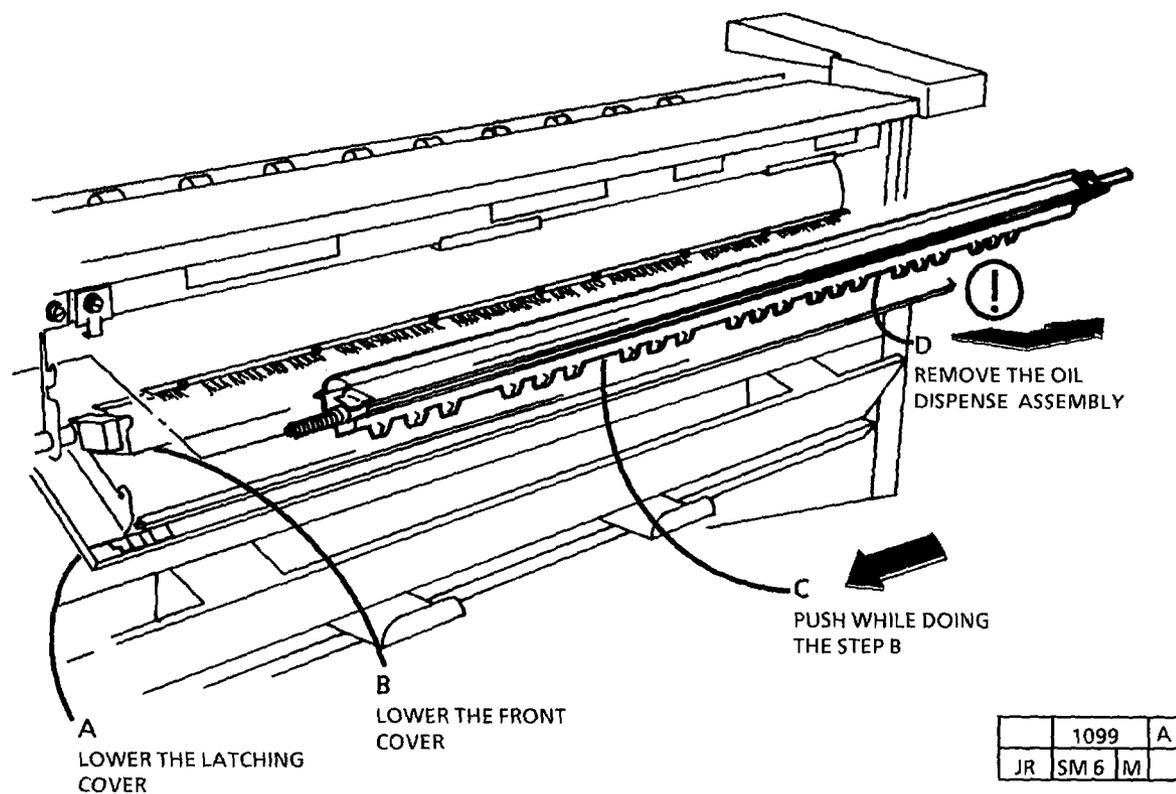


Figure 6. Removing the Oil Dispenser Assembly

8. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
9. (FIGURE 7): REMOVE THE TIE-WRAP ON THE SOLENOID WEIGHT.
10. ROTATE THE TRANSITION GEAR TO MOVE THE CLEANING BLADE ASSEMBLY FULLY TO THE LEFT. CHECK THAT THE BLADE WEIGHT DOES NOT INTERFERE WITH THE SIDE FRAME OF THE XEROGRAPHIC MODULE

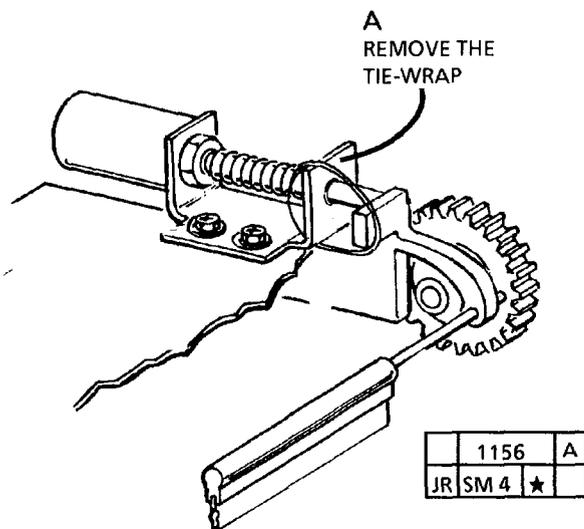


Figure 7. Remove the Tie-Wrap on the Solenoid Weight

3 STEP 11: The fuser roll must be in the position shown in Figure 8 before removing the fuser roll bearing.

11. (FIGURE 8): POSITION THE FUSER ROLL CORRECTLY.

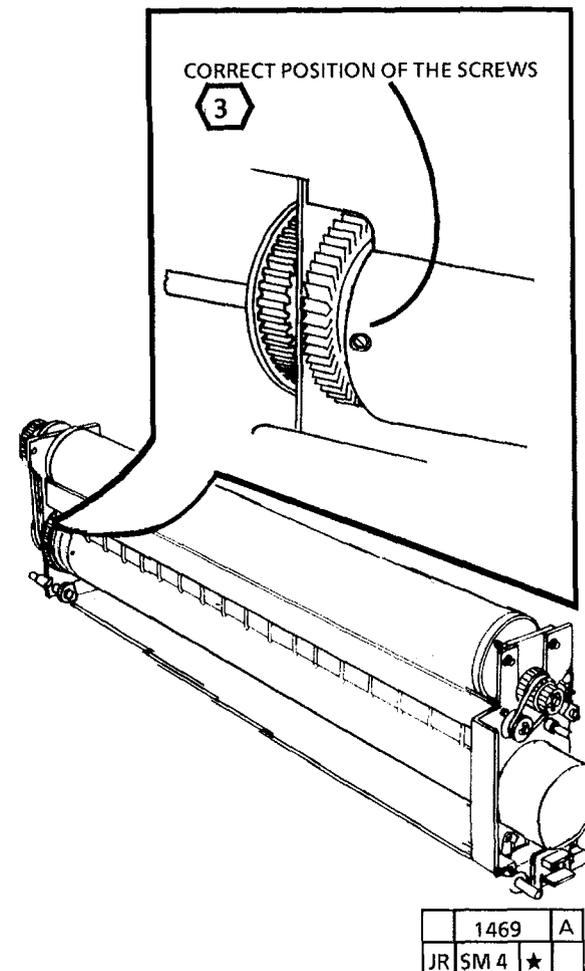


Figure 8. Position the Fuser Roll Correctly

4 The 3001 is shipped with the Photoreceptor Drum packed separately. The Photoreceptor Drum will be installed later in the installation.

12. REMOVE THE PHOTORECEPTOR DRUM SHAFT ASSEMBLY (REP9.2).

5 There is a packing spring inside the Fuser Roll to support the Fuser Heat Rod during shipping. This packing spring must be removed before operating the 3001.

13. (FIGURE 9): PREPARE TO REMOVE THE PACKING SPRING.

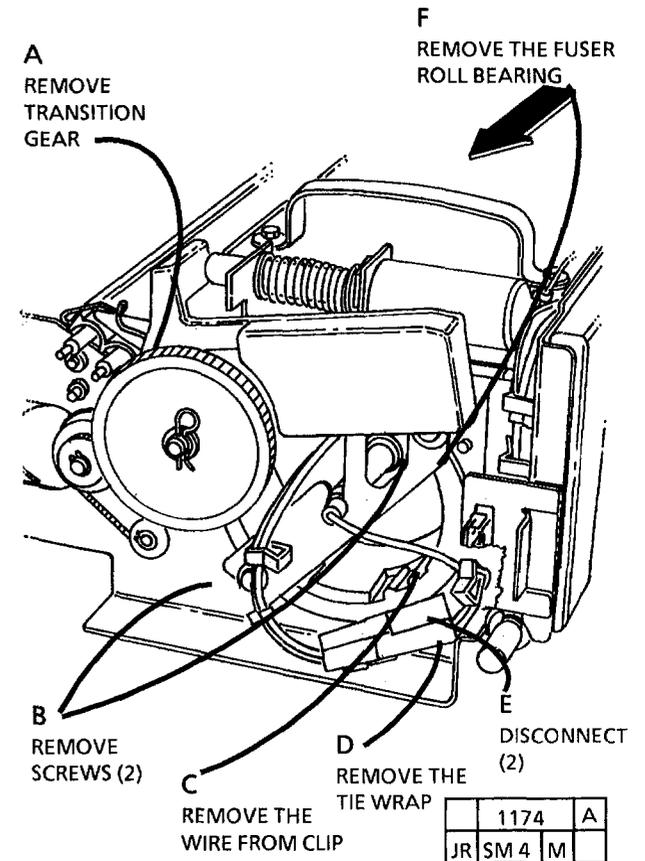


Figure 9. Prepare to Remove the Packing Spring

5 The retaining bar from the Fabric Guide will be used to remove the packing spring.

14. (FIGURE 10): REMOVE THE RETAINING BAR FROM THE FABRIC GUIDE.

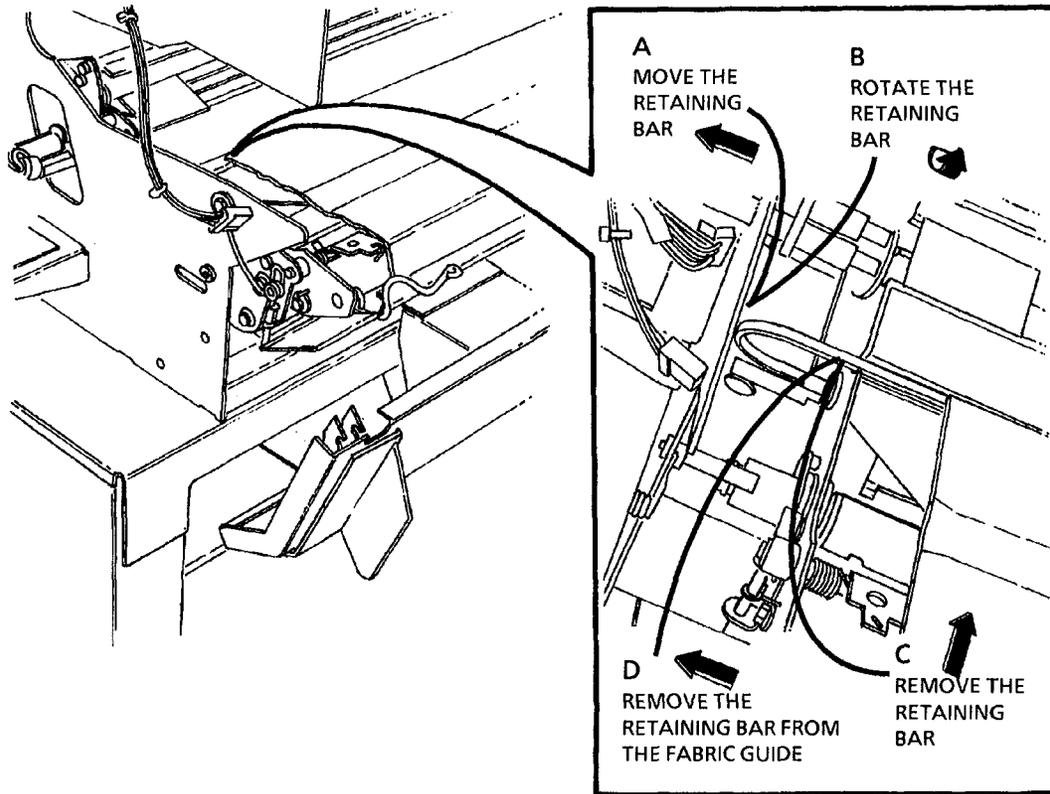


Figure 10. Remove the Retaining Bar from the Fabric Guide

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JR	SM 4	M

15. (FIGURE 11): REMOVE THE PACKING SPRING.

! STEP 15 A: Use extreme care to avoid damage to the fuser heat rod while removing the packing spring.

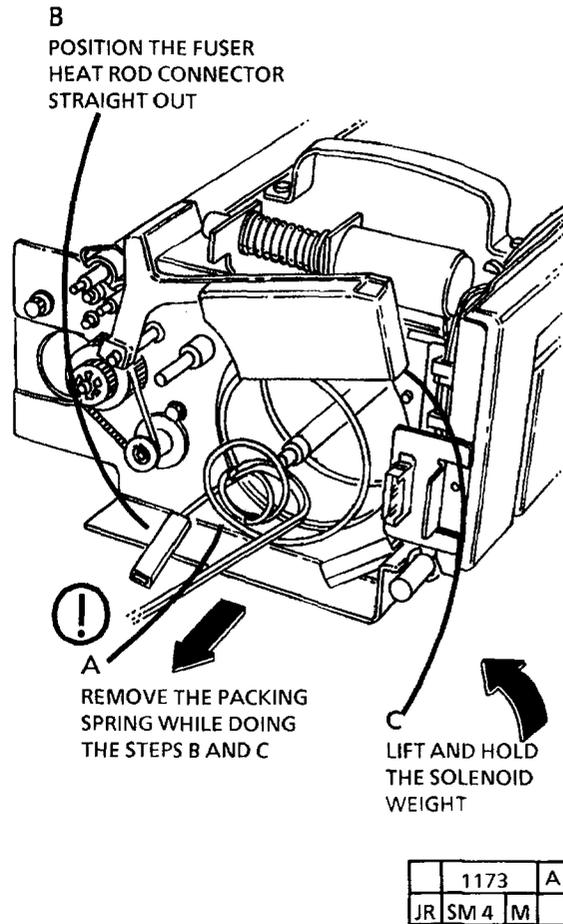


Figure 11. Remove the Packing Spring

6 STEP 16 A: The overheat thermostat must be in the up position towards the cleaning blade solenoid weight. The overheat thermostat connectors can be interchanged with no effect on their function.

7 STEP 19 A: Ensure that the screw heads are centered in the hole in the fuser roll as shown in Figure 12A.

16. (FIGURE 12): REINSTALL THE FUSER ROLL BEARING.

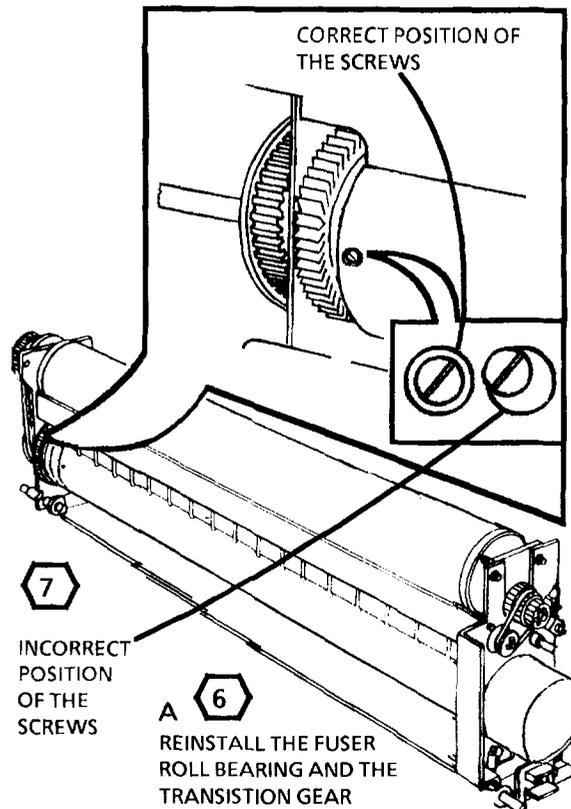


Figure 12. Screw Position in Holes

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JR	SM 4	M

17. (FIGURE 13): CHECK THE PRESSURE PLATE AND THE MEDIA GUIDE PLATE.

18. REINSTALL THE RETAINING BAR IN THE FABRIC GUIDE.

19. REINSTALL THE FABRIC GUIDE.

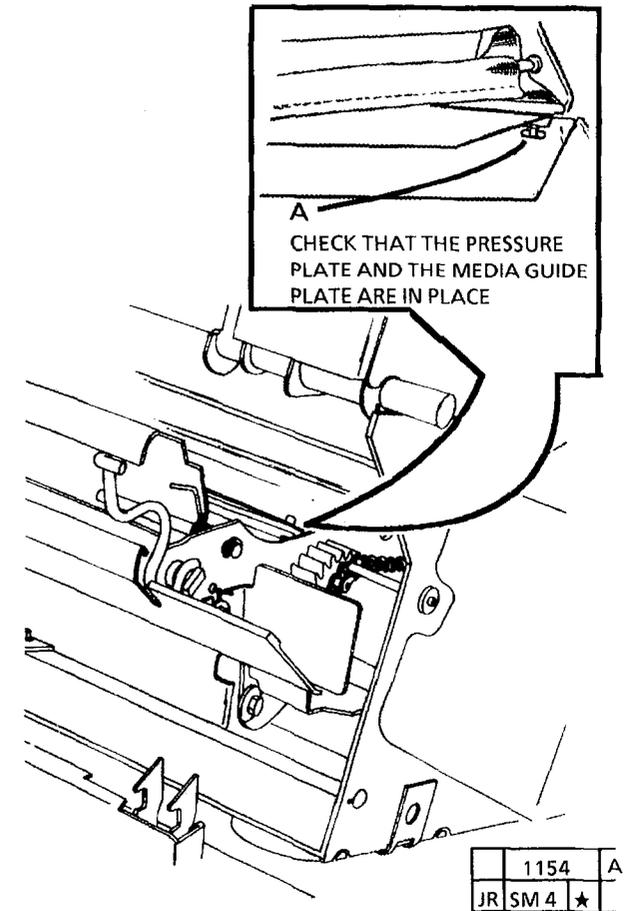


Figure 13. Check the Pressure Plate and the Media Guide Plate

20. INSTALL THE PHOTORECEPTOR DRUM (REP 9.3).

8 Clean the photoreceptor seal (PL 9.3, Item 9) and move it towards the drum to provide a seal between the drum and the auger extrusion.

9 Before installing the Photoreceptor Drum Assembly in the Xerographic Module, ensure that the Cleaning Blade is positioned fully in the slot on the support assembly and the bearing on the opposite end from the solenoid weight is installed in the frame.

21. REINSTALL THE PHOTORECEPTOR DRUM ASSEMBLY (REP 9.2).

22. ADJUST THE CLEANING BLADE SOLENOID (ADJ 9.1).

23. REINSTALL THE XEROGRAPHIC MODULE.

24. (FIGURE 14): INSTALL THE LEFT SIDE OF THE OIL DISPENSE ASSEMBLY.

! STEP 24 B: To avoid damage to the stripper fingers and the fuser heat roll, ensure that the oil dispense assembly is kept positioned up against the bracket as shown in Figure 14. Keep the oil dispense assembly as close to the fuser roll without touching the roll while installing the assembly.

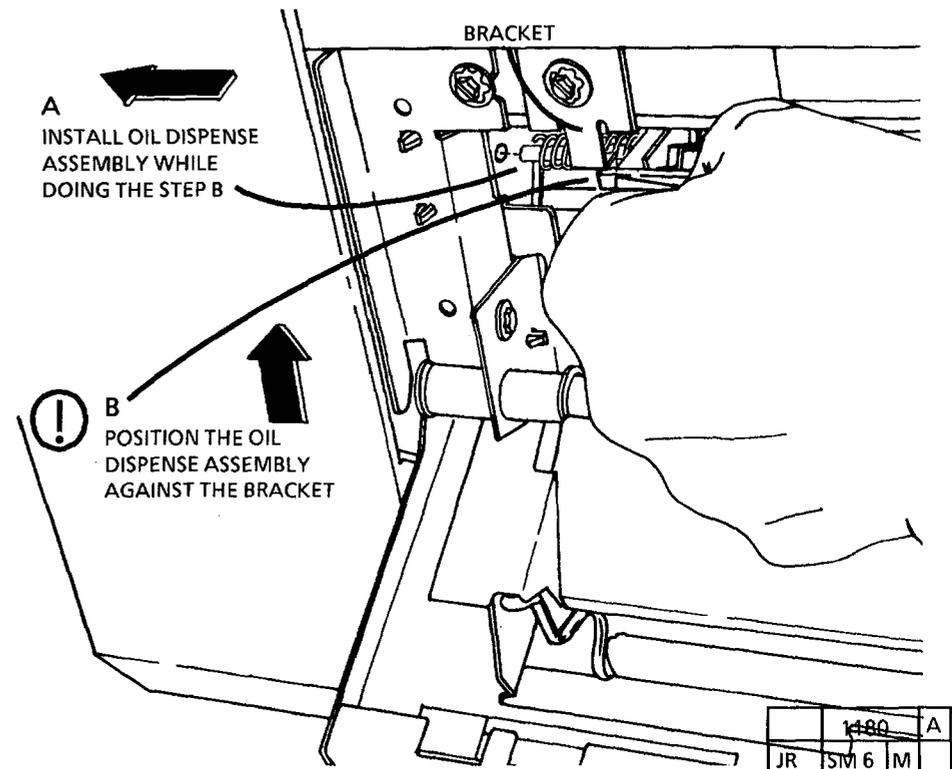


Figure 14. Installing the Oil Dispense Assembly

25. (FIGURE 15): INSTALL THE RIGHT SIDE OF THE OIL DISPENSE ASSEMBLY.



STEP 25 A: To avoid damage to the stripper fingers and the fuser heat roll, keep the oil dispense assembly as close to the fuser roll without touching the roll while installing the assembly.

26. RAISE THE FRONT COVER.

27. RAISE THE TRANSPORT LATCHING COVER.

28. RAISE THE FEED-IN SHELF.

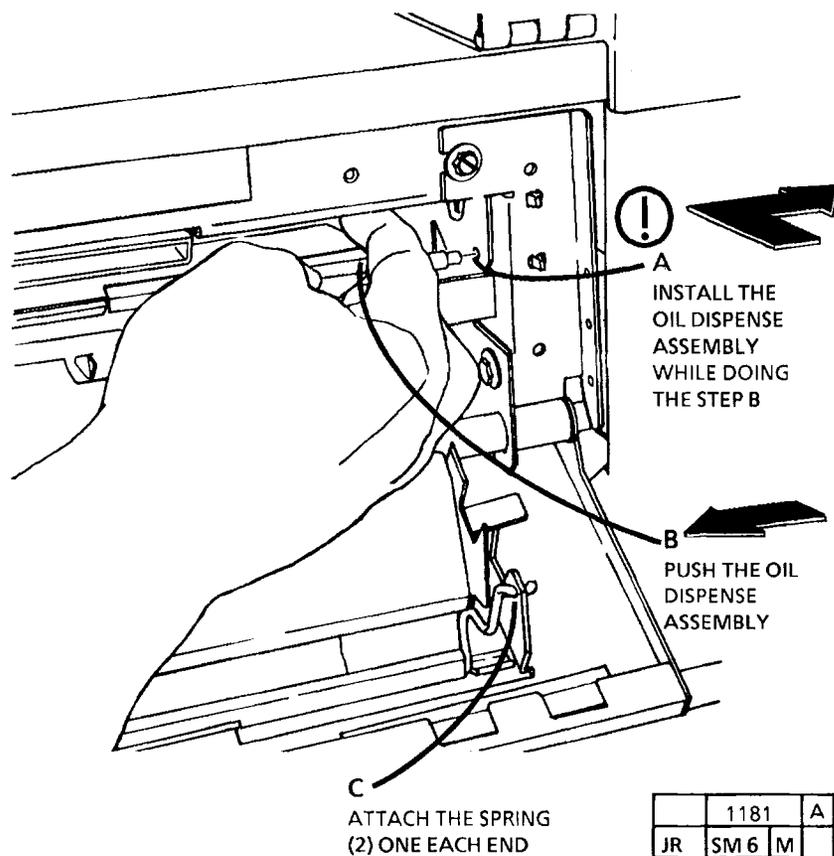
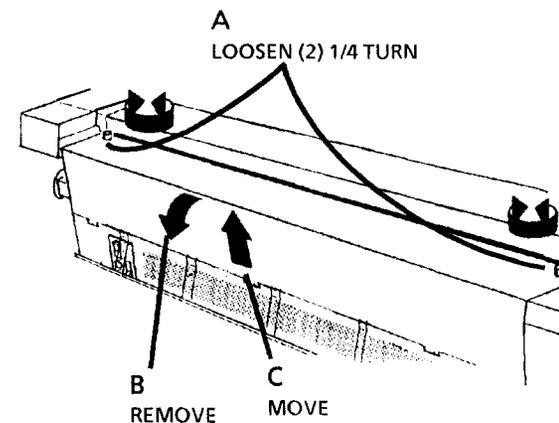


Figure 15. Installing the Oil Dispense Assembly

29. (FIGURE 16): REMOVE THE UPPER REAR COVER.



1155K

Figure 16. Remove the Upper Rear Cover

30. (FIGURE 17): REMOVE THE DRY INK PLUS CARTRIDGE.

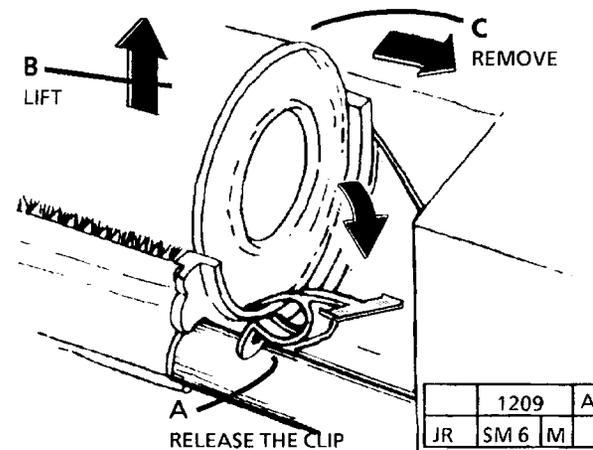


Figure 17. Remove the Dry Ink Cartridge

31. (FIGURE 18): LEVEL THE COPIER.

10 STEP 18 B: Level the copier by adjusting the stand feet.

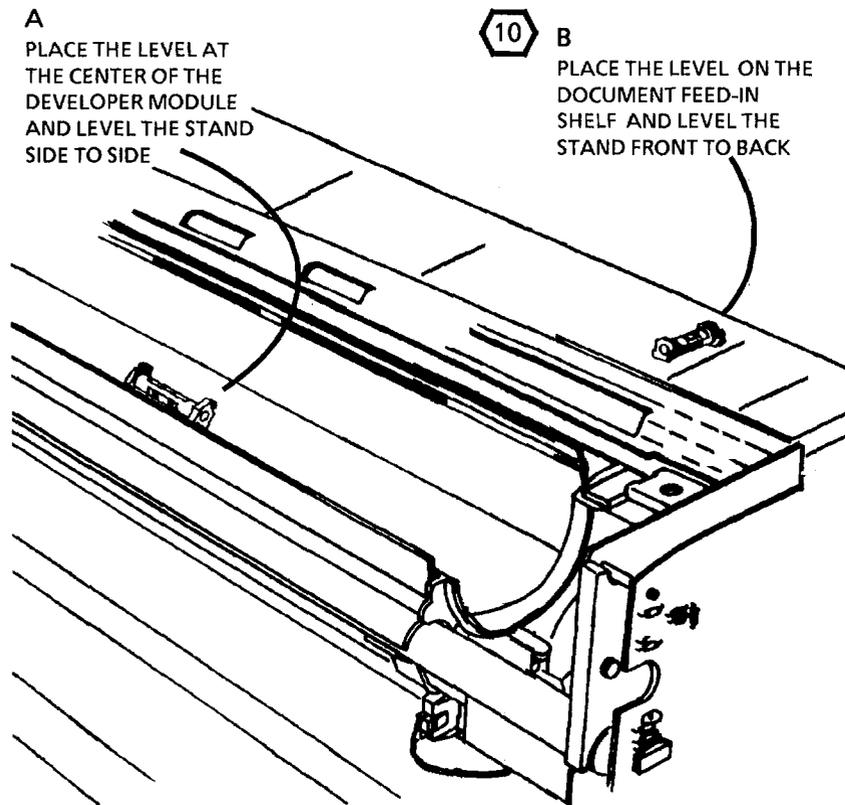


Figure 18. Level the Copier

1157K

32. (FIGURE 19): REMOVE THE FOAM INSIDE THE DEVELOPER HOUSING.

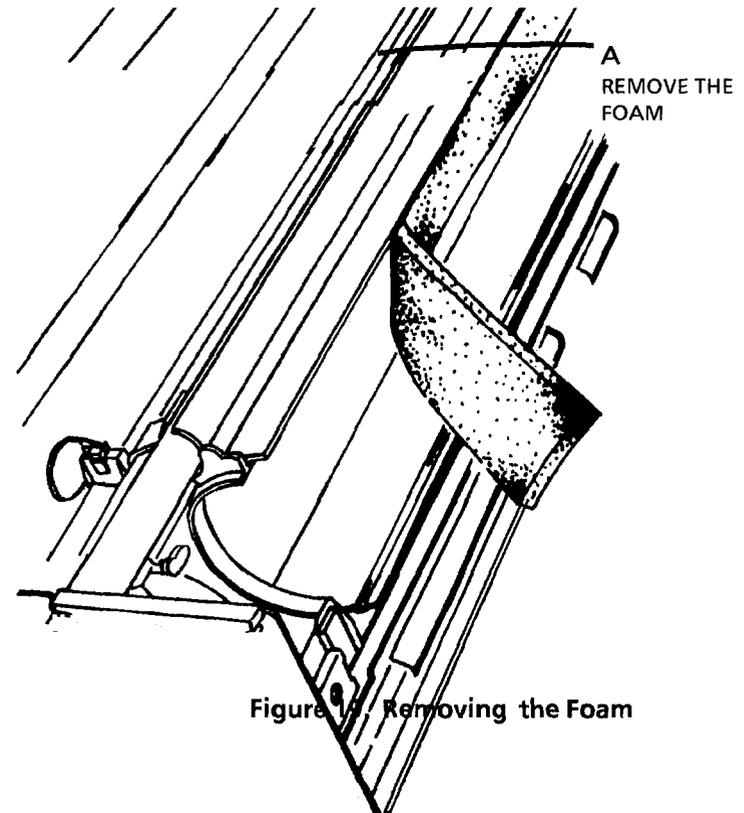


Figure 19. Removing the Foam

1333B

33. (FIGURE 20): ADD THE DEVELOPER.

34. PLUG THE COPIER POWER CORD INTO THE WALL OUTLET.

35. ENTER THE DIAGNOSTICS, ENTER THE CODE 10, AND PRESS START

36. ALLOW THE COPIER TO RUN FOR 15 TO BREAK- IN THE DEVELOPER.

37. (FIGURE 21): PREPARE TO REINSTALL THE DRY INK PLUS CARTRIDGE.

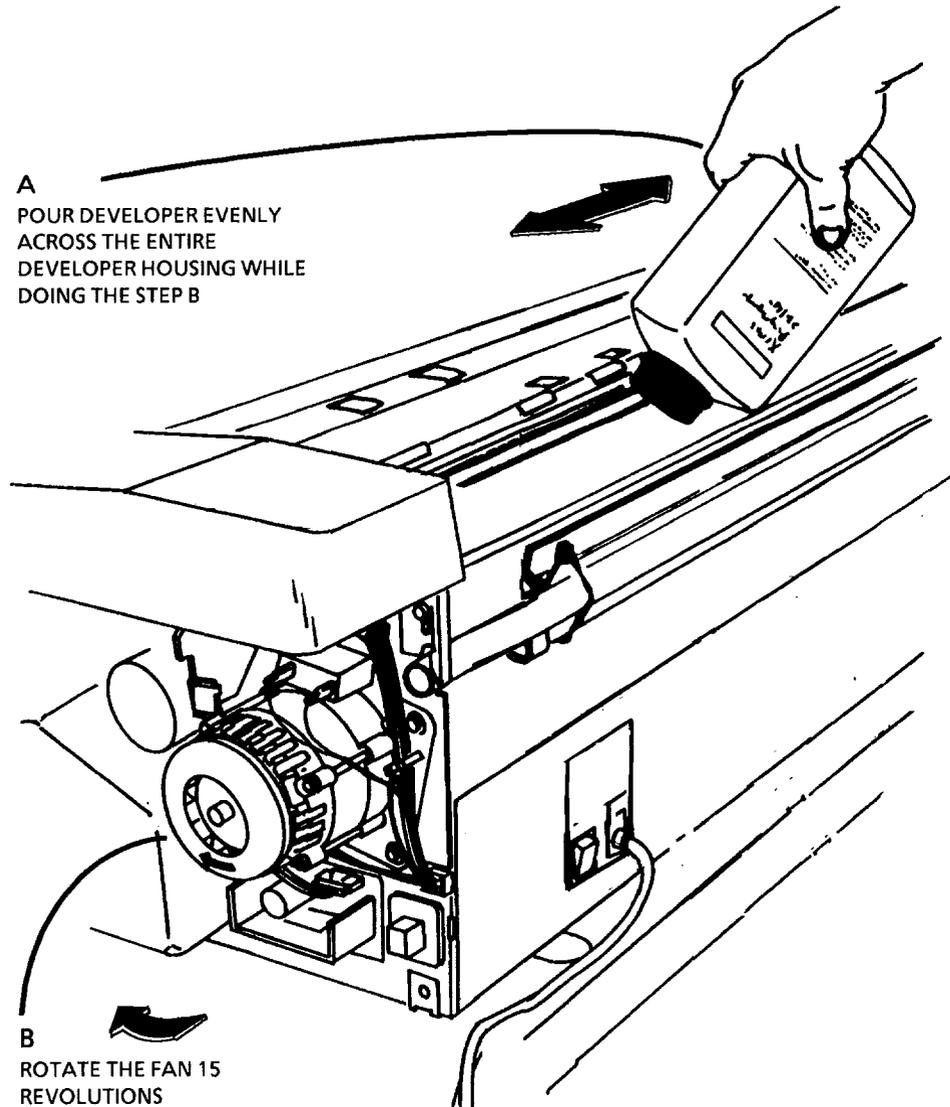


Figure 23. Add the Developer

1147K

11 STEP 37B: Remove the shrink-wrap before reinstalling the cartridge. Ensure that the entire shrink-wrap is removed including the colored strip.

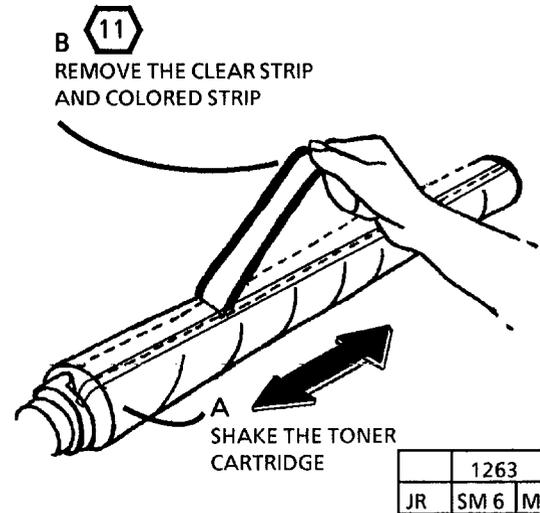


Figure 21. Install the Dry Ink Plus Cartridge

38. REINSTALL THE DRY INK PLUS CARTRIDGE.

12 Install the cartridge with the holes upwards.

39. REMOVE THE PLATEN.

40. (FIGURE 22): CHECK FOR CORRECT LENS POSITION.

13 *STEP 37A: There are six slots in the frame into which the lens pins can be installed. The slots in the upper position are for the 3001. Locating the lens pins in the lower slots will cause an out of focus condition in the 3001.*

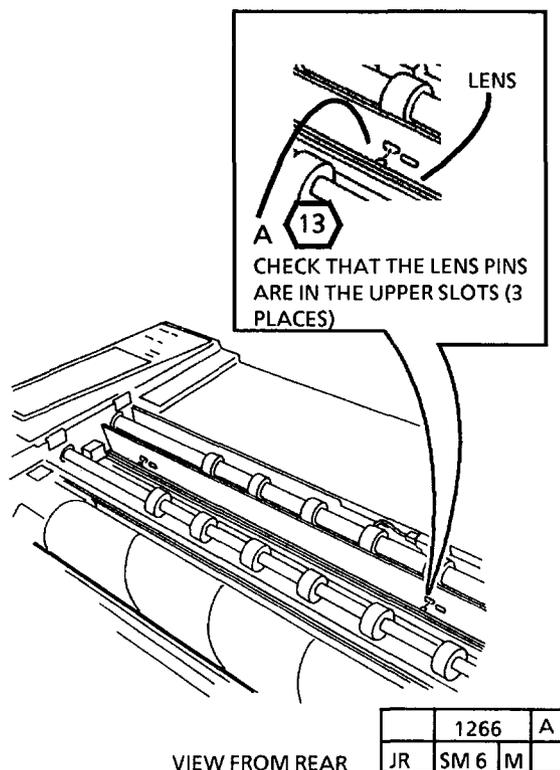


Figure 22. Check for Correct Lens Position

41. REMOVE THE PLASTIC COVERING FROM THE PLATEN AND CLEAN THE PLATEN AND THE SEPARATOR GUIDE ASSEMBLY WITH ANTI-STATIC CLEANER.

42. REINSTALL THE UPPER REAR COVER AND THE PLATEN.

43. (FIGURE 23): CLEAN THE UPPER REAR COVER.

44. INSTALL THE DOCUMENT HANDLER.

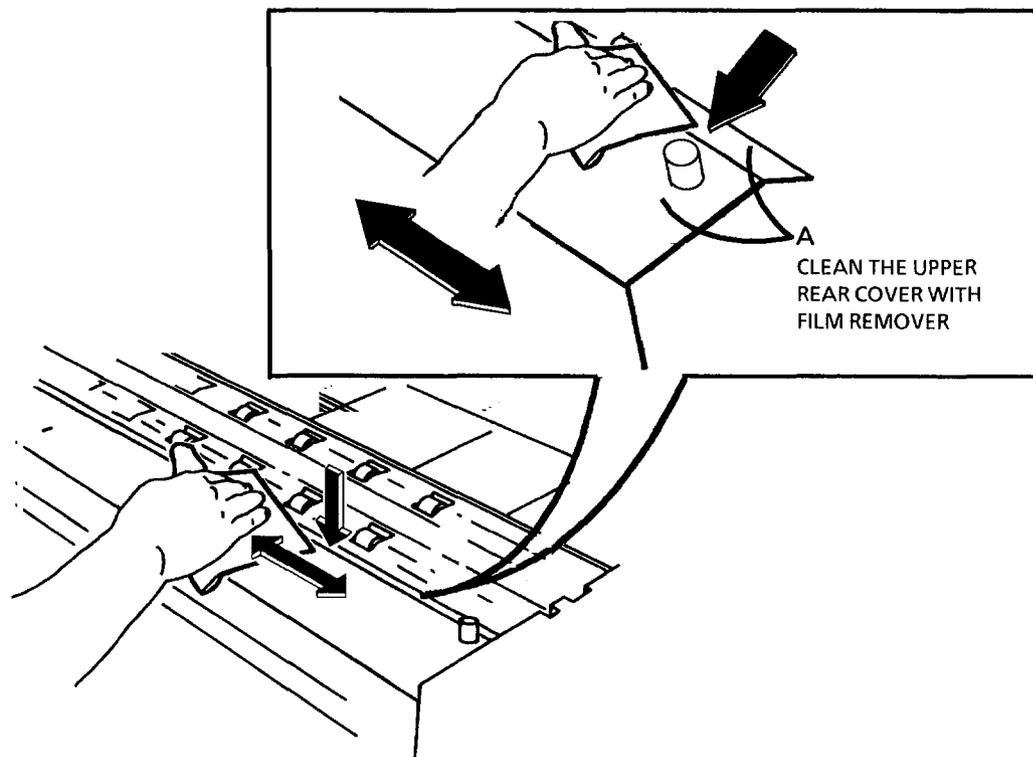


Figure 23. Install the Plastic Strips on the Lower Rear Cover

	01321	A
JR	SM 6	M

45. REINSTALL THE SEPARATOR GUIDES.

46. PERFORM THE FUNCTIONAL CHECK.

(Continued)

Functional Check

1. SWITCH THE COPIER ON.

1 *The warm-up time is approximately 90 seconds.*

2 *Switching the copier on twice allows the fuser roll to be covered with fuser oil before paper is fed into the copier.*

2. LOWER THE FEED IN SHELF, THE LATCHING COVER, AND THE FRONT COVER.

3 *Correct operation of the Fuser Roll requires that the Fuser Roll be initialized by coating the roll evenly with fuser oil. The fuser roll must be at operating temperature as the oil is applied. The following steps specify the correct technique for initializing the fuser roll. Perform the procedure exactly as written and do not omit any steps.*

WARNING

Fuser oil can cause severe eye irritation. Wear protective gloves when handling parts with fuser oil on them. Use caution and do not allow the fuser oil to contact your eyes. Wash hands after handling components covered with fuser oil.

4 To protect the media guide plate, the fuser pressure plate, and the media feed rolls from excess fuser oil, you will insert folded sheets of media under the fabric guide.

5 Step 5C: Use 2 sheets of either C or D size bond media. Fold the C size bond lengthwise in half; fold the D size lengthwise in thirds.

3. (FIGURE 1) : INSTALL THE 2 SHEETS OF MEDIA UNDER THE FULL LENGTH OF THE FABRIC GUIDE, WITH THE SHEETS OVERLAPPING IN THE CENTER.

4. LOWER THE FRONT COVER.
5. CONNECT THE MAIN POWER CORD (IF DISCONNECTED).
6. APPLY APPROXIMATELY 1/3 OF AN 8 CC TUBE OF FUSER OIL DIRECTLY ON THE SURFACE OF THE FUSER ROLL.
7. RAISE THE FRONT COVER AND LATCHING COVER.

(Continued)

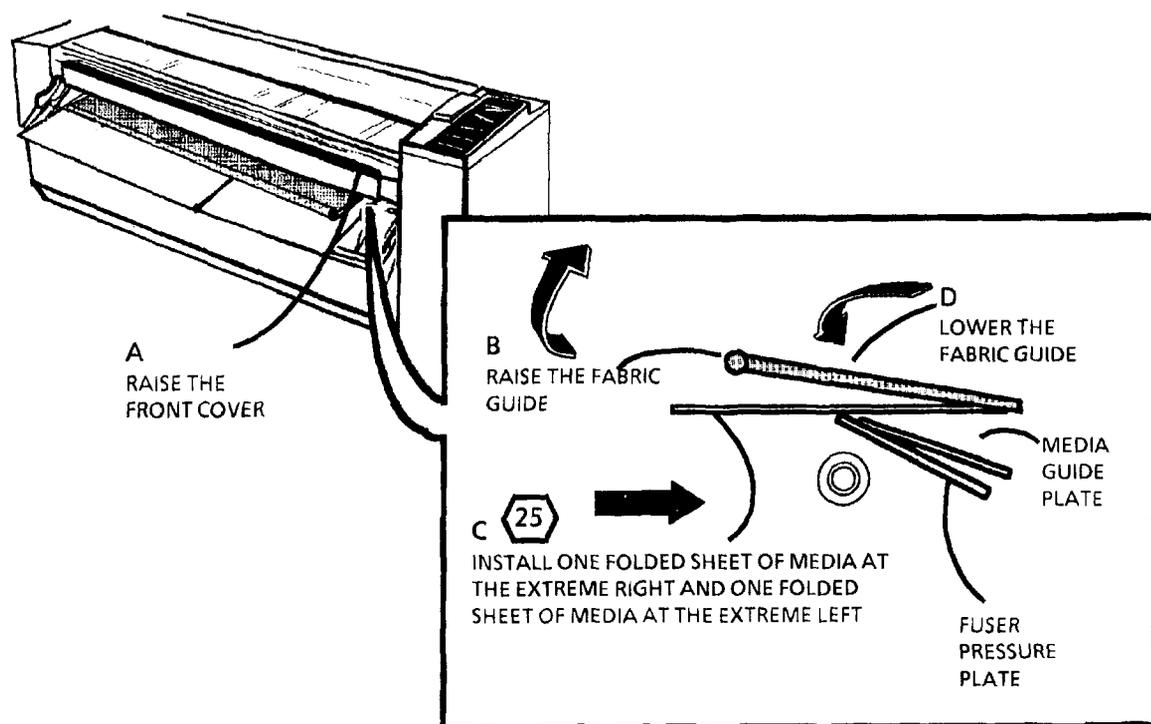


Figure 1. Installing the Media Under the Fabric Guide

0	1327	B
QJR	SM 6	M 0

(Continued)

WARNING

There will be a time delay between the time the code [10] is entered and the time the motor starts to turn. The motor will not start until the fuser is at the correct temperature.

8. ENTER DIAGNOSTICS AND ENTER THE CODE [10]. PRESS Start.
9. Allow the 3001 to run for approximately 15 seconds and press Stop.
10. LOWER THE TRANSPORT LATCHING COVER AND THE FRONT COVER AND PERFORM STEPS 8 THROUGH 11 TWO MORE TIMES OR UNTIL THE 8CC TUBE OF OIL IS EMPTY.
11. LOWER THE TRANSPORT LATCHING COVER AND THE FRONT COVER.
12. ROTATE THE FUSER ROLL AND INSPECT THE ENTIRE SURFACE OF THE ROLL FOR DRY AREAS.

6 *Dry areas appear as dull spots, as opposed to oiled areas that appear as glossy areas.*
13. IF THERE ARE DRY AREAS ON THE FUSER ROLL, WIPE THE OIL FROM THE SURROUNDING AREAS TO THE DRY AREAS WITH A TOWEL.
14. RAISE THE TRANSPORT LATCHING COVER AND THE FRONT COVER.
15. WHILE IN THE CODE [10]. PRESS Start.

16. ALLOW THE 3001 TO OPERATE FOR A MINIMUM OF 10 MINUTES.
17. PRESS Stop THEN LOWER THE TRANSPORT LATCHING COVER.
18. WIPE THE EXCESS OIL OFF THE FABRIC GUIDE WITH TOWELS.
19. REMOVE AND DISCARD THE MEDIA FROM UNDER THE FABRIC GUIDE.
20. LIFT THE FABRIC GUIDE AND WIPE THE EXCESS OIL OFF THE FUSER PRESSURE PLATE, THE MEDIA GUIDE PLATE, AND UNDER THE FABRIC GUIDE WITH TOWELS.

21. ENSURE THAT THE FUSER PRESSURE PLATE AND THE MEDIA GUIDE PLATE ARE LOCATED CORRECTLY.
22. LOWER THE FRONT COVER.
23. (FIGURE 2): INSTALL THE LEFT SIDE OF THE OIL DISPENSE ASSEMBLY.

! *STEP 23C: To avoid damage to the stripper fingers and the fuser heat roll, ensure that the oil dispense assembly is kept positioned up against the bracket as shown in Figure 37. Keep the oil dispense assembly as close to the fuser roll without touching the roll while installing the assembly.*

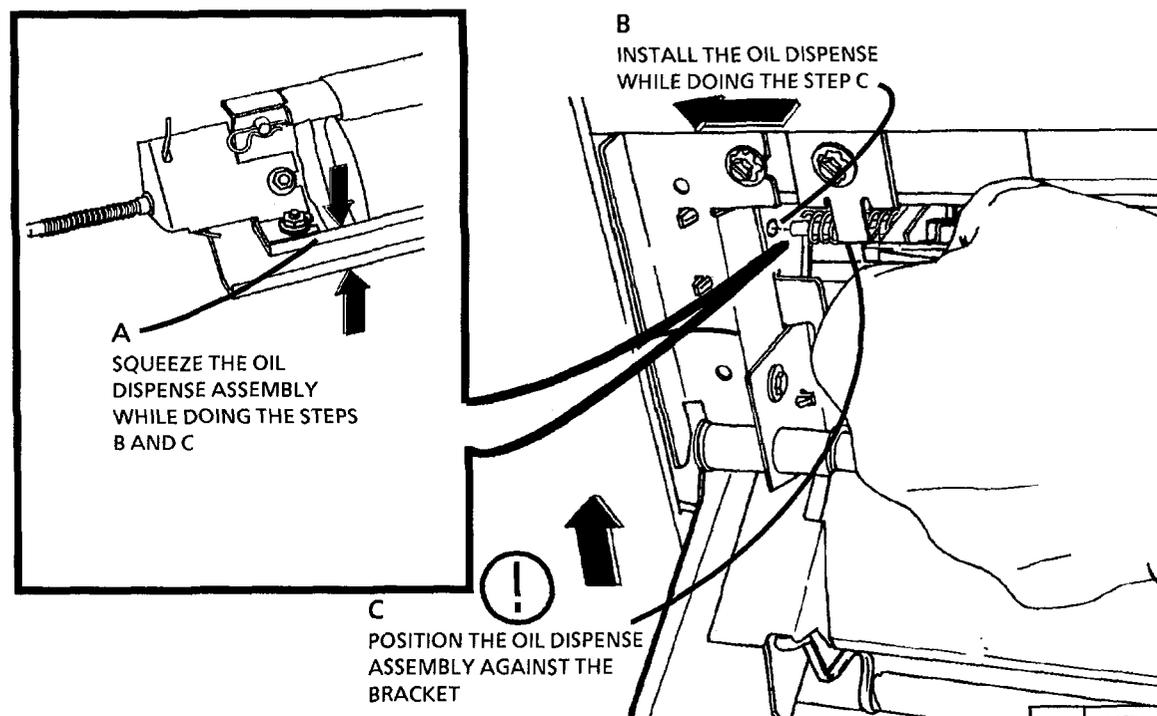


Figure 2. Installing the Oil Dispense Assembly

0	1467	B
0JR	SM 6	M 0

24. (FIGURE3): INSTALL THE RIGHT SIDE OF THE OIL DISPENSE ASSEMBLY.

STEP 24A: To avoid damage to the stripper fingers and the fuser roll, keep the oil dispense assembly as close to the fuser roll without touching the roll while installing the assembly.

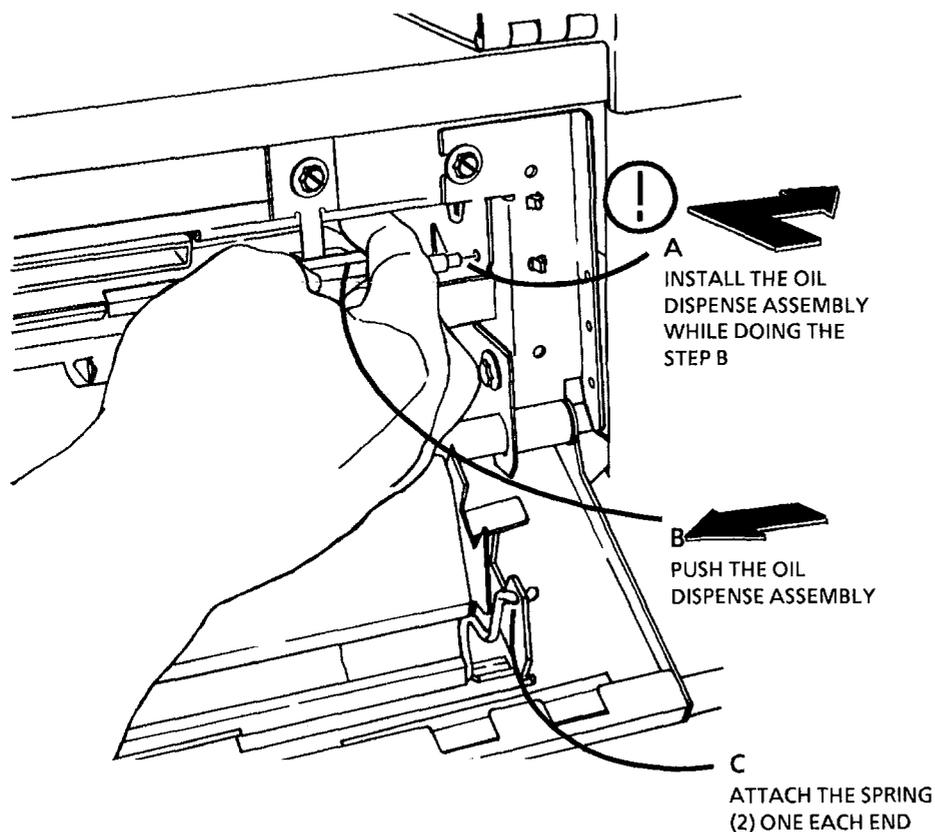


Figure 3. Installing the Media Under the Fabric Guide

25. RAISE THE TRANSPORT LATCHING COVER, THE FRONT COVER AND THE FEED IN SHELF.

26. WASH YOUR HANDS TO REMOVE ANY FUSER OIL THAT MAY REMAIN ON THEM.

27. IN ORDER TO REMOVE THE EXCESS OIL FROM THE FUSER ROLL, PERFORM THE FOLLOWING:

- A. WHILE IN THE CODE [10]. PRESS Start.
- B. ENTER THE CODE [11]. AND PRESS Start.
- C. FEED A MINIMUM OF 2 SHEETS OF BOND COPY MEDIA APPROXIMATELY 1 INCH (25mm) LEFT OF THE EXTREME LEFT MARK ON THE FEED IN SHELF.
- D. FEED A MINIMUM OF 2 SHEETS OF BOND COPY MEDIA APPROXIMATELY 1 INCH (25mm) RIGHT OF THE EXTREME RIGHT MARK ON THE FEED IN SHELF.

29. PRESS Stop.

(Continued)

0	1468	A
0JR	SM 6	M 0

30. PERFORM THE ELECTROSTATIC SERIES (ADJ 9.2).
32. MAKE FIVE COPIES AND CHECK THE COPY QUALITY.
33. PERFORM THE FOLLOWING ADJUSTMENTS:
 - A. TIMEOUT INTERVAL TO REST MODE (ADJ 3.1)
 - B. TIMEOUT INTERVAL TO POWER SAVER MODE (ADJ 3.2)
 - C. COUNTRY CONFIGURATION (ADJ 3.3)
 - D. COPY SIZE ADJUSTMENT (ADJ 5.1)
 - E. REGISTRATION (ADJ 8.1)
 - F. LEAD EDGE MARGIN (ADJ 8.2)
35. SEPARATE THE **First Call Report 3001** CARD FROM THE **Installation Quality Report 3001** CARD AND INSERT THE **First Call Report 3001** CARD INTO THE MACHINE LOG POUCH.
36. RECORD THE FOLLOWING ON THE COPIER **Installation Quality Report 3001** CARD:
 - COPY COUNT READING
 - COPIER SERIAL NUMBER
 - INSTALL DATE
 - COMMENTS (AS REQUIRED)
37. MAIL THE COPIER **Installation Quality Report 3001** CARD.
38. RECORD THE DEVELOPER BATCH NUMBER ON THE SERVICE LOG.

39. IF THE OPTIONAL 3001 AUDITRON KIT IS PROVIDED WITH THIS INSTALLATION, USE THE INSTRUCTION PROVIDED IN THE KIT TO INSTALL IT AT THIS TIME.

- A. LOCATE THE INDIVIDUAL RESPONSIBLE FOR THE COPIER AND GIVE THEM THE 3001 AUDITRON ADMINISTRATOR GUIDE. ASK THAT THEY PLEASE READ THROUGH THE MANUAL WHILE YOU INSTALL THE AUDITRON. THIS SHOULD BE DONE IN ORDER TO BEGIN THE AUDITRON ADMINISTRATOR TRAINING.

Product Demonstration

To demonstrate the capabilities of the 3001, refer to the User Guide. Perform the following procedures to train an operator (s):

1. Getting To Know Your Copier
2. Control Panel
3. Making The Copies in multiple copy and Long Copy mode. when to use them.
4. Scale Adjust
5. Partial Copy
4. Document Input/ Copy Contrast
5. The Copy Output Selections
6. Adding The Dry Ink and how to clear the J1 status code
7. Auditron
 - a. Show the operator (s), that with the Auditron enabled, the C9 code will be displayed on the Control Panel until a valid number is entered.
 - b. Tell them that the # key must be pressed after entering their Account Code number.
8. Cleaning the Platen and the Optical System
9. Problem Solving Status Codes
10. Clearing the Copier

(Continued)

Auditron Administrator Training

Locate the individual responsible for maintaining the copier, and using the 3001 Auditron Administrator Guide, demonstrate the capabilities of the Auditron. Have the individual perform the procedures and answer questions that they may have.

- a. Management Keylock positions
- b. Initialize the Auditron
- c. Operating parameters
- d. Parameter programming
- e. Account code loading
- f. Account maintenance

Emphasize to the individual that the C9 code will be displayed on the copier control panel until a valid Account Number is entered.

Also, tell the individual that the # key must be pressed after entering the Account Code.

After the Auditron is enabled and initialized, remind the individual to remove the key and keep it in a safe location.

Installation Checklist

Site Preparation

- _____ Supply Voltage Check
- _____ Space Requirements

Installation

- _____ Remove the packing material.
- _____ Remove the Oil Dispense Assembly
- _____ Install the plastic document stops on the stand
- _____ Remove the tie wrap on the Cleaning Blade Solenoid Weight.
- _____ Remove the packing spring from inside of the Fuser Heat Roll
- _____ Install the Photoreceptor Drum
- _____ Adjust the Cleaning Blade Solenoid
- _____ Check the Pressure Plate and Paper Guide Plate
- _____ Reinstall the Xerographic Module
- _____ Reinstall the Oil Dispenser Assembly
- _____ Remove the Dry Ink Plus Cartridge.
- _____ Level the copier.
- _____ Remove foam from inside of the Developer Module
- _____ Add developer
- _____ Adjust the Document Return Guide
- _____ Remove the plastic covering from the Platen and the Separator Guide Assembly
- _____ Remove the shrink wrap and install the Dry Ink Plus Cartridge.
- _____ Remove the Platen and the Exposure Lamp

- _____ Check for the correct Lens position.
- _____ Clean the Platen and reinstall the platen and the Exposure Lamp
- _____ Clean and install the plastic strips on the Upper Rear Cover
- _____ Reinstall the rear and right covers.
- _____ Install the Document Handler.
- _____ Install the User's Guide Pouch

Functional Check

- _____ Switch on the copier and allow the copier to warm-up.
- _____ Perform the Fuser Roll Initialization
- _____ Perform the Electrostatic Series
- _____ Perform the Toner Solenoid Adjustment
- _____ Perform the Image Darkness
- _____ Make five copies.
- _____ Check the copy quality.

Product Demonstration Checklist

- _____ ON/OFF switch, copy count meter, and serial number plate
- _____ Control Panel
- _____ Making the Copies
- _____ Scale adjust
- _____ Partial Copy
- _____ Adding the Dry Ink Plus
- _____ Cleaning the Optical System
- _____ Problem Solving Status Codes
- _____ Clearing the Copier

3001 Removal Procedure

If the Install becomes an abort, or if the 3001, must be moved to a different location and repacked, the following procedures will be necessary.

1. **WARNING: SWITCH OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER CORD.**
2. REMOVE THE XEROGRAPHIC MODULE (REP 9.1).
3. REMOVE THE DUSTING POUCH AND PLACE IT IN THE INSTALLATION KIT.

 To avoid damaging the photoreceptor, the 3001 must be shipped with the cleaning blade not touching the photoreceptor.

4. (FIGURE 1): INSTALL A TIE-WRAP ON THE SOLENOID WEIGHT.

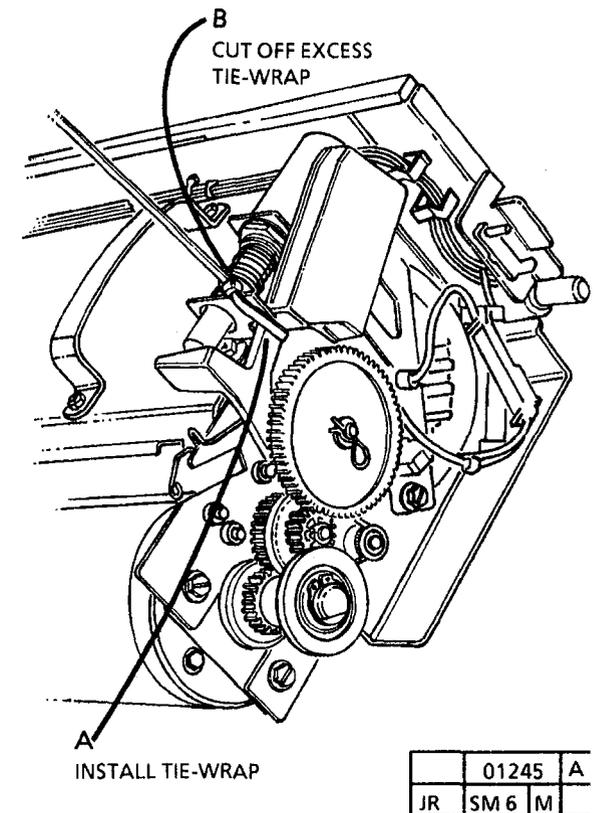


Figure 1. Install a Tie-Wrap on the Solenoid Weight

5. (FIGURE 2): REMOVE THE UPPER REAR COVER.

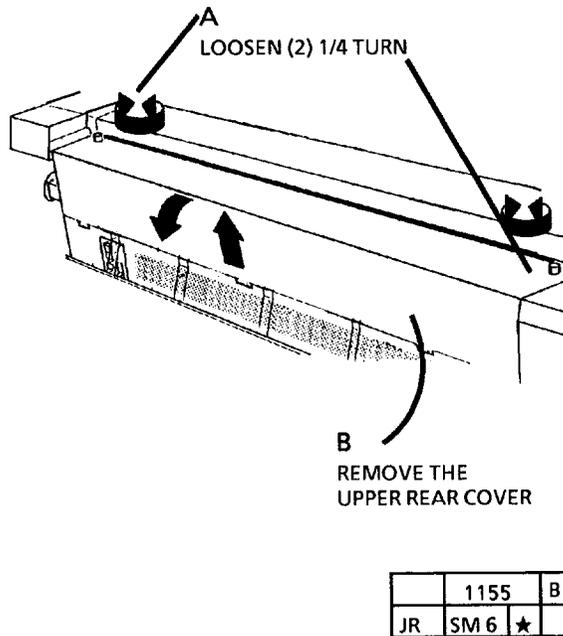


Figure 2. Remove the Upper Rear Cover

6. (FIGURE 3): TAPE AND REMOVE THE DRY INK PLUS CARTRIDGE.

1 STEP 6 A: Tape the Dry Ink Plus Cartridge before removing the cartridge from the Developer

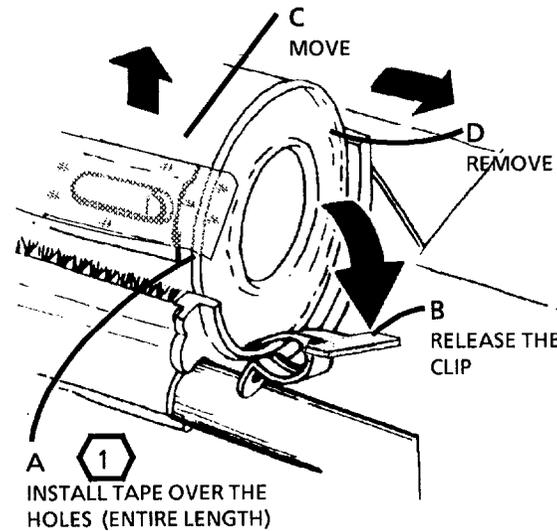


Figure 3. Tape and Remove Dry Ink Plus Cartridge

7. REMOVE THE DEVELOPER MODULE (REP 9.5).
8. PLACE A DROP CLOTH ON THE FLOOR.
9. REMOVE THE PICKOFF BAFFLE AND STORE IT IN A SAFE PLACE TO AVOID DAMAGING IT.

! Do not turn the Developer Module in the vertical position. This may cause developer to get into the toner cartridge clutch in the end of the Developer Module.

2 STEP 10 C: Ensure that all the developer is dumped.

10. (FIGURE 4): DUMP THE DEVELOPER MATERIAL.

11. COMPLETELY VACUUM THE DEVELOPER HOUSING.

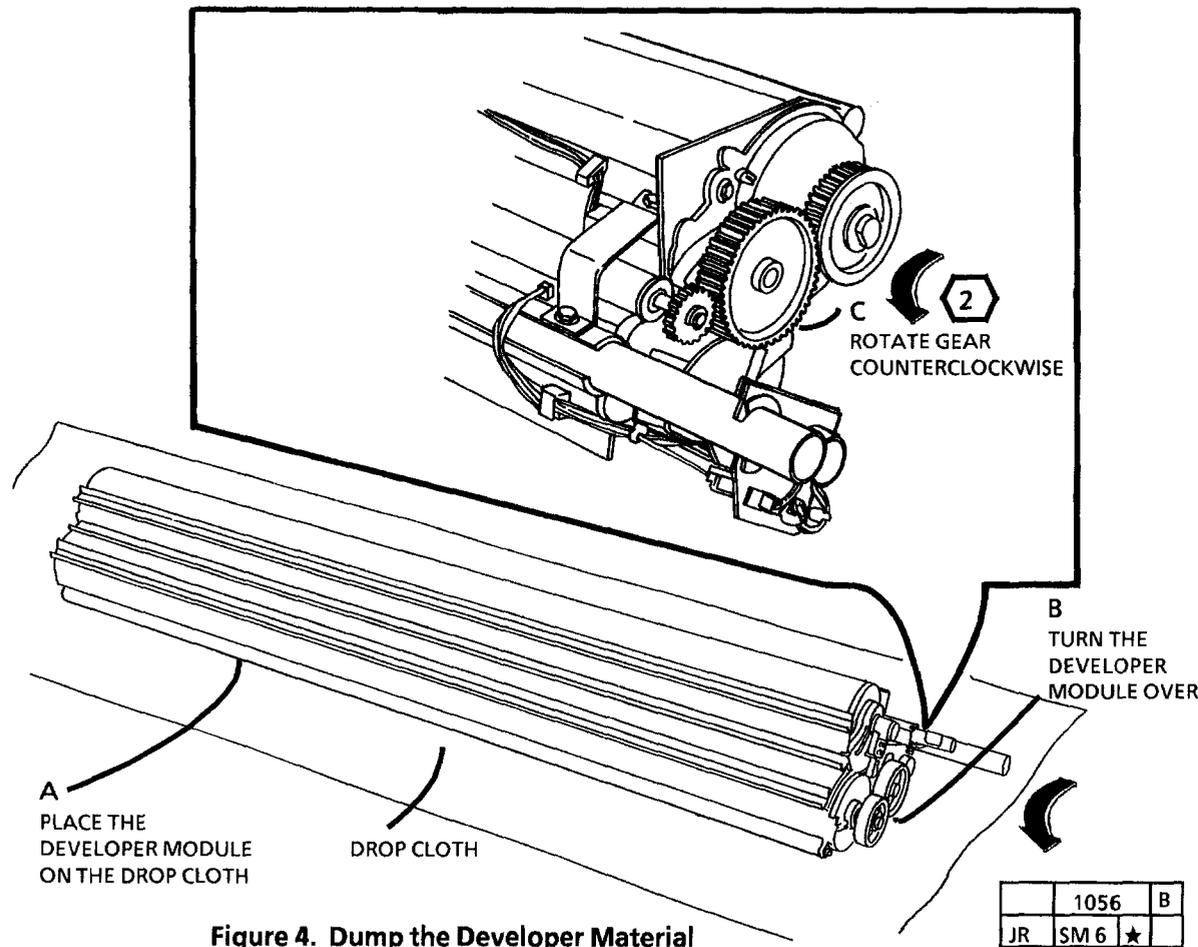


Figure 4. Dump the Developer Material

12. REINSTALL THE PICK OFF BAFFLE.

! STEP 13 A: The pick off baffle must be taped before replacing the toner cartridge to ensure that the pick off baffle does not move causing damage.

13. (FIGURE 5): TAPE THE PICK OFF BAFFLE.

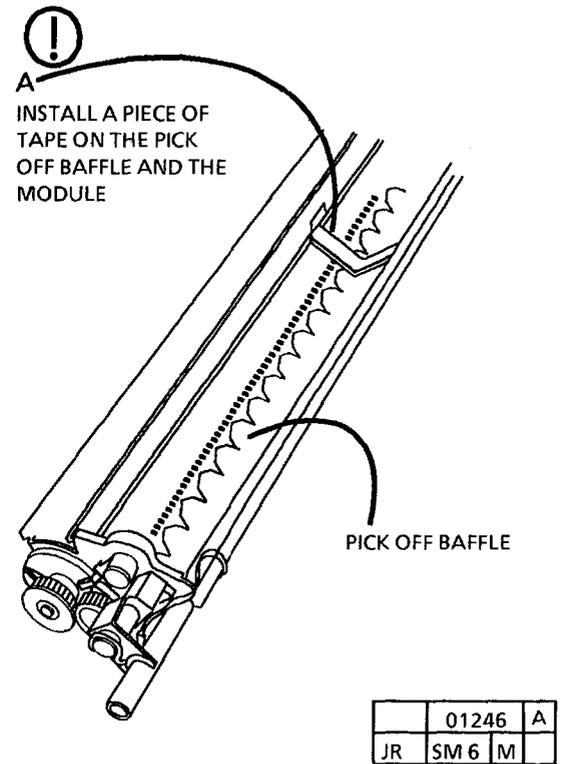


Figure 5. Tape the Pick Off Baffle

14. REINSTALL THE LOWER REAR COVER.

16. REINSTALL THE DRY INK PLUS CARTRIDGE.

15. (FIGURE 7): REINSTALL THE DEVELOPER MODULE.

3 Do not reconnect P/J 43 when reinstalling the xerographic module. This will ensure that the 3001 is disabled for shipping.

17. REINSTALL THE XEROGRAPHIC MODULE.

18. REINSTALL THE UPPER REAR COVER.

19. REINSTALL THE RIGHT AND LEFT END COVERS.

20. REINSTALL THE DOCUMENT HANDLER.

21. CONTACT THE RIGGER THAT THE 3001 IS READY TO BE REMOVED FROM THE CUSTOMER SITE.

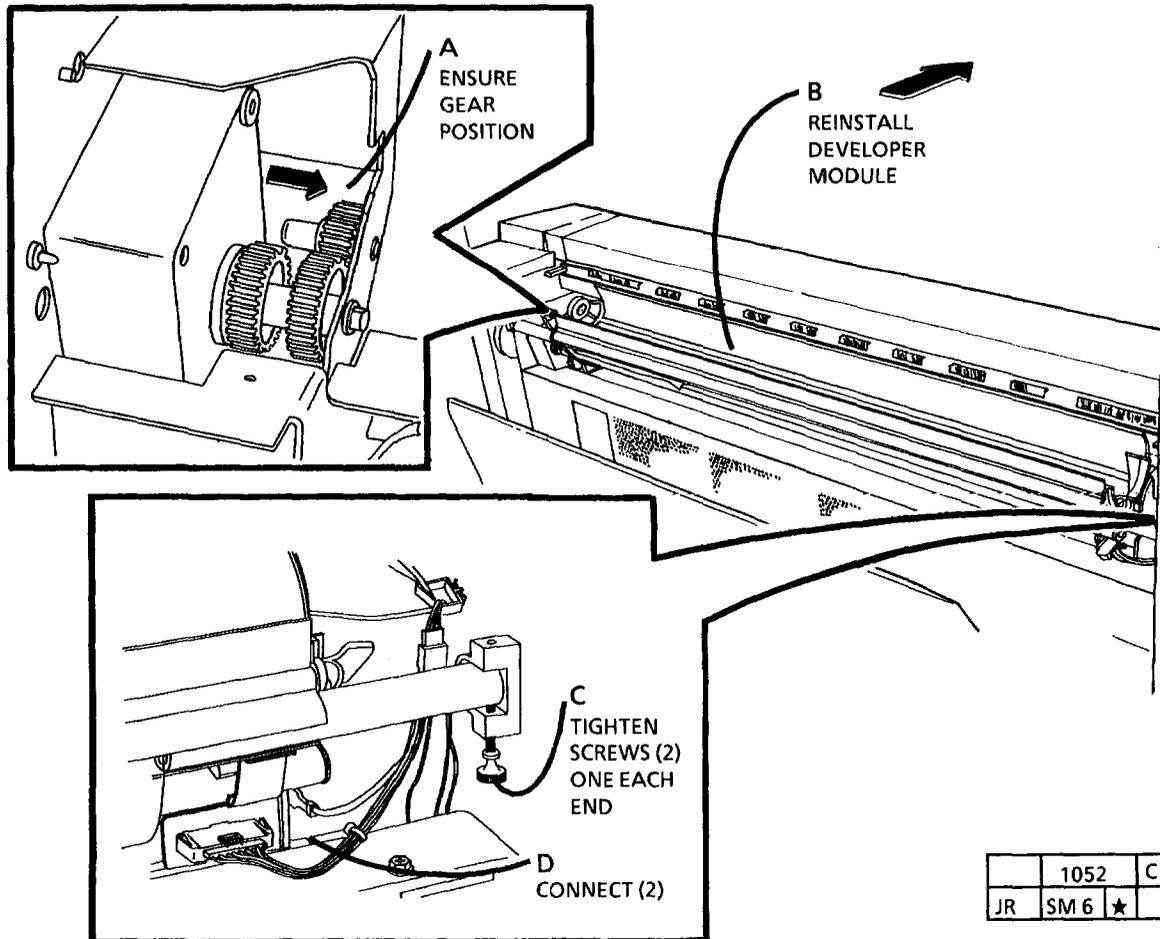


Figure 7. Reinstall the Developer Module

General Tools and Supplies (USO), and (AO)

SUPPLIES

Description	Part
Service Manual Binder	700P98139

TOOLS

Description	Part
Basic Multinational Tool Kit	600T1835
Supplemental Tool Kit	600T1837
Metric Supplemental Tool Kit	600T1836
Digital Multimeter	600T2020
Leads Kit	600T2030
Mod IV Electrometer	600T1620
Temperature Probe Set (Probe and Sensor)	499T9570
Thermal Sensor (Straight Tip)	499T9572
Light Shield	600T1198
Stackable Lead	600T1652
Probe Holder	600T1969
Interlock Tool	600T91616
Outlet Tester	600T647
Vacuum Cleaner	600T1820
Vacuum Cleaner Bags (10)	93E3270
Vacuum Cleaner Filter Module	600T1832
Magnetic 7mm Socket	600T1727
Xerographic Module	
Service Plug	21E6320

TOOLS

Description	Part
Screwdriver Blade 6 inch x 3/16 inch	600T40203
Pocket Screwdriver	600T40205
5.5mm Wrench	600T40501
7mm Wrench	600T40502
5.5mm Socket	600T40701
7mm Socket	600T40702
Longnose Pliers	600T40901
Diagonal Cutting Pliers	600T40903
Pump Pliers	600T40904
Metric Hex Key Set	600T41101
Retaining Ring Pliers	600T41401
150mm Rule	600T41503
2m Tape Measure	600T41505
Line Level	600T41510

Description	Part
Round File 6 inch	600T41801
Flat File 6 inch	600T41802
Cleaning Brush	600T41901
Scribing Tool	600T41903
Magnetic Pickup and Mirror	600T41911
Socket Driver	600T1751
Metric Feeler Gauge Set	600T41509
Screwdriver Handle	600T40212
13mm Wrench	600T40505
10mm Wrench	600T40504

Test Pattern

Test Pattern	82E5980
Image Reference Pattern	82E5040

Machine Consumables (USO), (AO)

Description	Part
Photoreceptor	1R552
Toner Cartridge	6R923
Developer	5R611
Customer Repack Kit	600K72040
Warehouse Repack Kit	600K
Stand Repack Kit	600K
Dusting Pouch	8R181
Media Pack	73K59150

Cleaning Materials (USO), (XLA)

Description	Part
Treated Cleaning Cloth (not for use on corotrons)	35P1638
Cleaning Solvent	43P10
Disposable Gloves	99P3024
Drop Cloth	35P1737
Drum Polish	43P76
Film Remover	43P45
Formula A	43P48
Heavy-Duty Towels	35P3191
Lint Free Cloth	600S4372
Polyurethane Pads (40)	600S4653
Anti-Static Fluid	43E110
Photoreceptor Maintenance Kit	600S5838

**OTHER TOOLS AND SUPPLIES
(USO), (AO)****Supply Kit 673K52950**

Description	Part
Developer	5R611
Toner Cartridge	6R923

Lubricants

Description	Part
Molybdenium	
Disulfide Grease	70P87
8cc Tube of Fuser Oil	93E811
Fuser Oil (Jug)	8R79
Molycote 557	70P61
Molycote 33	70P53
High Grade Turbine Oil (1oz)	70P95

Installation Kit 673K52980

Description	Part
Operator Manual	
Machine Dispatch Label	600P2404
Machine Service Log	611P23758
Forbidden Copy Card	610P00002
Machine Warranty Card	611P51999
Machine Pouch	600P86493
Limited Warranty Information	611P23798
Install Data Sheet	611P23738
Toner MSDS	600P29910
Photoreceptor MSDS	600P37530
Developer MSDS	600P52980
Fuser Oil MSDS	600P74170
Stearate MSDS	600P74220
Anti-Static MSDS	600P33070
Media Guide Kit	600K20690
Media Message Book	610P60017

**Machine Consumables (USO), (AO)
(Continued)**

Branch Tools

Description	Part
Temperature Probe Assembly	499T9570
Straight Temperature Probe (to be used with 499T9570)	499T9572
Adapter Plugs (2) (RX)	600T91711

General Tools and Supplies (EO)

TOOLS

Description	Part
Screwdriver Blade 6 inch x 3/16 inch	600T40203
Pocket Screwdriver	600T40205
5.5mm Combination Spanner	600T40501
7mm combination Spanner	600T40502
5.5mm Socket	600T40701
7mm Socket	600T40702
Longnose Pliers	600T40901
Diagonal Cutting Pliers	600T40903
Gland Nut Pliers	600T40904
Hex Key Set	600T91702
Retaining Ring Pliers	600T41401
150mm Rule	600T41503
2m Tape Measure	600T41505
Line Level	600T41510
Round File 6 inch	600T41801
Flat File 6 inch	600T41802
Cleaning Brush	600T41901
Scribing Tool	600T41903
Magnetic Pickup and Mirror Handle Male 1/4 Drive	600T41911
Metric Feeler Gauge Set	600T1751
Interlock Cheater	600T41509
Screwdriver Handle	600T91616
Vacuum Cleaner	600T40212
10 Spare Bags	600T91720
13mm Combination Spanner	603T80130
Light Shield	600T40505
Digital Multimeter	600T1198
Digital Multimeter Lead Set	600T2020
Mod 4 Electrometer	600T2030
Electrometer probe Holder	600T1620
	600T1882

Test Pattern

Machine Consumables (EO)

Description	Part
Photoreceptor	1R552
Toner Cartridge	6R90166
Developer	5R611

Cleaning Materials (EO)

Description	Part
Dusting Pouch	8R90139
Photoreceptor Maintenance Kit	600S92126
Photoreceptor Polish	43P69
Photoreceptor Wash Solvent/ General Cleaning Solvent	8R90176
Anti Static Fluid	43E110
Anti Static Fluid (Alternate)	8R90273
Cleaning Cloth	8R90019
Cleaning Cloth Treated (not for use on corotrons)	35P1638
Lint Free Cloth (Rayon)	600S4372
Cleaner General Purpose Formula A	8R90175
	43P48

Description	Part
Test Pattern	82E5980
Image Reference Scale	82E5040

Branch Tools (EO)

Description	Part
Temperature Probe Assembly	499T9570
Straight Temperature Probe (Use with 499T9570)	499T9572
Adapter Plugs	600T91711

OTHER TOOLS AND SUPPLIES (EO)

Supply Kit 673K52960

Description	Part
Developer	
W/O Filter and Carton	502S30884
Anti -Static Fluid	43E110
Side Guide Assembly	38K5673
Power Cord Clips	120P621
Media Guide Assembly	600K20690
Oil (8cc)	93E811

Lubricants

Description	Part
Oil Tellus 68	8R90180
Grease Alvania No.2	600T90340
Silicone Grease	600T90429

Supplemental Installation Kit

Description	Part
Power Cord:	
European	117P24303 117S65421
British	117P24088 117S65422
Cleaning Cloths	8R90019
Machine Service Log	Ref. Only
User Guide	Ref. Only
Demonstration Document and Copy Material Kit	Ref. Only

3001 Change Tag / MOD Index

Introduction

All important modifications are identified by a Tag/ Mod number on a matrix label attached to each 3001 inside the Left Side cover.

This section describes all of the tags as well as multinational applicability, classification codes, and permanent or temporary modification information.

Classification Codes

A Tag/ MOD number may be required to identify differences between parts that cannot be interchanged, or differences in diagnostic, the repairs, installation, or adjustment procedures. A Tag/ MOD number may also be required to identify the presence of optional hardware, firmware, or if mandatory modifications have been installed. Each Tag/ MOD number is given a classification code to identify the type of a change the Tag/ MOD has made.

- M - Mandatory
- N - Not installed in the field
- O - Optional
- R - Repair
- S - Situational

Tag/Mod
Class:
Use:
Mfg. Serial No.
Name :
Purpose:
Kit Number:
Reference:

Tag/Mod: 83
Class: R
Use: All
Mfg. Serial No. All
Name : Deletion (Snake) Fix Kit
Purpose: To eliminate the 'Snake'
deletion copy quality
problem.
Kit Number: 600K45680
Reference: PL 8.4

Tag/Mod: 85
Class: R
Use: All
Mfg. Serial No. All
Name : High Volume Oiler Kit
Purpose: Provides a retrofit of the
2510 Oil Dispenser for
customer accounts making
over 4K feet/month
Kit Number: 600K36690
Reference: PL10.5

Fuser and Media Handling

There are three major components involved in the fusing process: the fuser heat roll, the pressure plate, and the fabric guide.

The media guide plate creates a gradual entrance for the media into the fuser area. The guide plate creates a larger area of pressure at the entrance to the fuser which prevents wrinkles (in paper and the *Tracing Paper). If there is uneven pressure or friction at the pressure point, a wrinkle will occur in the area of the least amount of pressure. For this reason, the guide plate must be flat.

Removal of the pressure plate removes the pressure point and generally allows *Tracing Paper to be transported through the fuser, but it will become damaged, usually wrinkled. Bond paper will almost always wrinkle without the pressure plate.

If the media is too damp or the fuser temperature is too high, the rapid escape of moisture causes the media to shrink very rapidly. This overcomes the force of the pressure plate and allows wrinkles to develop.

Film is an entirely different material. Film doesn't absorb moisture, but it does shrink when heat is applied to it which, in some cases, can cause a wrinkle deletion.

The fabric guide holds the media against the heat roll. The media must slip on the fabric guide as the heat roll drives the media through the fuser. If there is excessive friction between the fabric guide and the back side of the copy media, distortion of the media will occur. This distortion is transmitted back into the transfer area which causes the smears, deletions and smudges, and copy quality defects if the media doesn't stall first. No copy is made to show the copy quality defect.

If the media, especially the *Tracing Paper, stops at the entrance to the fuser, this is caused by excessive friction from the fabric guide at the pressure plate. Any contaminant that is released from the media changes the friction properties of the fabric guide.

Fuser oil is used to prevent drag between the fuser heat roll and the fabric guide when there is no media present; it also prevents fuser offsetting of the toner from the media to the heat roll. Silicone oil is used because it can provide the lubrication needed. It is also odor-free, can withstand high temperature without changing the lubricating properties, and evaporates with time so that the copy is free of oil.

*** RX ONLY**

3001 SPECIFICATIONS

Electrical Requirements:

Voltage: 104 to 127 VAC, 60 Hz,
single phase.
Current: Standby: 4 amps average.
Running: 12 amps.
Rest Mode: 0.5 amps

Power Consumption:

Rest: 60 W
Standby: 460W average.
Running: 1380W

Power Factor: 0.95 minimum

Power Cord Length: 10 ft. (3048 mm)

Heat Emission:

Rest Mode: 205 BTU/Hr.
Stand-by: 1730 BTU/Hr.
Run: 5170 BTU/Hr.

Environmental Limitations:

	Minimum	Maximum
Temperature	60°F (16°C)	90°F (32°C)
Humidity	15%	85%

Maximum Elevation: 7000 feet above
sea level (2132
meters).

3001 SPECIFICATIONS (RX), (AO 50Hz)

Electrical Requirements:

Voltage: 198 to 242 VAC, 50 Hz,
single phase
Current: Low Power: 2 amps average.
Running: 7 amps
Rest Mode: 0.25 amps

Power Consumption:

Rest: 60 W
Standby: 460W average.
Running: 1380W

Power Factor: 0.95 minimum

Power Cord Length: 3048 mm (10 ft).

Heat Emission:

Rest Mode: 205 BTU/Hr.
Stand-by: 1730 BTU/Hr.
Run: 4700 BTU/Hr.

Environmental Limitations:

	Minimum	Maximum
Temperature	60°F (16°C)	90°F (32°C)
Humidity	15%	85%

Maximum Elevation: 7000 feet above
sea level (2132
meters).

3001 PRODUCT CODES :

50 Hz: RW3E

60 Hz: UW4E

Plug/ Jack Listing and Location

Section Contents

Plug / Jack Locational Drawing

Plug/ Jack Listing	7-1
Plug / Jack Locational Drawing	7-2

Electrical Component Wiring

Connections Drawing	7-5
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Connector Wiring

Wiring List	7-7
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CONNECTOR	FIGURE	CONNECTOR	FIGURE
P/J 2	1	P/J 40	4
P/J 3	1	P/J 41	5
P/J 4	1	P/J 42	5
P/J 5	1	P/J 43	4
P/J 9	3	P/J 44	5
P/J 10	3	P/J 45	5
P/J 11	3	P/J 46	5
P/J 12	3	P/J 47	5
P/J 13	3	P/J 48	5
P/J 14	3	P/J 49	5
P/J 15	3	P/J 51	4
P/J 17	3	P/J 52	4
P/J 21	3	P/J 53	4
P/J 22	3	P/J 54	4
P/J 24	4	P/J 55	6
P/J 25	4	P/J 56	6
P/J 27	2	P/J 58	3
P/J 28	1	P/J 61	3
P/J 29		P/J 62	3
(MOTION SENSOR)		P/J 63	3
P/J 30	2	P/J 64	3
P/J 31	3	P/J 65	3
P/J 32		P/J 66	3
(DEVELOPER BIAS)		P/J 71	6
P/J 33	1	P/J 72	4
P/J 34	3	P/J 73	1
P/J 35	1	P/J 74	
P/J 37	2	(PREFEED SENSOR)	
P/J 38	2	P/J 80	1
P/J 39	4	P/J 81	
		A11P1	2
		A11P2	2

Plug / Jack Locational Drawing

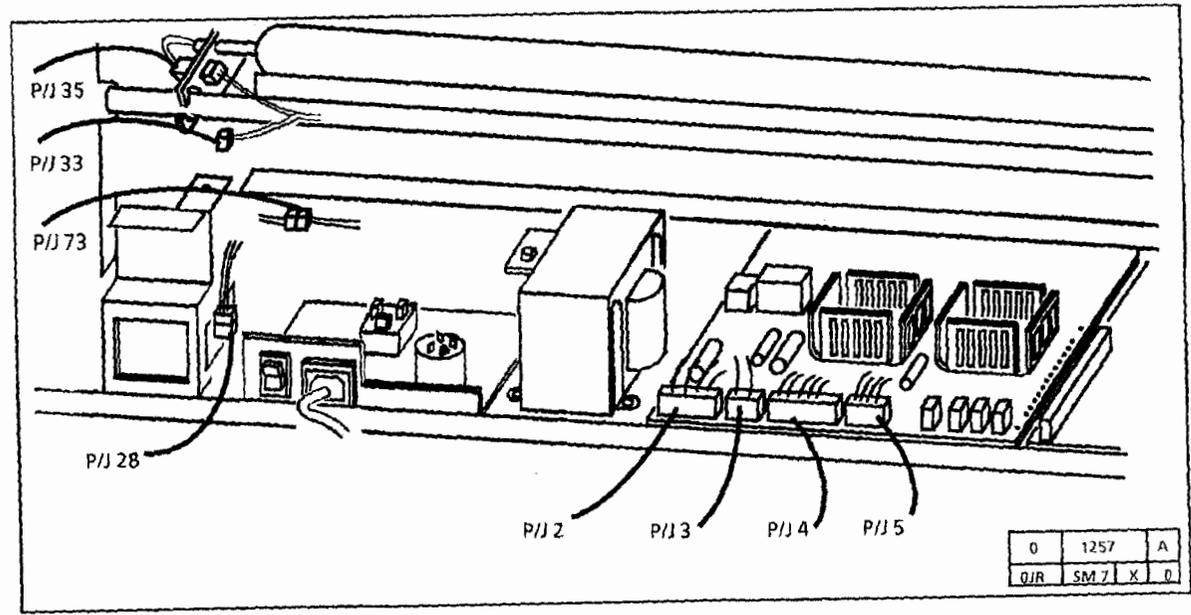


Figure 1. Rear View

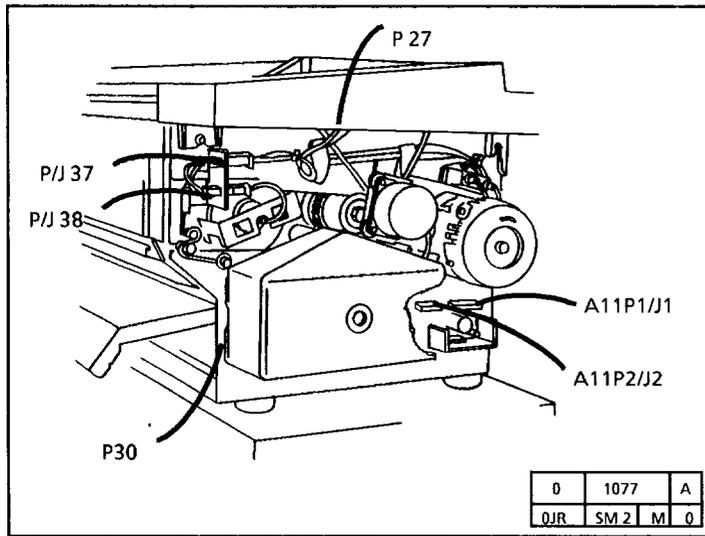


Figure 2. Right Side View

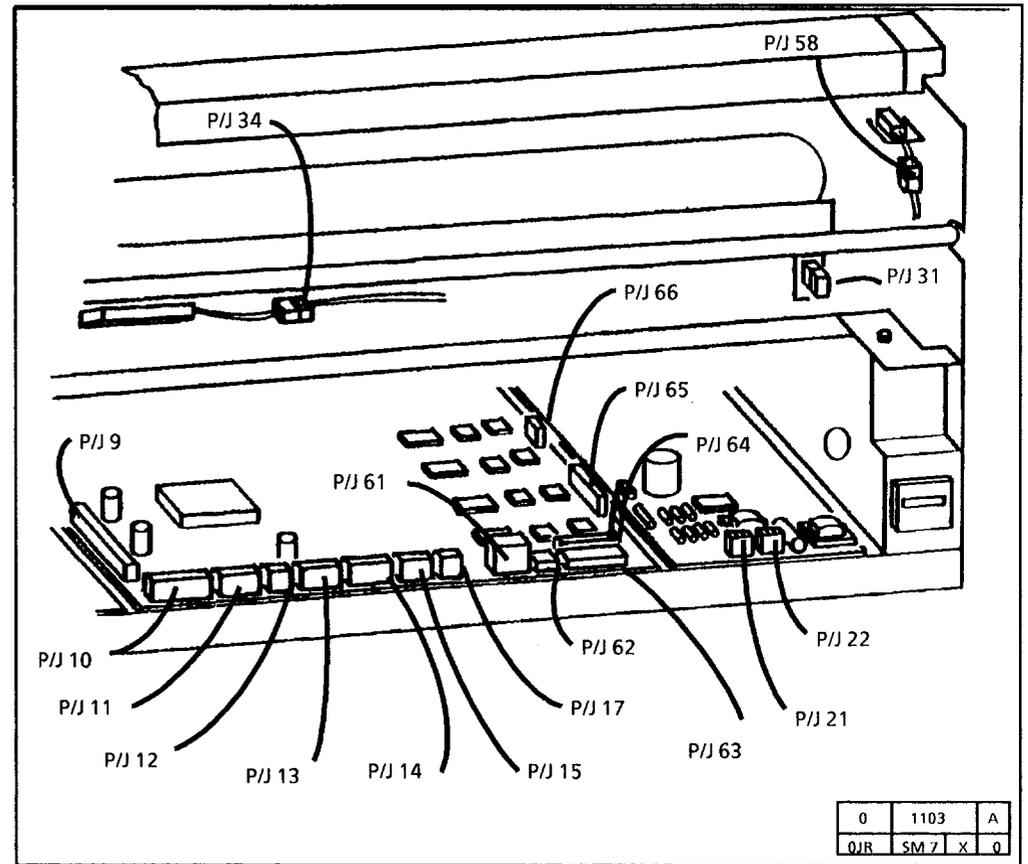


Figure 3. Rear View

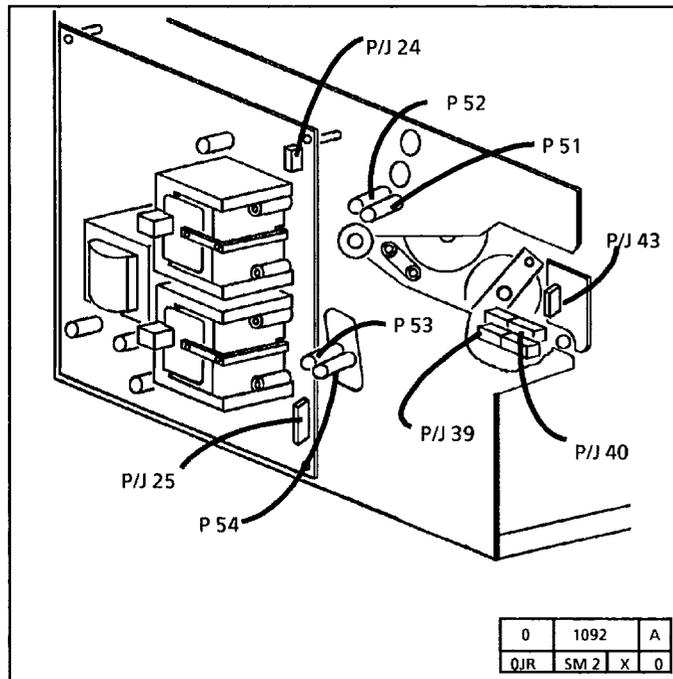


Figure 4. Left Side View

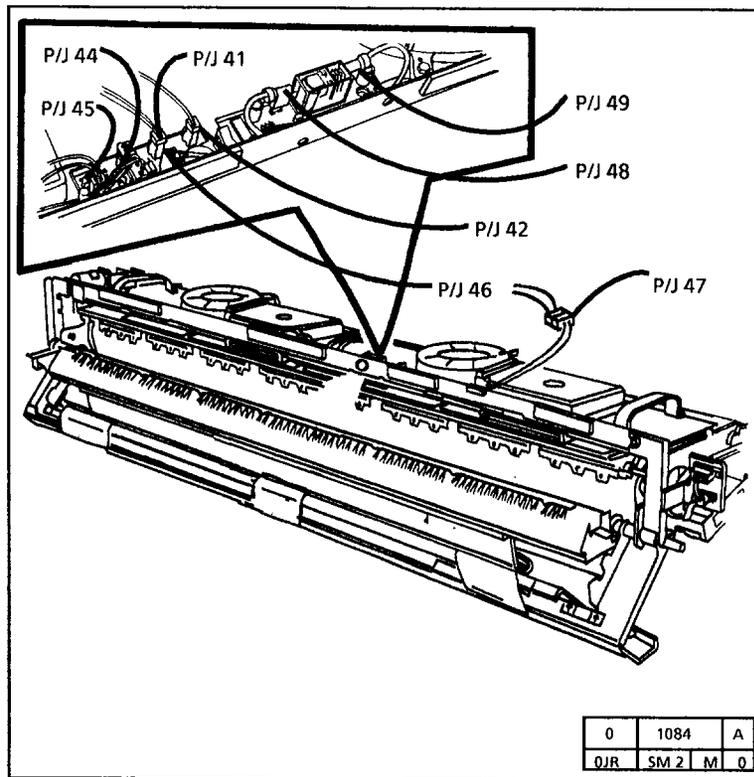


Figure 5. Xerographic Module

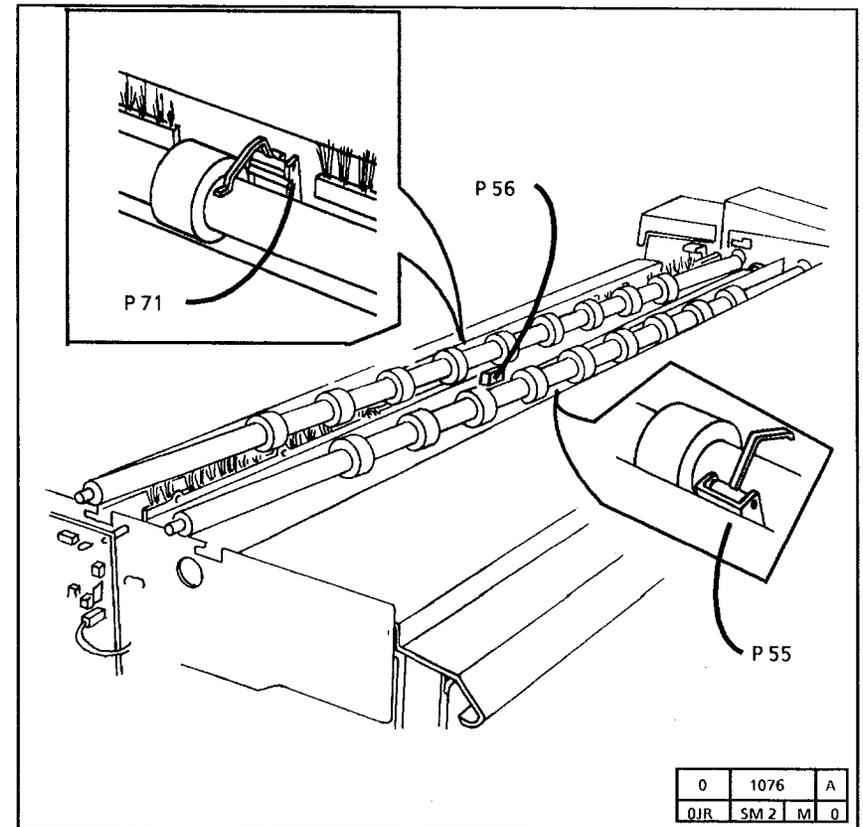
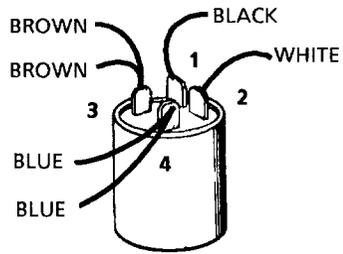
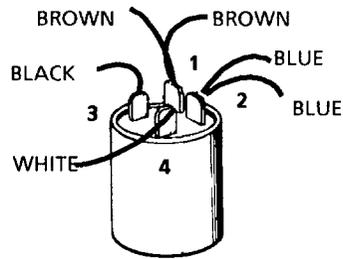


Figure 6. Platen Sensors

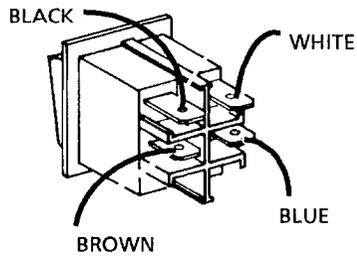
Electrical Component Wiring Connections Drawing



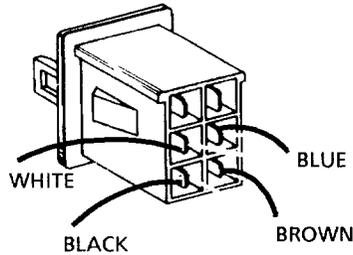
LINE FILTER (USO), (XLA 60 Hz)



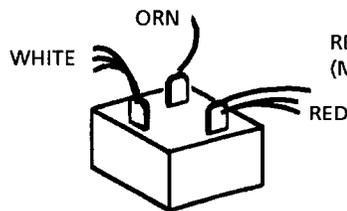
LINE FILTER (EO), (XLA 50 Hz)



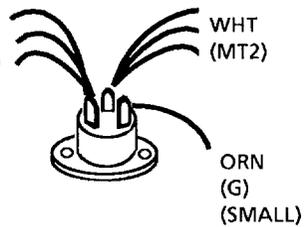
POWER ON/OFF SWITCH



AC INTERLOCK



FUSER TRIACS



0	1258	A
0JR	SM 7	X 0

Figure 7. Electrical Component Wiring

Electrical Component Wiring Connections Drawing

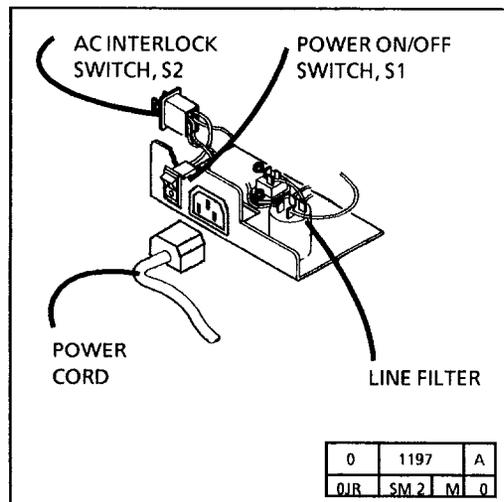
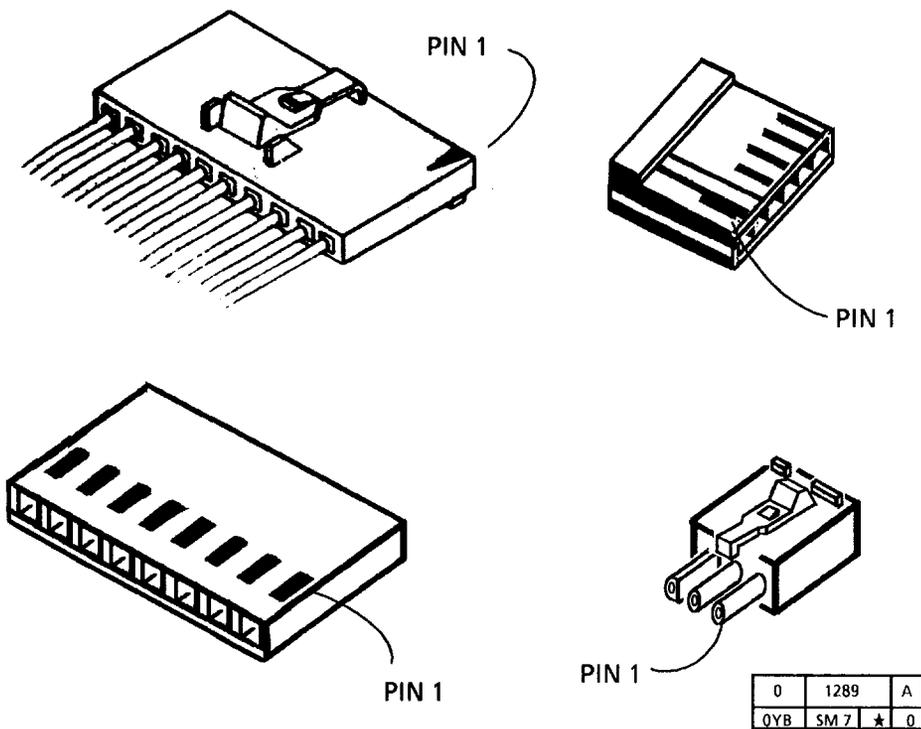


Figure 10. AC Component Panel



Wiring List

NOTE: The wire color could be different as the wire goes through a connector.

P2/J2 (LVPS)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	Q1-MT2	FUSER TRIAC	WHT
2		NOT USED	
3	Q1-GATE	FUSER ON (L)	ORN
4	Q1-MT2	FUSER TRIAC	RED
5	LF1-4 (USO), (XLA 60 Hz) LF1-2 (RX), (XLA 50 Hz)	ACN	BLU
6		NOT USED	
7	LF1-3 (USO), (XLA 60 Hz) LF1-1 (RX), (XLA 50 Hz)	ACH	BRN
8		NOT USED	
9	E2	GND	GRN/YEL

P3/J3 (LVPS)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	MOT1-1	ACH	BLU
2		NOT USED	
3	MOT1-3	ACN	BRN

P4/J4 (LVPS)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	T1-1	ACH	BRN
2		NOT USED	
3	T1-3	ACN	BLU (USO), (XLA 60Hz) WHT (RX), (XLA 50Hz)
4	T1-4	ACN	BLU
5		NOT USED	
6	T1-6	22 VAC	RED
7	T1-7	22 VAC	RED
8	T1-8	11 VAC	ORN
9	T1-9	22 VAC	VIO
10	T1-10	22 VAC	VIO

P5/J5 (LVPS)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P58-3	+ 24 VDC INTLK	VIO
2		NOT USED	
3	P58-1	+ 24 VDC INTLK	VIO
4	P43-8	+ 24 VDC INTLK	VIO
5		NOT USED	
6	P43-6	+ 24 VDC	ORN
7	P43-5	CLEANER BLADE SOLENOID ON	VIO
8	P43-4	FANS ON	VIO
9		NOT USED	

P9/J9 (CONTROL PWB)

PIN	PIN (LVPS)	SIGNAL NAME	WIRE COLOR
1	P9-1	CLEANER BLADE SOLENOID	ORN
2		NOT USED	
3	P9-3	10 VOLTS (FULL-WAVE)	ORN
4	P9-4	DC COM	ORN
5	P9-5	MAIN DRIVE MOTOR ON	ORN
6	P9-6	DC COM	ORN
7	P9-7	FANS ON	ORN
8	P9-8	DC COM	ORN
9	P9-9	FUSER ON	ORN
10	P9-10	DC COM	ORN
11	P9-11	+ 24 VDC	ORN
12	P9-12	+ 24 VDC	ORN
13	P9-13	+ 24 VDC INTLK	ORN
14	P9-14	+ 15 VDC	ORN
15		NOT USED	
16	P9-16	+ 5 VDC	ORN

P12/J12 (CONTROL PWB)

PIN	COPY COUNT METER	SIGNAL NAME	WIRE COLOR
1		+ 24 VDC	BLK
2		COUNT THE COPY	BLK

P10/J10 (CONTROL PWB)

PIN	PIN (HVPS)	SIGNAL NAME	WIRE COLOR
1	P25-10	+ 24 VDC	ORN
2		NOT USED	
3	P25-8	DEVELOPER BIAS	ORN
4	P25-7	DC COM	ORN
5	P25-6	HVPS ON	ORN
6	P25-5	DC COM	ORN
7	P25-4	TRANSFER COROTRON ON	ORN
8	P25-3	CHARGE CONTROL	ORN
9		NOT USED	
10	P25-1	+ 24 VDC INTLK	ORN

P11/J11 (CONTROL PWB)

PIN	PIN (LAMP BALLAST)	SIGNAL NAME	WIRE COLOR
1	P11-1	+ 24 VDC	ORN
2		NOT USED	
3	P11-3	DC COM	VIO
4	P11-4	FILAMENT ON	BLK
5	P11-5	DC COM	VIO
6	P11-6	EXPOSURE LAMP ON	WHT
7	P11-7	EXPOSURE LEVEL	RED

P13/J13 (CONTROL PWB)

PIN	PIN (CONTROL PANEL)	SIGNAL NAME	WIRE COLOR
1	P27-8	DATA OUT	VIO
2	P27-7	DC COM	VIO
3	P27-6	DATA IN	VIO
4	P27-5	DC COM	VIO
5	P27-4	DATA CLOCK	VIO
6	P27-3	DC COM	VIO
7	P27-2	DATA STROBE	VIO
8	P27-1	+ 5 VDC	VIO

P14/J14 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P28-6	MEDIA MOVING	VIO
2	P28-5	DC COM	VIO
3	P28-4	+ 5 VDC	VIO
4	P28-3	+ 24 VDC	VIO
5	P28-2	FEED CLUTCH ON	VIO
6		NOT USED	

P15/J15 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P55-3	DOCUMENT AT FRONT SENSOR	VIO
2	P55-2	DC COM	VIO
3	P55-1	+ 5 VDC	VIO
4		NOT USED	
5	P56-2	ILLUMINATION LEVEL	VIO
6	P56-1	+ 15 VDC	VIO
7		NOT USED	
8		NOT USED	
9		NOT USED	
10		NOT USED	

P17/J17 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P43-2	FUSER TEMPERATURE	VIO
2	P43-1	DC COM	VIO

J21 (LAMP BALLAST)

PIN	SOCKET	SIGNAL NAME	WIRE COLOR
1		FILAMENT	BLK
2		FILAMENT	BLK

J22 (LAMP BALLAST)

PIN	SOCKET	SIGNAL NAME	WIRE COLOR
1		FILAMENT	BLK
2		FILAMENT	BLK

P24/J24 (HVPS)

PIN	DEVELOPER HOUSING	SIGNAL NAME	WIRE COLOR
1	DEVELOPER BIAS CLIP	DEVELOPER BIAS	BLK
2		NOT USED	

P25/J25 (HVPS)

PIN	PIN (CONTROL PWB)	SIGNAL NAME	WIRE COLOR
1	P10-10	+ 24 VDC INTLK	ORN
2		NOT USED	
3	P10-8	CHARGE CONTROL	ORN
4	P10-7	TRANSFER COROTRON ON	ORN
5	P10-6	DC COM	ORN
6	P10-5	HVPS ON	ORN
7	P10-4	DC COM	ORN
8	P10-3	DEVELOPER BIAS	ORN
9		NOT USED	
10	P10-1	+ 24 VDC	ORN

P27/J1 (CONTROL PANEL)

PIN	PIN (CONTROL PWB)	SIGNAL NAME	WIRE COLOR
1	P13-8	+ 5 VDC	VIO
2	P13-7	DATA STROBE	VIO
3	P13-6	DC COM	VIO
4	P13-5	DATA CLOCK	VIO
5	P13-4	DC COM	VIO
6	P13-3	DATA IN	VIO
7	P13-2	DC COM	VIO
8	P13-1	DATA OUT	VIO

P28 (TO MEDIA TRANSPORT MODULE)

PIN	PIN (CONTROL PWB)	SIGNAL NAME	WIRE COLOR
1	E6	FRAME	VIO
2	P14-5	FEED CLUTCH ON	VIO
3	P14-4	+ 24 VDC	VIO
4	P14-3	+ 5 VDC	VIO
5	P14-2	DC COM	VIO
6	P14-1	MEDIA MOVING	VIO

P29 (MOTION SENSOR)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J28-4	+ 5 VDC	VIO
2	J28-5	DC COM	VIO
3	J28-6	MEDIA MOVING	VIO

J28 (MEDIA TRANSPORT MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	E7	FRAME	VIO
2	P30-2	FEED CLUTCH ON	VIO
3	P30-1	+ 24 VDC	VIO
4	P29-1	+ 5 VDC	VIO
5	P29-2	DC COM	VIO
6	P29-3	MEDIA MOVING	VIO

P30 (MEDIA FEED CLUTCH)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J28-3	+ 24 VDC	VIO
2	J28-2	FEED CLUTCH ON	VIO

P31 (TO DEVELOPER MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P65-10	NOT USED	BLU
2	P65-9	NOT USED	VIO
3	P65-8	+ 24 VDC	GRY
4	P65-7	TONER SOLENOID ON	WHT
5	P65-6	DC COM	BLK
6	P65-5	TONER CONCENTRATION	BRN
7	P65-4	+ 24 VDC	RED
8	P65-3	LOW TONER	ORN
9	P65-2	DC COM	YEL
10	P65-1	+ 5 VDC	GRN

J31 (DEVELOPER MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1		NOT USED	
2		NOT USED	
3	P35-2	+ 24 VDC	GRY
4	P35-1	TONER SOLENOID ON	VIO
5	P34-3	DC COM	BLU
6	P34-2	TONER CONCENTRATION	GRN
7	P34-1	+ 24 VDC	YEL
8	P33-3	LOW TONER	ORN
9	P33-2	DC COM	RED
10	P33-1	+ 5 VDC	BRN

P32 (DEVELOPER BIAS CLIP)

PIN	DEVELOPER HOUSING	SIGNAL NAME	WIRE COLOR
CLIP	P24-1	DEVELOPER BIAS	BLK

P/J 33 (TONER CARTRIDGE GROUND)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J31-10	NOT USED	BRN
2	J31-9	DC COM	RED
3	J31-8	NOT USED	ORN

P/J 34 (TONER SENSOR)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J31-7	+ 24 VDC	YEL
2	J31-6	TONER CONCENTRATION	GRN
3	J31-5	DC COM	BLU

P35 (TONER SOLENOID)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J31-4	+ 24 VDC	VIO
2	J31-3	TONER SOLENOID ON	GRY

P37 (XERO MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	E3	FRAME GROUND	GRN/YEL
2	LF1-3	ACH	BRN
3	Q1-MT2	ACN	WHT

J37 (XERO MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	E8	FRAME GROUND	GRN/YEL
2	P48-1	ACH	BRN
3	P38-1	ACN	WHT

P/J 38 (HEAT ROD)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J37-3	ACN	WHT

P/J 39 (HEAT ROD)

PIN	PIN	COMPONENT	WIRE COLOR
1		OVERTEMPERATURE THERMOSTAT	WHT

P/J 40 (OVERTEMPERATURE THERMOSTAT)

PIN	PIN	COMPONENT	WIRE COLOR
1	P49-1	THERMISTOR PWB	BLK

P/J 41 (THERMISTOR PWB)

PIN	FAN	SIGNAL NAME	WIRE COLOR
1		+ 24 VDC	RED
2		FAN ON	BLK

P/J 42 (THERMISTOR PWB)

PIN	FAN	SIGNAL NAME	WIRE COLOR
1		+ 24 VDC	RED
2		FAN ON	BLK

P 43 (XERO MOD)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P17-2	DC COM	VIO
2	P17-1	FUSER TEMPERATURE	VIO
3		NOT USED	
4	P5-8	FANS ON	VIO
5	P5-7	CLEANER BLADE SOLENOID ON	VIO
6	P5-6	+ 24 VDC	ORN
7		NOT USED	
8	P5-4	+ 24 VDC INTLK	VIO

J 43 (XERO MOD)

PIN	PIN (THERMISTOR PWB)	SIGNAL NAME	WIRE COLOR
1	P44-8	DC COM	VIO
2	P44-7	FUSER TEMPERATURE	VIO
3		NOT USED	
4	P44-5	FANS ON	VIO
5	P44-4	CLEANER BLADE SOLENOID ON	VIO
6	P44-3	+ 24 VDC	ORN
7		NOT USED	
8	P44-1	+ 24 VDC INTLK	VIO

P44 (THERMISTOR PWB)

PIN	PIN (XERO MOD)	SIGNAL NAME	WIRE COLOR
1	J43-8	+ 24 VDC INTLK	VIO
2		NOT USED	
3	J43-6	+ 24 VDC	ORN
4	J43-5	CLEANER BLADE SOLENOID ON	VIO
5	J43-4	FANS ON	VIO
6		NOT USED	
7	J43-2	FUSER TEMPERATURE	VIO
8	J43-1	DC COM	VIO

P45 (THERMISTOR PWB)

PIN	CLEANING BLADE SOLENOID	SIGNAL NAME	WIRE COLOR
1		+ 24 VDC	BLK
2		CLEANING BLADE SOLENOID ON	BLK

P46 (THERMISTOR PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P47-3	+ 24 VDC INTLK	VIO
2		NOT USED	
3	P47-1	+ 24 VDC INTLK	VIO

P47 (TRANSPORT LATCHING COVER INTERLOCK SWITCH)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P46-3	+ 24 VDC INTLK	VIO
2		NOT USED	
3	P46-1	+ 24 VDC INTLK	VIO

P48 (THERMISTOR PWB)

PIN	PIN (XERO MOD)	SIGNAL NAME	WIRE COLOR
1	J37-2	ACH	BRN

P49 (THERMISTOR PWB)

PIN	PIN (XERO MOD)	SIGNAL NAME	WIRE COLOR
1	J40-1	ACH	BLK

P51 (PRECHARGE COROTRON)

PIN	HVPS	SIGNAL NAME	WIRE COLOR
1		PRECHARGE COROTRON ON	BLU

P52 (CHARGE COROTRON)

PIN	HVPS	SIGNAL NAME	WIRE COLOR
1		CHARGE COROTRON ON	RED

P53 (TRANSFER COROTRON)

PIN	HVPS	SIGNAL NAME	WIRE COLOR
1		TRANSFER COROTRON ON	GRN

P54 (DETACK COROTRON)

PIN	HVPS	SIGNAL NAME	WIRE COLOR
1		DETACK COROTRON ON	ORN

P 55 (FRONT DOCUMENT SENSOR)

PIN	PIN (CONTROL PWB)	SIGNAL NAME	WIRE COLOR
1	P15-3	+ 5 VDC	VIO
2	P15-2	DC COM	VIO
3	P15-1	DOCUMENT AT FRONT SENSOR	VIO

P 56 (ILLUMINATION SENSOR)

PIN	PIN (CONTROL PWB)	SIGNAL NAME	WIRE COLOR
1	P15-6	+ 15 VDC	VIO
2	P15-5	ILLUMINATION LEVEL	VIO

P 58 (UPPER REAR COVER INTERLOCK SWITCH)

PIN	PIN (LVPS)	SIGNAL NAME	WIRE COLOR
1	P5-3	+ 24 VDC INTLK	VIO
2		NOT USED	
3	P5-1	+ 24 VDC INTLK	VIO

P61/J61 (CONTROL PWB)

PIN	PIN (CUTTER)	SIGNAL NAME	WIRE COLOR
1		NOT USED	
2	5	DATA IN	YEL
3	4	+ 5 VDC	GRN
4	3	DC COM	RED
5	2	DATA OUT	BLK
6		NOT USED	

P62/J62 (CONTROL PWB)

PIN	PIN (FOREIGN ACCESSORY)	SIGNAL NAME	WIRE COLOR
1	5	MACHINE ENABLED	BRN
2	4	COUNT THE COPY	RED
3	3	COUNT THE COPY	ORN
4	2	+ 24 VDC	YEL
5	1	DC COM	GRN

P63/J63 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1		SPARE	
2		DC COM	
3		+ 5 VDC	
4		DC COM	
5		SPARE	
6		DC COM	
7		+ 24 VDC	
8		SPARE	
9		SPARE	
10		+ 24 VDC	

P64/J64 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1		SPARE	
2		DC COM	
3		+ 15 VDC	
4		SPARE	
5		+ 24 VDC	
6		SPARE	
7		+ 24 VDC	
8		SPARE	
9		DC COM	
10		+ 5 VDC	

P65/J65 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P31-10	+ 5 VDC	GRN
2	P31-9	DC COM	YEL
3	P31-8	LOW TONER	ORN
4	P31-7	+ 24 VDC	RED
5	P31-6	TONER CONCENTRATION	BRN
6	P31-5	DC COM	BLK
7	P31-4	TONER SOLENOID ON	WHT
8	P31-3	+ 24 VDC	GRY
9	P31-2	NOT USED	VIO
10	P31-1	NOT USED	BLU
11	A11P1-8	COUNTERCLOCKWISE DRIVE	BRN
12	A11P1-7	HIGH CURRENT	YEL
13	A11P1-6	ENABLE THE DOCUMENT DRIVE	ORN
14	A11P1-5	DC COM	RED
15	A11P1-4	STEPPER CLOCK	BRN
16	A11P1-3	DC COM	BLK
17	A11P1-2	+ 5 VDC	WHT
18	A11P1-1	+ 24 VDC	GRY

P65/J65 (CONTROL PWB), CONTINUED

PIN	PIN	SIGNAL NAME	WIRE COLOR
19	P72-4	1 KHZ OSCILLATOR	VIO
20	P72-3	+ 5 VDC	BLU
21	P72-2	HUMIDITY SENSED (2520 Only)	GRN
22	P72-1	DC COM	YEL
23	P73-3	+ 5 VDC	ORN
24	P73-2	DC COM	RED
25	P73-1	MEDIA AT PREFEED SENSOR	BRN

P66/J66 (CONTROL PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	K1-2	FUSER LAMP BALLAST ON	BLK
2	K1-1	+ 24 VDC	BRN
3	P71-3	DOCUMENT AT REAR SENSOR	GRY
4	P71-2	DC COM	VIO
5	P71-1	+ 5 VDC	BLU

P 71 (REAR DOCUMENT SENSOR)

PIN	PIN (CONTROL PWB)	SIGNAL NAME	WIRE COLOR
1	P66-5	+ 5 VDC	WHT
2	P66-4	DC COM	GRY
3	P66-3	DOCUMENT AT REAR SENSOR	VIO

J73 (MEDIA TRANSPORT MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P74-3	MEDIA AT PREFEED SENSOR	BLK
2	P74-2	DC COM	RED
3	P74-1	+ 5 VDC	GRN

P73 (MEDIA TRANSPORT MODULE)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P65-25	MEDIA AT PREFEED SENSOR	BRN
2	P65-24	DC COM	RED
3	P65-23	+ 5 VDC	ORN

P74 (THE PREFEED SENSOR)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	J73-3	+ 5 VDC	GRN
2	J73-2	DC COM	RED
3	J73-1	MEDIA AT PREFEED SENSOR	BRN

A11P1/J1 (DOCUMENT DRIVE MOTOR PWB)

PIN	PIN	SIGNAL NAME	WIRE COLOR
1	P16-8	+ 24 VDC	GRY
2	P16-7	+ 5 VDC	VIO
3	P16-6	DC COM	BLU
4	P16-5	STEPPER CLOCK	GRN
5	P16-4	DC COM	YEL
6	P16-3	ENABLE THE DOCUMENT DRIVE	ORN
7	P16-2	HIGH CURRENT	RED
8	P16-1	COUNTERCLOCKWISE DRIVE	BRN

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