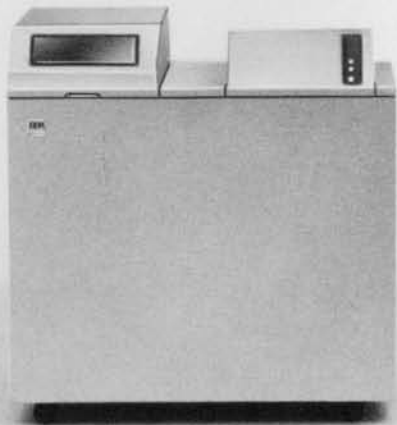
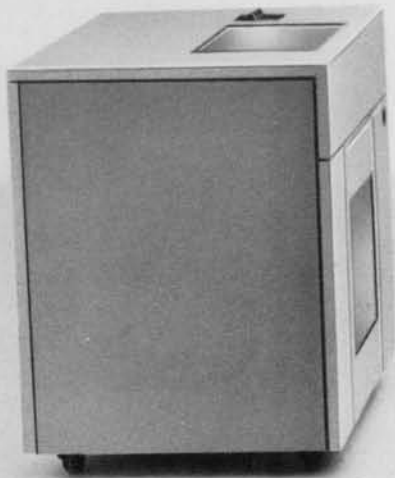


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736

IBM INTERNAL USE ONLY



SYSTEM/36 DESCRIPTION

The System/36 is a Customer Set Up (CSU) system designed to meet user needs in the batch processing, communication, multi-work station and distributed data base system environment.

There are two model families. The AXX models have 30 or 60 megabytes of disk storage with main storage of 128KB or 256KB. The BXX models have 200 or 400 megabytes of disk storage with main storage of 256KB, 384KB or 512KB.

The System/36 has two diskette drive options: 51TD or 72MD.

The System/36 will support 1-30 local work stations and up to 64 remote.

The program languages and I/O devices supported are the same for all models.

The System/36 is designed to be a growth system for: System/23, System/32 and System/34. System/36 will provide all the functions of previous small IBM systems with increased capacity.

Programming languages supported include BASIC, RPG, COBOL, FORTRAN IV and ASSEMBLER.

Utility Programs Support: work stations, data file creation and maintenance, 3270 emulation and other functions. The System/36 languages and utilities are Licensed Program Products (LPPs) available from the European Program Library (EPL).

The System/36 will support System/34 programs. After the System/34 programs have been recompiled on System/36, the operator can load and run them.

Hardware Description

- 5360 System Unit
 - Processing unit
 - Control storage processor
 - Main storage processor
 - Control storage
 - Main storage
 - Disk storage
 - Diskette storage
 - Work station controller
 - Communication controller
 - System control panel
- System Console
- Attachable I/O Devices
 - Printers
 - Work station displays
 - 8809 Tapes

5360 System Unit

PROCESSING UNIT

The Control Storage Processor cards (CSP) and the Main Storage Processor cards (MSP) through the use of the latest in technologies can have as much as a 30% increase in internal execution speed over previous small IBM systems.

CONTROL STORAGE

There are two different control storage cards used on System/36. AXX models use a 64KB card with the same technology used on previous small systems. The BXX models use a new 64KB card with single bit Error Correction Code (ECC) and multiple bit error detection.

MAIN STORAGE

There are two different main storage cards used on System/36. The cards are 128KB and 256KB, both use the latest in technologies with single bit Error Condition Code (ECC) and multiple bit error detection. The AXX models can have 128KB or 256KB of main storage. The BXX models can have 256KB, 384KB or 512KB of main storage.

DISK STORAGE

System/36 uses two different fixed disk units. The AXX models use a 21ED 30MB drive. The BXX models use a 10SR 200MB drive. The main frame can hold two 21ED drivers for a total of 60MB or two 10SR drivers for a total of 400MB. Both disks utilize ECC.

DISKETTE DRIVES

There are two diskette drive options on the System/36. They provide three significant functions: Save/Restore, Diskette I/O and loading of diagnostics. The 72MD magazine drive will accept two magazines, each with up to ten diskettes. There are three additional slots for individual diskettes. Total capacity when 2D diskettes are used is 27.6 million bytes. Diskette 1 and 2D may be read and written. The 51TD diskette drive can use diskette 1 and 2D. Total capacity when 2D diskettes are used is 1.2 million bytes. Both diskette drives utilize ECC.

WORK STATION CONTROLLER

System/36 uses two different work station controller cards. A new 16KW card is used for controlling up to six locals, and a new 48KW card is used for controlling up to 30 locals.

COMMUNICATION CONTROLLER

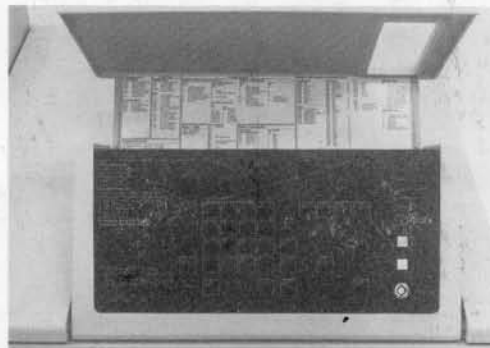
System/36 has two new communication controller card options: MLCA uses a 16KW card or a 32KW card. These cards perform the same function as communication controller cards on previous small IBM systems.

SYSTEM CONTROL PANEL

The control panel contains controls and indicators required for system operation as well as functions that serve as diagnostic aids for locating hardware and software problems. The control panel uses push buttons for input and LED display for readout.

System Console

The system console for System/36 will be a work station display on port zero. The CE/CS interface to the machine during problem diagnosis and repair verification is the system console and/or the system control panel. The CE/CSR* and the system operator will share the system console when the CE/CSR* is doing concurrent diagnostics and verification activities. The System/36 has alternate console capabilities.



Attachable I/O Devices

DIRECT ATTACHED PRINTERS

The 3262-C01 or 3262-B01 are the only direct attached printers available for use on the System/36. The 3262-C01 is a CSU, free standing, engraved belt printer that supports 48, 64, 96 and 188 character sets with speeds up to 650 lines per minute.

The 3262-B01 prints a 650 LPM with a 48 character set and is designed as a standalone printer.

The maximum physical distance is 4,5 m (14.9 feet).

TWINAXIAL ATTACHED PRINTERS

There are four twinaxial attached printers available for use on System/36.

The 5225 is a free standing matrix printer. Models 1-4 provide print speeds from 280 to 560 lines per minute. Models 11 and 12 provide ideographic support. The 5225 covers the medium high speed system printer requirements for the System/36 user as well as distributed printer requirements. The 5225 models 1-3 are field upgradeable to a model 4.

The 5224 is a tabletop version of the 5225 printer utilizing a multiple head matrix print technology. It fills users requirements for intermediate system printer speeds. The 5224 model 1 has line speed of 140 lines per minute and the model 2 is a 200 lines per minute printer. The 5224 model 1 is field upgradeable to the model 2. The 5224 model 12 provides ideographic support.

The 5256 is a tabletop matrix printer with speeds of 40, 80 and 120 characters per second, that may be used as an entry level system printer and/or a work station printer.

The 5219 is a tabletop daisywheel printer. The 5219 model 1 is a 40 character per second printer and the model 2 is a 60 character per second printer.

Programming Features/Service Aids

- Menu driven access to system for operator ease of use
- Multiple index data file support
- Online problem determination procedures
- Simplified configuration
- Extensive communication facilities
- Multiple dump files
- Multiple concurrent trace files
- Comprehensive PTF application procedure
- APAR procedure automatically captures common information required for problem reporting
- Service log to record service related information

Program Support Documentation

- System data access
- Program service information
- Program problem diagnosis and diagnostic aids.
- Control storage service information

IBM Maintenance Service

IBM Maintenance Agreement enables IBM CE/CS* to provide optimal service and system availability with limited customer involvement.

- CE/CS* fully assumes responsibility to keep this machine in good working order
- E.C. programs keep machine level up to date
- Error log control helps to prevent work disruptions

IBM Maintenance Agreement is available at planable cost. IBM Maintenance Agreement is the best way to protect customers investment.

IBM CE/CS* will assist in the marketing of IBM Maintenance Agreement.

- * CE — Customer Engineer(ing) for EMEA
- CS — Customer Service
- CSR— Customer Service Representative for A/FE

WORK STATION DISPLAYS

The following displays will be available on the System/36; 5251 model 11 and 12, 5291 and the 5292. The 5251 model 11 is used as a local display and the 5251 model 12 will be used as a remote work station and cluster controller. The System/36 communicates with the 5251 model 12 via the communications controller.

The 5291 is a local work station which is functionally equivalent to the 5251 model 11. The 5291 display has a 1920 character screen. The 5292 work station is a seven color display with a 1920 character screen. The colors available are: green, red, blue, yellow, tourquise, pink and white. High intensity and blinking are replaced by colors. The 5292 is fully program compatible with the current 5251 displays. The 5292 can be a local or a remotely attached work station through a 5251 model 12.

8809 TAPES

The 8809-B01/C01 is a nine track, one half inch tape product. It provides standard 1600 BPI phase encoded density and format. It operates in either a 0,3175 mps (12.5 ips) start/stop mode or a 2,54 mps (100 ips) streaming mode, depending system setting. It can operate with either a 15,2 mm (.6 inch) IBG or a 30,5 mm (1.2 inch) IBG, set under program control.

Minimum System Unit

AXX

Main Storage	128K
Control Storage	64K
Disk Storage	30MB
Diskette Drive	51TD
Work Station Control	16KW

Maintenance Package

HARD COPY DOCUMENTATION

- Maintenance Information Manuals (MIMs) that contain theory, remove, replace and adjust information.
- Maintenance Analysis Procedures (MAPs)
- Parts Catalog
- Net and Pin List
- Field Logic Diagrams
- Point to Point Power Logics

Diagnostic Programs

- Control Storage Initial Program Load diagnostics are a group of diagnostic test modules that are executed automatically during each control IPL.
- Dedicated Diagnostic Control Program
- Concurrent Diagnostic Control Programs
- MDIs

CE Aids

The CE/CSR* will have the following aids available for General System checkout and verification.

- Alter/Display
- I/O Step Mode, Stop Mode
- Test Requests
- Display Verification
- Work Station Printer Verification
- Error Log Display Program
- Service Utilities

Enhanced and/or new

- Device Exercisers, that can be run concurrently
- System Test, complete checkout of system
- Free Key Mode, enhanced checking
- Configuration Data Program, auto-configuration of work stations
- Diskette Test, for media testing

CE Aids via Customer

- On-line customer problem determination, for local displays and remote work station displays.
- System Reference Codes, when an error is detected on System/36 a System Reference Code (SRC) will be displayed to the operator. The SRC will relayed to the CE/CSR* can be used to determine an entry point in the MAPs or the proper FRU before going on site.

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