

TITLE Title Page

IBM Personal System/2
Quick Charger for
Model L40 SX
Operating Instructions

28DEC90 Version

Document Number 84F7574

IBM Personal System/2
Quick Charger for Model L40 SX
Operating Instructions

PICTURE 1

This manual explains how to operate the IBM Personal System/2 Quick Charger for Model L40 SX (hereafter may be referred to as the *Quick Charger*) and describes its specifications.

This option consists of the Quick Charger.

Note: The hardware drawings in this publication might look slightly different from your hardware.

84F7574

| Copyright International Business Machines Corporation 1991. All rights reserved.

Note to U.S. Government Users -- Documentation related to restricted rights -- Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

International Business Machines Corporation Armonk, New York, 10504

STATEMENT OF LIMITED WARRANTY FOR THE IBM Personal System/2 Quick Charger for Model L40 SX

International Business Machines Corporation (IBM) gives you the following limited warranty for this IBM machine (Machine). IBM gives you this limited warranty only if this Machine was originally purchased for use, and not resale, from IBM, an IBM Authorized Dealer, an IBM Authorized Industry Remarketer or an IBM approved Reseller. The Dealer, Remarketer or Reseller must be authorized or approved by IBM to market this Machine. Such a purchase is referred to in this Statement as "Original Purchase." This Machine will be subject to this Statement of Limited Warranty only if purchased and located in the United States or Puerto Rico.

The Warranty Period duration is One Year. The Date of Original Purchase is shown on the receipt which establishes your proof of Original Purchase. That Date is the Machine's Date of Installation and starts its Warranty Period.

Each Machine subject to this Statement of Limited Warranty will be newly manufactured by or for IBM from new and serviceable used parts which are equivalent to new in performance in this Machine.

IBM warrants that on this Machine's Date of Original Purchase it will be in good working order and will conform to IBM's official published specifications. IBM will make these specifications available to you upon request. During this Machine's Warranty Period IBM or an IBM Authorized Dealer or IBM Authorized Industry Remarketer will provide warranty service at no additional charge except as set forth in this Statement. IBM will refer to an IBM Authorized Dealer or Industry Remarketer in this Statement as "Dealer" unless the context requires individual reference. You may obtain warranty service if this Machine is 1) defective in material or workmanship or 2) otherwise not in good working order. Warranty service will be either repair or exchange, as determined by IBM. Warranty service

does not include repair of certain Machine failures. These failures include those which are caused by an unsuitable environment, accident, disaster, transportation, vandalism, misuse, abuse, another product or device not under IBM warranty or IBM agreement service, non-IBM modification, or service of the Machine by other than IBM or a Dealer. Exchange service is not available to you if the Machine you present for exchange is defaced, altered, in need of a repair not included in warranty service or damaged beyond repair.

If this Machine is a feature or model conversion (Upgrade) this Statement of Limited Warranty applies only when the Upgrade is used in a machine for which it was designed. To obtain warranty service for an Upgrade, you may be required to present the Upgrade with such machine.

If this Machine is a machine element, which you separately purchased, or an accessory it has a three-month Warranty Period unless IBM specifies a longer duration. Such Period commences on the Date of Original Purchase. During the Warranty Period, you will remove any such machine element or accessory which fails in normal use. You will then ship it, prepaid, to the IBM location designated to receive such shipment. IBM, at its option, will repair or replace such machine element or accessory. IBM's shipment to you will be prepaid within the United States or Puerto Rico.

Before you present this Machine for warranty service, remove all programs, data and removable storage media. A Machine or part provided to you as a result of warranty service may not be new but will be in good working order. Such Machine or part becomes your property. The replaced Machine or part becomes the property of IBM or the Dealer.

You may be required to present proof of Original Purchase for this Machine to IBM or a Dealer to obtain warranty service.

To obtain warranty service you should contact a Dealer for this Machine or call IBM at 1-800-IBM-SERV.

You may be able to ship the Machine to an IBM location designated to receive such shipment. You are responsible to prepay shipping charges and to use the original shipping container or equivalent. You are also responsible for risk of loss or damage in transit to and from IBM. However, IBM is responsible for risk of loss of, or damage to, the Machine while in IBM's possession or in transit from IBM by an IBM-selected carrier whose charges IBM prepays, within the United States or Puerto Rico. In addition, IBM is responsible for the Machine's loss or damage due to IBM's negligence.

If this Machine was purchased directly from IBM you do not need to present proof of Original Purchase to obtain warranty service from IBM. However, you should contact IBM for proof of Original Purchase to obtain warranty service for such Machine from a Dealer.

If you transfer this Machine to another user, warranty service under this Statement is available to that user for the remainder of the Warranty Period. Therefore, you should transfer the proof of Original Purchase and this Statement to that user.

If you have any question about this limited warranty, contact your Dealer or IBM approved Reseller. You may also call IBM Direct at 1-800-IBM-2468.

ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS MACHINE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES, EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

LIMITATION OF REMEDIES

Your sole remedy under this Statement of Limited Warranty is set forth in this Section. For any claim concerning performance or nonperformance by IBM or a Dealer for this Machine under this Statement of Limited Warranty, you may recover actual damages up to the limit set forth in the following paragraph.

IBM's liability for actual damages from any cause whatsoever will be limited to the greater of 1) \$5,000 or 2) the amount you paid for the Machine which caused the damages. This limitation of liability will not apply to claims by you for bodily injury or damage to real property or tangible personal property for which IBM is legally liable. In no event will IBM be liable to you for any damages caused by your failure to fulfill your responsibilities under this Statement of Limited Warranty.

In no event will IBM be liable for any lost profits, lost savings, incidental damages, or other economic consequential damages. This is true even if you advised IBM, a Dealer, or any other IBM approved Reseller for this Machine of the possibility of such damages. IBM is not liable for any claim by you based on any third party claim.

Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitation or exclusion may not apply to you.

IBM Canada Ltd. 3500 Steeles Ave. E., Markham, Ontario L3R 2Z1

**CANADIAN WARRANTY STATEMENT
IBM CANADA LTD.**

STATEMENT OF LIMITED WARRANTY FOR THE IBM Personal System/2 Quick Charger for Model L40 SX (Product)

IBM Canada Ltd. (IBM) gives you the following limited warranty for this Product only if it was originally purchased in Canada for use, not resale, from IBM, an IBM Authorized Dealer or any other IBM approved reseller for this Product (Dealer). This is defined as original purchase.

The Type of Warranty Service for this Product is **Customer Carry-In Repair**. The Warranty Period is **One Year** which starts on the date of original purchase (Date of Purchase) as shown on the receipt which establishes the proof of original purchase.

IBM warrants that on the Date of Purchase, this Product meets IBM's official published specifications which are available from IBM upon request. If, during the Warranty Period, this Product is found by IBM or a Dealer to be 1) defective in material or workmanship or 2) otherwise not in good working order, IBM or such Dealer will remedy the problem by providing the Type of Warranty Service described herein, at no additional charge. Warranty Service does not include repair or exchange when the problem results from accident, disaster, misuse, abuse, another product, non-IBM modification, or service of the Product by other than IBM or a Dealer for this Product.

Note: If the Type of Warranty Service is **Customer Carry-In Repair**, it includes the return of the original Product to you. It may include the exchange of some parts or components.

If the Type of Warranty Service is **Customer Carry-In Exchange**, it includes the exchange of ownership of the Product between you and IBM or the Dealer. Therefore, it is your responsibility to remove all non-IBM parts and all alterations and attachments, and you are also responsible to ensure that it is free from any outstanding liens.

If this Product is an optional feature, this limited warranty applies only when the feature is used in a machine for which it was designed, and, to obtain warranty service, you may be required to present the feature with an IBM machine for which it was designed.

Before presenting this Product for Warranty Service, you are responsible for removing all programs, data and removable storage media. Products and parts provided as a result of Warranty Service may be other than new but will be in good working order and become your property at the time of exchange. At the same time, the exchange products or parts become the property of IBM or the Dealer.

To obtain Warranty Service, you must, during the Warranty Period, present this Product and the proof of original purchase to 1) a Dealer for this Product or 2) IBM at an IBM Service Centre. You may ship this Product to an IBM Service Centre to obtain Warranty Service. If you do so, you are responsible to insure it or bear the risk of loss or damage in transit, prepay shipping charges and use the original shipping container or equivalent; IBM will pay return shipping charges within Canada.

If you purchased this Product directly from IBM under an Agreement for Purchase of IBM Machines, the Date of Installation is considered to be the Date of Purchase for warranty purposes. In such case, to obtain Warranty Service from IBM, present proof of original purchase to an IBM Service Centre; however, to obtain Warranty Service from a Dealer for this Product, present proof of original purchase or ask the Dealer to contact IBM for determination of warranty status.

If you transfer this Product to another user, such user is entitled to Warranty Service for the unexpired portion of the Warranty Period, providing you include the proof of original purchase in the transfer.

If you have any question about this limited warranty, contact your IBM

Marketing Representative or Dealer from whom you purchased this Product.

This limited warranty will apply only to a Product purchased in Canada from IBM Canada Ltd. or a Dealer, and only if the Product is located in Canada.

ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS PRODUCT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD, AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD.

LIMITATION OF REMEDIES: Your sole remedy under this Statement of Limited Warranty shall be IBM's or a Dealer's performance of Warranty Service. For any claim concerning performance or nonperformance by IBM or a Dealer under this Statement of Limited Warranty, or for any other claim directly related to this Product, you shall be entitled to recover actual damages up to the limit set forth in the following paragraph.

IBM's liability for damages to you from any cause whatsoever, including fundamental breach, arising out of this Statement of Limited Warranty, or for any other claim related to this Product, shall be limited to the greater of \$5000 or the amount paid for this Product at the time of original purchase. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property caused by IBM's negligence. In no event will IBM be liable to you for any damages caused by your failure to perform your responsibilities under this Statement of Limited Warranty, or for any lost profits, lost savings or other incidental or consequential damages, even if IBM, or a Dealer for this Product, has been advised of the possibility of such damages, or for any claim by you based on any third party claim.

THE LEGISLATION OF SOME PROVINCES PREVENTS THE RESTRICTION OF THE STATUTORY RIGHTS AND REMEDIES OF CONSUMERS. IF SUCH LEGISLATION APPLIES TO YOU, THEN THE LEGISLATION TAKES PRECEDENCE OVER THE ABOVE LIMITATION OF REMEDIES AND THE ABOVE LIMITED WARRANTY IS IN ADDITION TO ANY OTHER LEGAL RIGHTS YOU MAY HAVE.

THIS LIMITED WARRANTY STATEMENT VOIDS AND SUPERSEDES ANY OTHER WRITTEN LIMITED WARRANTY AND LIMITATION OF REMEDIES STATEMENT BY IBM OR INTERNATIONAL BUSINESS MACHINES CORPORATION AND CONTAINED IN THE AGREEMENT FOR PURCHASE OF IBM MACHINES OR INCLUDED WITH THE PRODUCT.

() Limited Warranty page 1 of 2

() Limited Warranty page 2 of 2

() Limited Warranty - Canada - page 1 of 2 Form 6064-1
(Nov. 87)

() Limited Warranty - Canada - page 2 of 2 Form 6064-1
(Nov. 87)

FRONT_1 Special Notices

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights or other legally protectible rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, programs, or services, except those expressly designated by IBM, are the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the IBM Director of Commercial Relations, IBM Corporation, Purchase, NY 10577.

The following terms, denoted by an asterisk (*) in this publication, are trademarks of the IBM Corporation in the United States and/or other countries:

IBM
Personal System/2

PICTURE 2

NOTICES Notices

The following statement applies to this IBM product. The statement for other IBM products intended for use with this product will appear in their accompanying manuals.

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 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.

CAUTION:

This product is equipped with a 3-wire power cord and plug for the user's safety. Use this power cord in conjunction with a properly grounded electrical outlet to avoid electrical shock.

Canadian Department of Communications compliance statement

This equipment does not exceed Class B limits per radio noise emissions for digital apparatus, set out in the Radio Interference Regulation of the Canadian Department of Communications.

Avis de conformité aux normes du ministère des Communications du Canada

Cet équipement ne dépasse pas les limites de Classe B d'émission de bruits radioélectriques pour les appareils numériques, telles que prescrites par le Règlement sur le brouillage radioélectrique établi par le ministère des Communications du Canada.

**IMPORTANT SAFETY
INSTRUCTIONS**

SAVE THESE INSTRUCTIONS

1. This manual contains important safety and operating instructions for IBM battery charger (part number 79F0193).
2. Before using battery charger, read all instructions and cautionary markings on (1) battery charger (2) battery (3) product using battery.
3. CAUTION--To reduce risk or injury, use the charger to charge only IBM battery (part number 65F0219). Other types of batteries may burst causing personal injury or damage.
4. Do not expose charger to rain or snow.
5. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.

Model L40 SX Quick Charger

Notices

7. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress. Use only with a properly grounded outlet.
8. Do not use an extension cord. Use of an improper extension cord could result in a risk of fire and electric shock.
9. Do not operate charger with damaged cord or plug--Replace them immediately.
10. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified servicer.
11. Do not disassemble charger; take it to a qualified servicer when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
12. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning.

CONTENTS Table of Contents

TITLE	Title Page
FRONT_1	Special Notices
NOTICES	Notices
CONTENTS	Table of Contents
1.0	Chapter 1. Operating Instructions for the Quick Charger
2.0	Chapter 2. Specifications for the Quick Charger
2.1	Physical Characteristics
2.2	Electrical Characteristics
2.2.1	Input Requirements

1.0 Chapter 1. Operating Instructions for the Quick Charger

This chapter provides step-by-step procedures for operating the IBM Personal System/2 Model L40 SX Quick Charger (may be referred to as the *Quick Charger* in this manual).

Note: A complete charge makes it possible to use the rechargeable battery for up to 3 hours depending on applications used and the configuration.

1. Open the center compartment cover in order of 1 and 2.

PICTURE 3

2. Raise the latch 1 to release the rechargeable battery. Holding the tab 2, pull the rechargeable battery out of the center compartment.

PICTURE 4

3. Plug the power cord into the quick charger 1; plug the other end into a properly grounded electrical outlet 2. Open the battery socket cover 3. The power-on indicator 4 goes orange. This shows you that the quick charger is turned on and ready to charge.

PICTURE 5

4. Insert the rechargeable battery into the battery socket as shown in the following figure. The charge indicator 1 goes green. This indicates that the charge has started. The charge indicator will blink quickly for the first 3 minutes, then continue to blink slowly for about 2 hours until the charge is complete. When the charge is complete, the charge indicator stops blinking but remains lit.

Note: If the charge indicator does not blink at all during the charge, have the quick charger serviced.

PICTURE 6

5. Remove the rechargeable battery from the quick charger. Insert the re-charged battery into the center compartment by tilting it to clear the latch 1; lower the battery and press it in until it clicks into place.

PICTURE 7

6. Close the center compartment cover.

PICTURE 8

2.0 Chapter 2. *Specifications for the Quick Charger*

Subtopics

2.1 Physical Characteristics

2.2 Electrical Characteristics

2.1 Physical Characteristics

Weight	0.5 kg
Height	50 mm
Width	94.5 mm
Depth	175 mm

2.2 Electrical Characteristics

Subtopics

2.2.1 Input Requirements

Model L40 SX Quick Charger
Input Requirements

2.2.1 Input Requirements

Voltage	Nominal Voltage	Voltage Variation
Low Range	100 to 125 V ac	90 to 137 V ac
High Range	200 to 240 V ac	180 to 264 V ac
Maximum AC Input Current	less than 1.5 A (100 V ac)	