

For the complete PDF manual
please visit www.LaserPros.com.



Service Manual

Lexmark Optra™ T
4069-XXX

- ***Table of Contents***
- ***Start Diagnostics***
- ***Safety and Notices***
- ***Trademarks***
- ***Index***

LEXMARK™

*Lexmark and Optra are trademarks of
Lexmark International, Inc., registered
in the United States and/or other
countries.*

Edition: January 2003

The following paragraph does not apply to any country where such provisions are inconsistent with local law: LEXMARK INTERNATIONAL, INC. PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions; therefore, this statement may not apply to you.

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.

Comments may be addressed to Lexmark International, Inc., Department D22A/032-2, 740 West New Circle Road, Lexington, Kentucky 40550, U.S.A or e-mail at ServiceInfoAndTraining@Lexmark.com. Lexmark may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you. You can purchase additional copies of publications related to this product by calling 1-800-553-9727. In other countries, contact your point of purchase.

Lexmark and Opra are trademarks of Lexmark International, Inc., registered in the United States and/or other countries.

Other trademarks are the property of their respective owners.

© Copyright Lexmark International, Inc. 1999, 2003.

All rights reserved.

UNITED STATES GOVERNMENT RESTRICTED RIGHTS

This software and documentation are provided with RESTRICTED RIGHTS. Use, duplication or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 and in applicable FAR provisions: Lexmark International, Inc., Lexington, KY 40550.

Contents

Notices and Safety Information	ix
Laser Notices	ix
Safety Information	xvii
Preface	xxii
General Information	1-1
Options	1-3
Maintenance Approach	1-4
Tools Required For Service	1-4
Acronyms	1-5
Diagnostic Information	2-1
Start	2-1
Service Error Codes	2-2
User Status Messages	2-12
User Error Messages	2-16
Power-On Self Test (POST)	2-24
Symptom Tables	2-25
Service Checks	2-28
Charge Roll Service Check	2-29
Cover Open Switch/Cable Service Check	2-31
Dead Machine Service Check	2-32
Duplex Option Service Check	2-35
Envelope Feeder Option Service Check	2-38
Erase Lamp Service Check (010/212/414/616)	2-45
Fan Service Check	2-46
Fuser Service Check	2-47
Fuser Solenoid Service Check	2-50
Input Sensor Service Check	2-51
Input Tray(s) Option Service Check	2-51
High Capacity Feeder Input Tray Service Check	2-55
Main Drive Service Check	2-68
Operator Panel Service Check	2-69
Options Service Check	2-71
Output Bin Sensor Standard Tray Service Check	2-73
Output Expander Service Check	2-74
High-Capacity Output Stacker Service Check	2-79
5-Bin Mailbox Service Check	2-82
Paper Feed Service Check	2-88
Parallel Port Service Check	2-90

4069-XXX

Printhead Service Check	2-91
Print Quality Service Check	2-92
Smart Cartridge Service Check	2-105
Serial Port Service Check	2-106
Toner Sensor Service Check	2-106
Transfer Roll Service Check	2-107
Diagnostic Aids	3-1
Diagnostic Mode	3-1
Device Tests	3-2
Quick Disk Test	3-2
Disk Test/Clean	3-2
Flash Test	3-3
Disabling Download Emulations	3-3
Duplex Tests	3-4
Duplex Quick Test	3-4
Duplex Sensor Test	3-5
Duplex Motor Test	3-5
Duplex Feed 1 Test	3-7
Duplex Feed 2 Test	3-7
Error Log	3-8
Viewing the Error Log	3-8
Clearing the Error Log	3-8
Hardware Tests	3-9
LCD Test	3-9
Button Test	3-9
SDRAM Memory Test	3-10
ROM Memory Test	3-10
Parallel Wrap Test	3-11
Serial Wrap Test	3-12
Input Tray Tests	3-14
Input Tray Feed Test	3-14
Input Tray Sensor Test	3-14
Output Bin Test - Standard Bin	3-15
Output Bin Feed Test	3-15
Output Bin Sensor Test	3-16
Output Bin X Sensor Test	3-16
Base Sensor Test	3-17
5-Bin Mailbox Diverter Test	3-18
Print Registration	3-19
Printer Setup	3-20
Setting the Page Count	3-20
Viewing the Permanent Page Count	3-20

4069-XXX

Maintenance Page Count	3-21
Setting Configuration ID	3-21
Restore EP Factory Defaults	3-22
Print Tests	3-23
Print Quality Test Pages	3-24
Print Test with RIP (Controller Board) Removed	3-25
Printing Menu Settings Page	3-26
Autocompensator Operation	3-26
Autoconnect System, Paper Tray Options, Envelope Feeder and Output Expander Operations	3-27
Fuser Operation	3-29
Paper Feed Jams	3-30
Repair Information	4-1
Handling ESD-Sensitive Parts	4-1
Adjustment Procedures	4-2
Duplex Motor Drive Belts	4-2
Fuser Solenoid Adjustment	4-3
Gap Adjustment	4-3
Printhead Assembly Adjustment	4-4
Paper Alignment Assembly Adjustment	4-5
Screw Identification Table	4-7
Removal Procedures	4-12
Covers	4-12
Center Pan Assembly	4-16
Controller Board	4-17
Developer Drive Assembly	4-18
Duplex Board	4-19
Duplex Front Cover Assembly	4-19
Duplex Front Cover Door	4-19
Duplex Motor	4-20
EMC Shields	4-21
Engine Board	4-23
Fans	4-24
Frames	4-26
Fuser	4-29
Fuser Board	4-30
Fuser Cover	4-31
Fuser Detack Fingers	4-31
Fuser Detack Housing Assembly	4-32
Fuser Transfer Plate	4-33
Fuser Envelope Conditioner Solenoid	4-34
Fuser Narrow Media Sensor/Flag Assembly	4-35

4069-XXX

Fuser Exit Sensor Flag Assembly	4-35
Fuser Lamp	4-35
Fuser Lower Exit Guide Assembly.	4-36
High Voltage Power Supply	4-37
Integrated Tray Compensator Assembly	4-38
Integrated Tray Compensator Pick Roll Assembly	4-39
Interconnect Board Assembly	4-40
Low Voltage Power Supply	4-42
Main Drive Assembly	4-43
Main Drive Motor	4-45
Multipurpose Tray/Lower Deflector Assembly	4-46
Operator Panel Assembly	4-48
Operator Panel Cable/Cover Open Switch Assembly	4-49
Optional 250/500 Paper Tray Assembly	4-50
Paper Alignment Assembly	4-51
Paper Deflectors	4-53
Paper Input Sensor	4-54
Paper Size Sensing Board.	4-54
Pick Roll.	4-55
Printhead	4-56
Redrive Assembly	4-57
Smart Cartridge Contacts	4-58
Toner Sensor.	4-59
Transfer Roll Assembly	4-60
Upper Paper Deflector Assembly	4-60
Upper Front Cover Hinge Assembly	4-61
Upper Front Cover Interlock Switch Assembly	4-62
Connector Locations	5-1
Low Voltage Power Supply	5-1
High Voltage Power Supply	5-3
Engine Board.	5-4
Fuser Board	5-11
Interconnect Board	5-12
Envelope Option Board	5-15
Duplex Option Board	5-17
Autoconnect - Top	5-19
Output Expander Control Board	5-20
High-Capacity Output Stacker Board.	5-22
Preventive Maintenance.	6-1
Safety Inspection Guide	6-1
Lubrication Specifications	6-1
Scheduled Maintenance	6-2

Parts Catalog **7-1**

 How To Use This Parts Catalog 7-1

 Printer Serial Label 7-2

 Assembly 1: Covers 7-4

 Assembly 2: Frame 7-8

 Assembly 3: Printhead 7-12

 Assembly 4: Paper Feed (Autocompensator). 7-14

 Assembly 5: Paper Feed - Multipurpose Unit 7-16

 Assembly 6: Paper Feed - Alignment 7-18

 Assembly 7: Paper Feed - Output 7-20

 Assembly 8: Integrated Paper Tray - 250 Sheet 7-22

 Assembly 9: Integrated Paper Tray - 500 Sheet 7-24

 Assembly 10: Main Drive 7-26

 Assembly 11: Developer Drive 7-28

 Assembly 12: Hot Roll Fuser 7-30

 Assembly 13: Transfer 7-34

 Assembly 14: Charging 7-36

 Assembly 15: Electronics 7-38

 Assembly 16: 250 Sheet Tray 7-52

 Assembly 17: 500 Sheet Tray 7-58

 Assembly 18: Duplex 7-62

 Assembly 19: Output Expander 7-68

 Assembly 20: Envelope Feeder 7-72

 Assembly 21: High Capacity Feeder 7-76

 Assembly 22: Kiosk - Vertical Paper Adapter 7-90

 Assembly 23: Kiosk - Horizontal Paper Adapter 7-92

 Assembly 24: High-Capacity Output Stacker 7-94

 Assembly 25: 5-Bin Mailbox 7-100

 Assembly 26: Options 7-104

 Assembly 27: Miscellaneous 7-106

Index **I-1**

For the complete PDF manual
please visit www.LaserPros.com.