Service Manual

Lexmark 3000 Color Jetprinter™

4095-001

- Table of Contents
- Start Diagnostics
- Safety and Notices
- Trademarks
- Index
- Manuals Menu

LEXMARK™

First Edition (June, 1997)

This publication could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in later editions. Improvements or changes in the products or the programs described may be made at any time.

Publications are not stocked at the address given below; requests for publications should be made to your point of purchase.

A form for reader’s comments is provided at the back of this publication. If the form has been removed, comments may be addressed to Lexmark International, Inc., Department D22A/035-3, 740 New Circle Road N.W., Lexington, Kentucky 40550, U.S.A. In the United Kingdom and Eire, send to Lexmark International Ltd., Marketing and Services Department, Westhorpe House, Westhorpe, Marlow Bucks SL7 3RQ. Lexmark may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you. If your printer has broken or missing parts, or if you are missing publications, call 1-800-4LEXBMP. In other countries, contact your point of purchase. You can obtain additional copies of publications related to this product by calling 1-800-553-9727. In the United Kingdom and Eire, call 0628-481500. In other countries, contact your point of purchase.

Lexmark is a trademark of Lexmark International, Inc., registered in the United States and/or other countries. Other trademarks are the property of their respective owners.

Preface

This manual is divided into the following chapters:

1. **General Information** contains a general description of the printer and the maintenance approach used to repair it. Special tools and test equipment are listed in this chapter, as well as general environmental and safety instructions.
2. **Diagnostic Information** contains error indicator table, symptom table, and service checks used to isolate failing field replaceable units (FRUs).
3. **Diagnostic Aids** contains tests and checks used to locate or repeat symptoms of printer problems.
4. **Repair Information** provides instructions for making printer adjustments and removing and installing FRUs.
5. **Connector Locations** uses illustrations to identify the connector locations and test points on the printer.
6. **Preventive Maintenance** contains the lubrication specifications and recommendations to prevent problems.
7. **Parts Catalog** contains illustrations and part numbers for individual FRUs.

Safety Information

- This product is designed, tested and approved to meet strict global safety standards with the use of specific Lexmark components. The safety features of some parts may not always be obvious. Lexmark is not responsible for the use of other replacement parts.
- The maintenance information for this product has been prepared for use by a professional service person and is not intended to be used by others.
- There may be an increased risk of electric shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this and take necessary precautions.

Consignes de Sécurité

- Ce produit a été conçu, testé et approuvé pour respecter les normes strictes de sécurité globale lors de l'utilisation de composants Lexmark spécifiques. Les caractéristiques de sécurité de certains éléments ne sont pas toujours évidentes. Lexmark ne peut être tenu responsable de l'utilisation d'autres pièces de rechange.
- Les consignes d'entretien et de réparation de ce produit s'adressent uniquement à un personnel de maintenance qualifié.
- Le démontage et l'entretien de ce produit pouvant présenter certains risques électriques, le personnel d'entretien qualifié devra prendre toutes les précautions nécessaires.

Norme di sicurezza

- Il prodotto è stato progettato, testato e approvato in conformità a severi standard di sicurezza e per l'utilizzo con componenti Lexmark specifici. Le caratteristiche di sicurezza di alcune parti non sempre sono di immediata comprensione. Lexmark non è responsabile per l'utilizzo di parti di ricambio di altri produttori.
- Le informazioni riguardanti la manutenzione di questo prodotto sono indirizzate soltanto al personale di assistenza autorizzato.
- Durante lo smontaggio e la manutenzione di questo prodotto, il rischio di subire scosse elettriche e danni alla persona è più elevato. Il personale di assistenza autorizzato, deve, quindi, adottare le precauzioni necessarie.

Sicherheitshinweise

- Dieses Produkt und die zugehörigen Komponenten wurden entworfen und getestet, um beim Einsatz die weltweit gültigen Sicherheitsanforderungen zu erfüllen. Die sicherheitsrelevanten Funktionen der Bauteile und Optionen sind nicht immer offensichtlich. Sofern Teile eingesetzt werden, die nicht von Lexmark sind, wird von Lexmark keinerlei Verantwortung oder Haftung für dieses Produkt übernommen.
- Die Wartungsinformationen für dieses Produkt sind ausschließlich für die Verwendung durch einen Wartungsfachmann bestimmt.
- Während des Auseinandernehmens und der Wartung des Geräts besteht ein zusätzliches Risiko eines elektrischen Schlags und körperlicher Verletzung. Das zuständige Fachpersonal sollte entsprechende Vorsichtsmaßnahmen treffen.

Pautas de Seguridad

- Este producto se ha diseñado, verificado y aprobado para cumplir los más estrictos estándares de seguridad global usando los componentes específicos de Lexmark. Puede que las características de seguridad de algunas piezas no sean siempre evidentes. Lexmark no se hace responsable del uso de otras piezas de recambio.
- La información sobre el mantenimiento de este producto está dirigida exclusivamente al personal cualificado de mantenimiento.
- Existe mayor riesgo de descarga eléctrica y de daños personales durante el desmontaje y la reparación de la máquina. El personal cualificado debe ser consciente de este peligro y tomar las precauciones necesarias.

Informações de Segurança

- Este produto foi concebido, testado e aprovado para satisfazer os padrões globais de segurança na utilização de componentes específicos da Lexmark. As funções de segurança de alguns dos componentes podem não ser sempre óbvias. A Lexmark não é responsável pela utilização de outros componentes de substituição.
- As informações de segurança relativas a este produto destinam-se a profissionais destes serviços e não devem ser utilizadas por outras pessoas.
- Risco de choques eléctricos e ferimentos graves durante a desmontagem e manutenção deste produto. Os profissionais destes serviços devem estar avisados deste facto e tomar os cuidados necessários.

Informació de Seguretat

- Aquest producte està dissenyat, comprovat i aprovat per tal d'acomplir les estrictes normes de seguretat globals amb la utililització de components específics de Lexmark. Les característiques de seguretat d'algunes peces pot ser que no sempre siguin òbvies. Lexmark no es responsabilitza de l'us d'altres peces de recanvi.
- La informació pel manteniment d'aquest producte està orientada exclusivament a professionals i no està destinada a ningú que no ho sigui.
- El risc de xoc elèctric i de danys personals pot augmentar durant el procés de desmuntatge i de servei d'aquest producte. El personal professional ha d'estar-ne assabentat i prendre les mesures convenients.

安全资讯

- 本产品使用特有的 Lexmark 元件，并依照严格的世界安全标准来设计、测试及验证。有些零件的安全功能可能不明显。对於其他厂牌更换零件的使用， Lexmark 概不负责。
- 本产品的维护资讯仅供专业服务人员使用，而非针对一般使用者。
- 本产品在拆卸、维修的时候，遭受电击或人员受伤的危险性会增高，专业服务人员对这点必须有所了解，并采取必要的预防措施。

안전 사항

- 본 제품은 특정 Lexmark 구성 요소의 사용에 있어 엄격한 세계 안전 표준에 맞도록 설계, 테스트되었으며 승인받았습니다. 일부 부품의 안전성은 항상 보장되지 않습니다. Lexmark는 다른 교체 부품의 사용에 대한 책임을 지지 않습니다.

- 본 제품에 관한 유지 보수 설명서는 전문 서비스 기술자용으로 작성된 것이므로 비 전문가는 사용할 수 없습니다.

- 본 제품을 해체하거나 정비할 경우 전기적인 충격을 받거나 상처를 입을 위험이 커집니다. 전문 서비스 기술자는 이 사실을 숙지하고 필요한 예방 조치를 취하도록 하십시오.

1. General Information

The Lexmark 3000 Color Jetprinter is a personal, near laser-quality inkjet printer. The printer contains two print cartridges (color and black), which are customer replaceable supply items. A single printhead provides three colors and composite black printing. The printer also supports a black print cartridge and provides 600 X 300 dpi edge definition for professional quality text image and graphics printing.

Operator Panel

Buttons	**Lights**
Left Button • Power On/Off	Left Light • Steady - Power On • Blinking - Printer Error
Right Button • Paper Feed - clears a paper jam or loads paper when there is a paper out condition.	Right Light • Steady - Busy • Blinking - Paper Out/Jam
Right Outer Button • Install Cartridge -moves carrier to the left for cartridge replacement.	Alternating Blinking Lights • Printheads are in the load position or printheads are installed incorrectly.

Power Consumption

- Less than 3.5 Watts - power off and power to the printer
- 9 Watts - Idle Mode (power on - not printing)
- 12 Watts - Printing (average)
- 20 Watts - Printing (peak)

Maintenance Approach

The diagnostic information in this manual leads you to the correct field replaceable unit (FRU) or part. Use the symptom index, service checks, and diagnostic aids to determine the symptom and repair the failure. Begin with “Error Indicator Table” on page -1.

After you complete the repair, perform tests as needed to verify the repair.

Abbreviations

EOF	End of Forms
ESD	Electrostatic Discharge
FRU	Field Replaceable Unit
HVPS	High Voltage Power Supply
LVPS	Low Voltage Power Supply
OEM	Original Equipment Manufacturer
V ac	Volts alternating current
V dc	Volts direct current
ZIF	Zero Insertion Force

2. Diagnostic Information

Start

Use the error indicator table, symptom tables, service checks, and diagnostic aids in chapter 3, to determine the printer failure.

Error Indicator Table

Error Code	Number of Power Light Flashes	Action
Blank	**8**	Replace the system board.
64 65	**7**	Replace the system board.
81	**1**	Go to the 'Carrier Transport Service Check' on page 2-5.
89	**4**	Go to the 'Carrier Transport Service Check' on page 2-5.
127 and up	**10**	Replace the system board.

Symptom Tables

Locate the symptom in the following tables and take the appropriate action.

Carrier Transport Problems

Symptom	Action
• No carrier movement • Slow carrier movement • Carrier stops • Carrier slams side frame	Go to the 'Carrier Transport Service Check' on page 2-5.

Maintenance Station Problems

Symptom	Action
Maintenance station: • Fails to cap the printheads • Fails to clean the printheads	Go to the 'Maintenance Station Service Check' on page 2-7.

Operator Panel

Symptom	Action
Paper Feed and / or Install print cartridge buttons do not operate	Replace the system board.
Busy light does not come on	Replace the system board

Paper Feed Problems

Symptom	Action
• Fails to pick paper • Picks more than one sheet of paper • Picks paper but fails to feed • Paper jams • Paper fails to exit • Noisy paper feed	Go to the 'Paper Feed Service Check' on page 2-8.
Envelopes fail to feed	Go to the 'Envelope Feed Service Check' on page 2-6.
Paper skews	Go to the 'Paper Path Service Check' on page 2-10.

Power Problems

Symptom	Action
No power in machine, motors do not operate	Go to the 'Power Service Check' on page 2-11.

Print Quality Problems

Symptom	Action
• Voids in characters • Light print • Prints off the page • Fuzzy print • Carrier moves but no print • Printhead drys prematurely • Colors print incorrectly • Vertical alignment off	Go to the 'Print Quality Service Check' on page 2-12.
• Ink smearing • Vertical streaks on paper • Print lines crowded	Go to the 'Paper Feed Service Check' on page 2-8.

Power-On Self Test (POST) Sequence

When you turn the printer on it performs a POST. Turn your machine on and check for a correct POST operation by observing the following:

1. The lights come on.
2. The carrier moves.
3. The paper feed gears turn.
4. After 30 seconds the carrier moves over the maintenance station and caps the printhead.
5. All motors stop and the power light stays on.

If your machine completes POST with no errors, go to the 'Error Indicator Table' on page 2-1, locate the symptom and take the indicated action.

If your machine does not complete POST, locate the symptom in the following table and take the indicated action.

POST Symptom Table

Symptom	Action
No Power On light and no motors run	Go to the 'Power Service Check' on page 2-11.
Power light, but no busy light	Replace the system board.
Paper feed gears do not turn	Go to the 'Paper Feed Service Check' on page 2-8.
Carrier doesn't move	Go to the 'Carrier Transport Service Check' on page 2-5.
Carrier slams side frame	Go to the 'Carrier Transport Service Check' on page 2-5.

Service Checks

Carrier Transport Service Check

	FRU	Action
1	System Board	Unplug the printer and disconnect CN2 from the system board. Plug in the printer and check for a pulse of (approximately) 10 V dc between CN2-1 and ground, on the system board. If the voltage is not present, check for motor pins shorted to the motor housing. If you find a pin shorted to the housing, replace the motor. If the failure remains, replace the system board.
2	Carrier Transport Motor	Check the motor for binds, or loose motor pulley. A noisy or chattering motor or a motor that fails to turn can be caused by: • An open or short in the motor. • An open or short in the motor driver on the system board. • A bind in the carrier transport mechanism. With the carrier transport motor cable disconnected from the system board, check for zero to ten (0 - 10) ohms between the following pins on the motor: CN2-1 and CN2-2 CN2-3 and CN2-4 If the readings are incorrect, replace the motor.
3	Carrier Guide Rod	Clean the carrier rod. **Note**: Lubricate the rod and the carrier rod bearing surfaces with grease P/N 1329301.
4	Carrier Transport Belt Idler Pulley Parts Carrier Frame	Check for worn, loose or broken parts. Check for obstructions blocking carrier movement. Carrier to carrier frame engagement should be lubricated with grease P/N 1329301.

	FRU	Action
5	Home Position Sensor	Unplug the printer and disconnect CN1 from the system board. Plug in the printer and check for 5 V dc between CN1-3 and ground, at the system board. If the voltage is present, replace the home position sensor. If the voltage is not present, replace the system board.
6	Maintenance Station	A problem with the maintenance station can cause carrier movement problems at the right margin. Go to the 'Maintenance Station Service Check' on page 2-7.

Envelope Feed Service Check

	FRU	Action
1	Envelope Guide	Be sure the envelope guide has been turned to the envelope load position. Be sure the envelope guide is against the envelopes. Perform the 'Paper Feed Service Check' on page 2-8.

Maintenance Station Service Check

The maintenance station has two functions:

- Cleans the printhead nozzles during the print operation.
- Seals the printhead when it is not being used to prevent the nozzles from drying.

	FRU	Action
1	Maintenance Station Assembly	As the carrier moves to the right over the maintenance station, a slot on the bottom of the carrier engages a tab on the sled of the maintenance station causing the cap to rise and seal the printhead. Carrier movement to the left uncaps the printhead. The wiper cleans the printhead nozzles as the carrier leaves the maintenance station. The wiper cleans the printhead only when the carrier is moving to the left. There should be no wiping action of the printhead nozzles when the carrier is moving to the right. After the cleaning operation is complete, a tab on the maintenance station engages a tab on the carrier, causing the wiper to lower. Check the maintenance station for worn or broken parts.
2	Wiper	Worn wipers cause degraded print quality just after a maintenance cleaning. Check for loose or worn wipers.
3	Cap	Worn caps cause the printhead nozzles to dry and clog. Check for loose or worn caps.

Paper Feed Service Check

If your machine does not have paper jam problems, continue with the service check. If your machine does have a paper jam problem, examine it for the following before you begin the service check:

- Check the entire paper path for obstructions.
- Be sure there is not too much paper in the sheet feeder.
- Be sure the correct type of paper is being used.
- Check for static in the paper.

	FRU	Action
1	System Board	Unplug the printer and disconnect CN3 from the system board. Plug the printer in and check for a pulse of 24 V dc between CN3-1 and ground and CN3-2 and ground on the system board. If the voltage is not present, check for motor pins shorted to the motor housing. If you find a shorted pin, replace the motor. If you still have a failure after replacing the motor, replace the system board.
2	Paper Feed Motor	A noisy or chattering motor or a motor that fails to turn, can be caused by an open or short in the motor, an open or short in the motor driver on the system board, or a bind in the paper feed mechanism. With the paper feed motor cable disconnected from the system board, check for 60 ohms (±15 ohms) between the following pins on the motor: Pin 2 to Pin 5, Pin 2 to Pin 6 130 ohms (±20 ohms) between pins 5 and 6. If the readings are incorrect, replace the motor. Although the paper feeds in a forward direction only, the paper feed motor turns in two directions. If the paper feed motor turns in one direction only, replace the system board. Binds in the paper feed motor or gear train can cause intermittent false paper jam errors. Remove the paper feed motor and check the shaft for binds. Also check for loose or worn motor gear.

	FRU	Action
3	Drive Train Assembly	Check for binds in the gear train and paper feed mechanism by removing the paper feed motor and rotating the large gear by hand. If you notice a bind, replace the drive train assembly. Check the feed clutch inside the large feed gear. Remove the sheet feeder. Turn the clutch gear and check that it rotates freely in one direction and locks when turned in the opposite direction.
4	Auto Sheet Feeder	Check the pick rollers for wear.
5	Mid Frame Asm	Check the friction wheels, exit roller and star rollers for wear.
6	End-of-Forms Flag and Spring	Check for binds or damage. If binds are found, replace the small feed roll bracket assembly.

Paper Path Service Check

Examine the machine for the following before you begin this service check:

- Check the entire paper path for obstructions.
- Be sure the correct type of paper is being used.
- Be sure the printer is installed on a flat surface.

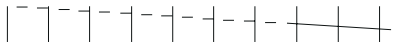
	FRU	Action
1	Large and Small Feed Rollers	Check for wear and binds.
2	Small Feed Roller Springs	Check for damage.
3	Auto Sheet Feeder	Check the pick rollers for wear.
4	Mid Frame Asm	Check the following for wear: • Friction wheels • Exit roller • Star rollers
5	End-of-Forms Flag	Check for binds or damage.

Power Service Check

	FRU	Action
1	Power Supply	Disconnect CN9 from the system board and check the following voltages on the power supply cable: • CN9-1 to GND = +5 V dc • CN9-3 to GND = + 24 V dc If you do not have correct voltage, replace the power supply. Be sure to unplug the machine before you reconnect the power supply to the system board.
2	Printhead Cable Carrier Home Sensor Parallel Cable Paper Feed Motor Carrier Transport Motor	Unplug the printer. Disconnect one of the printhead cables and plug in the printer. Look for a symptom change. Check the failing part for shorts and replace as necessary. Repeat this procedure for the carrier home sensor, parallel cable, carrier transport motor and paper feed motor.
3	System Board	If the symptom has not changed, replace the system board.

Print Quality Service Check

	FRU / Function	Action
1	Print Cartridge	Be sure the machine contains good print cartridges.
2	Color Print Cartridge Cross Contamination	Cross contamination of color inks results in incorrect colors printed, as when green prints for yellow, (when yellow and blue are mixed in the print cartridge). This problem resolves quickly as the print cartridge is used. If cross contamination occurs, check the following: • Maintenance station wiper for damage. • Printhead nozzle plate was resealed with tape.
3	Printhead Carrier Assembly	Reseat the printhead cables in the system board and check the following parts for wear or damage: • Print Cartridge Latch • Latch Spring • Carrier

	FRU / Function	Action
4	System Board Printhead Cable Rubber Backer	• Run the 'Test Page' on page 3-4. Look for a break in the diagonal line of the test pattern. A broken line indicates one or more print nozzles are not working. Run the test again to verify the failure. If there are even breaks in the diagonal line similar to the pattern shown below, ensure the printhead cables are connected properly. If the symptom remains, replace the system board.  If there is a single break or random breaks in the diagonal line, check the following: • Check the gold-plated contacts, on the end of the cable that connect to the carrier, for dirt and wear. Use only a clean dry cloth to clean the contacts. Also check the cable for damage. You may need to remove the cable from the carrier to inspect it. • A worn rubber backer results in poor contact between the printhead cable and the print cartridge. Check the rubber backer for wear.
5	Maintenance Station	Intermittent nozzle failures can be caused by worn parts in the maintenance station. Perform the 'Maintenance Station Service Check' on page 2-7, then return to this check.
6	Paper Feed	Ink smudging and smearing can be caused by paper problems or problems in the paper feed area. Check the following: • Correct type of paper is being used. Also check the paper for curl or wrinkles. • Feed rollers for wear, dirt, or looseness. • Gears for wear or binds. • Paper path for obstructions.

	FRU / Function	Action
7	Carrier Transport	Blurred print and voids can be caused by problems in the carrier transport area. Check the following: • Carrier transport belt for wear. • Carrier guide rod for wear or dirt. If dirty, clean and lubricate. • Carrier to carrier frame engagement should be lubricated with grease P/N 1329301. • Idler pulley parts for wear, damage, or looseness.
8	Alignment	Uneven vertical lines can be adjusted by performing the bidirectional alignment. The user is directed, through the Printer Control program, to perform the bidirectional printing alignment, when replacing a print cartridge.

3. Diagnostic Aids

Use these diagnostic test procedures to verify a repair. The test procedures are entered by pressing and holding a button, or buttons, as you turn on the printer. To begin the test, hold the buttons until both the operator panel lights come on and then release the buttons after five seconds. Some tests require the End-of-Form Flag to be out of the sensor.

To remove the End-of-Form Flag from the sensor:

1. Open the sheet feeder.

2. Place a sheet of paper in the paper path until the End-of-Form Flag is tripped.

To terminate the test, turn the printer off.

Print NVRAM Contents

This test prints the contents of NVRAM, which can be used for diagnostic purposes.

To run the test:

1. Place a sheet of paper in the sheet feeder far enough to push the End-of-Form flag out of the sensor.

2. Load paper into the sheet feeder.

3. With the printer off, press and hold the Paper Feed button and turn the printer on. The contents of NVRAM print.

NVRAM Defaults

Reset NVRAM to EMEA Defaults

This test resets the user defaults area of NVRAM to the EMEA factory defaults. The page count and the error log do not change.

Note: Factory defaults are initially set to U.S.

To run the test:

1. With the printer off, press and hold the Paper Feed and Install Print Cartridge buttons while turning the printer on.

2. Release the buttons to reset NVRAM to the EMEA factory defaults.

A sheet of paper feeds and verifies the defaults have been set by printing “EMEA”.

Reset NVRAM to U.S. Defaults

This test resets the user defaults area of NVRAM to the U.S. factory defaults. The page count and the error log do not change.

Note: Factory defaults are initially set to U.S.

To run the test:

1. With the printer off, press and hold the Install Print Cartridge button while turning the printer on:

2. Releasing the buttons resets NVRAM to the U.S. factory defaults.

A sheet of paper will feed and verify the defaults have been set by printing “U.S.”.

Test Page

This test prints the test page.

To run a complete test page of black and color patterns, be sure the print cartridge is in good condition. Install a black print cartridge.

To enter the test:

- Press and hold the Paper Feed button while turning the printer on. Paper feeds from the sheet feeder and prints the test page. Pages continue to print until you turn off the power or unplug the printer.

The test page prints the following lines:

Line 1 - Code level and date.

Line 2 - Manufacturer name.

Line 3 - Model name.

Line 4 - U.S. or EMEA defaults.

Line 5 - Page count followed by the last error.

Line 6 - Motor type.

The next line is the black print cartridge nozzle pattern. The next three lines are the purge pattern where all nozzles are printing. This action cleans (purges) the nozzles. Another nozzle test pattern follows.

These test patterns are used to verify all print cartridge nozzles are working. There should be no breaks in the diagonal line. A break in the diagonal line indicates one or more nozzles are not working.

The rest of the page contains the user defaults followed by a printout of the printer resident fonts.

4. Repair Information

This chapter explains how to make adjustments to the printer and how to remove defective parts.

Note: Read the following before handling electronic parts.

Handling ESD-Sensitive Parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, follow the instructions below in addition to all the usual precautions, such as turning off power before removing logic boards:

- Keep the ESD-sensitive part in its original shipping container (a special “ESD bag”) until you are ready to install the part into the machine.
- Make the least-possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This discharges any static electricity in your body to the machine.
- Hold the ESD-sensitive part by its edge connector shroud (cover); do not touch its pins. If you are removing a pluggable module, use the correct tool.
- Do not place the ESD-sensitive part on the machine cover or on a metal table; if you need to put down the ESD-sensitive part for any reason, first put it into its special bag.
- Machine covers and metal tables are electrical grounds. They increase the risk of damage because they make a discharge path from your body through the ESD-sensitive part. (Large metal objects can be discharge paths without being grounded.)
- Prevent ESD-sensitive parts from being accidentally touched by other personnel. Install machine covers when you are not working on the machine, and do not put unprotected ESD-sensitive parts on a table.
- If possible, keep all ESD-sensitive parts in a grounded metal cabinet (case).
- Be extra careful in working with ESD-sensitive parts when cold weather heating is used because low humidity increases static electricity.

Adjustments

In the Printer Control program, the user is directed to perform the head to head and bidirectional alignment adjustments, after replacing a print cartridge.

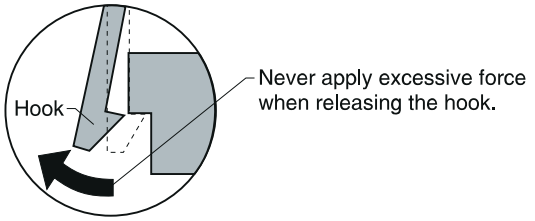
Removal Procedures

The following procedures are arranged according to the name of the printer part discussed.

CAUTION: Unplug the power cord before removing any parts.

Releasing Plastic Latches

Many of the parts are held in place with plastic latches. The latches break easily; release them carefully. To remove such parts, press the hook end of the latch away from the part to which it is latched.



Access Cover Removal

1. Open the access door.
2. Push the mounting tabs toward the center of the machine.
3. Remove the access cover.

Base Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Disconnect the power supply connector at the system board.
5. Remove the two screws that secure the carrier frame to the base assembly.
6. Remove the screw that secures the power supply frame to the carrier frame.
7. Slide the machine off the base assembly.

Carrier Belt Removal

1. Remove the front cover.
2. Remove the retainer spring from the left side of the carrier guide rod.
3. Remove the screw from the right side of the carrier guide rod.
4. Slide the carrier rod to the left, out of the machine.
5. Remove the carrier belt from the rear of the carrier.
6. Remove the carrier belt from the carrier transport motor pulley.
7. Remove the carrier belt.

Carrier Frame Assembly Removal

The carrier rail mounted by two screws on the carrier frame is included with the carrier frame (11B5584). The carrier rail, which is not available as a FRU, is mounted in the elongated slots at the factory. During adjustment, the rail is pushed to the rear as far as it will go, before the mounting screws are tightened.

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Disconnect the power supply connector at the system board.
5. Remove the two screws that secure the carrier frame to the base assembly.
6. Remove the screw that secures the power supply frame to the carrier frame.
7. Slide the carrier frame assembly off the base assembly.
8. To replace the carrier frame, remove all associated parts from the old carrier frame and install them on the new carrier frame.

Carrier Home Sensor Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Disconnect the sensor cable from the system board.
4. Remove the screw that secures the sensor to the carrier frame.
5. Remove the sensor.

Carrier Transport Motor Removal

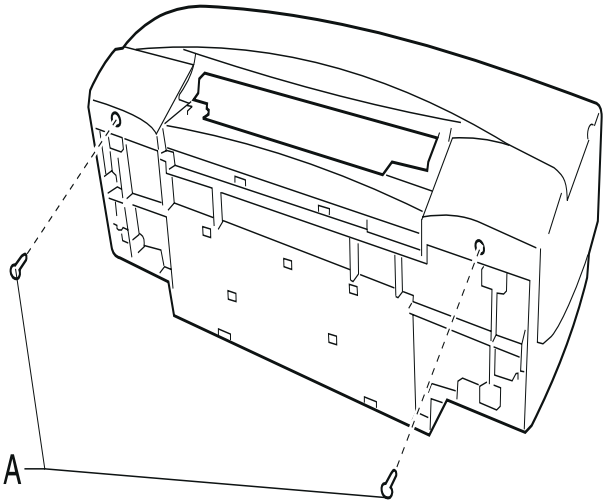
1. Remove the front cover.
2. Remove the rear cover.
3. Disconnect the carrier transport motor connector from the system board.
4. Remove the belt from the carrier transport motor pulley.
5. Remove the two screws securing the carrier transport motor to the carrier frame and remove the motor. Note the routing of the motor cable.

Drive Train Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Unplug the paper feed motor assembly. Note the routing of the motor cable.
5. Remove the two screws securing the drive train to the carrier frame.
6. Push the drive train to the left and remove it from the carrier frame.

Front Cover Removal

1. Turn the printer over to expose the base. Remove the two cover mounting screws [**A**] from the front cover. When reassembling, do not overtighten these screws as they will break. The cover replacement screws can be found in parts packet 11B5600.



2. Slide the cover upward and off the machine.

To reassemble:

1. Align the tabs on the front cover over the front edge of the base assembly.
2. Rotate the front cover over the top edge of the rear cover and press in on both sides opposite the cover latches, until they latch.

Gutter Pad Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Remove the base assembly.
5. Remove the gutter pad from the base assembly.

Large Feed Roll Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Remove the base assembly.
5. Remove the system board.
6. Remove the printhead carrier assembly.
7. Remove the small feed roll assemblies.
8. Remove the small feed roll bracket assembly.
9. Remove the mid frame assembly.
10. Remove the maintenance station assembly.
11. Turn and remove the retainer at the right end of the large feed roller.
12. Remove the large feed roller from the carrier frame.

Maintenance Station Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the base assembly.
4. Depress the clip on the left and right side of the carrier frame that secures the maintenance station assembly and slide the assembly out of the machine.

Maintenance Wiper and Cap Removal

1. Remove the front cover.
2. Push the carrier to the left away from the maintenance station.
3. Gently pull the cap and wiper off their mountings.

Mid Frame Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Remove the system board.
5. Remove the small feed roll assemblies.
6. Remove the small feed roll bracket assembly.
7. Remove the printhead carrier assembly.
8. Lift up the rear of the mid frame assembly and remove it from the carrier frame.

Paper Feed Motor Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Disconnect the paper feed motor from the system board.
4. Remove the two screws mounting the paper feed motor to the drive train assembly and remove the motor.

Power Supply Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Disconnect the power supply connector from the system board.
4. Remove the screws that secure the power supply to the carrier frame on the left and right sides.

Printhead Carrier Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Unlock the four printhead cable connectors and disconnect the printhead cable from the system board.
5. Unlatch the cable retainer from the carrier frame.
6. Remove the retainer spring from the left end of the carrier guide rod.
7. Remove the screw from the right end of the carrier guide rod.
8. Slide the carrier guide rod out the left side of the machine.
9. Remove the belt from the back of the carrier.
10. Lift the carrier out of the machine.

Rear Cover Removal

1. Remove the screws from the bottom assembly.
2. Remove the front cover.
3. Pry upward on the two rear cover latches.
4. Work the tabs of the rear cover free from the base assembly.
5. To reassemble, place the cover over the tabs in the base assembly and press toward the front of the machine until the cover latches. Be sure the parallel connector snaps do not get trapped behind the cover.

Sheet Feeder Removal

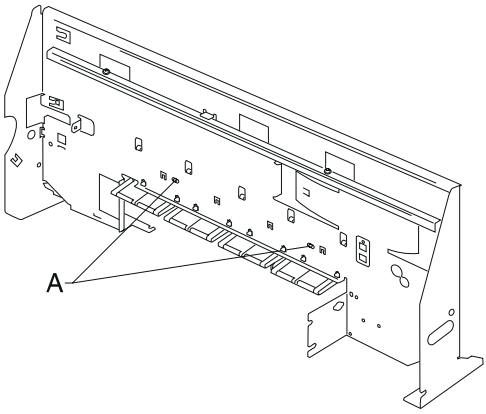
1. Remove the front cover.
2. Remove the rear cover.
3. Remove the two sheet feeder mounting screws from the rear of the carrier frame.
4. Unlatch the right sheet feeder latch from the front of the carrier frame. **Note:** For reassembly, the cables are routed through tab slots in the sheet feeder.
5. Remove the sheet feeder.

Small Feed Roll Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Remove the system board.
5. Remove the four small feed roller springs from the carrier frame.
6. Push down on each of the small feed roll assemblies to remove them from the small feed roll bracket.

Small Feed Roll Bracket Assembly Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Remove the sheet feeder.
4. Remove the system board.
5. Remove the four small feed roller springs from the carrier frame.
6. Push down on each of the small feed roll assemblies to remove them from the small feed roll bracket.
7. Push the two locking tabs [**A**] to the rear to release the small feed roll assembly from the carrier frame.

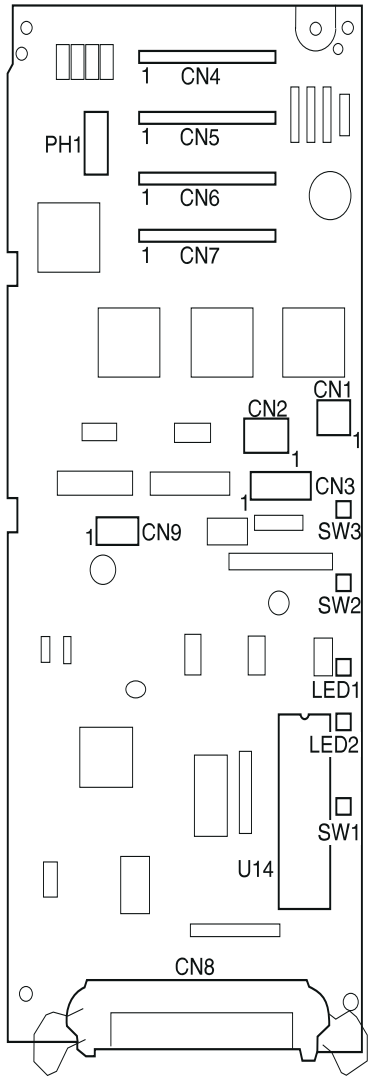


System Board Removal

1. Remove the front cover.
2. Remove the rear cover.
3. Unlock the four printhead cable connectors and disconnect the printhead cables from the system board.
4. Disconnect the other cables from the system board.
5. Remove the three screws securing the system board to the carrier frame and remove the system board. Note the routing of all the cables.
6. Remove the system board being careful not to damage the End-of-Form flag.
7. Set NVRAM to the proper country defaults. See "NVRAM Defaults" on page 3-3.

5. Connectors

CN1	Home Position Sensor
CN2	Carrier Transport Motor
CN3	Paper Feed Motor
CN4	Printhead Cable 1
CN5	Printhead Cable 2
CN6	Printhead Cable 3
CN7	Printhead Cable 4
CN8	Parallel Port
CN9	Power Supply
PH1	EOF Sensor
U14	Code Module
SW1	Power Switch
SW2	Paper Feed Switch
SW3	Install Print Cartridge Switch
LED1	Busy Light
LED2	Power-On Light



6. Preventive Maintenance

This chapter contains lubrication specifications. Follow these recommendations to prevent problems and maintain optimum performance.

Lubrication Specifications

Lubricate only when parts are replaced or as needed, not on a scheduled basis. Use grease P/N 99A0394 to lubricate the following:

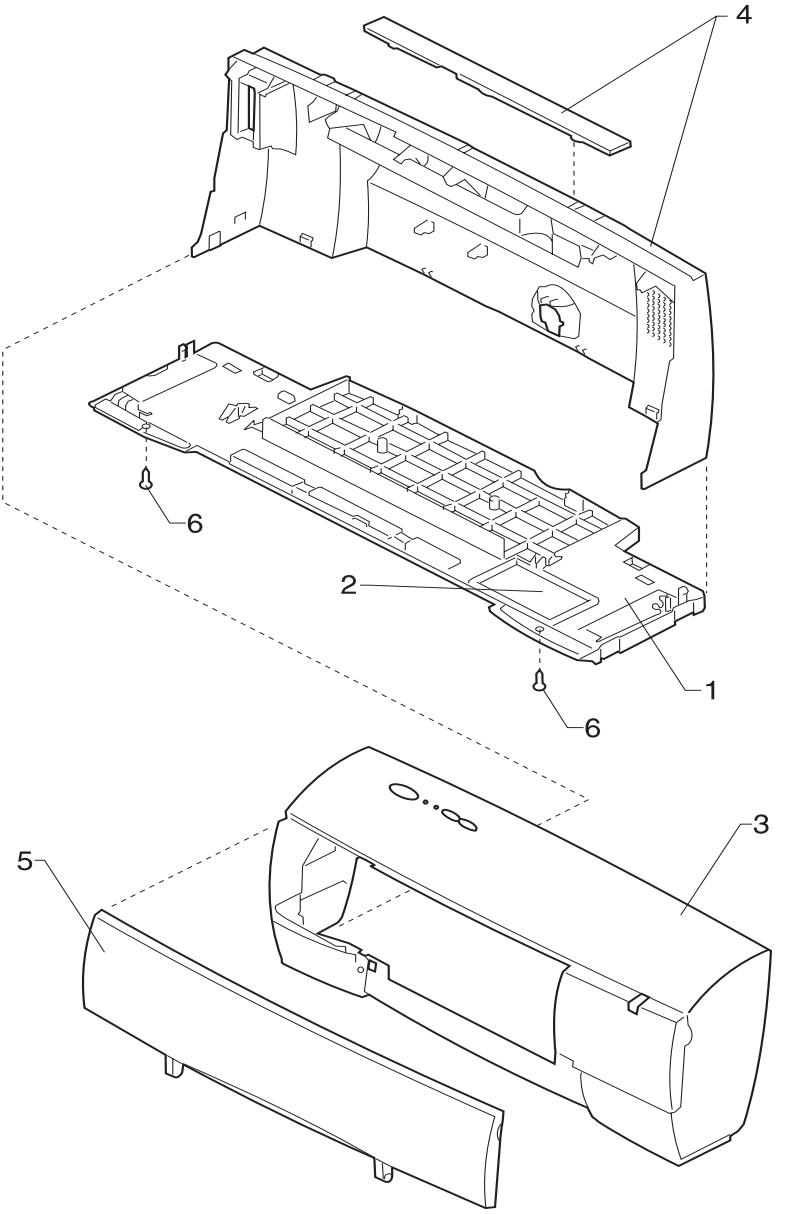
- All gear mounting studs.
- The left and right ends of the large feed roller at the side frames.
- The carrier to carrier frame engagement.
- The carrier guide rod, and carrier guide rod bearings.

7. Parts Catalog

How to Use This Parts Catalog

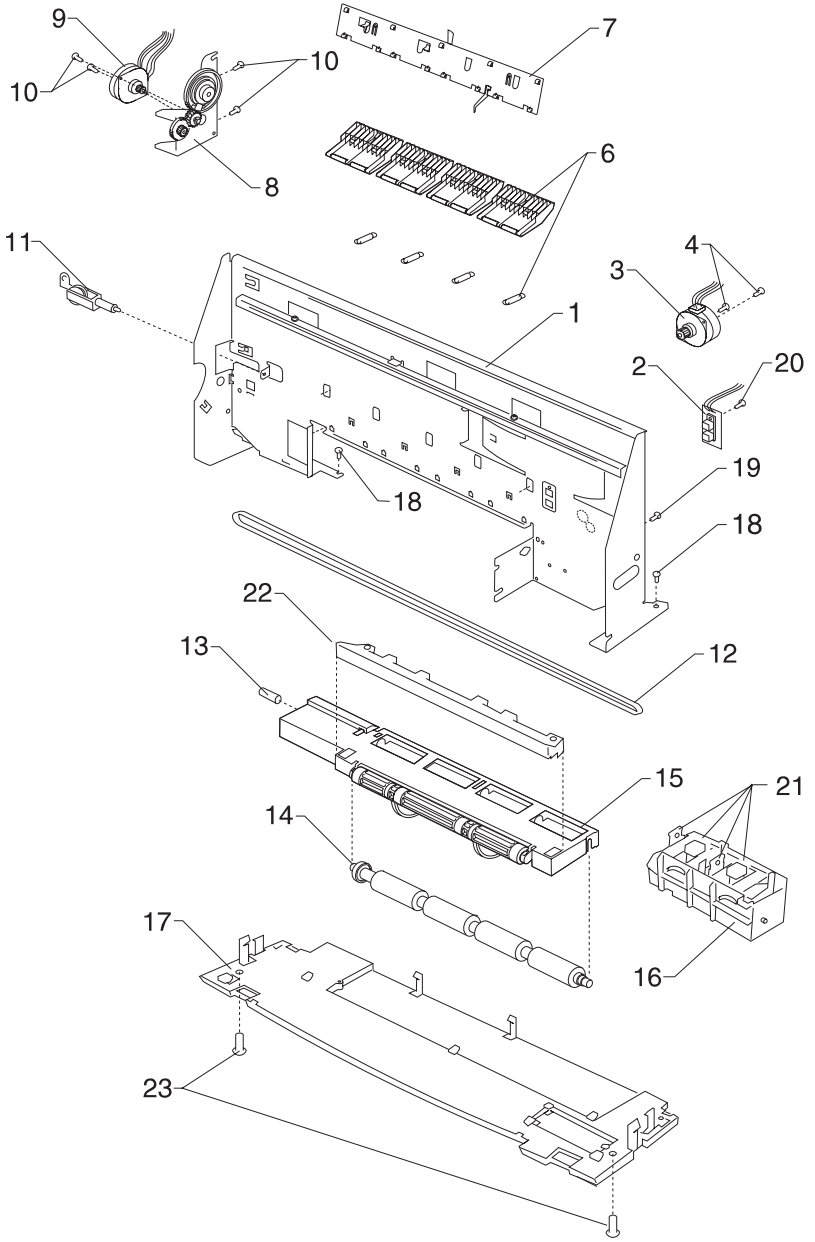
- SIMILAR ASSEMBLIES: If two assemblies contain a majority of identical parts, they are broken down on the same list. Common parts are shown by one index number. Parts peculiar to one or the other of the assemblies are listed separately and identified by description.
- NS: (Not Shown) in the Asm-Index column indicates that the part is procurable but is not pictured in the illustration.
- PP: in the parts description column indicates the part is available in the listed parts packet.

Assembly 1: Covers



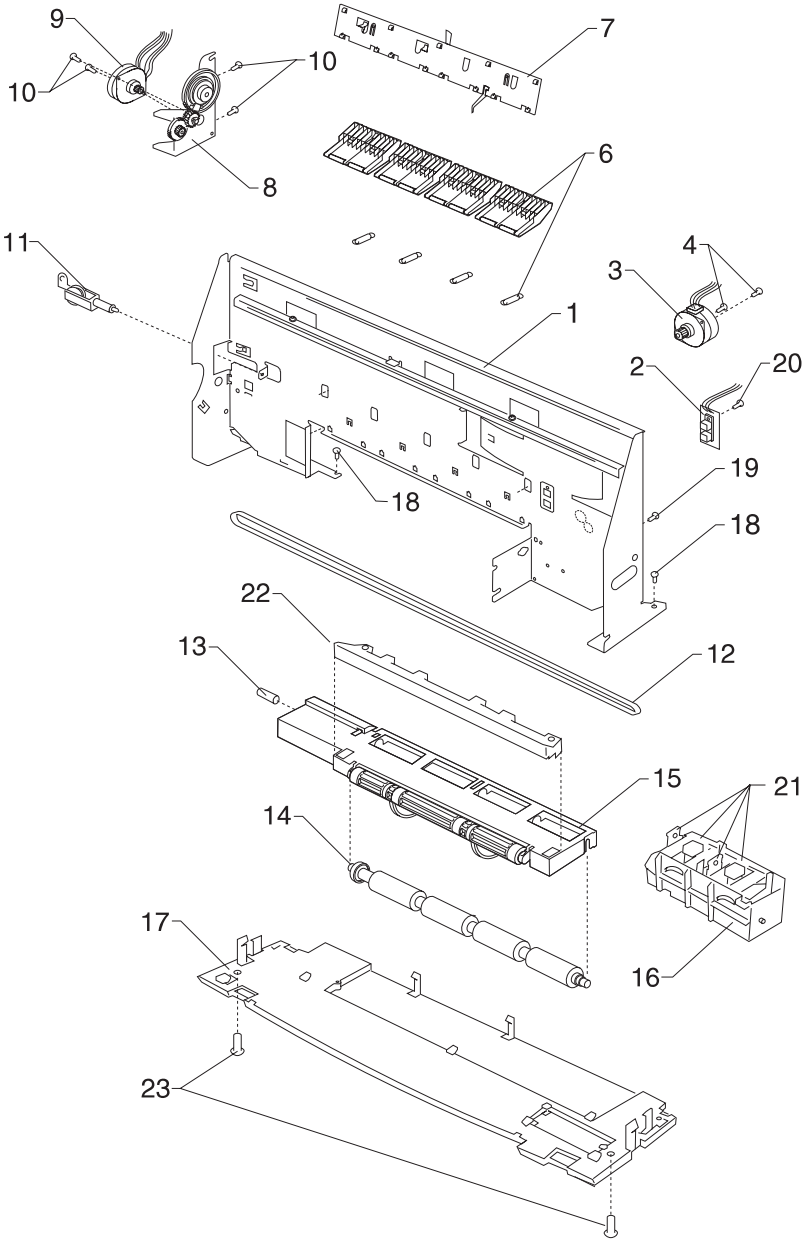
Asm-Index	Part Number	Units	Description
1 -1	11B5741	1	Base Assembly
2	11A5431	1	Felt Pad, Ink Absorption
3	11B5742	1	Cover, Front Assembly and Paper Scale
4	11B5743	1	Cover, Rear Assembly
5	11B5744	1	Cover, Access Assembly
6	11B5600	2	Front Cover Mounting Screws (PP)
N/S	7349474	1	Replaceable Package B/M - Includes: (Carton, Cushion Set, Sealing Tape)

Assembly 2: Paper Feed / Carrier Transport / Maintenance



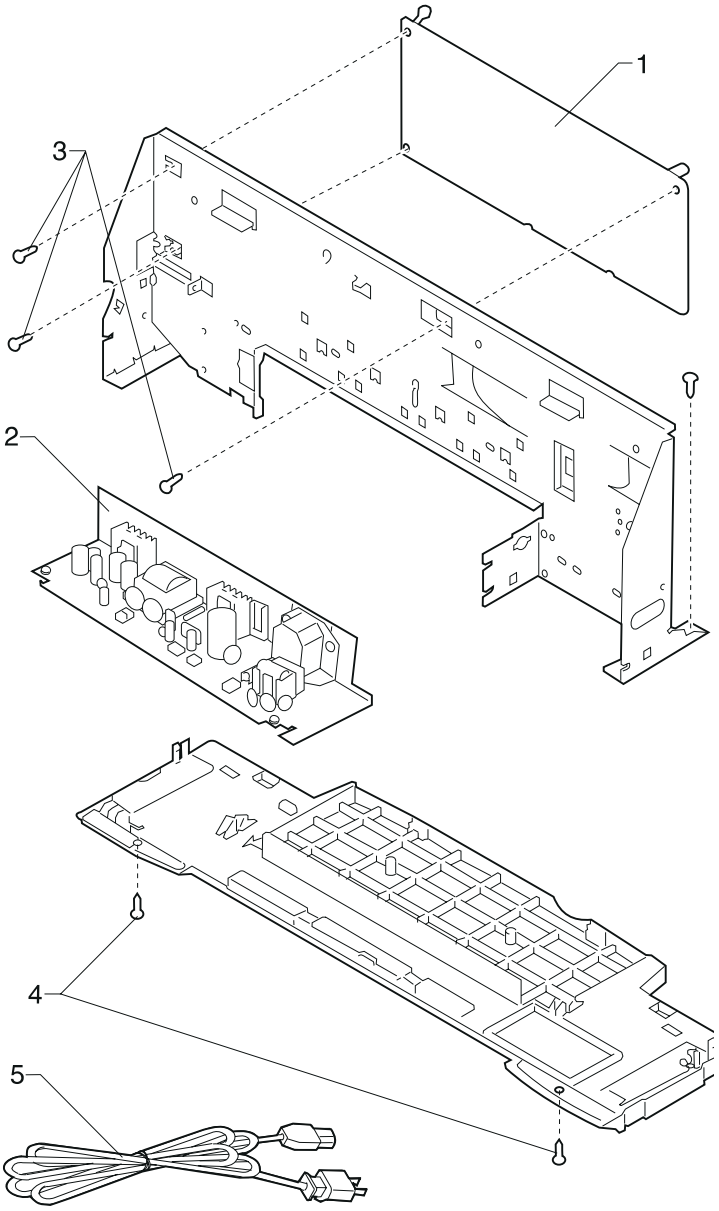
Asm-Index	Part Number	Units	Description
2 -1	11B5584	1	Frame, Carrier with cable guide system board stand off.
2	11B5586	1	Sensor, Carrier Home
3	11B5598	1	Motor, Carrier Transport Assembly
4	11B5600	2	Screw, (PP)
6	11B5601	1	Feed Roll Assembly, Small and Spring
7	11B5589	1	Mounting Bracket, Small Feed Roll Assembly
8	11B5590	1	Drive Train Assembly
9	11B5738	1	Motor, Paper Feed Assembly
10	11B5600	5	Screws, Paper Feed Motor Mounting (PP)
11	11B5588	1	Arm, Tensioner
12	11B5597	1	Belt, Carrier
13	11B5600	1	Spring, Large Feed Roll Dampening (PP)
14	11A5440	1	Feed Roll Assembly, Large
15	11B5587	1	Frame, Mid Assembly
16	11B5599	1	Maintenance Station Assembly
17	11B5741	1	Base Assembly

Assembly 2: Paper Feed / Carrier Transport / Maintenance



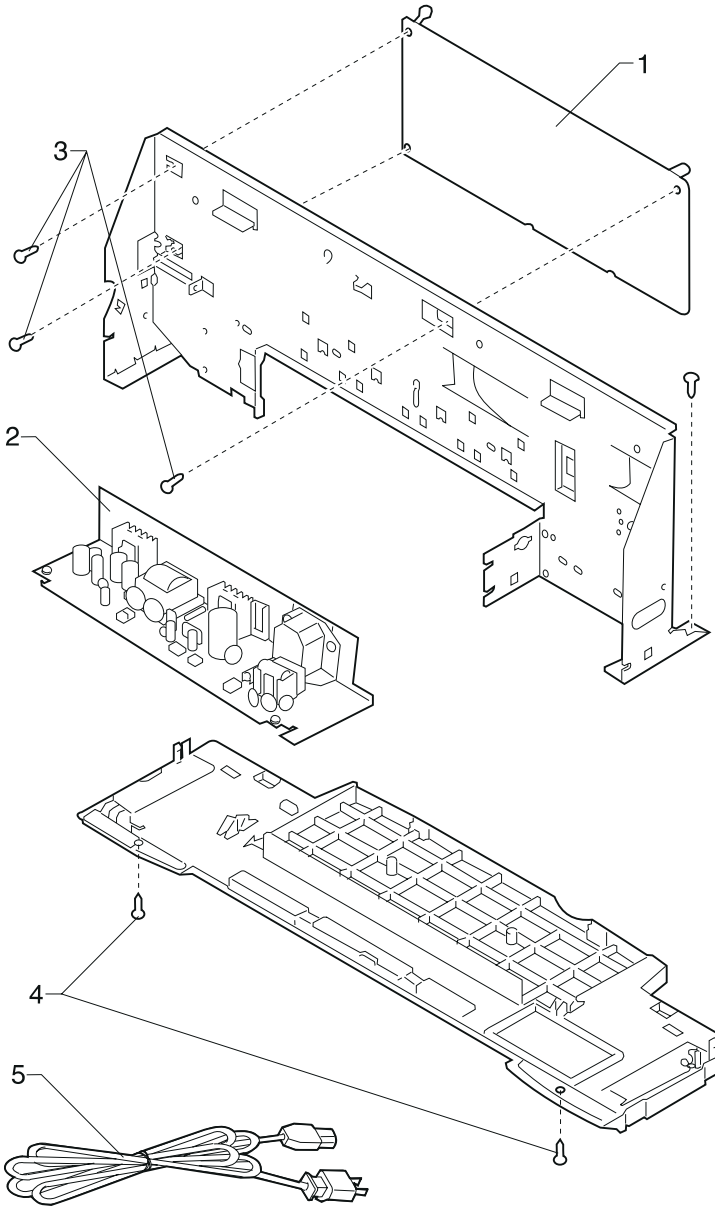
Asm-Index	Part Number	Units	Description
2- 18	11B5600	2	Screw, (PP)
19	11B5600	1	Screw, (PP)
20	11B5600	1	Screw, (PP)
21	1367389	1	Cap and Wiper B/M (One of each)
22	11B5595	1	Star Roller Asm
23	11B5600	2	Screw (PP)
NS	11B5600	2	Bearings, Large Feed Roll (PP)
NS	11B5600	2	Screws, Star Roller Assembly Mounting (PP)

Assembly 3: Electronics



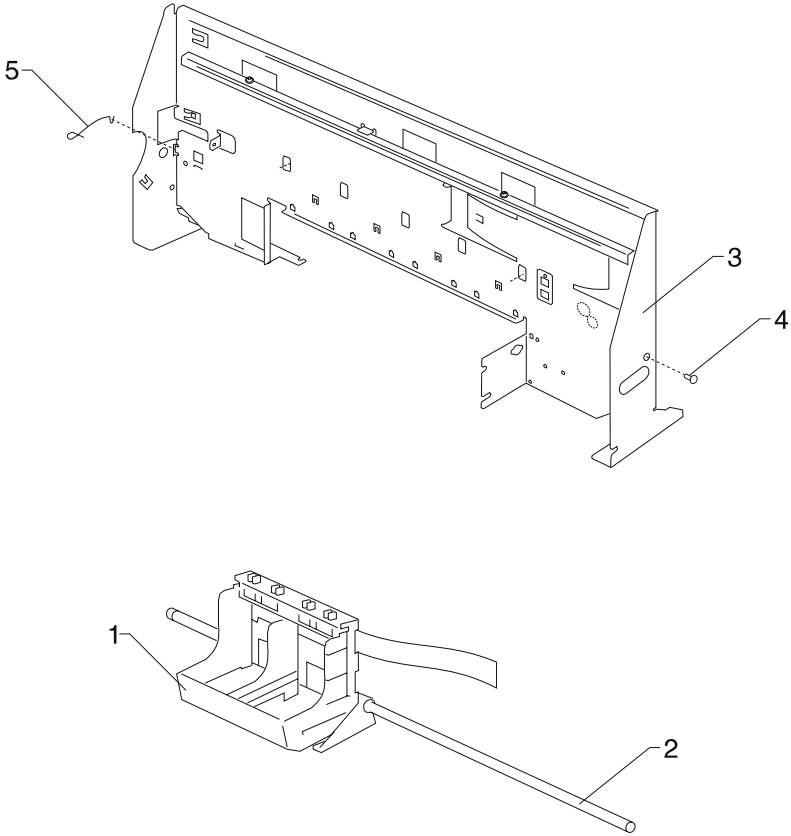
Asm-Index	Part Number	Units	Description
3 -1	11B5745	1	System Board with ROM
2	11B5746	1	Power Supply
3	11B5600	3	Screws, System Board (PP)
4	11B5600	2	Screws, Base Asm (PP)
NS	11B5602	1	Cable, Parallel Port

Assembly 3: Electronics (Continued)



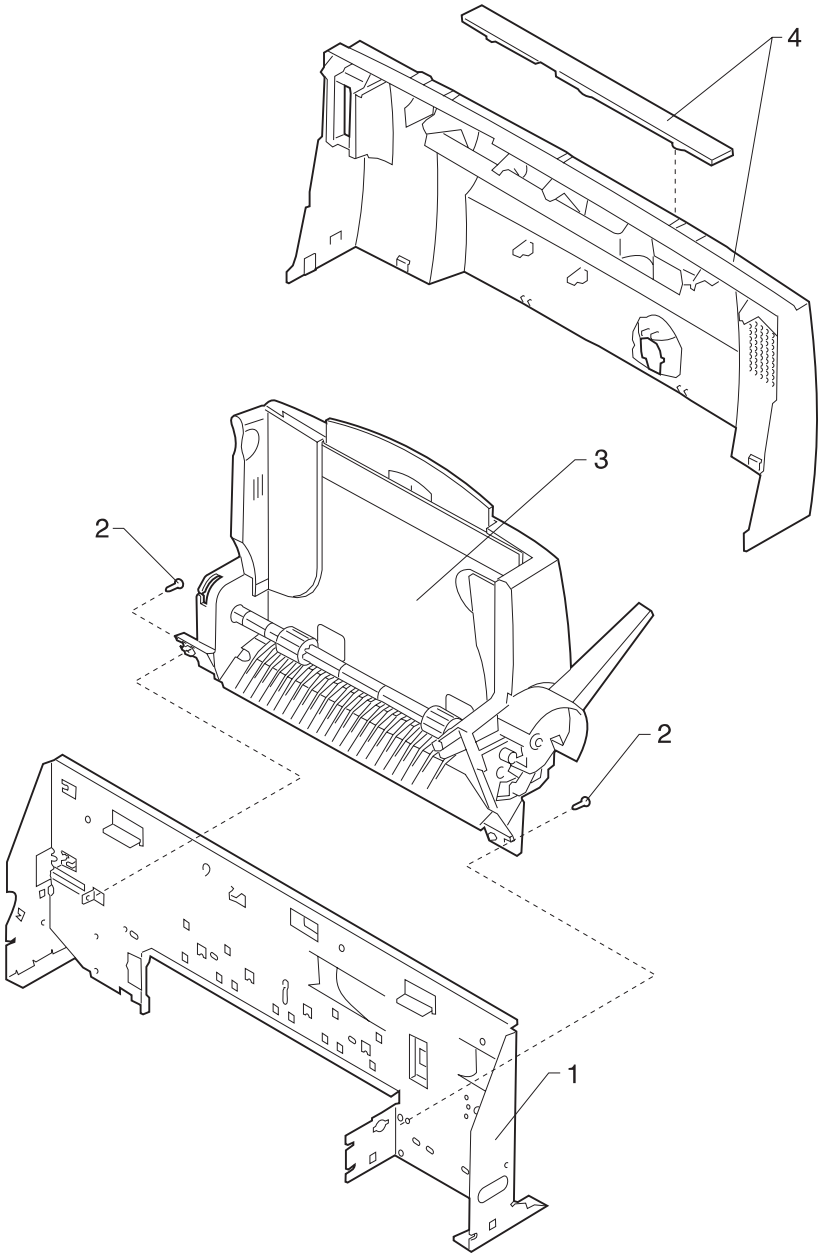
Asm-Index	Part Number	Units	Description
3 - 5	1339526	1	Power Cord, U.S.
	1342536		Power Cord, Argentina
	1339520		Power Cord, Austria
	1339520		Power Cord, Belgium
	1342514		Power Cord, Bolivia
	1342526		Power Cord, Brazil (LV)
	1342536		Power Cord, Brazil (HV)
	1339526		Power Cord, Canada
	1342534		Power Cord, Chile
	1342514		Power Cord, Columbia
	1342514		Power Cord, Costa Rica
	1339525		Power Cord, Denmark
	1342514		Power Cord, Ecuador
	1339519		Power Cord, Egypt
	1342514		Power Cord, El Salvador
	1339520		Power Cord, Finland
	1339520		Power Cord, France
	1339520		Power Cord, Germany
	1342514		Power Cord, Guatemala
	1342514		Power Cord, Honduras
	1339521		Power Cord, Israel
	1339524		Power Cord, Italy
	70G0496		Power Cord, Japan
	1342514		Power Cord, Mexico
	1339520		Power Cord, Netherlands
	1342514		Power Cord, Nicaragua
	1339520		Power Cord, Norway
	1342514		Power Cord, Panama
	1342536		Power Cord, Paraguay
	1342514		Power Cord, Peru
	1339520		Power Cord, Portugal
	1339517		Power Cord, Saudi Arabia
	1339523		Power Cord, South Africa
	1339520		Power Cord, Spain
	1339520		Power Cord, Sweden
	1339522		Power Cord, Switzerland
	1339519		Power Cord, United Kingdom
	1342536		Power Cord, Uruguay
	1342514		Power Cord, Venezuela

Assembly 4: Carrier



Asm-Index	Part Number	Units	Description
4 -1	11B5596	1	Carrier Assembly
2	11B5585	1	Rod, Carrier Guide
3	11B5584	1	Frame, Carrier
4	11B5600	1	Screw, Carrier Guide Rod (PP)
5	11B5600	1	Spring, Carrier Guide Rod (PP)

Assembly 5: Sheet Feeder



Asm-Index	Part Number	Units	Description
5 -1	11B5584	1	Frame, Carrier
2	11B5600	2	Screws, Sheet Feeder Mounting (PP)
3	11B5747	1	Sheet Feeder Asm
4	11B5743	1	Cover, Rear Asm

Index

T

Lexmark 3000 Color Jetprinter
Service Manual
P/N 11B5909

Reader's Comment Form

You may use this form to communicate your comments about this publication, with the understanding that Lexmark may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

1. Did you find the book well organized?
   Yes ❒ No ❒

2. Was the content of the book accurate and complete?
   Yes ❒ No ❒

3. Was the book easy to use?
   Yes ❒ No ❒

4. What can we do to improve the book?

   _____

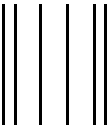
   _____

5. What is your job title?

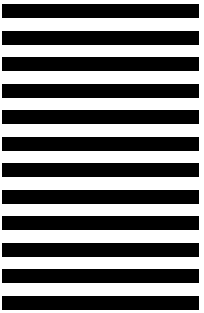
   _____

Questions or comments about supplies, service, applications, and so on will slow response time considerably. Please refer those questions or comments to your authorized dealer or point of purchase.

Note: Please direct all requests for copies of publications to your point of purchase. Publications are not stocked at the location to which this form is addressed.



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO 2659 LEXINGTON, KY

POSTAGE WILL BE PAID BY ADDRESSEE

Lexmark International Inc.
Department D22A, Building 035-3
740 New Circle Road NW
Lexington, Ky 40550

Cut Along Line

Fold Here

Tape Please Do Not Staple Tape