Datapoint

EQUIPMENT CATALOG

Datapoint Equipment Directory Index

THE DATAPOINT PROCESSORS

To meet the needs of complex, cost-effective dispersed data processing systems, Datapoint offers four processors.

Datapoint Cassette 1100 Intelligent Terminal

Datapoint Diskette 1100 Intelligent Terminal

Datapoint 2200 Business Processor

Datapoint 5500 Advanced Business Processor

Each of these processors is housed in the attractive operator-oriented housing that has become the symbol of dispersed data processing. With the exception of the Diskette 1100 which has no cassette tapes, one processor appears physically like another. This family resemblance creates a uniform appearance in systems where all four processors might be applied thus saving operator retraining and system documentation.

An overall philosophy that "A computer need not look like a computer" has been used in designing the Datapoint line. The easy-to-use display and keyboard replaces the conventional lamps and switches operators console that is common to most computers. This clean design permits the processors to be easily integrated into an office data entry environment or used as a business computer where the display and keyboard becomes an operators console.

Each of the processors will accommodate a wide range of peripherals ranging from printers and storage devices such as magnetic tapes and disks, to a variety of communications devices. Each peripheral is designed to plug directly into the processor by a simple one cable interconnection.

Unlike many conventional small computers, the Datapoint processors and peripherals are well-suited for most standard office environments with only minimal air-conditioning and power considerations. Their outward appearance of an office machine permits easy training and acceptance by non-computer oriented office personnel.

It's this unlimited versatility and flexibility of the Datapoint processors that has made them the standard in dispersed data processing.

Inside the DATAPOINT processors
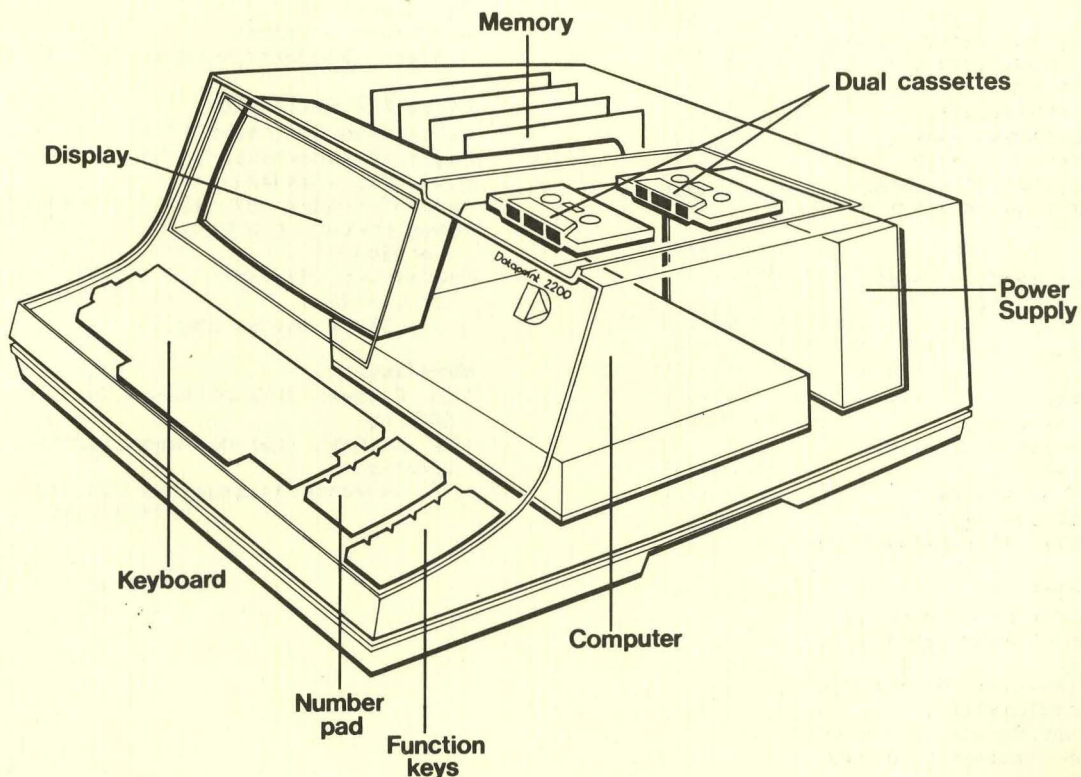
CASSETTE 1100 INTELLIGENT TERMINAL

7200 4K MAG
8040

For systems where cassettes are desired for data storage, the Cassette 1100 finds wide application. It uses standard Phillips-type cassettes for both program and data storage on reliable, time proven, dual cassette drives. The inexpensive cassettes are easily handled and stored by office personnel unfamiliar with data processing equipment. Each cassette will store approximately 250,000 characters (using both sides). The amount of data stored will depend on the record length.

This cassette-based 1100 will also find application where equipment space is at a premium. No other support devices are necessary other than the communications adaptor, if used, and the system may be easily operated in a desk-top location.

Memory for the Cassette 1100 may be 4 or 8K of solid-state memory. Automatic program re-loading will occur if a power outage occurs. (See section on Cassette Tapes under General Features).

The Cassette 1100 will accommodate several peripherals. These include any of the Datapoint printers, any Datapoint communications adaptor and the Datapoint card reader.
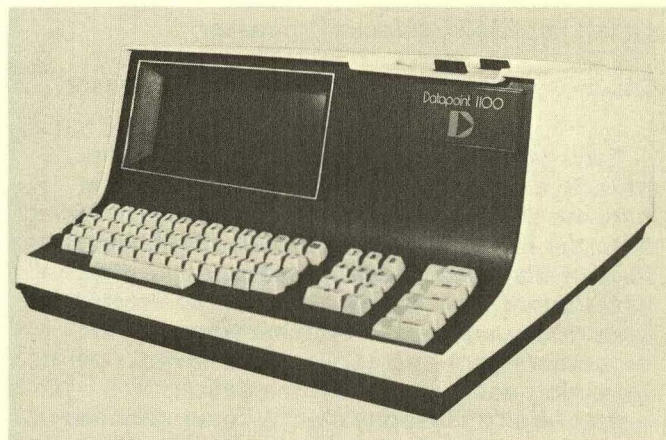
Functional Characteristics

Processor:
The integral processor provides all control functions and includes:
50 different instruction types;
14 addressable registers;
16 deep-pushdown stack;
8 bit memory word length;
Complete parallel I/O system;
Automatic power-up restart.

Keyboard:
Standard typewriter, 41 keys
11 Key Numeric Pad
5 control Keys
Audio Tones

Video Display:
7x3.5" Viewing Area
80 Columns by 12 Rows, 960
  Characters
Upper and Lower Case
  (94 ASCII Characters)
5x7 Dot Matrix for High Readability

Cassette Tapes:
Standard Phillips Cassettes
7.5 inches per second speed
Rewind
Search Forward and Reverse Mode
Approximately 120,000
  Characters Storage per tape side
Completely Processor Controlled

Memory:
4,096 to 8,192 word memory
  (8 bit word)
1.6 microsecond access
All memory fully programmable

Physical Characteristics
Weight: 47 lbs. (21.3 kilos)
Height: 9⅝ inches (24.5cm)
Width: 18½ inches (47 cm)
Depth: 19⅝ inches (49.9 cm)
Power: 115 VAC, 60 or 50 Hz
  or 230 VAC
Envrionment: 32° to 122°F
  (0° to 50°C)
  0 to 90% relative humidity

Model Codes:
1101   Datapoint 1100, 4K Memory, 115 VAC, 50-60 Hz
1102   Datapoint 1100, 4K memory, 230 VAC, 50-60 Hz
1110   4K Memory Expansion for 1101, 1102

DISKETTE 1100 INTELLIGENT TERMINAL

Designed specifically for remote data entry and processing with subsequent communications to a control site, the Diskette 1100 combines the features of a processor-based terminal with the speed and flexibility of the diskette storage media.

The Diskette 1100 contains a fully programmable general purpose computer, which can be used with a variety of data entry programs. The keyboard and display provide a convienient and rapid means of data entry. The display of the Diskette 1100 features a program loadable memory. Special characters can be software-generated and displayed in addition to the standard upper and lower case character set.

The diskette is an integral component of the processor as there are no cassette tape decks. Both programs and data reside on the diskette. A boot-strap loader is provided in the processor such that a touch of a key will automatically load and begin execution of the data entry program, operating system or whatever task has been assigned.

Communications are easily accommodated. Any of the standard asynchronous or synchronous communications adaptors can be used with the Diskette 1100.
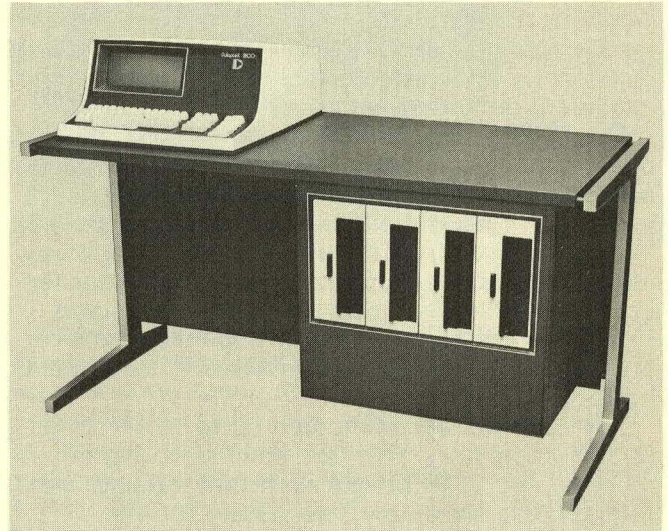
Functional Characteristics

Processor:
A completely programmable general purpose computer with solid state memory.
50 Instructions
14 Addressable Registers
16 Deep Pushdown Stack
8 Bit Word Length
Completely Parallel I/O System
Automatic Power-Up Restart

Keyboard:
Standard typewriter, 41 keys
11 Key Numeric Pad
5 Control Keys
Audio Tones

Video Display:
Programmable Character Generator
128 characters
7x3.5 Viewing Area
80 Columns by 12 Rows, 960 Characters
5x7 Dot Matrix for High Readability
High Speed Character Display

Diskettes: *
Up to four drives
256,256 characters/drive
Average latency: 83 milliseconds
Completely processor controlled
*See Diskette listing in the catalog for detailed specifications

Memory:
Solid-State MOS 16,384 word memory
   (8 bit word)
1.6 microsecond access
All memory is fully programmable

Physical Characteristics

Power Requirements
115 or 220 VAC, 60 or 50 Hz

Equipment Dimensions:
Width: 53.0 in. (134.6 cm)
Height: 28.0 in. (71.1 cm)
Depth: 24.0 in. (60.9cm)
Weight: 247 lbs. (112 kg)

Environment
Environment: 32° to 122° F
   (0° to 50° C)
   0 to 90% relative humidity

Model Codes:
1103 Diskette 1100, 16 memory, 115 VAC,
   50-60 Hz, one diskette drive
1104 Diskette 1100, 16K memory, 230 VAC,
   50-60 Hz, one diskette drive
9386 Diskette extension drive (3 max)

Datapoint 2200 Business Processor

The Datapoint 2200 is the general purpose processor of the Datapoint line. It's power and flexibility permit it to serve as the central computer for the sophisticated DATASHARE system, yet it is inexpensive enough to be applied as an stand-alone intelligent data entry terminal.

The 2200 system contains a powerful general purpose computer designed to meet the fast-paced needs of growing companies. Its processor architecture takes advantage of the latest in integrated circuitry. This utilization of technology allows a completely programmable multi-register computer with pushdown stack, interrupts and selectable execution mode (two identical sets of program registers), to be contained in a compact housing.

The 2200 will accommodate up to 16,384 bytes (8-bits) of memory. This fast, solid-state memory is incremented in 4K blocks such that the user need request only the amount necessary for the application. 4, 8, 12 & 16K sizes are available. All memory is user-programmable. None is taken for system buffers or hardware needs.

The 2200 is supplied with a keyboard, display and dual cassette drives. These devices operate as peripherals to the 2200. The keyboard & display replace the traditional and awkward programmer's console found on most business computers. This configuration also makes an efficient data entry operator's console. The cassettes are used for program and data storage. Any Datapoint peripheral may be connected to the 2200 with 14 external peripherals being the maximum number.

The 2200 is available in two models, one for 115 VAC, 50-60 Hz service and another for 230 VAC, 50-60 Hz service.

Functional Characteristics

PROCESSOR:

The integral processor provides all control functions and includes:
50 different instruction types;
14 addressable registers;
16 deep-pushdown stack;
8 bit memory word length;
Up to 16,384 word memory;
Complete parallel I/O system;
Automatic power-up start.

Keyboard:
Standard typewriter, 41 keys
11 Key Numeric Pad
5 control Keys
Audio Tones

Video Display:
7x3.5'' Viewing Area
80 Columns by 12 Rows, 960
    Characters
Upper and Lower Case
    (94 ASCII Characters)
5x7 Dot Matrix for High Readability

Cassette Tapes:
Standard Phillips Cassettes
7.5 inches per second speed
Rewind
Search Forward and Reverse Mode
Approximately 120,000
    Characters Storage per tape side
Completely Processor Controlled

Memory:
4,096 to 16,384 word memory
    (8 bit word)
1.6 microsecond access
All memory fully programmable

Physical Characteristics

Weight: 47 lbs. (21.3kg)
Height: 9⅝ inches (24.5cm)
Width: 18½ inches (47cm)
Depth: 19⅝ inches (50cm)
Power: 115 VAC, 60 to 50 Hz
    or 230 VAC, 50 or 60 Hz
Environment: 32° to 122°F
    (0° to 50°C)
   0 to 90% relative humidity

Model Codes
2221   Datapoint 2200, 4K Memory, 115 VAC, 50-60 Hz
2222   Datapoint 2200, 4K Memory, 230 VAC, 50-60 Hz
2230   4K Memory Expansion for 2221, 2222

Datapoint 5500 Advanced Business Processor

The Datapoint 5500 system represents the most powerful processor in the Datapoint line. Designed to provide the user with a compact and powerful processing facility, the 5500 rivals many mid-size business computer systems in terms of processing speed and facilities. The 5500 system offers users a practical alternative to a traditional central computer or can be used to offer more power to a dispersed processing system. Its abilities range from rapid execution of compiler languages such as RPG II to providing processing power for a multi-terminal Datashare system.

The instruction set for the 5500 system contains all instructions used in the Datapoint 1100 and 2200 systems providing complete upward programming and input-output compatibility. In addition, the 5501/5502 processors provide:

- higher operating speed
- double precision arithmetic
- string arithmetic, moves, logic, etc.
- multiple-byte I/O transfers
- indexing and basing
- state saving and restoring instructions
- privileged instructions
- segmented and protected memory
- Memory and I/O parity
- additional registers
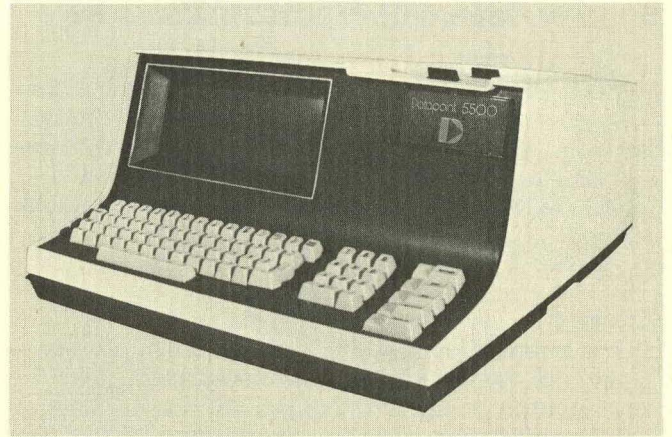
The Models 5501 and 5502 processors provide the basic processor functions for this system and both include a keyboard, display, dual cassette decks, and 24,576 bytes of user program memory space in addition to the resident system memory. User program memory space may be expanded within the basic machine in increments of 12,288 bytes (with Model 5510 Memory Expansion Units) up to 49,152 bytes. The models 5501 and 5502 have identical specifications, except for power requirements.

Functional Characteristics

Processor:
2 sets of 8, 8-bit program
   accessible registers
16 Deep Pushdown Stack
Special 4-bit instruction
   modification register
Multi-byte (string) instructions
Address manipulation
   instructions
High-Speed parallel
   I/O system
Block transfer instructions

Keyboard:
Standard typewriter, 41 keys
11 Key Numeric Pad
5 control Keys
Audio Tones

Video Display:
7x3.5" Viewing Area
80 Columns by 12 Rows,
   960 Characters
Upper and Lower Case plus special characters
5x7 Dot Matrix for High Readability

Programmable display memory allows
   generation of 128 characters under
   program control.
High Speed character display

Cassette Tapes:
Standard Phillips Cassettes
7.5 inches per second speed
Rewind

Search Forward and Reverse
   Mode
Approximately 120,000
   Characters Storage per
   tape side
Completely Processor
   Controlled

Memory:
16K Reserved for system memory
48K User memory, maximum
Parity checking
Parity bit
Memory allocation
Memory protection

Physical Characteristics

Weight: 47 lbs. (21.3 kg)
Height: 9⅝ inches (24.5cm)
Width: 18½ inches (47cm)
Depth: 19⅝ inches (49.9cm)
Power: 115 or 230 VAC, 50-60 Hz
   (optional),
Environment: 32° to 122°F
   (0° to 50°C)
   0 to 90% relative humidity

Model Codes:
5501   Datapoint 5500 with Cassettes, 24K User
   Memory, 115 VAC, 50-60 Hz
5502   Datapoint 5500 with Cassettes, 24K User
   Memory, 230 VAC, 50-60 Hz
5510   12K Memory Expansion

General Datapoint Processor Features

Many components of the Datapoint processors have common specifications. These components, the video display, keyboard and cassette tape drives are all peripherals to the processor and have technical features that will be useful to the systems planner.

Keyboard:

The integral keyboard provides a basic 55 key typewriter-format alphanumeric key group, an 11 key numeric group and five system control keys. This arrangement provides operators with the familiar typewriter layout for data entry and system commands with the numeric pad used for high-speed entry of pure numeric material.

Datapoint keyboards are extremely rugged and designed for constant heavy usage. The keystroke impact is transmitted to a steel plate, not the electronic circuit board as is common in most keyboards. The electronic portion of the keyboard 'floats', thus protecting it from the normal shocks of usage.

For users with special control key requirements, the 11-key numeric pad can be jumper-modified to produce control characters. Specially engraved keytops are also available by request.

Two status keys in the 5-key control group are used to provide a means of generating control commands. Generally, user programs use the combination of one or both status keys plus an alphanumeric key to provide control.

The keyboard section also generates an audio beep and click sound which, at the programmers option, may be used to indicate errors and valid data.

To accommodate rapid entry of data, all Datapoint keyboards, (including the 3000 series of interactive terminals) have "all-key" rollover. This feature allows the typist to leave previously typed keys depressed while another key is pressed, preventing momentary keyboard "lockout" common with keyboards lacking this feature.

Video Display:

This display presents a non-glare, easily viewed green-on black viewing surface that is comfortable to view even after extended operating periods. Fatigue is lessened by Datapoint's exclusive helican-scan display technique in which characters are generated in a stable, jitter-free manner with crisp, clear dots forming each character. This technique has been proven to be the least operator fatiguing display method.

The display offers the 96 character (upper & lower case) ASCII set on a 7" x 3½" viewing area. Data can be written on any portion of the 80 column by 12 line format. The cursor is positionable under program control and can be made to turn on or off. Blinking is automatic.

Under program control, the display can roll-up, erase single characters, lines, or an entire frame. Data placement is under program control.

Refresh of the display screen is automatic. A display buffer receives characters from the processor. Once the position and characters are defined, no further attention from the processor is required.

For applications requiring fast-screen display and non-standard character sets, a high speed display option is available (Standard on Diskette 1100 and 5500 systems). This option permits extremely fast screen writing capability due to the incorporation of faster display memory.

This feature also permits program loading of a 128 character set. Thus a user may elect to use the standard 96 ASCII upper and lower case set plus an addition 32 characters for special symbols or the characters of a languages not available in ASCII, such as European languages. Graphic symbols such as arrows and figures may also be generated, the limit only being restricted to the 5x7 dot format.

Cassette Tapes

The cassette tapes used on the Datapoint processors are designed specifically for constant usage with extremely low error rates. These decks have no operator controls other than the tape insert bar. All other operations are controlled by the Datapoint Processor. These include read forward, reverse and rewind.

The decks utilize standard Phillips-type cassettes containing a special computer-grade tape. Tabs may be removed from the cassette to effect write-protect and auto restart (Rear deck only).

Auto-restart offers complete protection in the event of power failure. With the appropriate cassette tab removed, the Datapoint will automatically rewind and reload the back tape which normally contains the system program. This feature proves important to users contemplating unattended polling operations. If during waiting hours, the main line power fails or is momentarily interrupted (not uncommon during evening and early morning hours) the solid state memory is erased. When power returns completely the rear tape is rewound and automatically loads the operating program which, by program control, may call in other programs. This feature eliminates an annoyance that is common to all processors using a solid-state memory and yields unattended operation where power is frequently interrupted.
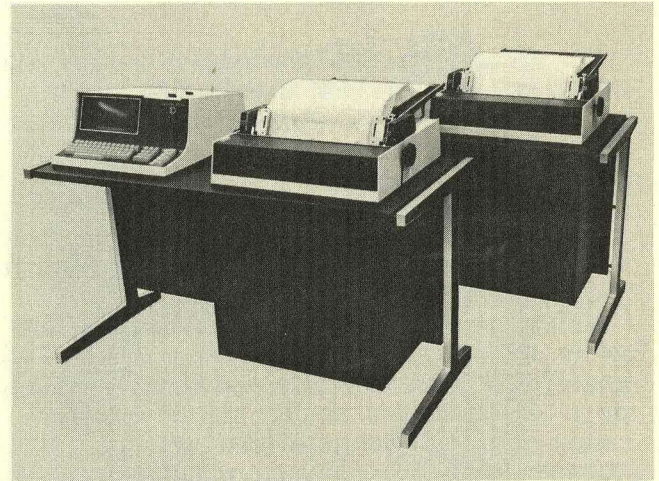
Datapoint Servo Printer

The Servo Printer contains a variety of highly desirable data processing features not usually found in one printer. The heart of the printer is a servo-driven, rosette shaped, type wheel made of flexible plastic. This type wheel is positioned according to the character desired and struck by a small electric hammer against a cloth or carbon ribbon.

This straightforward construction results in a heavy-duty printer that runs much quieter than a standard office typewriter and has few moving parts. Print quality equals or surpasses most standard typewriters and the type wheels can be easily changed to accommodate a variety of upper and lower case fonts.

Print speed is 30 characters/second although the printer's production rate can be much higher than conventional 30 cps printers due to an ability to shuttle or "slew" across blank areas. The 30 cps rate applies to solid text as the print mechanism can move at 30 inches per second over blank areas. Using this print and slew technique, the Servo Printer can match conventional printers with higher print speed ratings. Either friction or sprocket feed can be used.

Most data processing printers can only move one character space to the right or left. The Servo Printer can space as little as 1/60 inch per space giving the user an ability to justify text by inserting fractions of character spaces at appropriate intervals. The printer may also be instructed to feed paper forward or reverse. Users requiring a dot-plotting graphic function will find this feature useful.

While the rugged, simple construction of the Servo Printer allows constant use in standard data processing work, the exceptional print quality will permit the user to apply this device to tasks usually requiring a typewriter style printer such as text-processing and letter-typing.

The Servo Printer plugs directly into the Datapoint processors with no additional equipment required. Multiple printers may be used.

Functional Characteristics

Printing Speed
30 CPS (asynchronous)

Printing Method
Impact, Rotating Printwheel

Carriage Slew Rate
30 inches per second

Paper Skipping Rate
24 lines per second

Print Positions per Line
132 (with 10 char. per inch)

Paper Type
Capable of handling tractor feed forms (max 14.875") or ordinary typewriter paper.

Format Control
Line Feed Key
Form Feed Key
Platen Knob for forms adjustment
Forms Thickness adjustment

Character Font
Three printwheels available:
  Courier 10
  Pica
  Elite

Interconnection
Direct connection to Datapoint I/O bus

Physical Characteristics

Dimensions
  9250, 9254
Width: 53 inches (134.6cm)
Height: 37 inches (94cm)
Depth: 37 inches (94 cm)
Weight: 215 lbs. (97.5kg)

  9251, 9255
Width: 36 inches (91.5cm)
Height: 37 inches (94cm)
Depth: 37 inches (94cm)
Weight: 195 lbs. (89 kg)

Power Requirements
115 VAC, 60 Cycle
230 VAC, 50 Cycle

Model Codes
9250 Servo Printer, Console, 115 VAC
9251 Servo Printer, Freestanding, 115 VAC
9253 12 Inch Form option
9254 Servo Printer, Console, 230 VAC
9255 Servo Printer, Freestanding, 230 VAC
80260 Cloth Ribbon
80261 Carbon Ribbon
80270 Courier 10 Printwheel
80271 Pica Printwheel
80272 Elite Printwheel

Matrix Printers

The 9244 and the 9245 are medium speed, serial, impact printers. The 9245 uses bi-directional printing. With the 9245, two print heads operating in unison print a 132 character line with each head traveling only half the width of the paper. Both heads then print in reverse on the next line resulting in no carriage return. The printer is automatically energized when data is received with no delay time required before printing is begun.

Various character sets are an optional feature which permit flexibility unavailable on standard full character printers. Character sets can be increased up to 128 characters, and the standard mode produces a line of elongated boldface characters on command. International users will appreciate the availability of foreign character sets.

Applications for this printer are many - including data entry, business systems, communications - anyplace, in fact, where high-speed hard copy output is demanded.

The printer interfaces directly with all Datapoint processors and is fully buffered.
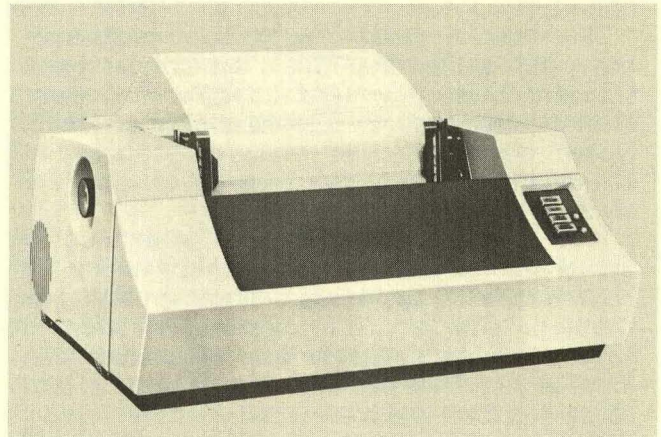
Functional Characteristics:

Printing Speed of 9244
60 lines per minute
165 characters per second

Printing Speed of 9245
125 lines per minute
330 characters per second

Printing Method
Impact, character-by-character,
one line at a time

Paper Type
Sprocket feed, adjustable from 4''
to 14⅞'' width. Standard
sprocketed paper

Format Control
On/off
Select
Top of Form
Forms override
Line Feed

Character Font
9x7 dot matrix - 10 point
type equivalent
USASCII - 64 characters printed,
lower case characters
recognized and printed as
upper case equivalent

Interconnection
Direct connection to Datapoint
processors I/O bus

Physical Characteristics

9244/9245	Table - 9246
Width: 27¾ in. (70.5cm)	Width: 19¾ in. (50.2cm)
Height: 11½ in. (29.2cm)	Height: 25 in. (63.5cm)
Depth: 20 in. (50.8cm)	Depth: 17¼ in. (44cm)
Weight: 118 lbs. (54kg)	Weight: 52 lbs. (28kg)

Power Requirements
110 VAC, 60 Hz or
220 VAC, 50 Hz

Model Codes
9244 60 LPM Printer
9245 125 LPM Printer
9246 Table for 9244 & 9245

Datapoint 300 LPM Line Printer

The Datapoint 9280 Line Printer provides the user with high-quality, medium-speed printing in a compact and operator-oriented package. It finds wide application with all Datapoint processors requiring crisp, clear, hard copy.

This printer operates at a rate of 300 lines per minute on a 132 column format using 64 characters. The drum and anvil impact method of printing utilized yields excellent reproduction on either single sheets or 6 part carbon-interleaved multipart forms. Standard 132 column or narrower forms can be loaded on the printer.

Designed specifically for ease of operation, the controls are plainly marked and kept to a minimum. Paper and ribbon changes are accomplished by swinging aside the hinged paper gate. Use of a single set of paper feed sprockets keeps paper changing time to a minimum. Noise is kept to a very low level by liberal use of acoustical material in the enclosure.

For users printing on other than standard 11 inch paper a 12 channel vertical format control is available. This feature easily accomodates odd-size forms such as parts tags and checks.

A number of unique printing techniques combine to provide a rugged and reliable impact mechanism. A magnetic print-head and clutchless paper feed reduce the number of moving parts to a minimum.
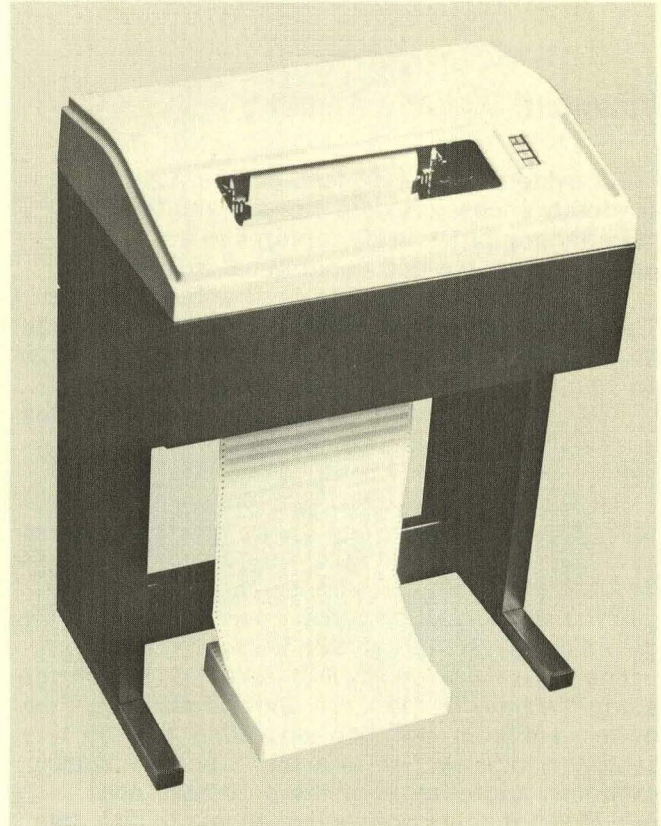
The printer is fully buffered and interfaces directly to any of the Datapoint processors. Full compatibility with any Datapoint Software package printer is assured.

Functional Characteristics:

Printing Speed:
300 lines per minute on 132 character lines

Printing Method:
Impact with rotating drum.

Slew Speed:
20 inches/Second

Line Spacing:
6 or 8 Lines Per Inch, switch selectable

Paper type:
Standard Fan Fold. Single copy (15 lbs. bond minimum) to Multiple Copy 6 parts (12 lbs. bond with 7 lb. carbon) minimum.

Format Control:
Top-of-Form Command (See note)
Single line advance
Perforation step over

Character Font:
64 or 96 Character, upper case modified, ASCII, open Gothic type (DPC-A) Characters typically .095" High x .065" Wide.

Interconnection:
Direct connection to all Datapoint processors

Physical Characteristics:

Width: 32 in. (81.8cm)
Height: 45 in. (114.3cm)
Depth: 22 in. (55.88cm)
Weight: 330 lbs. (149.6 kilos)

Power Requirements:
110 VAC or 230 VAC, 50 or 60 Hz

Model Codes:
9280
   300 LPM printer
   64 character font
   single channel vertical-form control
9281
   300 LPM Printer
   96 character font
   Single channel form control
9282
   300 LPM Printer
   64 character font
   12 channel vertical form control
9283
   300 LPM Printer
   96 character font
   12 Channel vertical form control
9284
   Paper receptacle for 9280 Series

NOTE: Single channel vertical forms control gives one top of form position on 11 inch paper. 12 channel gives twelve positions, tape controlled.

Datapoint Diskette Memory

For systems requiring fast, compact and randomly accessible data storage, the Diskette memory combines these features in an operator-oriented and economical system.

The memory utilizes IBM compatible Diskettes. These small, flexible and mailable magnetic storage devices operate in much the same manner as larger conventional data processing disks. Mounted permanently in a paper jacket, the small diskettes are easily inserted and removed from the cabinet-mounted drives at the touch of a button.

The Diskettes find wide application where a local data base is to be accessed and modified. The speed of access permits multi-file operations on a single diskette and can allow sophisticated operations such as table lookups, sorting and merging of file data along with storage of keyed-in information.

The Diskette hardware architecture is structured along the lines of the larger Datapoint Disks. Four buffers are used each corresponding to a 256 byte sector on the disk. This total buffer of 1024 bytes is randomly addressable by the processor and provides not only a convenient access to disk data, but also a powerful tool for sector manipulation.

As the four sector buffer concept is used on other large Datapoint disks, software presently utilizing a larger Datapoint disk can be used with the Diskette memory. The standard Disk Operating System (DOS) is compatible with the Diskette along with other utilities such as SORT and Index Sequential Access Method (ISAM). This compatibility among disks permits software to be used almost universally throughout the disk products. For example, a diskette system can be easily upgraded to a 2.4 megabyte cartridge disk or a system originally developed for a large disk be adapted to handle the
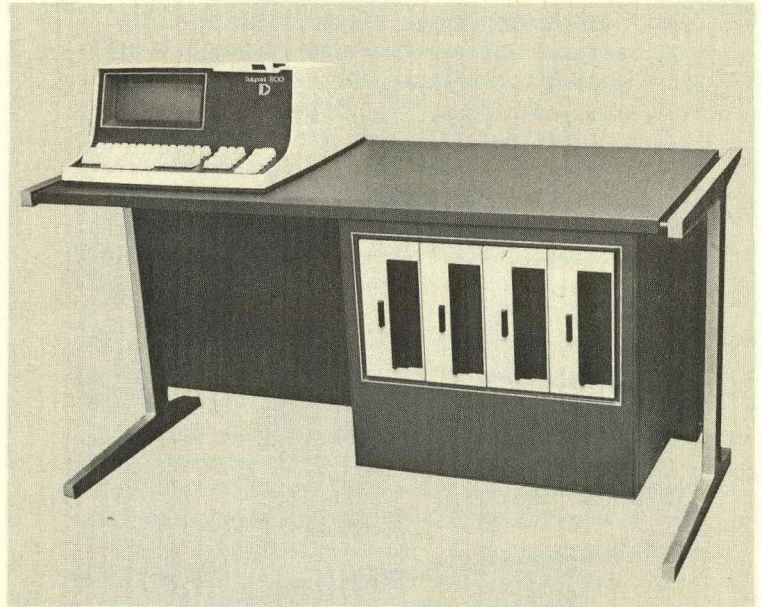
Diskettes. With this capability, a user is often spared the cost of new software development for the Diskette.

The hardware recording techniques duplicate that of an IBM 3741 Data Entry Terminal. Software formatted diskettes are interchangeable with the IBM 3741 diskettes.

The diskette is an optional peripheral for all Datapoint processors except for the Diskette 1100 where the unit is integral with the processor.

The Diskette memory connects directly to Datapoint processors. No other device is required. Each unit houses a controller with up to four disk drives.

Functional Characteristics

Capacity:
Tracks/Disk: 77
Sectors/Track: 26
Bytes/Sector: 128
Bytes/Diskette: 256,256
Sectors are paired electrically to 13 logical sectors per track.

Bit Density:
(Inside Track) 3200 bpi (approximately)

Bit Transfer Rate:
250 kilobits/second (into sector buffers)

Diskette Timing:
Rotational Speed: 360 RPM
Access Time

Track-to-track: 10 milliseconds
Setting time: 20 milliseconds
Average latency: 83 milliseconds
Recording mode: Frequency Modulated, IBM 3741 compatible

Media Requirements:
IBM "Diskette" or equivalent

Media Dimensions:
Disk Diameter: 7.875 inches (20 cm)
Envelope size: 8x8 inches (20.3 cm) x20.3 cm)

Physical Characteristics

Power Requirements
115 or 220 VAC, 50 or 60 Hz

Equipment Dimensions:

	Console	Freestanding
Width:	53.0 in. (134.6 cm)	36.0 in. (71.4 cm)
Height:	28.0 in. (71.1 cm)	28.0 (71.1 cm)
Depth:	24.0 in. (60.9 cm)	24.0 (60.9 cm)
Weight:	200.0 lbs. (91 kg)	175.0 lbs. (78 kg)

Model Codes:
9381 Diskette Controller, with one drive, console mounted
9385 Diskette Controller with one drive, Freestanding
9386 Diskette Extension unit

Datapoint Cartridge Disk System

A Datapoint Disk provides the user with a random-access, non-volatile, memory system. The disk is a removable cartridge-type with each cartridge containing over 2.4 million bytes (characters) of data.

The disk cartridges are fully enclosed and easily inserted and removed from the drive. By use of the replaceable disk, an almost unlimited number of programs and data files may be kept on hand and ready for immediate use. The operator need only to press the load button and the disk is automatically brought on-line.

The Datapoint 9350 Disk System can be expanded. Up to three 9354 disk drive extension units can be added making a total of four disks. The 9354 extender disks are identical in appearance to the 9350 controller and disk.

System programmers will find the disk controller offers many powerful features. The controller contains 1,024 character memory which is divided into four 256 character areas. This buffer or memory can be addressed randomly by the processor, facilitating the updating or sorting of data within a sector. All error detection and appropriate control character requirements are done automatically by the controller.

The Disk connects directly to the Datapoint
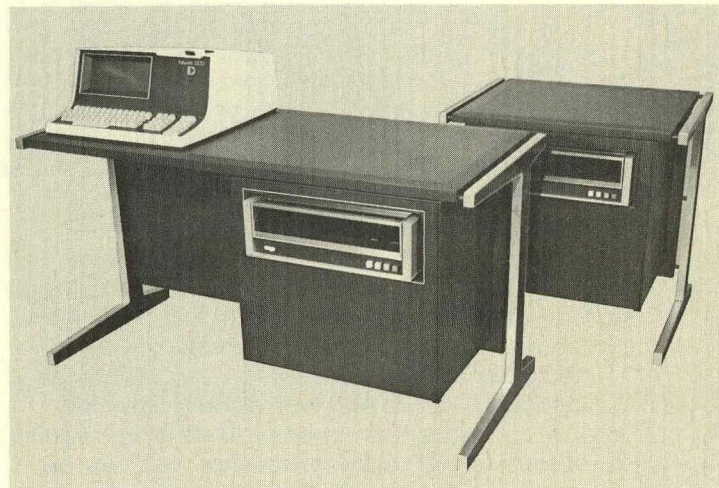
processors via a standard I/O cable. No other interface is required. All Cartridge disks run on either 50 or 60 Hz, 115 VAC. A series is available for 230 VAC power, 50-60 Hz.

Functional Characteristics

Capacity
Surfaces	2
Tracks/Surface	203
Sectors/Track	24
Bytes/Sector	256
Bytes/Disk (8 bits)	2,494,464

Bit Density
2200 BPI

Track Density
100 TPI

Bit Transfer Rate (to buffer)
1562 KHz

Disk Timing
Rotation Speed 1500 rpm
Average Latency 20 ms
Track-to-Track 15 ms Max.
Average Seek Time: 70 ms

Operator Controls
Load/Run
Protect

Indicator Lamps
Load
Ready
Protect
Check

Interconnection
Connects directly to a Datapoint processor.

Physical Characteristics

Dimensions

	9350 Console		9351 Freestanding
Width:	53.0 in. (135cm)	Width:	36.0 in. (71.4cm)
Height:	28.0 in. (71cm)	Height:	28.0 in. (71cm)
Depth:	24.0 in. (60.9cm)	Depth:	24.0 in. (60.9 cm)
Weight:	330 lbs. (150.6 kg)	Weight:	260 lbs. (118.6 kg)

Power Requirements
115 VAC or 230 VAC, 50 or 60 Hz

Model Codes
9350 Console mounted controller
    with one removable cartridge drive unit, 115 VAC
9351 Freestanding controller with one
    removable cartridge drive unit, 115 VAC
9352 Console controller with two drive units (one console
    mounted and one freestanding) one fixed and one removable
    cartridge drive, 115 VAC
9353 Controller with two disk drive
    units (both disks in freestanding cabinets)
    one fixed and one removable cartridge drive, 115 VAC
9354 Single disk drive extension unit, with removable cartridge
    (free-standing), 115 VAC

9370 Same as 9350 but 230 VAC
9371 Same as 9351 but 230 VAC
9372 Same as 9352 but 230 VAC
9373 Same as 9353 but 230 VAC

Datapoint Mass Storage
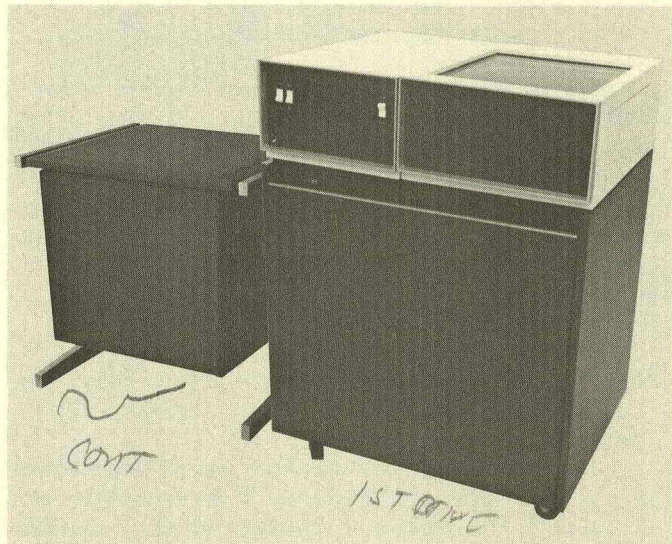# Disk Controller and Drive

A Datapoint 9370 is a 20 surface, removable pack disk system. It provides the user with a non-volatile, random access mass memory.

The on-line capacity is a maximum of 25 million bytes per disk drive for the 5500 system, or if the maximum of eight disk drives is attached to the controller, 200 million bytes. For the 2200 system, addressing restrictions limit the on-line capacity to 20 million bytes per drive and 2 drives per system for a maximum of 40 million bytes per system. Off line capacity is unlimited as the disk packs are removable for storage.

The controller includes a buffer memory which is divided into 16 pages of 256 bytes each, allowing the storage of 16 independent sectors of data (4096 bytes) in the controller buffer memory.

The buffer can be addressed randomly, thus facilitating the updating and sorting of small amounts of data within a sector. Data is not required to be transferred to the processor, but can be processed in the disk buffer itself, thus saving considerable time.

For error detection, a parity check is made on buffer transfers and a 16 bit CRCC (cyclic redundancy check character) check is made on disk transfers.

The 9370 Mass Storage Disk Controller is enclosed in a standard free standing cabinet. The Disk Drive is housed in a caster-supported cabinet.

Functional Characteristics

Capacity (each drive)

Surfaces	20
Tracks/Surface	203
Tracks/Pack	4,060
Sectors/Track	24
Sectors/Pack	97,440
Bytes/Sector	256
Bytes/Pack	24,944,640

Timing

Bit Transfer rate (to and from buffer)	2.5 MHz
Byte Transfer rate (to and from buffer)	312. 5ᴷKHz
Rotation	2400 RPM
Average Rotational latency time	12.5 MSec Maximum 60 MSec
Head Positioning	average 35 MSec

Physical Characteristics

Controller
Width: 28 in. (71cm)
Depth: 24 in. (61cm)
Height: 28 in. (71cm)
Weight: 165 lbs. (75.3kg)

Disk Drive (each drive)
Width: 30 in. (76.5cm)
Depth: 24 in. (61cm)
Height: 39 in. (99cm)
Weight: 394 lbs. (180kg)

Power Requirements
208/230 volts, 3 phase,
4 wire, 50 or 60 Hz

Environment:
Temperature: 60° to 90° F (15° to 32° C)
Relative Humidity: 8 to 80%, non condensing
Max. Rate of change for Temperature: + 15°F/hour
Room: requires filtered circulation.

Model Codes
9370 Mass Storage Disk Controller & Drive, 60Hz
9371 Mass Storage Disk Drive Extension
for 9370, 60 Hz
9390 Mass Storage Disk Controller & Drive, 50 Hz
9391 Mass Storage Disk Drive
Extension for 9390, 50 Hz

Datapoint 556 & 800 bpi Tape Systems

7-and 9-Channel

The Datapoint 556 & 800 bpi tape systems offer the user a complete line to suit his tape storage requirements. Two models are available — 9 channel, 800 bpi, and 7 channel, 800 or 556 bpi. Either of these fully industry-compatible tapes can be console mounted with the processor or free-standing in a separate cabinet. In either case, the units connect directly to the Datapoint processor with no interfacing or other adaptors required.

The tape control unit is included in the cabinet and automatically generates vertical parity (VP), a cyclic redundancy check character (CRCC), and a longitudinal redundancy check character (LRCC). Upon reading the tape, the VP, CRCC, and LRCC are automatically regenerated and checked. A 1,057 byte buffer provides intermediate storage of characters, permitting asynchronous data transfer to and from the deck. Records can be written up to a length of 1,057 words.
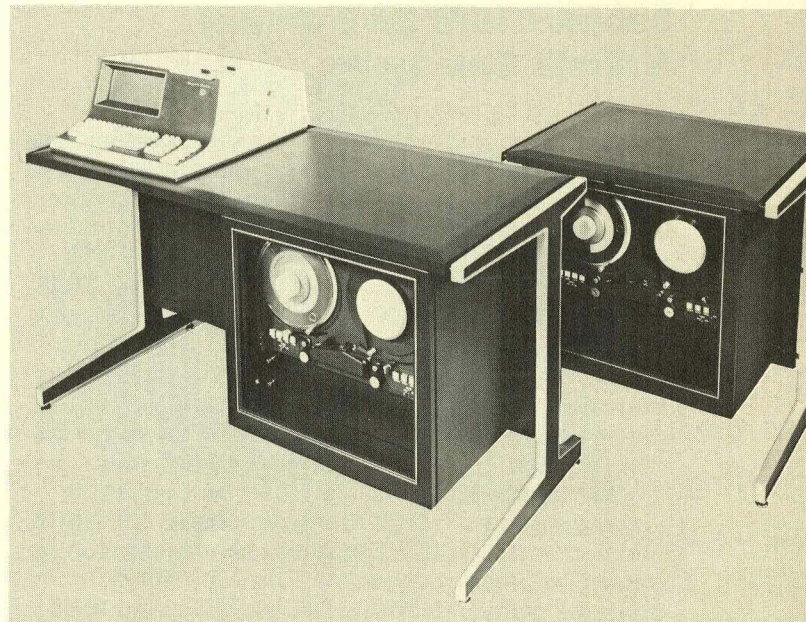
Functional Characteristics

Recording Format
(Industry-Compatible)
9550, 9551
  9-track, NRZI
  800 BPI

9552, 9553
  7-track, NRZI
  556/800 BPI

Tape Speed
12.5 inches per second

Reel Capacity
8.5, 7 inch or mini reels of
½ inch tape
1200 feet length

Maximum Record Length
1057 bytes

Error Control
Industry compatible
Fully automatic VP, LRCC, CRCC
Read-after-write

Interconnection
Direct connection to Datapoint Processor
  I/O Bus

Physical Characteristics

Dimensions

9550, 9552	9551, 9553
Width: 52.5 inches (133.35cm)	Width: 29.4 inches (74.7cm)
Height: 36.5 inches (92.71cm)	Height: 36.5 inches (92.7cm)
Depth: 22.7 inches (57.65cm)	Depth: 22.7 inches (57.6cm)
Weight: 290 lbs. (132.3kg)	Weight: 280 lbs. (127.76kg)

Power Requirements:
115 VAC or 230 VAC, 50-60 Hz,

Model Codes
9550 9-track, Console, 115 VAC
9551 9-track, Freestanding, 115 VAC
9552 7-track, Console, 115 VAC
9553 7-track, Freestanding, 115 VAC
9570 9-track, Console, 230 VAC
9571 9-track, Freestanding, 230 VAC
9572 7-track, Console, 230 VAC
9573 7-track, Freestanding, 230 VAC
80304 Tape head cleaning kit

Datapoint 1600 bpi 9-channel Magnetic Tape System

This tape memory system offers the user a means to read and write 9-track, 1600 bpi magnetic tapes in either industry compatible record lengths (18 to 2048 characters) or records of indefinite length may be written in slew mode.

A buffer provides intermediate storage for 2048 bytes, allowing asynchronous data transfer to and from the tape transport, and any location in the buffer can be read or modified by the processor through an addressable pointer system. A vertical parity bit is automatically generated. Data can be read in both forward and reverse directions.

This magnetic tape system can be housed in either a standard freestanding or console cabinet. It connects directly to a Datapoint processor with no other equipment necessary. The 9580 series operates from 115 VAC, 50-60 Hz while the 9590 series operates from 230 VAC, 50-60 Hz.
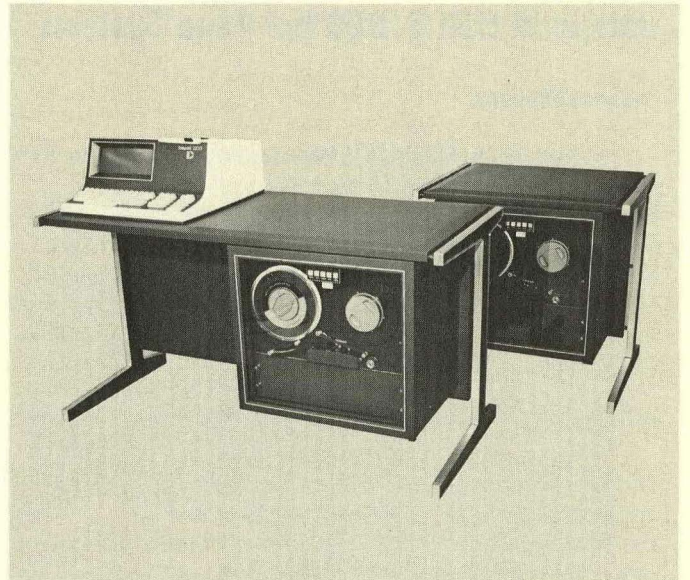
Functional Characteristics:

Record Format (Industry Compatible)
9-track (including parity)
phase encoded, ANSI Compatible

Tape Speed
12.5 ips.

Reel Capacity
8.5 inch diameter
½ inch width
1200 feet length

Maximum Record Length:
2048 bytes
   unlimited in slew mode

Magnetic Head Assembly
Dual Gap (read-after-write)

Data Transfer Time:
Approx. N+4.1 milliseconds
   (Where N = Number of
Data Characters x 50
microseconds)

Interconnection
I/O bus. direct connection to
Datapoint processors

Physical Characteristics

Power Requirements:
115 VAC 50-60 Hz
230 VAC 50-60 Hz

Dimensions:

|	9580	9581
Height:	37.0 in. (94cm)	28.0 in. (71cm)
Width:	53.0 in. (135cm)	26.0 in. (66cm)
Depth:	24.0 in. (61cm)	24.0 in. (61cm)
Weight:	240 lbs. (110kg)	220 lbs. (101kg)

Model Codes
9580 Console, 1600 bpi System, 115 VAC
9590 Console, 1600 bpi System, 230 VAC
9581 Freestanding, 1600 bpi System, 115 VAC
9591 Freestanding, 1600 bpi System, 230 VAC

Datapoint Card Reader

This medium speed card reader is designed to be operated with all Datapoint processors (except Version I).

The 9504 Card Reader is extremely tolerant of bent cards or errors in punch registration ($\pm$ 40% of normal) due to the inclusion of special electronics and the unique design of the transport mechanism.

An optical sensor reads the standard 80 column punched cards at a maximum continuous rate of 300 cards per minute. A 12-bit data field for each column of a card is transferred in two successive byte-transfers, a full binary image is thus transferred, with no code conversion performed by the reader. The interface contains a 64 character first-in, first-out buffer to reduce program timing constraints. The 9503 Card Reader requires only connection to any Datapoint processor to be ready for operation.
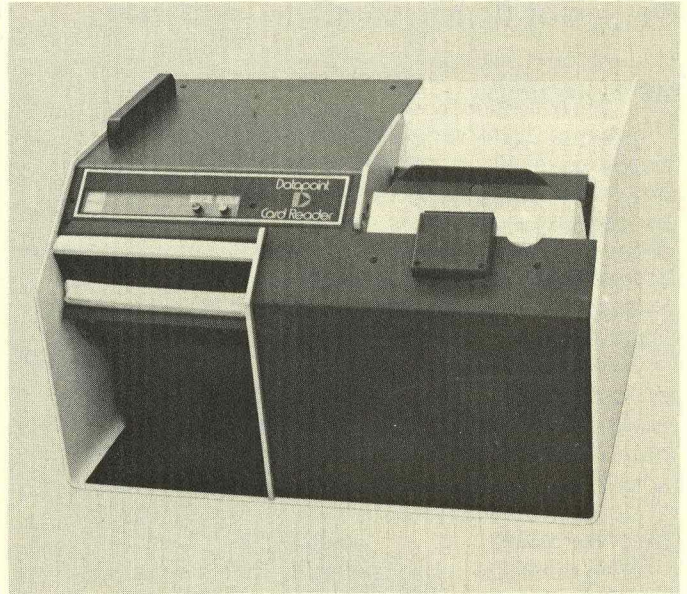
FUNCTIONAL CHARACTERISTICS

Program Commands
motor on
motor off
card feed

Device Status:
hopper check
card motion
device ready
read ready

Card Rate:
300 cpm

Card type:
80 column cards
ANSI x 3.11-1969
(no color requirements)

Capacity
input hopper 550 cards
output stacker 550 cards

Interface Requirements:
Direct connection to Datapoint processor
I/O Bus. No additional hardware is required.

PHYSICAL CHARACTERISTICS

Power Requirements
115 VAC, 50-60 Hz
230, 50-60 Hz

Dimensions:
Height: 11 inches (28cm)
Width: 19¼ inches (49cm)
Depth: 14 inches (35.5cm)
Weight: 60 lbs. (27.5kg)

Model Codes:
9504 Card Reader 50-60 Hz, 115 VAC
9524 Card Reader 50-60 Hz, 230 VAC

Datapoint Communications Adaptors

ASYNCHRONOUS

Internal data transfers in the Datapoint processors are in parallel form. Communications and many peripheral devices used in today's data processing operations require a serial start-stop data structure. The Asynchronous Communications adaptors provide this asynchronous serial data format and opens the Datapoint to many versatile applications.

The adaptors connect directly to the Datapoint processors and are completely under program control. No manual adjustments are present. Both data rate and character length can be program specified. Start and stop pulses are automatically added and subtracted from the transmitted or received data.

With the 9400 unit (no internal modem installed), a Bell Dataphone can be connected through a standard EIA cable which is supplied. The adaptors can also be connected to a wide variety of other devices which operate on asynchronous, start-stop data such as teleprinters, modems, and serial input printers.

For complete telephone communications capability, two other versions are available with Datapoint manufactured, Bell-compatible, 103 and 202 type modems. These digitally synthesized modems are located in the same box with the adaptor and allow the user to dial and answer on the standard telephone network without a handset present. All these operate under program control providing complete unattended calling and answering operations. Multidrop and polling operations can also be configured using this standard hardware. Auto-dial and auto-answer are standard features with these units. The devices interface to telephone lines via the Bell 1001 B Direct Access Arrangement.

If your system involves telegraph-line operations, a model is also available to handle neutral or polar high-level telegraph keying.

SYNCHRONOUS

A Synchronous communications format provides the Datapoint user with a highly efficient means of information transmission.

Start or stop bits are not used in synchronous transmission, therefore creating a higher data through-put than the asynchronous format. In effect, all of the data transmitted is useful information except for the control characters, which serve to direct the data flow between devices.

The synchronous adaptor connects directly to Datapoint processors with no other hardware required. The output attaches through a supplied cable to a Bell 201 Dataphone or other modem capable of handling synchronous data.

General Specifications
ASYNCHRONOUS ADAPTORS

Data Rate
37.5 to 9600 baud, programmable

Data Length
7-11 bit code, including start and stop programmable pulses

Interface
Connects directly to a Datapoint Processor I/O Bus

Codes
Any asynchronous

Data Format
Serial asynchronous, start-stop

Physical Specifications
(all communications adaptors)

Power
The Datapoint 2200 will supply power for up to two adaptors. More require auxiliary power supply.

Mounting
Wall, console, or stand-alone.

Dimensions
10.5 Wx15.5 Hx2.7 D (inches)
26.7cm x 39.4cm x 6.9 cm

MODEL CODE 9400
Serial Data Adaptor

Signal
RS232C level signal, full or half duplex

Rate
37.5 to 9600 baud, programmable

Connection
Teleprinters, Bell Dataphone®, other serial devices

MODEL CODE 9401
300 Baud Modem

Signal
Equivalent to Bell 103 Dataphone®

Rate
300 Baud (450-Baud max), full duplex

Operations
Auto-dial, autoanswer, direct connection

Connection
Bell 1001 B Direct Access Arrangement or private wire

MODEL CODE 9402
1200 Baud Modem

Signal
Equivalent to Bell 202 Dataphone®

Rate
1200 Baud (1800 Baud mix.), half duplex (full duplex using reverse channel for data)
150 Baud Reverse Channel

Operations
Auto-dial, auto answer, connect

Connection
Bell 1001 B Direct Access Arrangement or private wire

MODEL CODE 9403
High Level Keyer

Signal
Neutral or polar, high level keyer

Operation
Telegraph current loop keying

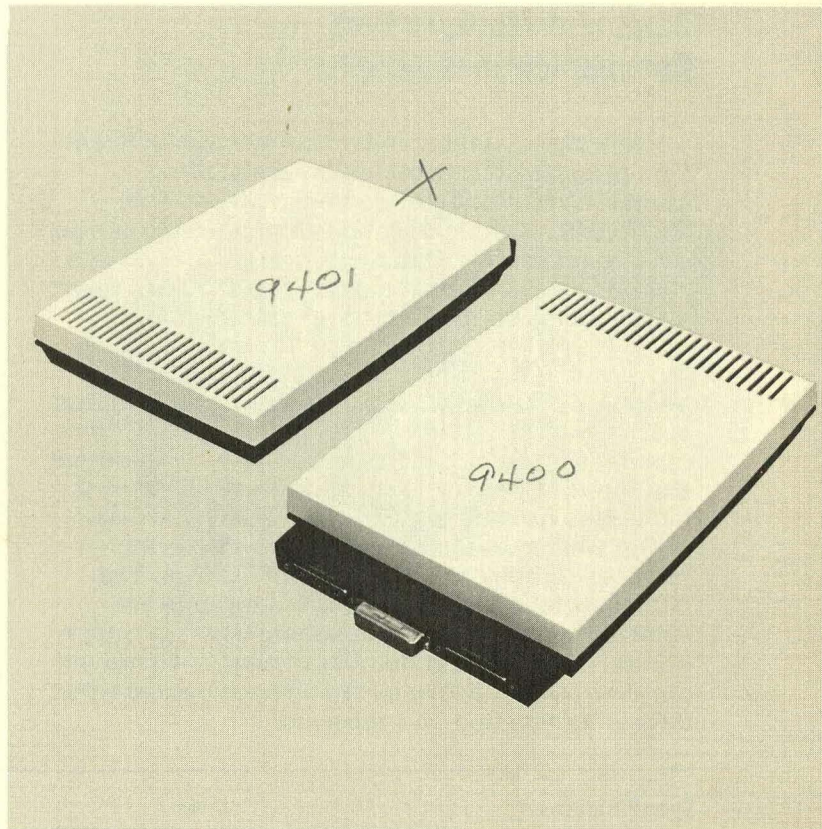**Connection**
Direct to telegraph line

The adaptor contains powerful hardware error-checking capabilities. Several formats are used with the ASCII and EBCDIC codes and the adaptor handles these within its own hardware. Polynomial, vertical redundancy (VRC), and longitudinal redundancy checking (LRCC) can all be accomplished by hardware.

For users with IBM Binary-synchronous hardware, the adaptor will also handle this discipline.

PARALLEL INTERFACE

Many useful data communication devices and associated peripheral equipment maintain communication linkage through parallel data transmission. Parallel transmission techniques enable these devices to transmit one word (byte) of information at a time as opposed to serial transmission techniques. In parallel communication, transmitted information is presented on a group of parallel communication wires, each wire corresponding to a single bit of the transmitted word.

The Datapoint 9420 Parallel Interface is designed to provide the most efficient and flexible parallel communication capability to the Datapoint processors. Users with applications involving interface to instrumentation will find the Parallel Interface useful for this purpose.

MODEL CODE 9404
Synchronous Data Adaptor

Data Format
Synchronous

Data Rate
Rate determined by modem used.

Codes
ASCII or EBCDIC (must be specified)

Interface
Connects directly to Datapoint processor via I/O Bus

Connection
Bell 201 series Dataphone® or other modem.

Operations
Polynomial error check, VRC, LRCC

MODEL CODE 9420
Parallel Interface

Data Input
8-wire Parallel Data
8-wire Parallel Status

Data Output
8-wire Parallel Data
8-wire Parallel Command Word
System Reset Strobe
Status Input Strobe
Data Input Strobe
External Command Strobe 1
External Command Strobe 2
External Command Strobe 3
External Command Strobe 4
Device Addressed Level

Data Output Levels
All data levels can be either positive or negative logic internal jumper.

Physical Description

The 9420 consists of one printed-circuit card mounted in the standard communications adaptor housing. The 9420 circuitry consists mainly of TTL MSI logic.

A Datapoint 9420 will provide power for up to two 9420 parallel interfaces. If additional interfaces are required, auxiliary power must be supplied.

Mounting
Wall, console or stand-alone

Datapoint Multiple Port Communications Adaptor

Many digital data communications systems and data processing devices utilize a start-stop asynchronous mode of communication. The Multiple Port Communications Adaptor 9460 can be used to interface a Datapoint processor with this serial form of communication. The 9640 has eight ports so that up to eight serial asynchronous channels can be interfaced to the Datapoint processor with a single external I/O device. The Multiple Port Adaptor converts the parallel I/O Bus data of the Datapoint processor into a serial form complete with start and stop bits. The serial output and input signal levels conform to the Electrical Industries Association RS-232-C specifications.

The 9460 is assigned a unique address and attaches directly to the Datapoint I/O Bus. The character length and number of stop bits are selected for each port independently via program control. The selected number of start and stop bits are then automatically added and subtracted when data is transmitted and received.
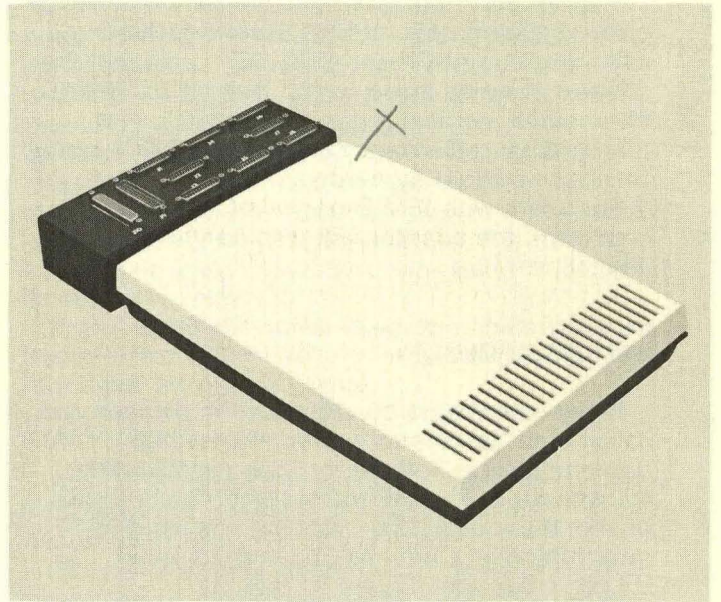
This adaptor connects to the Datapoint 2200 and 5500 processors and is commonly used with the Datashare system.

Specifications

Data Rate
Standard baud rates are 110,300 and 1200 baud, selected by wire jumpers on printed circuit cards.

Data Length
7-11 bit code, including start and stop programmable pulses

Interface
Connects directly to Datapoint processor I/O Bus

Channels
Eight serial input/output parts.

Codes
Any asychronous

Data Format
Serial asynchronous, start stop

Output Signal
RS-232-C compatible, full or half duplex

Connection
Serial asynchronous devices such as Bell Dataphone, Teletype, Printer, Terminal, etc.

Mounting
Wall, console, or stand-alone

Dimensions
10.5Wx18.0Hx2.7D (inches)
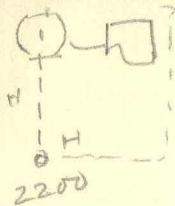26.7 cm x 45.7 cm x 6.86 cm

Power
The 9460 derives its power from the I/O Bus. A total of two 9460's can be powered from the I/O Bus with additional Multiple Port Adaptors requiring auxiliary power supplies.

Model Code
9460 Multiport Communications Adaptor
9462 Multiport Communications Adaptor with data set ready signal and parity check.

Datapoint Communications Power Supply Unit

The communications power supply unit is an enclosure designed to accomodate a maximum of 4 Datapoint Communications Adaptor Assemblies, interfacing to a single Datapoint Processor. Power for any permissable mis of Communications Adaptor Assemblies (including any associated Data Access Arrangements) is provided by the Communications Power Supply Unit. The enclosure can be wall or desk mounted.

This unit is used where multiple communications adaptors are required and the number to be used exceeds the power supply capability of the Datapoint processor.
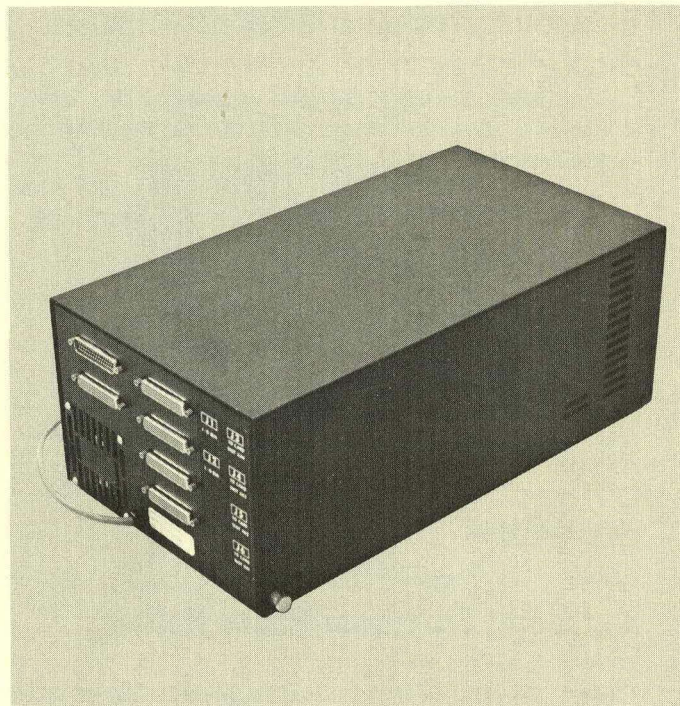
Physical Characteristics

Dimensions
Height: 6.75 inches (17.1cm)
Width: 10.0 inches (25.4cm)
Depth: 18.00 inches (45.7cm)
Weight: 28 lbs. (12.71 kg)

Model Codes:
9455 Communications Power Supply Unit.

Asynchronous Communications Adaptor, CCITT interface

Used primarily in the European and other communications networks, this Asynchronous Communications Adaptor allows the Datapoint processor to be interfaced to serial asynchronous modems conforming to CCITT Recommendation V. 24. In addition, the 9410 may be simultaneously used to control an automatic calling unit which conforms to the same recommendation.

The Asynchronous Communications Adaptor allows the Datapoint processor to be interfaced to serial asynchronous modems conforming to CCITT Recommendation V. 24. In addition, the 9410 may be simultaneously used to control an automatic calling unit which conforms to the same recommendation.

The Communications Adaptor converts the parallel I/O bus data of the Datapoint processor into a serial format complete with start and stop bits for transmission. Incoming serial data is converted back into parallel format for input. The automatic calling unit also operates under program control.

Physical Characteristics

Dimensions
Height: 2.7 inches (6.85cm)
Width: 10.5 inches (26.7cm)
Depth: 15.5 inches (38cm)

Power:
Derived from Datapoint processor

Model Code:
9410 Asynchronous Communications Adaptor CCITT interface.
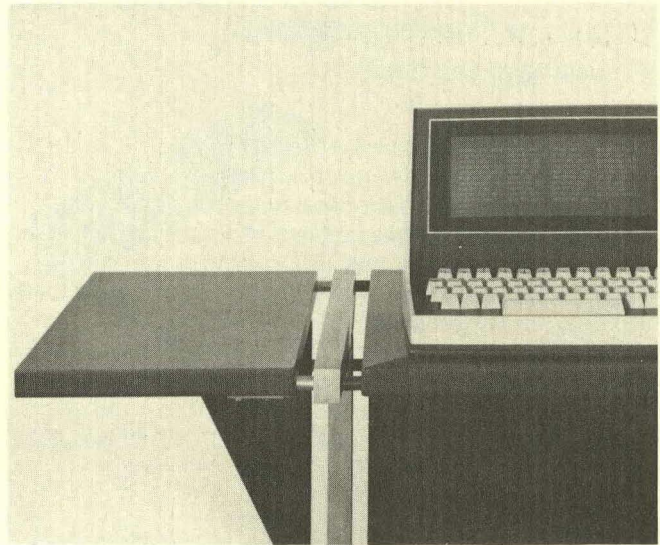
Datapoint Processor/Shelf Attachment

The 9052 shelf attachment increases the table width of a Datapoint console by ten inches. The shelf is the same depth as the table (22-11/16''). This additional work space may be attached with the provided screws to either end of any Datapoint console or stand-alone enclosure.

Technical Description

Dimensions
Width: 10 inches (25.4cm)
Depth: 22-11/16 inches (57.6cm)
Material: Plywood and Steel
Color: 2200 Brown

Model Code: 9052

Datapoint Processor/Paper Holder

The 9054 Paper Holder is designed to fasten to the front of the 2200 above the screen. It is useful for system operators who are either keying in or verifying data from source materials. Easy to attach or remove, the Paper Holder adds a highly desirable convenience to the systems operation.

Datapoint Table

The 9053 Datapoint Table is designed to match other Datapoint products. With a working space of approximately 8½ sq. ft., any Datapoint processor or periphial may be placed on it, thus making the table a useful addition to a work area.

Technical Description

Dimensions
Height: 28.50 inches (72.4cm)
Length: 53.06 inches (134.6cm)
Width: 22.69'' (57.6cm)

**Model Code: 9053**
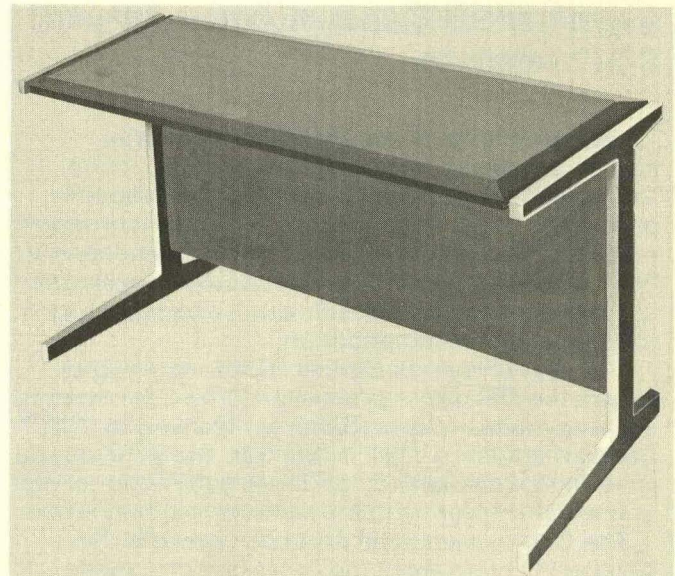
Datastation 3600

The Datastation 3600 is a low cost video terminal intended for use with the Datashare multi-terminal time-sharing system. In this application the 3600 communicates with a Datapoint 2200 or 5500 via the Multiple Port Communications Adaptor.

Screen capacity is 1920 characters formatted as 80 characters per line, by 24 lines. A full upper and lower case character set compatible with all the Datapoint processors is standard.

This terminal transmits and receives serial data in an interactive full duplex mode to and from the Multiple Port Communications Adaptor via direct connection or over telephone lines using Data Sets. The serial data is transmitted in ASCII format normally at 1200 baud.

The Auto-Tab feature of the 3600 extends flexibility by providing direct cursor positioning to any screen location from the Datashare program controlling the 3600 port.

A local printer may be connected to the 3600 such that data received by the 3600 may be selectively routed to the printer in addition to being displayed on the screen.
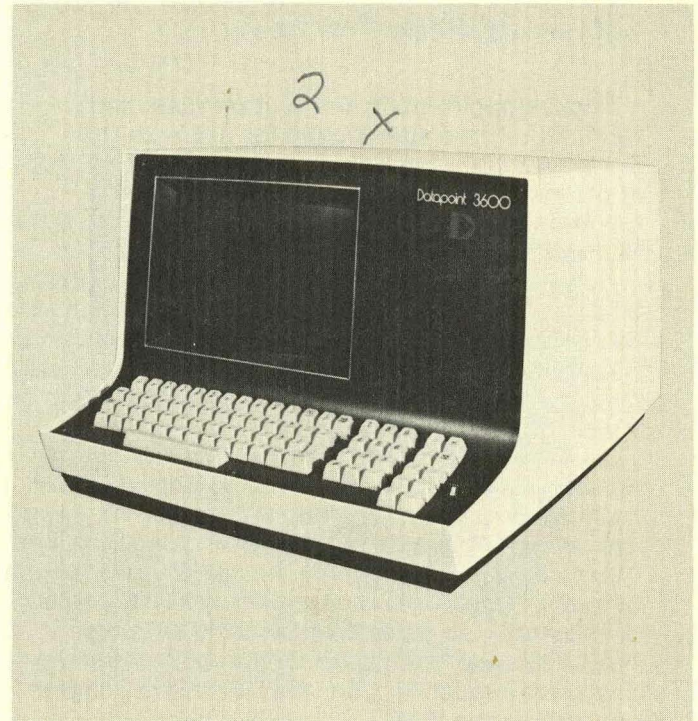
Functional Characteristics:

Screen Size
5'' x 7.9'' (12.7cm x 20cm)

Character Size
.146'' x .071 (3.7mm x 1.8mm)

Refresh Rate
50/60 cps (power line frequency)

Deflection Method
Raster Scan

Buffer Memory
1920 characters

Characters Per Line
80

Keyboard
Full upper and lower case ASCII Keyboard plus control keys featuring all-key rollover and 10 key numeric pad

Cursor
Flashing, on/off under program control positonable by program control

Code Type
Serial ASCII Start-Stop

Data Rate
1200 baud factory-set field adjustable to 110, 150, 220, 300, 440, 600, 2400, 4800, 9600 Baud Receive & Transmit speeds are independent

Electrical Interface
RS 232B (Data Set compatible in both socket and signal)

Power
115 VAC, 50-60 Hz
230 VAC, 50-60 Hz

Physical Characteristics

Dimensions
Width: 18'' (45.7cm)
Length: 19'' (48.3cm)
Height: 12'' (30.5cm)
Weight: 30 lbs. (16.5kg)

Cursor Controls
Home Up
Back Space
Line Feed
Carriage Return
Turn off Cursor
Turn on Cursor
Direct Cursor Position

Other Control Functions
Roll up
Bell Ring
Erase Screen to end of line
Erase Screen to end of frame
Printer control

Model Codes
3601 Datapoint 3600 Datastation - Datashare compatible

Datashare Video Terminal

The Datapoint 3502 is the upper-case only terminal offered specifically for use with the Datashare multi-terminal timesharing system. In this application the Datashare Video Terminal communicates with a Datapoint 2200 or 5500 via the Multiple Port Communications Adaptor.

Screen capacity is 2000 characters formatted as 80 characters per line, by 25 lines. In addition to the 80 characters per line, two addition characters can be printed at the left margin separated by a space from the main text and used for line numbering or indexing of the first 24 lines.

This terminal transmits and receives serial data in an interactive full duplex mode to and from the Multiple Port Communications Adaptor via direct connection or over telephone lines using Data Sets. The serial data is transmitted in ASCII format at one of four selectable baud rates (300,1200,2400, 4800).

The Auto-Tab feature of the 3502 extends flexibility by providing direct cursor positioning to any screen location from the Datashare program controlling the 3502.
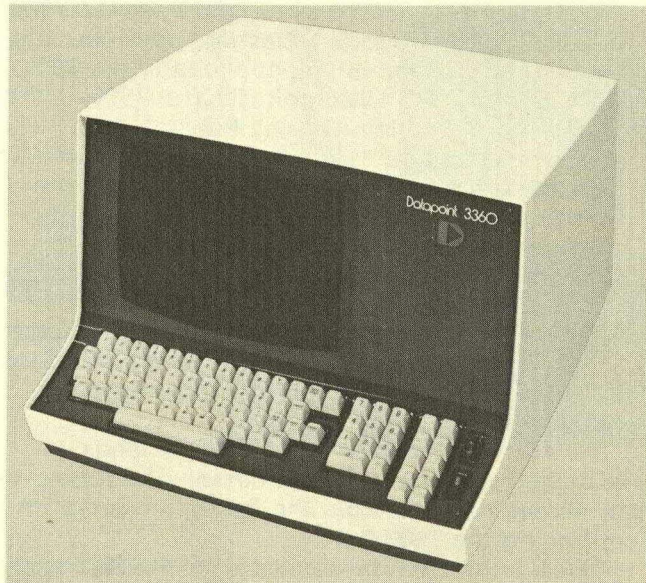
Functional Characteristics

Screen Size
Standard 12" rectangular tube

Character Size
.100" x .058"

Refresh Rate
50 60 cps (power line frequency)

Buffer Memory
2048 Characters

Characters Per Line
82

Keyboard
Full uppercase ASCII Keyboard plus control keys featuring "n"-key rollover and 10 numerics pad

Cursor
Flashing on off under program control remotely positionable

Code Type
Serial ASCII Start-Stop

Cursor Controls
Up Cursor
Down Cursor
Left Cursor
Right Cursor
Home Up
Back Space
Line Feed
Carriage Return
Turn off Cursor
Turn on Cursor
Direct Cursor Position

Data Rate
300, 1200, 2400, 4800 baud selectable

Electrical Interface
E.I.A. RS 232B (Data Set compatible in both socket and signal)

Other Control Functions
Bell Ring
Erase Screen to end of line
Erase Screen to end of frame

Physical Characteristics

Power
180 watts, 115 VAC or 230 VAC
   50 or 60 Hz

Dimensions:
Width: 18 inches (45.7cm)
Length: 18 inches (45.7cm)
Height: 14 inches (35.6 cm)
Weight: 48 lbs. (21.7 kg)

Model Codes:
3502 Datapoint Terminal, 115 VAC
3522 Datapoint Terminal, 230 VAC

OPT CASSETTE 2040
3240

Datapoint 3300® Interactive Terminal

The Datapoint 3300 is an interactive data terminal designed primarily for the computer time sharing user. Standard features of the 3300 include complete interchangeability with standard teletypewriter equipment, high-speed data transmission capabilities, a high capacity and flexible CRT display, easy to read characters, solid state construction throughout, modern styling, totally self contained and a 64-character set keyboard. A hard copy printer is optional.

The 3300 is intended primarily for use by the remote computer user who utilizes "dialogue" with a computer to arrive at a solution to a problem. Typically, this "interactive" user is an engineer, scientist or similar professional whose work requires substantial and immediate assistance from a computer. The 3300 will permit this user to tap the power of the remote computer more effectively.

The Datapoint 3300 screen can accommodate 25 full lines with 72 characters in each line — a total of 1800 characters in a single display. The characters displayed on the CRT are easy to read because of the 60-CPS "refresh" rate and line synchronization, which keep characters totally stable and distinct. The interactive user, through the keyboard, can add, correct, revise or delete any line or character. The large screen makes it possible for him to comprehend, in full, many problems in a single glance and where necessary to make modifications
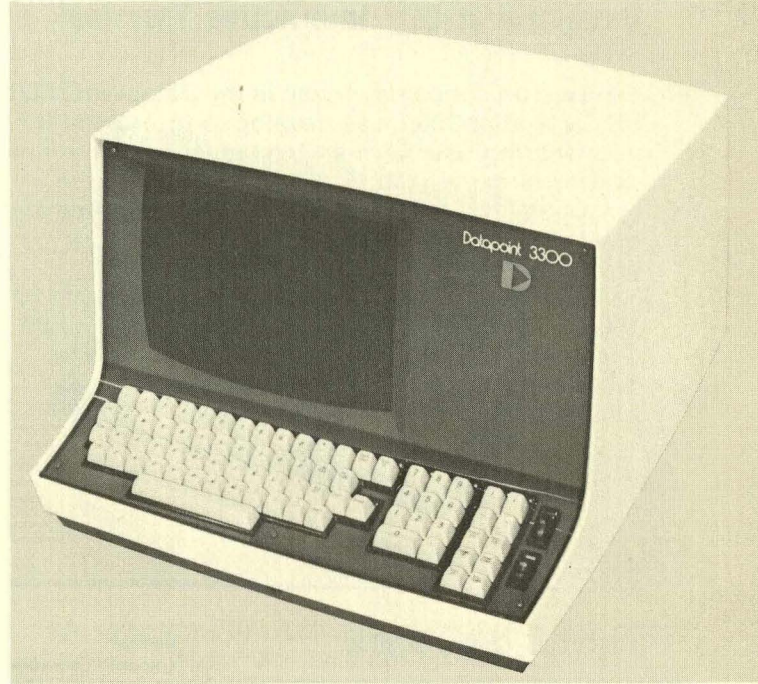
and revisions. Program debugging is greatly simplified. With the 3300, the remote computer becomes a much more flexible aid to human thought processes. Data transmission rates of up to 2400 bits per second are available on the Datapoint 3300.

Specifications

Screen size
Standard 12 inch rectangular tube

Character size
0.16 inchesx0.11 inches

Number of characters
1800

Characters per line
72

Number of lines
25

Refresh rate
60 CPS, line synchronized

Type of memory
MOS semiconductor

Power
115 VAC, 60 Hz, 180 watts

Keyboard
Electronic, with Model 33 Teletype layout including additonal controls and optional 10 key numerical entry n-key remover

Controls
Cursor: up down, left, right, home up, home down
Erase: to end of line, to end of frame
Frame roll: up, down
Power: on, off
Mode: remote-local select
Transmission: full duplex-half duplex select

Cursor
Flashing, remote or local control

Input/Output Data rate
110, 150, 220, 300, 440, 600, 880, 1200, 1760, 2400 Baud

Communication interface
RS 232B or current loop TTY (using 3110) ASCII 8-level start-stop code

Dimensions
Width: 18 inches (45.7cm)
Height: 14 inches (35.6cm)
Depth: 19 inches (48.2cm)
Weight: 48 lbs. (21.7kg)

Model Codes
3301 Interactive CRT Terminal
3102 Answerback option (factory-installed only)
3110 Telegraph Loop Keyer
3302 230 VAC, 50 Hz model (factory-installed only)
3112 Auto carriage-return/line-feed deletion kit
3113 Coded Cursor Key Kit
3114 Backspace Coding Kit
3115 Escape Key Coding Kit
3116 Space Over-write Latch Kit

Datapoint 3000® Interactive Terminal

Based on concepts proven in the Datapoint 3300, the Datapoint 3000 was developed to provide the time sharing user with an inexpensive, interactive display terminal with full-screen teletypewriter compatibility. The terminal is attractively styled and quiet enough to fit the most critical office environment.

The Datapoint 3000 operates at data rates of 110, 150, 220, and 300 bits/second (10, 15, 20, and 30 characters per second). A separate eleven-key number pad and ten function keys provide a functional keyboard arrangement.
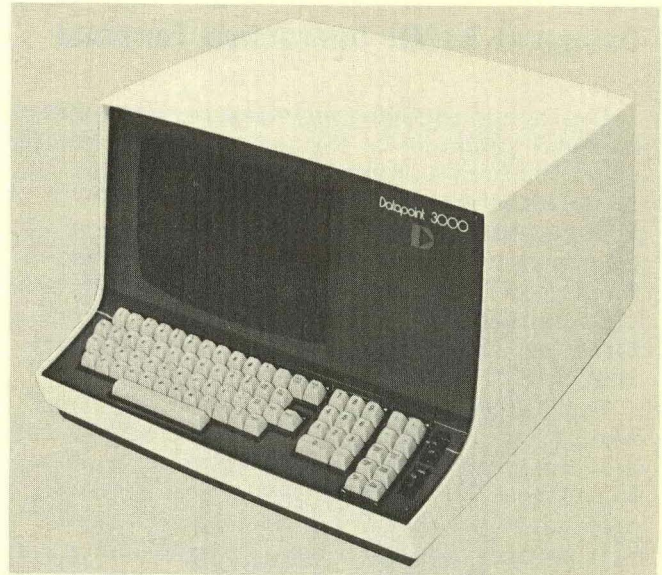
Functional Characteristics

Screen Size
12 inch rectangular tube

Character Size
0.16"x0.11"

Number of Characters
1800

Characters Per Line
72

Number of Lines
25

Refresh Rate
60 frames per second

Character Set (ASCII)
27 alphabetic
10 numeric
26 special

Controls
Cursor: up, down, right, left, home up, home down
Erase: to end of line, to end of frame
Frame roll: up, down
Power: on, off
Mode: remote/local
Transmission: full duplex/half duplex
Rate: 110, 150, 220, 300 bits/second

Physical Characteristics

Dimensions
Width: 18 inches (45.7cm)
Height: 14 inches (35.6cm)
Depth: 19 inches (48.2cm)
Weight: 48 lbs. (21.7kg)

Power Requirements
115 v.a.c., 60 Hz, 140 watts

Model Codes
3001 Interactive CRT Terminal
3102 Answerback option
    (factory-installed only)
3110 Telegraph Loop Keyer
3002 230 v.a.c., 50 Hz option
    (factory-installed only)
3112 Auto carriage-return/line-feed
    deletion kit
3113 Coded Cursor Key Kit
3114 Backspace Coding Kit
3115 Escape Key Coding Kit
3116 Space Over-write Latch kit
3200 80 Column Printer
3201 Print Control option for
    3001
3400 Data Coupler

Datapoint 3360®/Display Unit

The Datapoint 3360 video terminal is a systems oriented terminal, capable of 480 character-per-second operation. Screen capacity is 2000 characters, formatted as 80 characters per line, by 25 lines. In addition to the 80 characters per line, two additional characters can be printed at the left margin separated by a space from the main text and used for line numbering or indexing of the first 24 lines.

This terminal transmits serial data in an interactive or full duplex mode. In addition to the interactive mode, this terminal also has a block transmit mode capable of transmitting one complete line of data as a block. The block transmitted data is selected by positioning the cursor to the information desired on the screen, and block terminal is initiated by a control "B" received by the terminal.

The serial data is transmitted in ASCII format at one of four selected baud rates. The baud rate select switch is physically located on the back panel near the lower left corner of the terminal.

The terminal may be used where system requirements call for a computer-controlled buffered terminal. All operations with the 3500 must be on-line. No off-line operations are possible, as the terminal must operate in a full-duplex manner.
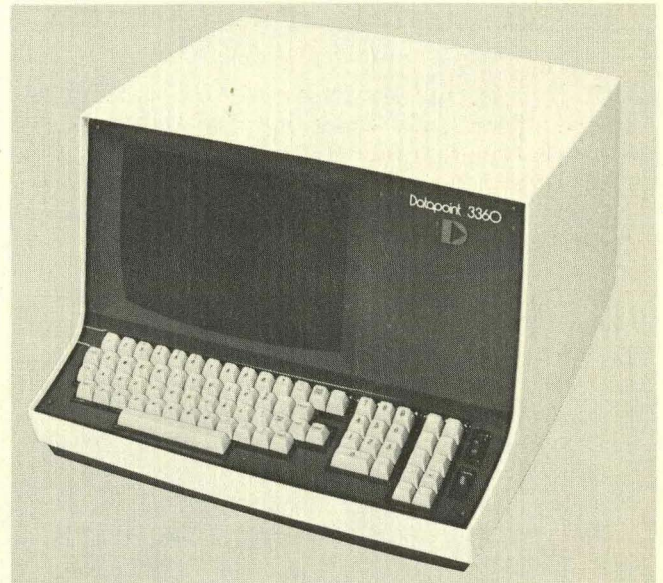
Many options are available for this terminal, one of which is Auto-Tab. This option extends the flexibility of the 3360 Terminal by providing direct cursor positioning to any location directed by program control. This option will also allow the terminal to search out and locate for program control the exact location of three separate and distinct symbols and multiple locations of these symbols.

Specifications

Terminal
Screen Size
Standard 12" rectangular tube

Character Size
0.16"x0.11"

Refresh Rate
60 cps, Line Synchronized

Buffer Memory
2000 Characters

Characters per Line
80

Number of Lines
24 (plus optional command line)

Keyboard
Full uppercase ASCII Keyboard plus control keys featuring "n"-key rollover and 10 key numerics pad

Cursor
Solid or Flashing, on/off under program control
Remotely positionable

Code Type
Serial ASCII Start-Stop

Data Rate
300, 1200, 2400, or 4800 baud selectable

Electrical Interface
E.I.A.-RS 232B (Data Set compatible in both socket and signal)

Power
180 watts, 115 VAC, 50 Hz, 60 Hz

Cursor Controls
Up Cursor
Down Cursor
Left Cursor
Right Cursor
Home Up
Back Space
Line Feed
Carriage Return
Turn off Cursor and Printer
Turn on Cursor
Direct Cursor position

Other Control Functions
Bell Ring
Start Printer
Block Transmit Line Cursor is on
Erase screen to end of line
Erase screen to end of frame

Physical Characteristics

Dimensions
Width: 18" (45.7cm)
Length: 18" (45.7 cm)
Height: 14" (35.6cm)
Weight: 48 lbs. (21.7kg)

Model Codes

3500 Datapoint 3360 Buffered Terminal, 115 VAC
3520 Datapoint 3360 Buffered Terminal, 230 VAC
3501 Automatic Tab option for 3500
    (Factory Installed only)

Datapoint Data Coupler

To provide the Datapoint user with a simple, low-cost Bell System compatible method of accessing the telephone network, Datapoint Corporation offers the Datapoint 3300/Data Coupler. The Coupler is compatible with the Bell System 103-type Dataphones® and operates in the originate mode.

The Data Coupler provides acoustical coupling to the telephone network through the handset of a Bell System 500-series telephone set, eliminating the need of any direct electrical connection. It operates at any data rate up to 300 bits per second in full or half duplex mode. A fully industry-compatible (Electronic Industries Association RS-232B) electrical interface for inter-connection to Datapoint terminals is provided. An additional output is also provided for use with auxiliary teleprinters or other devices.
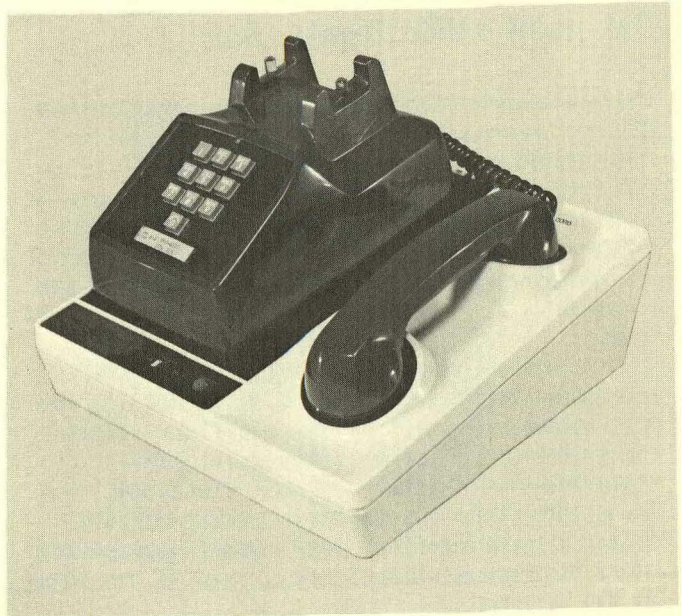
Functional Characteristics

Data Rate
Up to 300 bits per second

Modulation
Bell System 103 compatible, originate mode

Line Conditioning
Bell System DDD network lines
No special lines required

Transmission Mode
Full or half duplex

Line Interface
Acoustic coupling

Terminal Interface
EIA RS-232B

Auxiliary Interface
EIA RS-232B (Transmit only)

Operator Controls
Full-half duplex
Power on/off

Indicator
Carrier detection

Physical Characteristics

Dimensions:
Width: 11.75 inches (29.8cm)
Height: 4.5 inches (11.4cm)
Depth: 11.2 inches (28.4cm)
Weight: 4 lbs. (1.8kg)

Power Requirements
115 v.a.c., 60 Hz. 12 watts

Model Code
3400 Data Coupler

(handwritten) Anderson Jacobsen
Bell modem 103 C

Universal Data System
Vyadec

Split Baud
IN → 150 you
OUT 1200

Datapoint