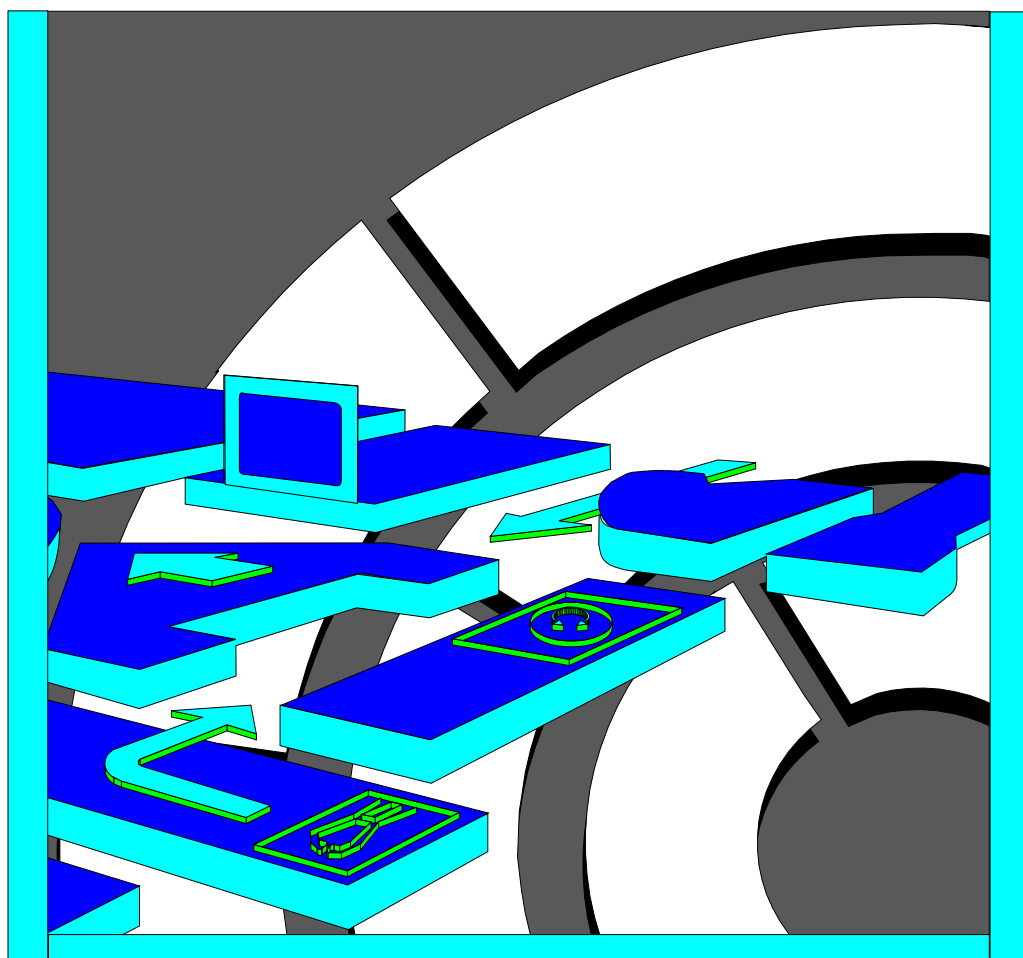


IBM 7587 Industrial Computer

S78H-5454-00

Information,
Installation,
Operation,
Hardware Maintenance





IBM 7587 Industrial Computer

S78H-5454-00

**Information,
Installation,
Operation,
Hardware Maintenance**

Important:

Before using this information and the product it supports, read the general information in Appendix A, "Notices" on page A-1. Be sure to read the information in "Safety Information" on page A-10, and if you are going to handle electronic components, you must also read "Handling Electrostatic-Discharge-Sensitive Devices" on page A-15.

First Edition (November 1996)

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Machine: IBM 7587 Industrial Computer

Warranty Period*: Three Years

**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 that 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-IBM-SERV (426-7378)**. In Canada, call IBM at **1-800-465-6666**. 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.

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2. Where applicable, before service is provided —
 - a. Follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,
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 - c. Inform IBM or your reseller of changes in a Machine's location.

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Extent of Warranty

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Contents

IBM System Programs License Agreement	iii
Statement of Limited Warranty	v

About This Book	xiii
Related Publications	xiii

Part 1. 7587 Industrial Computer Information

Chapter 1. Overview of the 7587 Industrial Computer	1-1
General Layout of Components	1-2
Specifications	1-3
Power Supply	1-4
Heat Output	1-4
Environment	1-4
 Chapter 2. Installing Your System Unit	2-1
Before You Begin	2-1
Step 1. Unpack Your System Unit	2-1
Step 2. Check the Voltage Setting	2-1
Step 3. Install Internal Options	2-2
Step 4. Secure the System Unit	2-2
Step 5. Connect the Cables	2-2
Step 6. Perform Power-Up and Check-Out Procedure	2-3
Step 7. Run the Configuration/Setup Utility Program	2-4
Step 8. Finish the Installation	2-4
 Chapter 3. Installing Options	3-1
Switching Off Power and Disconnecting Cables	3-1
Opening the System Unit	3-2
Installing Adapters	3-2
Installing the Card Hold-Down Spacers	3-3
Installing an Internal Hard Drive	3-4
Installing the Analog Video PMC Form Factor Card	3-5
Removing the IBM SBC	3-5
System Memory (SIMMs)	3-6
Installing SIMMs	3-7
Removing SIMMs	3-8
Cache Memory Modules	3-8
Installing the Cache Memory Module	3-9
 Chapter 4. Operating and Configuring Your System	4-1
Operator Information	4-1
Cleaning Air Filters	4-2
Starting Up Your System	4-2
Installing an Operating System	4-2
Installing Application Programs	4-3
Security Features	4-3
Startup-Sequence Control	4-4
Keyboardless Operation Mode	4-4

Configuration Information	4-4
Using the Configuration/Setup Utility Program	4-6
Device Drivers	4-20
Interrupt and DMA Assignments	4-21
IBM SBC Jumpers and Switches	4-22
Memory-Retention Battery	4-22
Serial Port	4-23
Parallel Port	4-24
SVGA Video	4-26
System Programs	4-28

Chapter 5. Solving Problems	5-1
Diagnostic Tools	5-1
Testing the System Unit	5-2
Starting the System Unit	5-2
Starting the Diskette-Based Diagnostic Program	5-3
Troubleshooting Charts	5-3
Error Messages	5-9
POST Messages	5-10
Diagnostic Messages	5-13

Part 2. IBM 586 or 586E Single-Board Computer Information

Chapter 6. IBM 586 or 586E Single-Board Computer Information	6-1
Memory Subsystem	6-3
Indicators	6-3
Connectors	6-4
Jumpers	6-5
IBM SBC Switch Functions	6-6
Connector Pin-Outs	6-7

Part 3. Analog Video PCI Mezzanine Card (PMC) Form Factor Card Information

Chapter 7. Analog Video PCI Mezzanine Card (PMC) Form Factor Card Information	7-1
--	-----

Part 4. Hardware Maintenance Information

Chapter 8. Service Information	8-1
Configuration/Setup Utility Program	8-1
BIOS Levels	8-2
Vital Product Data	8-2
Flash (BIOS/VPD) Update Procedure	8-2
Diagnostic and Test Tools	8-3
Power-On Self-Test (POST)	8-3
Error Messages	8-4
QAPIus/PRO Diagnostic Program	8-5
General Checkout	8-10
Keyboard	8-11
Printer	8-12
Power Supply	8-13
Backplane Power-Supply Connections	8-13

Display	8-14
Symptom-to-FRU Index	8-14
LED Blink Symptoms	8-15
No-Blink Symptoms	8-16
Numeric Error Codes	8-17
Error Messages	8-21
Miscellaneous Symptoms	8-25
Hard Disk Drive Boot Error	8-27
Undetermined Problem	8-27
Removal and Replacement Procedures	8-28
Switching Off Power and Disconnecting Cables	8-29
Opening the System Unit	8-29
Removing and Replacing Feature Cards	8-29
Removing and Replacing a Diskette Drive	8-30
Removing and Replacing a Hard Disk Drive	8-31
Removing and Replacing the Power Supply	8-31
Removing and Replacing the Front Fan	8-32
Removing and Replacing the LED Assembly	8-33
Removing and Replacing the Power Switch	8-34
Removing and Replacing an IBM SBC	8-34
Removing and Replacing the Processor Chip	8-36
Removing and Replacing an Analog Video PMC Form Factor Card or Keyboard/Mouse Cable	8-37
Removing and Replacing the Backplane	8-38
Chapter 9. Parts Catalog	9-1
IBM Service Parts Warranty	9-1
Backplane and Cables	9-2
Hard Disk and Diskette Drives	9-3
Top Cover	9-4
Bottom Cover and IBM SBC	9-5
Fans and Filters	9-6
Mouse	9-8
Keyboards	9-8
Power Cords	9-9

Part 5. Appendixes

Appendix A. Notices	A-1
Trademarks and Service Marks	A-1
Required Electronic Emission and Connectivity Notices	A-2
Class A Federal Communications Commission Statement	A-2
Industry Canada Compliance Statement	A-2
United Kingdom	A-2
European Union (EU) Electromagnetic Compatibility Directive	A-2
Germany	A-3
Japan	A-4
Korea	A-4
Safety Notices (Multi-Lingual Translations)	A-4
Safety Information	A-10
General Safety	A-10
Electrical Safety	A-11
Safety Inspection Guide	A-14
Handling Electrostatic-Discharge-Sensitive Devices	A-15

Grounding Requirements	A-15
Laser Compliance Statement	A-15
German Power Switch Statement	A-16
Power Cord Notice	A-16
Appendix B. System Records	B-1
Appendix C. 7587 Industrial Computer Physical Dimensions	C-1
Appendix D. Jumpers, Switches, and Pin Assignments	D-1
Hard Disk Drive Jumper Settings	D-2
IBM 7587 Industrial Computer Cable Connectors	D-3
IBM SBC Switch Settings	D-4
Serial Port Pin Assignments	D-5
Appendix E. Interrupt and DMA Assignments	E-1
Interrupt Request Assignments	E-1
DMA Channel Assignments	E-2
Appendix F. S3 Trio64V+ Super VGA Driver Installation	F-1
Default Resolutions	F-1
Operating Systems	F-1
Selecting a Monitor Using the Configuration/Setup Utility Program	F-2
Installing Windows 3.1 Video Drivers	F-2
Alternative Method for Changing Resolutions	F-3
Updating the Windows 3.1 Video Driver	F-3
Installing Windows 95 Video Drivers	F-4
Alternative Method for Changing Resolutions	F-4
Installing Windows NT Video Drivers	F-5
Installing OS/2 and OS/2 Warp Video Drivers	F-5
Installing Video Drivers for CAD Panacea	F-6
Installing Video Drivers for MicroStation PC	F-7
Index	X-1

Figures

1-1.	IBM 7587 Industrial Computer	1-1
1-2.	General Component Layout 1	1-2
1-3.	General Component Layout 2	1-3
4-1.	Configuration/Setup Utility Main Screen	4-7
4-2.	Example System Summary Screen	4-8
4-3.	Example Product Data Pop-Up	4-8
4-4.	Example Devices and I/O Ports Screen	4-9
4-5.	Example Serial Port Setup Screen	4-9
4-6.	Example Parallel Port Setup Screen	4-10
4-7.	Example Video Setup Pop-Up	4-10
4-8.	IDE Drives Setup Pop-Up	4-11
4-9.	Example Hard Disk Drive 0 Pop-Up	4-12
4-10.	Example Date and Time Pop-Up	4-12
4-11.	System Security Pop-Up	4-13
4-12.	Example Secure Hard Disk Drives and Diskette Drives Pop-Up	4-13
4-13.	Power-on Password Pop-Up	4-14
4-14.	Administrator Password Pop-Up	4-14
4-15.	Example Start Options Pop-Up	4-14
4-16.	Advanced Setup Pop-Up	4-16
4-17.	Cache Control Pop-Up	4-16
4-18.	Example ROM Shadowing Pop-Up	4-16
4-19.	ISA Legacy Resources Pop-Up	4-17
4-20.	Example Memory Resources Pop-Up	4-18
4-21.	Example I/O Port Resources Pop-Up	4-18
4-22.	Example DMA Resources Pop-Up	4-19
4-23.	Example Interrupt Resources Pop-Up	4-19
4-24.	Advanced Power Management	4-19
4-25.	Automatic Hardware Power Management	4-20
4-26.	Activity Monitor	4-20
6-1.	IBM SBC Component Layout	6-2
7-1.	Analog Video PMC Form Factor Card Connectors	7-1
8-1.	Removing and Replacing the LED Assembly	8-33
8-2.	Removing and Replacing the Analog Video PMC Form Factor Card or Keyboard/Mouse Cable	8-37
9-1.	Backplane and Cables	9-2
9-2.	Hard Disk and Diskette Drives	9-3
9-3.	Top Cover	9-4
9-4.	Bottom Cover and IBM SBC	9-5
9-5.	Fans and Filters	9-6
C-1.	Front View	C-1
C-2.	Top View	C-2

About This Book

This manual contains user information and service information pertaining to the IBM 7587 Industrial Computer, the IBM 586 or 586E Single-Board Computer, and the Analog Video PCI Mezzanine Card (PMC) Form Factor Card.

Terminology Note

The following terminology is used throughout this book:

- 7587 Industrial Computer is shortened to ***system unit***.
- IBM 586 or 586E Single-Board Computer is shortened to ***IBM SBC***.
- Analog Video PCI Mezzanine Card (PMC) Form Factor Card is shortened to ***Analog Video PMC Form Factor Card***.

This book is divided into the following parts:

Part 1, “7587 Industrial Computer Information” contains an introduction to the 7587 Industrial Computer, and tells how to install the computer system, operate it, and solve problems with it at the user level.

Part 2, “IBM 586 or 586E Single-Board Computer Information” contains an introduction to the IBM SBC, and information about its functions and connectors. It also contains information about installing upgrades to the IBM SBC.

Part 3, “Analog Video PCI Mezzanine Card (PMC) Form Factor Card Information” contains an introduction to the Analog Video PMC Form Factor Card and its features. It also contains information about upgrades to the Analog Video PMC Form Factor Card.

Part 4, “Hardware Maintenance Information” contains service-oriented information and a parts catalog that assist in recognizing and replacing field-replaceable units (FRUs) that have failed or are questionable.

Part 5, “Appendixes” contains the special notices, and supplemental information that is generally not required by the user or service person. Much of the information in the Appendixes is useful in planning computer system configuration and physical site preparation.

Related Publications

You should have the following related publications:

- The installation instructions and other documentation for your computer system's attached devices.
- The manual that contains information about your computer's operating system.
- The manuals that contain information about your computer's application programs.

Part 1. 7587 Industrial Computer Information

Part 1 contains an introduction to the 7587 Industrial Computer, and tells how to install it, operate it, and solve problems with it at the user level.

Chapter 1. Overview of the 7587 Industrial Computer	1-1
General Layout of Components	1-2
Specifications	1-3
Power Supply	1-4
Heat Output	1-4
Environment	1-4
Chapter 2. Installing Your System Unit	2-1
Before You Begin	2-1
Step 1. Unpack Your System Unit	2-1
Step 2. Check the Voltage Setting	2-1
Step 3. Install Internal Options	2-2
Step 4. Secure the System Unit	2-2
Step 5. Connect the Cables	2-2
Step 6. Perform Power-Up and Check-Out Procedure	2-3
Step 7. Run the Configuration/Setup Utility Program	2-4
Step 8. Finish the Installation	2-4
Chapter 3. Installing Options	3-1
Switching Off Power and Disconnecting Cables	3-1
Opening the System Unit	3-2
Installing Adapters	3-2
Installing the Card Hold-Down Spacers	3-3
Installing an Internal Hard Drive	3-4
Installing the Analog Video PMC Form Factor Card	3-5
Removing the IBM SBC	3-5
System Memory (SIMMs)	3-6
Installing SIMMs	3-7
Removing SIMMs	3-8
Cache Memory Modules	3-8
Installing the Cache Memory Module	3-9
Chapter 4. Operating and Configuring Your System	4-1
Operator Information	4-1
Cleaning Air Filters	4-2
Starting Up Your System	4-2
Installing an Operating System	4-2
Installing Application Programs	4-3
Security Features	4-3
Startup-Sequence Control	4-4
Keyboardless Operation Mode	4-4
Configuration Information	4-4
Using the Configuration/Setup Utility Program	4-6
Device Drivers	4-20
Interrupt and DMA Assignments	4-21
IBM SBC Jumpers and Switches	4-22
Memory-Retention Battery	4-22

Serial Port	4-23
Parallel Port	4-24
SVGA Video	4-26
System Programs	4-28
Chapter 5. Solving Problems	5-1
Diagnostic Tools	5-1
Testing the System Unit	5-2
Starting the System Unit	5-2
Starting the Diskette-Based Diagnostic Program	5-3
Troubleshooting Charts	5-3
Error Messages	5-9
POST Messages	5-10
Diagnostic Messages	5-13

Chapter 1. Overview of the 7587 Industrial Computer

The IBM 7587 Industrial Computer (**system unit**) has been designed for use over a long life in an environment of constantly advancing technology. It is engineered for flexibility, growth, and upgradability. Its chassis and covers are designed to be used for many different Industrial Computer configurations — whatever suits the needs of the user. Some of its feature highlights are:

- Can accommodate several different microprocessors.
- Can house a variety of standard-width input/output (I/O) devices, and a single hard disk and diskette drive.
- Has three full-size and one half-size 16-bit ISA (industry standard architecture) bus card slots. Two of the full-size slots also have a 32-bit PCI (peripheral component interconnect) connector.
- Has a variety of features for data security and power management.

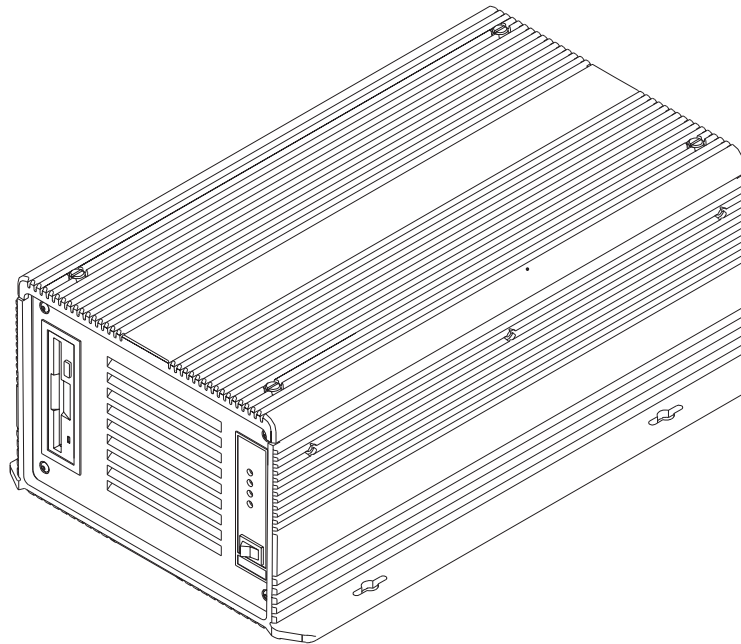


Figure 1-1. IBM 7587 Industrial Computer

General Layout of Components

Figure 1-2 and Figure 1-3 on page 1-3 show the 7587 Industrial Computer with the cover removed. These figures illustrate the general layout of the system unit. The general layout is the same for all configurations, even though component units (input/output, storage, and so forth) may be changed or added.

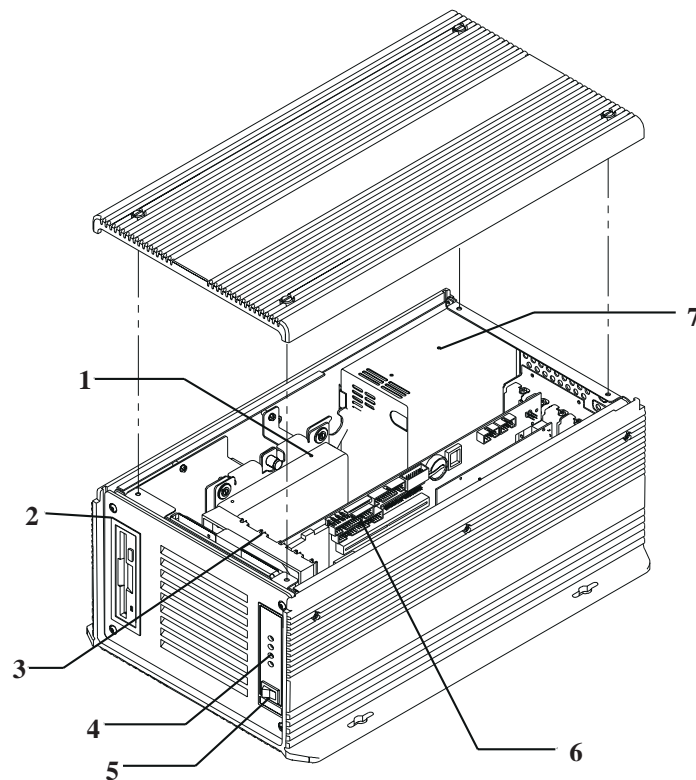


Figure 1-2. General Component Layout 1

- 1** Hard disk drive
- 2** 3½-inch diskette drive
- 3** Fan and filter
- 4** Status light-emitting diodes (LEDs)
- 5** On/Off switch
- 6** IBM 586 or 586E Single-Board Computer (IBM SBC)
- 7** Power supply