DATA 100 Model 82 Remote Display Station

MANAGEMENT SUMMARY

On February 4, 1977, DATA 100 unveiled its latest terminal, the Model 82, a multifunction, clustered display terminal that emulates the BSC version of the IBM 3271 Information Display System. The Model 82 supports on-line file inquiry and data entry applications and can include as many as 16 1920-character or 32 480-character screen display stations, and as many as 8 62-, 125-, 225-, or 300-lpm belt printers. The terminal can accommodate any mix of printer models, but all display stations must have the same display capacity. The IBM 3271 emulator program and terminal diagnostics are diskette-resident and are loaded from an integral diskette drive. The diskette, however, is not available to the user.

Introduced as a multifunction terminal, the Model 82 can be linked with a second processor—which can be a second Model 82, or Model 78, or a Model 74 Keybatch terminal controller. In the dual-controller configuration, both controllers share the attached display stations, and each display station operates independently of all others; i.e., the keystation operator can switch-select either controller. The controllers can operate concurrently and independently as two separate terminals. With this arrangement, a keystation can perform on-line functions, accessing one or two application programs in the same or two different host computers by switching between two Model 82 Controllers, or can perform both on-line and off-line functions (by switching between a Model 82 and a Model 74 or 78), such as off-line data entry, file manipulation, and remote batch processing. Moreover, the second controller can act as back-up to the first in case of failure.

A replacement for the IBM 3270 Information Display System for on-line file inquiry or data entry; supports up to 32 display stations and 8 printers. Off-line batch processing, data entry, and file manipulation are also supported via a dual-processor arrangement.

Features include 480- or 1920-character screen capacity, upper and lower case alphabetic display, transmission rates of up to 9600 bps, BSC/EBCDIC protocol, 5 keyboard styles, four belt printer models with rated speeds ranging from 62 to 300 lpm, and processor sharing of individual display stations via operator selection.

A basic 8-station terminal with 1920-character displays, but without printers, leases for $1,267 per month, including maintenance, on a one-year lease.

A 16-station terminal (1920-character screens) with 8 300-lpm printers and the 9600-bps option leases for $5,787 per month, including maintenance, on a one-year lease.

CHARACTERISTICS

VENDOR: DATA 100 Corporation, 6110 Blue Circle Drive, Minnetonka, Minnesota 55343. Telephone (612) 941-6500. Mailing Address: P.O. Box 1222 Minneapolis, Minnesota 55440.

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Model 82 complements DATA 100's current family of products, which until now have supported off-line data entry and remote batch operation. DATA 100 currently has 25 percent of the total remote batch terminal market and is second only to IBM; and its market is growing at a rate of 15 to 20 percent per year. DATA 100 plans to introduce stand-alone processing with RPG II and disk-based sort/merge capabilities for its new Model 80 family within 1977. □

DATE OF ANNOUNCEMENT: February 1977.

DATE OF FIRST DELIVERY: 1st quarter 1977.

NUMBER INSTALLED TO DATE: About 5.

SERVICED BY: DATA 100.

CONFIGURATION

Model 82 is available in single- and dual-controller configurations. The single-controller configuration is composed of the Model 82 System Controller which contains processor, memory, a synchronous communications adapter (SCA), and an integral diskette drive (single drive); up to 32 480-character (screen capacity) display stations or up to 16 1920-character display stations; and up to 8 printers. The 480- and 1920-character screens cannot be mixed. The printers can be located locally (up to 50 feet from the controller) or remotely (up to 2000 feet from the controller). Any mix of local and remote printers is acceptable.

The dual-controller configuration consists of a Model 82 controller and a second Model 82 controller, or a Model 78 or 74 Keybatch controller. Each display station can be independently switched to either controller via the optional Display Station Switch (located within the Model 82 Controller); each Display Station Switch accommodates one to four display stations. A keyboard switch at each keystation provides switch-selection of either controller. Both controllers within a two-controller configuration can operate independently and concurrently. Peripheral devices can be switched between controllers and shared by either controller via a peripheral selector, one selector handles four devices.

TRANSMISSION SPECIFICATIONS

Transmission is synchronous in the half-duplex mode at speeds of 2000 to 4800 or 9600 (optional) bits/second. IBM BSC protocol is employed, and the Model 82 is transmission compatible with the IBM 3271 controller.

The 8-level EBCDIC transmission code is used, and the controller is equipped with an RS-232C interface. The transmission parameters and 3271 protocol are a function of the emulation program. Point-to-point and multipoint transmission is supported.

The full line of DATA 100 communications accessories are available for the Model 82. These include the Dual Modem Switch (for switching the terminal between two communications, facilities) and Modem Pair Simulators (limited distance modems for private line use at distances of up to 5 miles).

DEVICE CONTROL

The Model 82 Remote Display System operates under the control of the application program stored at the host computer. All terminal operations are controlled by the diskette-based IBM 3271 emulation program, which emulates all functions of the IBM 3270. Under the emulator, all display stations operate in an interactive mode with the host computer.

When operating in a dual-processor environment, each display station is shared by the two controllers and can be independently switched by the operator to operate as a keystation on either terminal controller. In this arrangement, a keystation can access two application programs (one per Model 82 controller) via one or two host computers to perform on-line data entry or file inquiry operations. Multifunctional tasks can be performed when the second controller is a Model 78 or 74 Keybatch system. A keystation can be used for on-line data entry and file inquiry as an IBM 3277 display station (via the Model 82 controller), as well as for off-line batch processing or data entry/file manipulation when operating as a keystation with a Model 78 or 74 Keybatch system.

Keystation functions include full cursor control, cursor addressability, editing, tabulation, and program function keys.

Cursor controls position the cursor up, down, left, right, home, or return to the beginning of the line. The cursor can also be tabbed to the next unprotected data field.

Edit controls include character insertion and deletion and field, line, and screen erasure.

Program Function keys are used to initiate program-defined functions.

COMPONENTS

KEYSTATION: A keyboard/display unit equipped with a 14-inch (diagonal measurement) CRT screen with a viewing area 9½ inches wide by 12 inches high and a detachable keyboard. Five keyboard styles are available: typewriter, data-entry, keypunch, keybatch/typewriter, and keybatch/keypunch. The typewriter-style keyboards provide 12 Program Function keys; data entry and keypunch styles provide 5 Program Function keys as a standard feature.

Either of two display arrangements are available:

Characters/display:	1920	480
Lines/display:	24	12
Characters/line:	80	40

A character set of 96 ASCII characters including upper and lower case alphabetics, numerics, and special symbols is displayed in white at half- or full-intensity as programmed. Each character is formed via a 7-by-9 dot matrix. The cursor is displayed as a blinking underscore.

LINE PRINTERS: Four models of belt printers are available with rated speeds of 62, 125, 225, or 300 lines/minute. Each printer provides 132 print positions.

The following characteristics are common to all printers. The character set contains 63 EBCDIC print symbols. Horizontal spacing is 10 char./inch; vertical spacing is 6 or 8 lines/inch. Pin-fed, continuous forms with up to 6 parts and from 4 to 16 inches wide are accommodated. Vertical formatting, implemented via a multichannel tape loop, is standard. Horizontal tabulation, implemented via a stored horizontal format record composed of space characters interspersed with horizontal tab character, is also standard.

PRICING

DATA 100's Model 82 Remote Display System is available for lease or purchase. Lease terms include installation and

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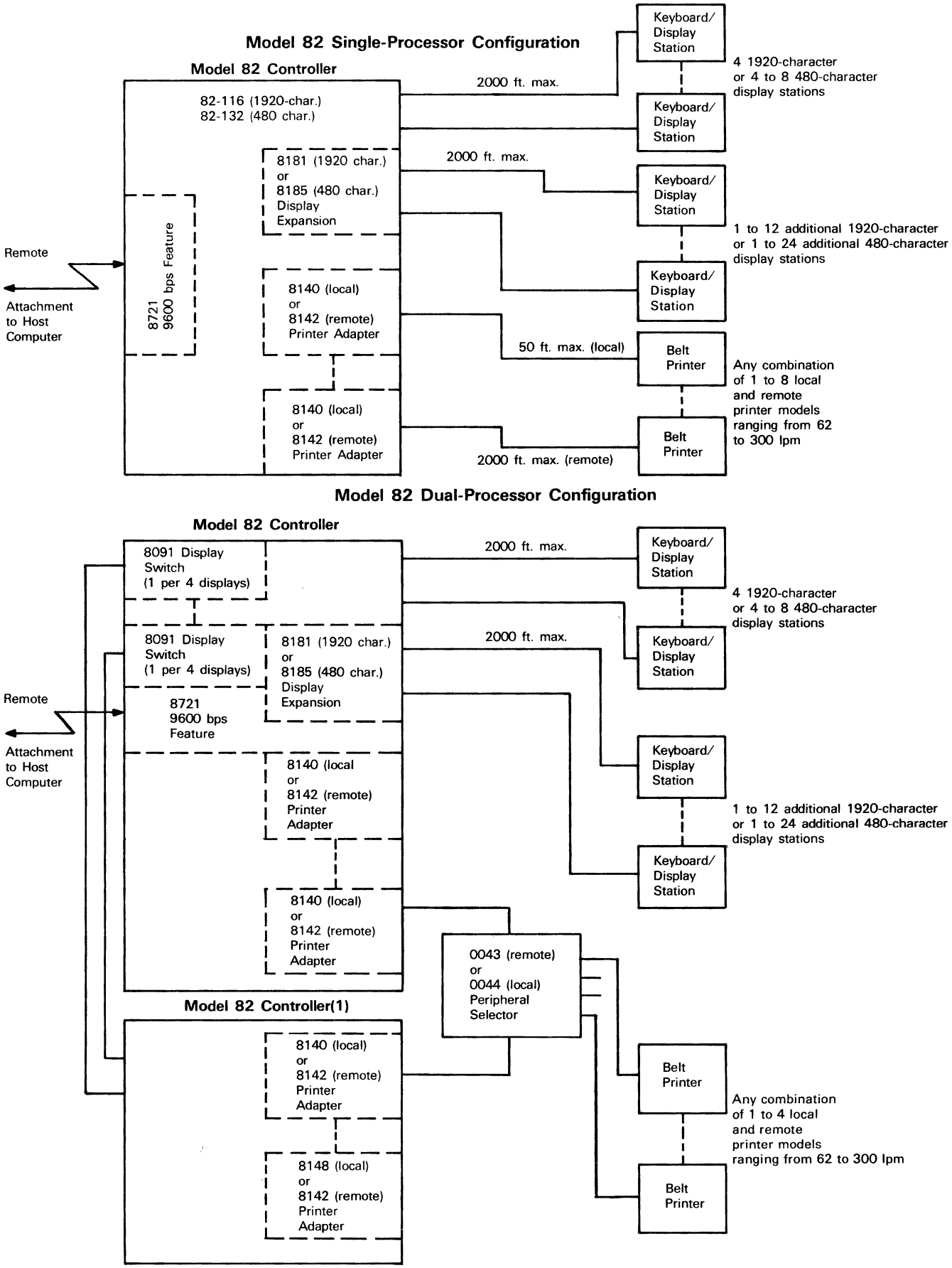

(1) Model 74 or 78 Keybatch Controllers can also be used as the second controller; see text.

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prime-shift maintenance. A separate maintenance contract is available for purchased units. Leases are available for 1 year, 3½ years (42 months), or 5 years. The investment tax credit is passed on to the customer for purchased equipment.

DATA 100 also offers deferred purchase plans for the Model 82. These plans permit the user to own his equipment by making consecutive monthly payments equal to the monthly payments charged for the equipment under a 1-year lease.

		Monthly Charge*				
		1-Year Lease	42-Month Lease	5-Year Lease	Purchase	Monthly Maint.
82-116	Remote Display Control Unit (includes controller for four 1920 char. displays; diskette for program loading; SCA to 4800 bps; four 8784 Display Stations and 878X keyboards; and system security keylock)	$718	$632	$589	$24,108	$144
82-132	Remote Display Control Unit (includes controller for four to eight, 480 char. displays; diskette for program loading; SCA to 4800 bps; four 8784 Display Stations and 878X keyboards; and system security keylock)	693	610	568	23,310	139
8181	1920 character Display Expansion Feature (supports 5th-16th displays)	149	131	122	4,998	30
8185	480 character Display Expansion Feature (supports 9th-32nd displays)	130	114	107	4,368	26
8784	Display Station (480 or 1920 characters)	90	79	74	3,024	18
8785	Keyboard (typewriter style)	10	9	8	336	2
8786	Keyboard (keypunch style)	10	9	8	336	2
8787	Keyboard (data entry style)	10	9	8	336	2
8788	Keyboard (Keybatch/typewriter style)	10	9	8	336	2
8789	Keyboard (Keybatch/keypunch style)	10	9	8	336	2
8140	Local Line Printer Adapter (1 per printer)	40	35	33	1,386	7
8142	Remote Line Printer Adapter (1 per printer)	40	35	33	1,386	7
82-420	Local Belt Printer and Controller; 62 lpm, 132 Col.	170	150	140	5,880	30
82-421	Remote Belt Printer and Controller; 62 lpm, 132 Col.	170	150	140	5,880	30
82-418	Local Belt Printer and Controller; 225 lpm, 132 Col.	345	304	283	12,306	52
82-419	Remote Belt Printer and Controller; 225 lpm, 132 Col.	345	304	283	12,306	52
82-422	Local Belt Printer and Controller; 125 lpm, 132 Col.	260	229	213	9,072	44
82-423	Remote Belt Printer and Controller; 125 lpm, 132 Col.	260	229	213	9,072	44
82-424	Local Belt Printer and Controller; 300 lpm, 132 Col.	420	370	344	15,204	58
82-425	Remote Belt Printer and Controller; 300 lpm, 132 Col.	420	370	344	15,204	58
8721	9600 bps Data Transmission Feature	40	35	33	1,260	10
8091	Display Station Switch and Controller (1 per 4 display stations)	40	35	33	1,260	10
8778	Display Station Keylock	25**	25**	25**	25**	—
0043	Peripheral Selector (2000 feet)	50	46	39	1,848	6
0044	Peripheral Selector (50 feet)	50	46	39	1,848	6
8779	Display Station Table	—	—	—	280	—

*Includes maintenance.
**One time charge.
Cables are priced at $0.15 per foot.■

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