



IBM

Equipment that helps people work

The IBM System/36 provides a family of hardware components that can help people collect, process, file, retrieve and use daily business information with ease, flexibility and comfort.

There is a wide variety of affordable equipment you can choose to match your organization: display stations... main storage capacities... fixed and removable storage media... communications... and a range of quality printers for many business needs.

Entry-level or departmental users can start small with the IBM 5362 System Unit. Delivering up to 512K characters of memory and 120 million characters of disk storage, the 5362 offers full-function processing capability in a system unit that takes only as much space as a two-drawer file cabinet.

All models of System/36 feature equipment that provides easy access to powerful system functions, including many usability features that can actually help people work more productively... help improve the accuracy of information... and help speed the flow of vital facts throughout your organization.

System/36 display stations feature large, non-glare screens and are ergonomically designed to increase comfort and reduce operator fatigue. You can design data entry formats to match your current forms; and a color display is also available to optimize readability. System/36 displays are highly versatile. They can be used singly, in clusters or as part of an enterprise-wide information network that may include multiple IBM systems and devices.

For still more configuration flexibility, a terminal control unit is available which uses high-speed communications lines to provide central control of up to eight remote work stations per control unit. A maximum of 64 remote work stations can be attached to the system with communications lines.

In conjunction with the Business Graphics Utilities, the IBM 5292 Model 2 Color Graphic Display allows you to create and view bar charts, pie charts, line graphs and text charts through a menu-prompted program.

System/36 printers offer a wide variety of character sets, including multinational characters. Some also offer condensed printing which can save valuable file space when storing archival reports and documents.

System/36 storage media include fixed disks, diskettes and a

valuable tape capability for inexpensive storage of information that is not needed on a daily basis. To help ensure smooth, non-disruptive system growth, System/36 memory and disk capacities can easily be expanded as your information and application requirements change. And, System/36 equipment is simple enough for you to set up yourself. So you can put it where you want to, when you want to—and move it easily as your business grows and changes.

Advanced technology—made practical

In both hardware and software, the key to System/36 effectiveness is the advanced technology we've built into the system. While much of it is "transparent" to users, this IBM technology is practically applied—to improve the speed, reliability and availability of the system.

For effective performance, the system unit includes multiple internal processors which control specific system components and functions—such as work stations, communications lines, printers, disk drives and tape drives. Typically, a single computer processor can do only one thing at a time. But with the multiple processor design of System/36, all the processors can be working concurrently on their own specific tasks. As a result, the system as a whole can do more—and do it more productively—than if one internal processor were managing all system operations.

Most important, reliability is inherent in this design since error checking and recovery are designed into each system unit. This means that if you lose your printer function, for example, you don't lose all other system functions.

The system also features a 2-byte data path that speeds the retrieval of data from memory. Internal packaging has been designed to include few individual parts. This simple design results in maximum reliability.

System/36 also includes extensive self-diagnostic and problem determination features that allow users to troubleshoot—and even diagnose—system problems on their own.

It all adds up to one of the most thoroughly tested and reliable IBM systems ever. A system that you can install, and one that allows for easy, reliable operations for as long as you use it.



Programs that make the work easier

System/36 offers a broad range of support programs, languages, programming aids and communications products which enhance its usefulness in many environments—from a standalone department to a distributed processing network.

Plus, the many application programs developed for the popular IBM System/34 can run virtually unchanged on System/36. Also, users of the IBM Datamaster, System/32 or System/3 can step up to the System/36. So almost any investment you've already made in data processing with those systems can be protected when you grow into a System/36.

One example of available support tools is the Business Report Application Development System (BRADS)—an easy-to-use productivity aid that combines the functions of a data manager, query facility, file maintenance tool, report writer and spread sheet generator—with little or no programming experience required.

System Support Program

The System Support Program (SSP) is an IBM licensed program for operating your System/36. It provides task-oriented menus which guide users, and also retrieves explanatory text which is displayed when a user presses the "HELP" key. Many other SSP functions help make using your System/36 easy and productive. The SSP:

- Enables multiple display stations and printers to operate concurrently
- Allows menu selection of jobs
- Provides a job queue so you can submit a job to the system for processing and then go immediately to the next job
- Provides a sort/merge function which lets you arrange records in the order that meets your needs
- Permits two-way communication between multiple users and the System/36
- Supports remote display stations and printers on communications lines
- Provides spooling to optimize printer capabilities
- Includes password security to let you decide who may have access to your system, programs and data files
- Provides interactive communication support with other systems for effective distributed processing.

System/36 languages

- System/36 RPG II is a commercially oriented programming language specially designed for writing application programs for common business tasks and for multiple concurrent users

- System/36 COBOL provides a high-level compiler featuring work station support and communications programming capability
- System/36 BASIC features interactive compile and execution, full screen support and support for indexed, direct and sequential file organization. It is exceptionally easy to learn and use
- FORTRAN IV is a high-level language for scientific, engineering, mathematical or commercial problem-solving. It includes enhanced diagnostics to facilitate programming changes from the display
- System/36 Assembler is also available for special programming requirements.

System/36 utilities

- The Work Station Utility (WSU) enables you to easily define customized programs to enter and edit data interactively
- A Data File Utility (DFU) allows you to create, maintain, inquire into and print data files without having to write your own application program
- The Source Entry Utility (SEU) enables you to enter and maintain source programs and procedures on disk. You can enter statements in free-form text, in one of the IBM-supplied formats or in a format you define
- The Screen Design Aid (SDA) helps you create, change and delete your own menus, help text and screen formats interactively.

Data communications

- System/36 supports:
- Batch binary synchronous communication (BSC)
 - Remote job entry in BSC or in Systems Network Architecture (SNA) using Synchronous Data Link Control (SDLC)
 - Interactive communications to applications on:
 - System/370-type hosts (BSC or SNA/SDLC)
 - System/32 and System/3 (BSC)
 - Series/1 (BSC)
 - System/34 (BSC or SNA/SDLC)
 - Another System/36 (BSC or SNA/SDLC)
 - System/38 (BSC)
 - 3270 device emulation which allows the System/36 to appear as a 3271 Model 2 control unit (BSC) or 3274 Model 1C control unit (SDLC) to a host system
 - Distributed Disk File Facility which allows System/34 users to access data files on a System/36 as though these files were on their own system.



IBM 5292 Color Display Station

- Displays up to 7 colors: red, green, turquoise, yellow, pink, blue and white
- Tilttable screen with glare reduction treatment
- Movable, low-profile keyboard with adjustable slope
- Color alignment via keyboard
- Cable-thru standard
- Plug compatible with the 5291 and the 5251 Model 11 Display Stations

The sample screen above was generated on the 5292 Model 2 Color Graphic Display.



IBM 3180 Model 2 Display Station

- Small, ergonomic 15-inch display
- Screen that can be raised, lowered, tilted and rotated
- 1,920 high-definition characters (24 lines of 80 characters)
- Flicker-, glare- and smudge-resistant display
- New keyboard with adjustable low profile (122 keys)
- Separate message/error line
- Improved reliability, availability and serviceability
- Locally plug compatible with 5251 Model 11, 5291 and 5292
- Adjustable audible alarm and security keylock
- Record/play



IBM 5251 Display Station

- Models available for local or remote attachment
- 1,920 high-definition characters (24 lines of 80 characters)
- Upper- and lower-case characters
- Provides intensified characters, underscore, reverse image, blinking fields
- 83 keys, typewriter-style
- 10-key numeric pad
- Cluster feature on the Model 12 for direct attachment of up to 8 remote work stations
- Cable-thru capability for connecting multiple devices to a single twinaxial cable; saves cabling costs
- Plug compatible with 5291 Display Station, 5292 Color Display Station and 3180 Model 2 Display Station



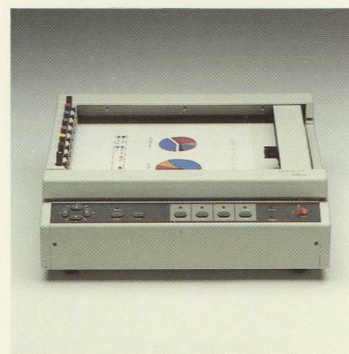
IBM 5291 Display Station

- Small, lightweight, ergonomic design
- Tilttable screen with glare reduction treatment
- Movable, low-profile keyboard with adjustable slope
- Cable-thru standard
- Plug compatible with the 5292 Color Display Station, 5251 Model 11 Display Station and 3180 Model 2 Display Station



IBM 5182 Model 1 Color Printer

- Attaches to the System/36 through the IBM 5292 Model 2 Color Graphic Display, the IBM 5150 Personal Computer or 5160 PC XT
- Tabletop, dot-matrix color printer
- 82.5 dots per inch for high-resolution output
- Four print modes: all points addressable graphics, 35 cps, 110 cps, 200 cps
- Three choices of four-band ribbons: one-color (four bands of black); four-color (red, green, blue, black); eight-color (yellow, magenta, cyan, black—mixable to produce eight colors)
- Three built-in type fonts
- Multiple pitches: 10, 12, 171 and proportional spacing
- 13.5-inch print line



IBM XY/749 Digital Plotter

- Attaches to System/36 through the IBM 5292 Model 2 Color Graphic Display
- Intelligent plotter with eight program-selectable pens
- Multicolor plots can be drawn without manually stopping plotter to change pens

- Flat bed electrostatic plotting surface simplifies positioning and monitoring of full drawing
- Plots on paper, vellum or projection transparencies
 - Standard 8½ x 11" format
 - High plotting speed
- Microprocessor control provides vector generation, circle (full, arc and sector) and axis generation
- Supports various line textures: solid, dotted, dash, uneven dash and dash-dot
- Bar graphs, pie charts, line charts, etc. are easily generated using the Business Graphics Utilities
- Operates as a plotter, printer or monitor
- Available with a variety of interfaces (IEEE-488 is supported by the System/36.)

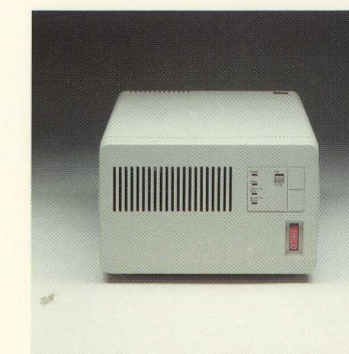
IBM 5150 Personal Computer or 5160 PC XT

- Simple transition from stand-alone mode to system display
- Desktop keyboard, electronics module and display screen
- Keyboard: 83 keys, 10 function keys, 10-key numeric pad
- Display screen: 25 lines of 80 characters, upper- and lower-case
- Stand-alone Characteristics:
 - User memory: 64K to 640K bytes
 - Permanent memory: (ROM) 40K bytes
 - Auxiliary memory: 2 optional diskette drives, 160K or 320K bytes each
 - Languages: BASIC, Pascal, FORTRAN, MACRO Assembler, COBOL
 - Color/Graphics: 16 colors, 246 characters and symbols (ROM)



IBM 5219 Printer

- Tabletop, bidirectional printwheel printer
- Correspondence quality with print speeds of up to 40 or 60 characters per second (cps)
- 10-, 12-, 15-pitch and proportional spacing with appropriate software
- Handles single sheets or continuous forms
- Cartridge ribbon
- Cable-thru standard



IBM 5294 Remote Control Unit

- Remote work station controller for System/36
- Can attach up to eight of the following work stations:
 - 3180 Model 2, 5251 Model 11, 5291, 5292 Display Stations
 - 5219 (Model DO1, DO2), 5224, 5225, 5256 Printers
 - IBM 5150 Personal Computer and 5160 PC XT (with 5251 Model 11 emulation mode only)
- Operates as an SDLC or an X.25 (HDLC) unit
- Features high-speed communication capability (up to 56,000 bps via DDS and 48,000 bps via X.21 signal conversion)

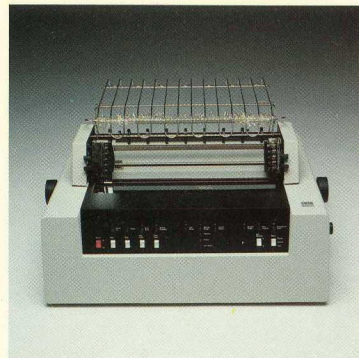
IBM 5256 Printer

- Tabletop, bidirectional impact matrix character printer

IBM 5224 Printer

- Tabletop, impact matrix line printer
- Two models, with speeds up to 140

Cable-thru standard



IBM 5256 Printer

- Tabletop, bidirectional impact matrix character printer
- Maximum print speeds up to 120 cps
- 96- and 187-character sets
- Handles cut sheets or continuous forms
- Cartridge ribbon
- Cable-thru and audible alarm available



IBM 5224 Printer

- Tabletop, impact matrix line printer
- Two models, with speeds up to 140 and 240 lines per minute (lpm)
- Program-selectable printing at 10 characters per inch (cpi) or condensed printing at 15 cpi for letter-sized reports
- 198 print positions per line at 15 cpi for flexible report design
- 132 print positions per line at 10 cpi
- Choice of character sets: 95 upper- and lower-case characters; 184 upper-case, lower-case, multinational
- Variable-width forms tractor
- Graphics printing capability
- Cartridge ribbon
- Cable-thru and audible alarm standard



- Operates as an SDLC or an X.25 (HDLC) unit
- Features high-speed communication capability (up to 56,000 bps via DDS and 48,000 bps via X.21 signal conversion)

IBM 8809 Tape Drive

- For inexpensive storage of information not needed on a daily basis
- Back up: for save / restore and data exchange with other systems up to 400 Mb per 2400 ft. reel
- Dual-speed capability: start / stop mode, 20K bps streaming mode, 160K bps
- Compact, space-saving design
- Density: 1600 bpi



IBM 5225 Printer

- Floor-standing, impact matrix line printer
- Four models, with rated speeds up to 280, 400, 490 and 560 lpm based on line length and print density
- 95- and 184-character sets
- Program-selectable at 10 cpi or condensed to 15 cpi
- Variable-width forms tractor
- Graphics printing capability
- Cable-thru and audible alarm available

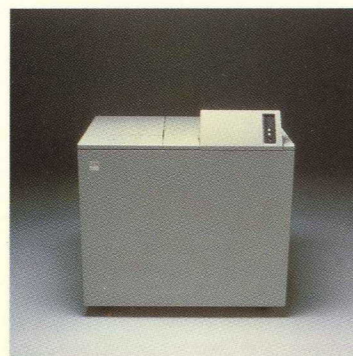
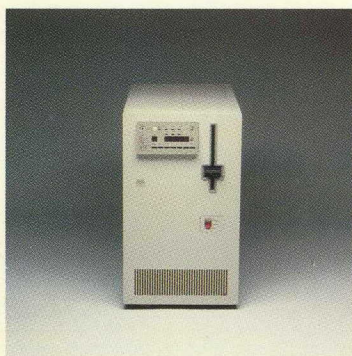


IBM 3262 Printer

- Floor-standing, engraved band impact printer
- Up to 650 lpm with 48-character set
- Up to 625 lpm with 64-character optimized belt
- Can print 132 print positions at 6 or 8 lines per inch (lpi)
- Simplified forms handling; up to 6-part forms, from 3.5 to 16 inches wide
- 48-, 64-, 96- and 188-character sets available in English and other languages

IBM 5362 System Unit

- Low-end model of System/36 family
- Main storage: 128K, 256K, 384K, 512K
- Disk storage: 30 million, 60 million, 90 million, 120 million characters
- Diskette drive for reading and writing IBM diskettes
- Dimensions:
 - Width: 375mm (14.76")
 - Depth: 750mm (29.50")
 - Height: 650mm (25.59")
- Weight: maximum 79.3 kg (175 lbs.)
- Heat output: 1,000 watts (3,413 BTU/hr.)



IBM 5360 System Unit

- Main storage: 128K, 256K, 384K, 512K, 768K and 1024K
- Disk storage: 30 million, 60 million, 200 million and 400 million characters
- Diskette drive for reading and writing IBM diskettes
- Dimensions:
 - Width: 1125mm (44.50")
 - Depth: 750mm (29.50")
 - Height: 1175mm (46.50")
- Weight: maximum 418kg (920 lbs.) minimum 279kg (614 lbs.)
- Heat Output: 1340 watts (4577 BTU/hr.)

IBM Diskette Magazine Drive

- An optional device in the system unit that can process up to 20 diskettes without operator intervention



IBM 5360 System Unit

- An optional expansion unit that provides disk storage of up to 600 million or 800 million characters



Some photographs in this brochure are of engineering and design models; some display screens are simulated computer displays, intended to serve only as examples. Any names of individuals, companies, brands, and non-IBM products are fictitious, and similarities to actual names are coincidental.

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