

IBM 3191 DISPLAY STATION

Contents

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Brief Description of Announcement, Charges, and Availability

The 3191 Display Station is a new member of the 3270 Information Display System. The 3191 is an attractively priced, 1,920 character, 12-inch monochrome CRT with a smudge-resistant screen that is available in green or amber-gold phosphor.

The 3191 is offered with a three-year warranty in the following combinations:

- o Model A10 - 122-key typewriter keyboard, green phosphor
- o Model B10 - 122-key typewriter keyboard, amber-gold phosphor
- o Model A20 - IBM Enhanced Keyboard (102-key), green phosphor
- o Model B20 - IBM Enhanced Keyboard (102-key), amber-gold phosphor

The 3191 can be attached to the IBM 3174, 3274, or 3276 via a Type A adapter, the IBM 4701 or 4702 via the DCA adapter, the 4321, 4331, via the Display/Printer Adapter, or 4361 systems via the Display/Printer or Workstation Adapter.

Purchase Price: \$1,295

Planned Availability Date: June 1986

Customer Letter Section

HIGHLIGHTS

- o Improved price/performance
 - Low price with discounts for volume procurement
 - New three-year warranty
 - Alert function for maintenance
- o Compatibility

- IBM 3270 compatible
- o Screen Characteristics
 - 1,920 character screen (80 columns by 24 rows) plus operator information area
 - Larger character size than IBM 3178
 - Non-glare, 12-inch monochrome CRT with steady image
 - Available in green or amber-gold phosphor
 - Auto-dim feature
- o Keyboards
 - IBM 122-key typewriter keyboard (modifiable)
 - IBM enhanced keyboard (102-Key)
 - Coiled keyboard cable
 - Home row indicator keys
- o Ergonomics
 - Smaller, lighter weight video unit
 - Tilt/swivel pedestal
 - Small footprint
 - Low-profile keyboard with two angles of inclination

DESCRIPTION

The 3191 is a high-quality, monochrome CRT display station used in cluster configurations with the 3174, 3276, or 3274 for displaying alphanumeric data, and for entering data into and receiving data from System/360, System/370, 43XX, 303X, 308X, and 3090 Processors. It also attaches to the 4701 and 4702 via the Device Cluster Adapter and 43XX systems via the Display Printer Adapter or the 4361 via the Workstation Adapter. The System/8100 also supports the 3191 in alphanumeric mode when attached via 3274. The 3191 supports 1,920 characters in 80 columns by 24 rows.

The 3191 consists of the following workstation elements:

	Models			
	A10	B10	A20	B20
Video (green)	X		X	
Video (amber-gold)		X		X
Logic	X	X	X	X
IBM 122-key typewriter keyboard	X	X		
IBM enhanced keyboard			X	X

Pedestal	X	X	X	X
Power cord 2.8 meters (9.0 feet)	X	X	X	X
Video cable	X	X	X	X

- o A typewriter style keyboard with either 102 keys on the IBM Enhanced Keyboard or 122 (modifiable) keys on the typewriter keyboard provide 24 program function keys, a numeric pad, and cursor-move keys.

A keyboard definition utility is supported in the 3191 to allow definition of customer-specific 122-key typewriter keyboard layouts. A key cap removal tool is standard so that key caps can be changed conveniently.

- o The response time monitor, alert capability and entry assist are supported on the 3274 with configuration support D and the 3174.
- o Audible alarm, auto-dim, and security keylock are standard. Security key is removable in both lock and unlock positions.
- o Low-profile keyboard provides two angles of inclination (6 or 12 degrees) with coiled cable.
- o Screen Characteristics
 - The 12-inch CRT monochrome (green or amber-gold) display provides a bright, steady presentation of 720 x 384 picture elements in a viewable area of 220 mm (8.6 inches) by 143 mm (5.6 inches).
 - The etched, enhanced contrast CRT screen is designed to reduce light reflections and fingerprint smudges to produce high-quality, high-resolution output.
- o The video pedestal, a standard feature, provides 19.4 degrees of tilt (plus 15 degrees to minus 4.4 degrees) and 180 degrees of swivel (plus or minus 90 degrees from the center position) to enable the display to be individually positioned.
- o Through the use of error indicators, offline tests and the Customer Problem Solving Guide, the customer may isolate a failing element for exchange or replacement.

PUBLICATIONS

- o The following publications are available:
 - IBM 3191 Display Station Description (GA18-2457)
 - IBM 3191 Display Station User's Guide (GA18-2454)*

- IBM 3191 Display Station Set-up Instructions (GA18-2458)*
- IBM 3191 Display Station Problem Solving Guide 1 (GA18-2455)*
- IBM 3191 Display Station Problem Solving Guide 2 (GA18-2456)*
- IBM 3191 Display Station Repair Center Maintenance Information (SY18-2152)

* A copy will be shipped with each machine.

SCHEDULE

Planned general availability is June 1986.

TECHNICAL INFORMATION

SPECIFIED OPERATING ENVIRONMENT

- o Air Temperature
 - 10 degrees to 40.6 degrees C (50 degrees to 105 degrees F)
- o Humidity
 - 8 - 80% RH
- o FCC Class: C

Operating environments of configurable input/output (I/O) units are different.

SYSTEM ATTACHMENT: The 3191 attaches to 360, 370, 43XX, 303X, 308X, and 3090 series processors via the 3174, 3274, or 3276. It also attaches to System/8100 via a 3274. Attachment is by the same type of coax cable that is used to attach an IBM 3178, 3179 Model 1, 3180 Model 1, 3278, or 3279. Attachment may also be made by twisted-pair cable that has been approved for display attachment.

SOFTWARE SUPPORT: The 3191 is data stream compatible with the 3178. All host programs that operate with the 3178 will operate with the 3191 in the same way.

COMPATIBILITY AND MIGRATION: The 3191 is data stream-compatible with today's 3178 displays in alphanumeric application environments.

The 3191 will accept 3270 data streams and will run existing alphanumeric applications unmodified in their current screen size. No programming changes are required of current alphanumeric applications unless required functions are not available with the 3191 (for example, magnetic readers, light pen, encryption/decryption, or unsupported screen sizes).

PREREQUISITES: The 3191 Models A10 and B10 in emulation mode (emulating the 3278 Model 2) must be attached to one of the following:

- o IBM 3274 Control Unit Model 1A, 1B, 1C, 1D, 21A, 21B, 21C, 21D, 31A, 31C, 31D, 41A, 41C, 41D, 51C, or 61C
- o IBM 3174 Models 1L, 1R, 2R, 3R, 51R, 52R, or 53R
- o 3276 Model 2, 3, 4, 11, 12, 13, or 14
- o 4321 (Display/Printer Adapter)
- o 4331 (Display/Printer Adapter)
- o 4361 (Display/Printer Adapter or Workstation Adapter)
- o 4701 Finance Communication Controller (Device Cluster Adapter)
- o 4702 Branch Automation Processor (Device Cluster Adapter)

The 3191 Models A10 and B10 in native mode must be attached to the 3274 Control Unit with configuration support D, microcode Release 63 or higher. This level of support is also required for changing the layout of the 122-key typewriter keyboard.

The 3191 Models A20 and B20 operate in native mode only and must be attached to an 3274 Control Unit (with configuration support D, microcode Release 65 or higher and 3274 RPQ #7L0825).

The 3191 Models A20 and B20 operate in native mode with the new 3174 Control Unit.

LIMITATIONS: The following are not available:

- o RPQs
- o Magnetic reader control and accessories
- o Monocase switch
- o Selector light pen
- o Video output

For model limitations, see the Prerequisites section.

The following items should be taken into consideration when selecting the 3191 keyboard:

- o 122-Key Typewriter Keyboard
 - Only keyboard available for 3276, 47XX, 43XX, and 3274s with configuration support A, B, or C.
 - Only option if modification of keyboard is a requirement.
 - The 3274 must have configuration support D for modification of keyboard.
 - Similar layout to the IBM 3179, 3180, 3290, and 3270-PC.
- o 102-Key Enhanced Keyboard
 - Requires configuration support D on 3274s Release 65 or higher and RPQ 7L0825.

PLANNING INFORMATION

CUSTOMER RESPONSIBILITY: The 3191 is designated as a customer set-up (CSU) machine. A detailed copy of the set-up instructions (GA18-2458) will be shipped with the machine.

Customers are responsible for all modifications they make to the IBM 3191 keyboard.

Customers are responsible for handling any keyboard changes necessary in the event of a maintenance action. That is, the customer should remove all special key caps prior to submitting a keyboard for exchange. A keyboard with the standard layout will be returned to the customer.

PHYSICAL PLANNING: See the IBM 3191 Display Station Description (GA18-2457) for detailed physical planning information.

POWER RATINGS AND LINE CORD: Power - 120V AC, 1-phase, 3-wire, 60Hz; a 2.8 meter (9.0 foot) line cord with non-locking plug is available as standard. A 1.8 meter (6 foot) line cord with non-locking plug is also available.

PERFORMANCE: The 3191 will have performance characteristics equal to or better than other 3270 display stations.

For more information, contact your IBM marketing representative.

SECURITY, AUDITABILITY, AND CONTROL

Data security functions provided by the 3191 are non-display field control (specified in the attribute byte) and the security keylock. User management is responsible for implementation of these functions.

If sensitive data is sent over external communications facilities, user management may wish to pursue the application of cryptography. For more information on data security controls, see Data Security Controls and Procedures (G320-5649).

TERMS, CONDITIONS, AND CHARGES

TERMS AND CONDITIONS

PRODUCT AVAILABILITY STATUS: New product available

ELIGIBLE MACHINE UNDER ALTERNATIVE CERTIFICATION FOR IBM MACHINES:

Yes

CUSTOMER SET-UP: Yes, one day.

VOLUME PROCUREMENT AMENDMENT (VPA): Customers who currently have an IBM Workstation VPA Exhibit 32WS in effect may purchase the 3191 and receive the discount available under Category A, Discount Group 3.

Customers who currently have an Information Display System VPA Exhibit #3270 in effect may purchase the 3191 and receive the discount available under Category B. (The 3178 Discount Table in 3270-12 or later exhibits does not apply to 3191 commitments.)

For further information regarding volume orders, contact your IBM marketing representative.

EDUCATIONAL ALLOWANCE: An educational allowance of 15% is available to qualifying institutions in accordance with the Educational Allowance Amendment. The educational allowance is not additive to any other discount or allowance.

WARRANTY PERIOD: Three years

TYPES OF SERVICE:

- o Warranty
 - IBM On-Site Exchange (IOE)
- o IBM Maintenance Agreement
 - IBM On-Site Exchange (IOE)
 - Customer On-Site Exchange (COE)

HOURLY/EXCHANGE SERVICE: IBM On-Site Exchange hourly service is available at IBM's hourly service rates, one hour minimum, machine element exchange price and travel expense.

IBM Customer Carry-In Repair hourly service is available through IBM Service/Exchange at the applicable machine element exchange price.

REPAIR IDENTIFICATION TAG: The repair identification tag is used to identify each element (logic, video and keyboard) of all element exchange products. The repair identification tag is used by IBM for service entitlement. Only the type and serial number of the product is stored in IBM's entitlement system. Therefore, the repair identification tag is used to tie the logic, video, and keyboard elements to the product type and serial number.

The required number of repair identification tags are attached to one of the elements when it is shipped from the factory. The repair identification tags must be removed from this element and installed on each element during initial set-up. Detail information

on where to install the repair identification tags is contained in the Display Station Set-Up Instruction Manual which is shipped with each element exchange product. Please refer to the set-up manual for the exact location of the repair identification tags.

ON-SITE ASSISTANCE: If the customer desires on-site assistance to perform Customer Problem Analysis and Resolution (CPAR) or customer set-up, the customer calls the Service/Exchange Communication Center at (800) 428-2569. IBM will assist the customer on-site in performing problem solving procedures using the same documentation available to the customer. All on-site assistance is provided at an hourly service basis at the applicable hourly rates and terms.

MACHINE GROUP: A

IBM HOURLY SERVICE RATE CLASSIFICATION: 1

PRE-INSTALLATION TEST ALLOWANCE: None

IBM CREDIT CORPORATION FINANCING: IBM Credit Corporation term leases and installment payment plans are available.

CHARGES

Model	Purchase Price*	Annual Minimum Maintenance Charge	
		IBM On-Site Exchange (IOE) (#9830)	Customer On-Site Exchange (COE) (#9824)
A10	\$1,295	\$40	\$30
B10	1,295	40	30
A20	1,295	40	30
B20	1,295	40	30

Note: For 3191 Display Stations installed in Chicago, specify no-charge feature code #9986 for a six-foot power cord.

* Upon request, the 3191 is available with a three-month warranty at the purchase price of \$1,235. The type of warranty service is IBM On-Site Exchange. For further information about ordering, contact your IBM marketing representative.

Machine Element Charges:

	Purchase and
Part	Element

Description	Number	Exchange Price
Video (green)	67X0217**	\$290
Video (amber-gold)	67X0150**	290
Logic	6238033	650
IBM Enhanced Keyboard	1390123	295
122-key typewriter keyboard	1390238	295
Pedestal	6238060	20
Line cord - 2.8M (9 foot)	6952297	10
Line cord - 1.8M (6 foot)	6952298	10
Video cable	6165557	30

** These elements will not be available until August 1, 1986

Accessories:

	Part Number	Purchase Price
Switch Control Unit	6052157	\$85
Clear Lens Keycaps/Paper Inserts/Removal Tool	6341707	50
Blank Keycaps (Light) and Removal Tool	1351710	25
Blank Keycaps (Dark) and Removal Tool	1351728	25
Keycap Removal Tools (6)	1351717	11
Paper Inserts (150 Light and 150 Gray)	6341704	30
Data Entry Keycap Kit (U.S. English)	1351741	30
3178 Model 2 Keycap Kit	1351742	30
3178 Model 3 Keycap Kit	1391244	30
Blank Keyboard Overlay for Model A10 or B10	6341703	40
Blank Keyboard Overlay for Model A20 or B20	6238058	40
Set-up/Ext Sel Overlay for:		
Model A10 or B10	6342112	40
Model A20 or B20	64X9937	40
Key Blanks for Security Keylock+ (10)		

for keys labelled

A00-A99	6238059	5
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for keys labelled

D00-D99	64X9944	5
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+ Duplicate keys may be made locally from these key blanks.

Customers may order accessories by calling IBM Direct Response Operations at 1-800-IBM-2468.
