

# ThinkPad 56W DC Power Adapter

User's Guide



**Note:** If you are using this product in the United States, Canada, or Puerto Rico, be sure to read the information under Appendix B, "Product Warranty" on page 2-3 before using this information and the product it supports.

For all other countries, the warranty terms and conditions applicable in the country of purchase are available from IBM or your reseller.

#### First Edition (September 1998)

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### **Contents**

gistering Your Option			
About This Book			
rt 1: Quick Installation Guide			
rt 2: Appendixes			
pendix A. Help and Service Information2-1p 1. Problem Solving2-1p 2: Preparing for the Call2-2p 3: Placing the Call to IBM2-2			
pendix B. Product Warranty			
pendix C. Notices			
pendix D. Trademarks			
pendix E. Electronic Emission Notices			

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http://www.pc.ibm.com/register

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### About This Book

This manual contains information on the ThinkPad 56W DC Power Adapter. It is divided into the following parts:

Part 1: Quick Installation instructions, in the following languages:

English German French Spanish Italian Brazilian Portuguese Japanese

Part 2: Help and service information, warranty and notices

You can find information on how to get help, technical support, and warranty service in Appendix A, "Help and Service Information" on page 2-1.

**Note:** The illustrations in this manual might be slightly different from your hardware.

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### Part 1: Quick Installation Guide

### Step 1

There are three cables in your option package. One of the cables connects the Power Adapter to the DC electricity source. The other two cables are designed to connect to different types of ThinkPad power connectors. Refer to the following illustrations to determine which of the power connector cables to use with your ThinkPad. For ThinkPad models with a 4-pin power cable:



For ThinkPad models with a barrel-type power cable:



Locate the plug marked with an orange ring. Insert it into the receptacle marked with an orange dot on the Power Adapter. Insert the plug until the orange ring is no longer visible.



### Step 3

Locate the source cable (illustrated below), and plug it into the receptacle on the Power Adapter. The metal part of the plug should not be visible when the plug is fully inserted.



Plug the source cable into the receptacle of the power source (for example, your car's cigarette lighter). The green LED on the plug will light up when the cable is plugged into an active power source. When the power adapter is connected to a ThinkPad and power is supplied, the green LED on the Power Adapter will light up.



#### Quick Installation (German)

### Step 1

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For technical support, support hours, and warranty terms and conditions, see the enclosed inserts, or contact your IBM reseller or IBM marketing representative.

### Quick Installation (French)

### Step 1

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### Quick Installation (Spanish)

### Step 1

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### Quick Installation (Italian)

### Step 1

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#### Quick Installation (B. Portuguese)

### Step 1

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### Quick Installation (Japanese)

### Step 1

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IBM will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

#### **Product Service and Warranty Information**

For technical support, support hours, and warranty terms and conditions, see the enclosed inserts, or contact your IBM reseller or IBM marketing representative.

### Part 2: Appendixes

#### Appendix A. Help and Service Information

If you have questions about your new Options by IBM product, or require technical assistance, visit the IBM Personal Computing Web site at http://www.pc.ibm.com for information about IBM, Options by IBM, or IBM Service and Support. Additionally, you can receive information from the IBM Automated Fax system at 1-800-426-3395 (in Canada, 1-800-465-3299), or from the Personal Systems Group Bulletin Board System (PSG BBS) at 1-919-517-0001. You can also get help and information through the IBM PC HelpCenter, 24 hours a day, seven days a week. Response time may vary depending on the number and nature of the calls received.

Marketing, installation, and configuration support through the HelpCenter will be withdrawn or made available for a fee, at IBM's discretion, 90 days after the option has been withdrawn from marketing. Additional support offerings, including step-by-step installation assistance, are available for a nominal fee.

During the warranty period, assistance for replacement or exchange of defective components is available. In addition, if your IBM option is installed in an IBM computer, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

#### Step 1. Problem Solving

You may be able to solve the problem yourself. Before calling the HelpCenter, try the following troubleshooting procedure.

If the LED on the DC Voltage Source plug does not come on: If

you have attached all the cables for the adapter correctly, the LED on the DC Voltage Source plug should come on. This indicates that the current is flowing through the plug and cable. The DC Voltage Source plug has an 8.0 amp fuse inside it. If the LED does not come on at the proper time, the fuse may need to be replaced. Refer to the illustration below as you read the instructions for removing and replacing the fuse.



To replace the fuse:

- Remove the locking ring 3 from the end of the DC Voltage Source plug by turning it in a counter-clockwise direction.
- 2. Remove the locking ring and contact pin from the plug. Be sure to keep them together.
- 3. Slide the fuse 2 from the body of the plug 1, and replace with a duplicate 8 amp fuse. Make sure the replacement fuse **does not exceed** 8 amp, as that could damage your adapter.

If you replace the fuse and the LED still does not come on, call the HelpCenter.

If the LED on the adapter itself does not come on: Check to make sure all cables are completely attached. Check to make sure that your ThinkPad is working correctly. The DC Power Adapter has thermal overload protection. If the cables are attached correctly and the ThinkPad is working correctly, leave the Power Adapter disconnected for 30 minutes, then reconnect it to the ThinkPad and to the DC power source. If the LED still does not come on, call the HelpCenter.

If you are installing this option in an IBM computer, you can also visit the applicable Web page for that computer model. These pages might also contain useful hints and tips related to installation of this option and might refer to BIOS or device-driver updates required for your computer model.

#### Step 2: Preparing for the Call

To assist the technical support representative, have available as much of the following information as possible:

- 1. Option name
- 2. Option number
- 3. Proof of purchase
- 4. Computer manufacturer, model, serial number (if IBM), and manual
- 5. Exact wording of the error message (if any)
- 6. Description of the problem
- 7. Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

#### Step 3: Placing the Call to IBM

If you call 90 days or more after the date of withdrawal or after your warranty has expired, you might be charged a fee.

For the support telephone number and support hours by country, refer to the following table or to the enclosed technical support insert. If the number is not provided, contact your IBM reseller or IBM marketing representative.

Support 24 hours a day, 7 days a week	
Canada	1-800-565-3344
U.S.A. / Puerto Rico	1-800-772-2227

#### **Additional Technical Support Resources**

Online technical support is available during the life of your product. Online assistance can be obtained through the IBM Automated Fax System, the Personal Computing Web page, and the PSG Electronic Bulletin Board System.

Online Technical Support		
IBM Personal Computing Web Page	www.pc.ibm.com	
IBM PSG BBS	1-919-517-0001	
IBM Automated Fax System	1-800-426-3395 1-800-465-3299 (in Canada)	

#### Appendix B. Product Warranty

The following warranty information applies to products purchased in the United States, Canada, and Puerto Rico. For warranty terms and conditions for products purchased in other countries, see the enclosed Warranty insert, or contact your IBM reseller or IBM marketing representative.

International Business Machines Corporation

Armonk, New York, 10504

#### Statement of Limited Warranty

The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you originally purchase for your use, and not for resale, from IBM or your reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. If you have any questions, contact IBM or your reseller.

Machine: ThinkPad 56W DC Power Adapter

Warranty Period\*: One Year

\*Contact your place of purchase for warranty service information.

#### **Production Status**

Each Machine is manufactured from new parts, or new and used parts. In some cases, the Machine may not be new and may have been previously installed. Regardless of the Machine's production status, IBM's warranty terms apply.

#### The IBM Warranty for Machines

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications. The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your receipt is the Date of Installation, unless IBM or your reseller informs you otherwise.

During the warranty period IBM or your reseller, if authorized by IBM, will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine.

For IBM or your reseller to provide warranty service for a feature, conversion, or upgrade, IBM or your reseller may require that the Machine on which it is installed be 1) for certain Machines, the designated, serial-numbered Machine and 2) at an engineering-change level compatible with the feature, conversion, or upgrade. Many of these transactions involve the removal of parts and their return to IBM. You represent that all removed parts are genuine and unaltered.

A part that replaces a removed part will assume the warranty service status of the replaced part.

If a Machine does not function as warranted during the warranty period, IBM or your reseller will repair it or replace it with one that is at least functionally equivalent, without charge. The replacement may not be new, but will be in good working order. If IBM or your reseller is unable to repair or replace the Machine, you may return it to your place of purchase and your money will be refunded.

If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user. However, for Machines which have a life-time warranty, this warranty is not transferable.

#### Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at **1-800-772-2227**. In Canada, call IBM at **1-800-565-3344**. You may be required to present proof of purchase.

IBM or your reseller will provide certain types of repair and exchange service, either at your location or at IBM's or your reseller's service center, to restore a Machine to good working order.

When a type of service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item. Before IBM or your reseller exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service. You also agree to ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange.

You agree to:

- 1. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
- 2. where applicable, before service is provided ---
  - a. follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,
  - b. secure all programs, data, and funds contained in a Machine, and
  - c. inform IBM or your reseller of changes in a Machine's location.

IBM is responsible for loss of, or damage to, your Machine while it is 1) in IBM's possession or 2) in transit in those cases where IBM is responsible for the transportation charges.

#### **Extent of Warranty**

IBM does not warrant uninterrupted or error-free operation of a Machine.

The warranties may be voided by misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, removal or alteration of Machine or parts identification labels, or failure caused by a product for which IBM is not responsible.

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- 1. damages for bodily injury (including death) and damage to real property and tangible personal property; and
- the amount of any other actual direct damages or loss, up to the greater of U.S. \$100,000 or the charges (if recurring, 12 months' charges apply) for the Machine that is the subject of the claim.

UNDER NO CIRCUMSTANCES IS IBM LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR LOSSES OR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF IBM OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

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IBM ThinkPad HelpCenter

Microsoft and Windows are trademarks or registered trademarks of Microsoft Corporation.

Other company, product, and service names may be trademarks or service marks of others.

#### Appendix E. Electronic Emission Notices

ThinkPad 56W DC Power Adapter

# Federal Communications Commission (FCC) Statement

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult an IBM authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:

International Business Machines Corporation New Orchard Road Armonk, NY 10504 Telephone: 1-919-543-2193

# Industry Canada Class B Emission Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

#### Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conform à la norme NMB-003 du Canada.

#### Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

Dieses Gerät ist berechtigt in Übereinstimmung mit dem deutschen EMVG vom 9.Nov.92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM UK, Greenock.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse B.

#### **European Union - Emission Directive**

This product is in conformity with the protection requirements of EU Council Directive 89/366/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

IBM can not accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 / European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

### Union Européenne - Directive Conformité électromagnétique

Ce produit est conforme aux exigences de protection de la Directive 89/336/EEC du Conseil de l'UE sur le rapprochement des lois des États membres en matière de compatibilité électromagnétique.

IBM ne peut accepter aucune responsabilité pour le manquement aux exigences de protection résultant d'une modification non recommandée du produit, y compris l'installation de cartes autres que les cartes IBM.

Ce produit a été testé et il satisfait les conditions de l'équipement informatique de Classe B en vertu de CISPR22 / Standard européen EN 55022. Les conditions pour l'équipement de Classe B ont été définies en fonction d'un contexte résidentiel ordinaire afin de fournir une protection raisonnable contre l'interférence d'appareils de communication autorisés.

#### Unione Europea - Directiva EMC (Conformidad électromagnética)

Este producto satisface los requisitos de protección del Consejo de la UE, Directiva 89/336/CEE en lo que a la legislatura de los Estados Miembros sobre compatibilidad electromagnética se refiere.

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#### **Union Eurpea - Normativa EMC**

Questo prodotto è conforme alle normative di protezione ai sensi della Direttiva del Consiglio dell'Unione Europea 89/336/CEE sull'armonizzazione legislativa degli stati membri in materia di compatibilità elettromagnetica.

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Le prove effettuate sul presente prodotto hanno accertato che esso rientra nei limiti stabiliti per le le apparecchiature di informatica Classe B ai sensi del CISPR 22 / Norma Europea EN 55022. I limiti delle apparecchiature della Classe B sono stati stabiliti al fine di fornire ragionevole protezione da interferenze mediante dispositivi di comunicazione in concessione in ambienti residenziali tipici.

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