

GA27-2849-7  
File No. S360/S370/S3/4300/8100-09

**Systems**

**IBM 3270  
Information Display System  
Configurator**



### **Eighth Edition (January 1981)**

Information in this publication is subject to change. This edition, GA27-2849-7, will continue to apply to the 3271 and 3272 Control Units, the 3275 Display Station, the 3284, 3286, and 3287 Printers, and the 3288 Line Printer. For *current* information about the other 3270 system units, use the publication *IBM 3270 Information Display System Feature Description*, GA23-0113.

It is possible that this material may contain reference to, or information about, IBM products (machines and programs), programming, or services that are not announced in your country. Such references or information must not be construed to mean that IBM intends to announce such IBM products, programming, or services in your country.

Publications are not stocked at the address given below; requests for IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

A form for readers' comments is provided at the back of this publication. Address additional comments to IBM Corporation, Department 52Q, Neighborhood Road, Kingston, N.Y., U.S.A. 12401. IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation whatever. You may, of course, continue to use the information you supply.

## Preface

This manual contains the latest configuration information for the following units of the IBM 3270 Information Display System:

- 3271 Control Unit
- 3272 Control Unit
- 3275 Display Station
- 3284 Printer
- 3286 Printer
- 3287 Printer (attached to a 3271 or 3272 unit)
- 3288 Line Printer

For *current* configuration information about the following units, see the publication *IBM 3270 Information Display System Feature Description*, GA23-0113:

- 3262 Line Printer
- 3274 Control Unit
- 3276 Control Unit Display Station
- 3277 Display Station
- 3278 Display Station
- 3279 Color Display Station
- 3287 Printer (attached to a 3274 unit)
- 3289 Line Printer

### Organization of This Manual

This manual contains two chapters and two appendixes:

- Chapter 1, “Feature Descriptions,” describes the features available for the above units of the IBM 3270 Information Display System.
- Chapter 2, “Feature Lists,” contains detailed feature lists and feature numbers for each unit. The features are categorized for each unit as follows:
  - Universal
  - Americas/Far East (A/FE)
  - Europe/Middle East/Africa (E/ME/A)

The universal listing for each unit contains those feature items that are generally available in the United States and in A/FE and E/ME/A countries. The A/FE and E/ME/A listings for each unit are additions to the universal listing intended to support the national requirements of the various A/FE and E/ME/A countries.

- Appendix A contains control storage requirements for the 3274 Control Unit.
- Appendix B lists abbreviations used in this manual.

### Related Publications

Configuration information applicable to other 3270 system units is given in:

*IBM 3270 Information Display System Feature Description*, GA23-0113.

Introductory information about the 3270 Information Display System is given in:

*An Introduction to the IBM 3270 Information Display System*, GA27-2739.

Character sets and keyboards are described in:

*IBM 3270 Information Display System: Character Set Reference*, GA27-2837.

Physical aspects of the 3270 system are described in:

*IBM 3270 Information Display System: Installation Manual – Physical Planning*, GA27-2787.



# Contents

## Chapter 1. Feature Descriptions 1-1

Specify Features 1-1

Special Features 1-6

## Chapter 2. Feature Lists 2-1

### Appendix A. 3274 Control Storage Requirements A-1

Models 1A, 1C, 1D, and 51C A-1

Models 21A, 21C, 21D, 31A, 31C, and 31D A-2

### Appendix B. Abbreviations B-1

## Figures

- 1-1. 3276/3278/3279 Attachment Matrix 1-10
- 2-1. 3271/3272 System Attachment – Universal 2-1
- 2-2. 3271 Control Unit – Universal 2-2
- 2-3. 3272 Control Unit – Universal 2-2
- 2-4. 3271/3272 Control Units – Additions for Americas/  
Far East 2-3
- 2-5. 3271/3272 Control Units – Additions for Europe/  
Middle East/Africa 2-3
- 2-6. 3274 Control Unit – Universal (2 parts) 2-4
- 2-7. 3274 Control Unit – Additions for Americas/Far  
East 2-6
- 2-8. 3274 Control Unit – Additions for Europe/Middle  
East/Africa 2-6
- 2-9. 3275 Display Station – Universal 2-7
- 2-10. 3275 Display Station – Additions for Americas/Far  
East 2-8
- 2-11. 3275 Display Station – Additions for Europe/Middle  
East/Africa 2-9
- 2-12. 3276 Control Unit Display Station – Universal  
(3 parts) 2-10
- 2-13. 3276 Control Unit Display Station – Additions for  
Americas/Far East (2 parts) 2-13
- 2-14. 3276 Control Unit Display Station – Additions for  
Europe/Middle East/Africa 2-15
- 2-15. 3277 Display Station – Universal 2-16
- 2-16. 3277 Display Station – Additions for Americas/Far  
East 2-17
- 2-17. 3277 Display Station – Additions for Europe/Middle  
East/Africa 2-18
- 2-18. 3278 Display Station – Universal 2-19
- 2-19. 3278 Display Station – Additions for Americas/Far  
East 2-20
- 2-20. 3278 Display Station – Additions for Europe/Middle  
East/Africa 2-21
- 2-21. 3279 Color Display Station – Universal 2-22
- 2-22. 3279 Color Display Station – Additions for Americas/  
Far East (2 parts) 2-23
- 2-23. 3279 Color Display Station – Additions for Europe/  
Middle East/Africa (2 parts) 2-25
- 2-24. 3284 Printer – Universal 2-27
- 2-25. 3284 Printer – Additions for Americas/Far East 2-27
- 2-26. 3284 Printer – Additions for Europe/Middle East/  
Africa 2-28
- 2-27. 3286 Printer – Universal 2-29
- 2-28. 3286 Printer – Additions for Americas/Far East 2-29
- 2-29. 3286 Printer – Additions for Europe/Middle East/  
Africa 2-30
- 2-30. 3287 Printer (3271/3272 Attachment) – Universal 2-31
- 2-31. 3287 Printer (3271/3272 Attachment) – Additions  
for Americas/Far East 2-32
- 2-32. 3287 Printer (3271/3272 Attachment) – Additions for  
Europe/Middle East/Africa 2-33
- 2-33. 3287 Printer (3274/3276 Attachment) – Universal 2-34
- 2-34. 3287 Printer (3274/3276 Attachment) – Additions for  
Americas/Far East 2-35
- 2-35. 3287 Printer (3274/3276 Attachment) – Additions for  
Europe/Middle East/Africa 2-36
- 2-36. 3288 Line Printer – Universal 2-37
- 2-37. 3288 Line Printer – Additions for Americas/Far  
East 2-37
- 2-38. 3288 Line Printer – Additions for Europe/Middle  
East/Africa 2-38
- 2-39. 3289 Line Printer – Universal 2-39
- 2-40. 3289 Line Printer – Additions for Americas/Far  
East 2-40
- 2-41. 3289 Line Printer – Additions for Europe/Middle  
East/Africa 2-41
- 2-42. 3262 Line Printer Models 3 and 13 – Universal 2-42
- A-1. 3274 Model 1A Control Storage Requirements A-3
- A-2. 3274 Model 1C/SNA Control Storage Requirements  
(2 parts) A-4
- A-3. 3274 Model 1C/BSC Control Storage Requirements  
(2 parts) A-6
- A-4. 3274 Model 1D Control Storage Requirements  
(2 parts) A-8
- A-5. 3274 Model 51C/SNA Control Storage Requirements  
(2 parts) A-10
- A-6. 3274 Model 51C/BSC Control Storage Requirements A-12
- A-7. 3274 Model 1A, 1B, 1C, and 1D Extended Function Store  
Features A-13
- A-8. 3274 Model 51C Extended Function Store Features A-13
- A-9. 3274 Model 21A Control Storage Requirements A-14
- A-10. 3274 Model 21C/SNA Control Storage Requirements A-15
- A-11. 3274 Model 21C/BSC Control Storage Requirements A-16
- A-12. 3274 Model 21D Control Storage Requirements A-17



## Chapter 1. Feature Descriptions

The features for the IBM Information Display System are categorized as *specify* or *special*. A specify feature is usually one that must be chosen to make a unit functional. A special feature is usually an optional one that may improve performance, provide additional operational capability, or permit expansion of the unit.

### *Specify Features*

The specify features for the 3270 system are described below.

#### Notes:

1. *For countries other than the United States, a keyboard language must be specified. The keyboard language selected must correspond to the character set to be used.*
2. *Refer to the IBM 3270 Information Display System: Character Set Reference, GA27-2837, for character set differences.*
3. *See Forms Design Reference Guide for Printers, GA24-3488, for forms design considerations and limitations.*

**2835 Datel 2412 Service (3274-1C, -21C, -31C, -51C, 3276)**

Provides the communication cabling required when the indicated service is used (U.K. only).

**2898 Dial Disconnect Switch (3276)**

Required if D1200S/2400S switched service in Germany, if Datel 2400 switched service in Switzerland, or if 600 Switched Service in the United Kingdom is used.

**2943 NTT D-1 Service (3274-31C, -51C, 3276)**

Provides feature compatibility with this service (Japan only).

**9011 Alternate Mailing Address (3274)**

This optional feature must be ordered to specify that diskette-only updates are to be mailed to an alternate site address. The alternate address selected is usually that of a central site location. The purpose of this feature is to assist the customer with his network management.

**9030 Blower (3287)**

Provides a blower if the unit is to be used in an environment above 32.2°C (90°F) ambient temperature [specification limits up to 40.5°C (104°F)]. Field installation is not recommended.

**9061 3.0-Meter (10-Foot) Communication Cable (3274-1C, -21C, -31C, -51C; 3276)**

**9062 9.1-Meter (30-Foot) Communication Cable (3274-1C, -21C, -31C, -51C; 3276)**

**9063 12.2-Meter (40-Foot) Communication Cable (3274-1C, -21C, -31C, -51C; 3276)**

Provide a communication cable of the indicated length in lieu of the standard 6.1-meter (20-foot) Cable.

**9082 EBCDIC Character Set (3276, 3287)**

Provides the 94-character extended binary-coded decimal interchange code (EBCDIC) character set. On 3287, mutually exclusive with Data Analysis – APL (1066). With displays, used in conjunction with 75-key Typewriter Keyboard (4261), Data Entry Keyboard (4622 or 4623), an 87-key EBCDIC Typewriter Keyboard (4627), EBCDIC Typewriter/APL Keyboard (4624), or EBCDIC Typewriter/Text Keyboard (4629).

- 9084 ASCII Character Set (3276, 3287)**  
Provides the standard American National Standard Code for Information Interchange (ASCII) character set. On 3287, mutually exclusive with Data Analysis – APL (1066). With displays, used in conjunction with 75-key ASCII Typewriter Keyboard (4624) or 87-key ASCII Typewriter Keyboard (4628).
- 9089 EBCDIC Character Set (3275, 3277, 3284, 3288)**  
Provides the 64-character EBCDIC character set. Mutually exclusive with Data Analysis – APL (1066). Prerequisite: EBCDIC Transmission Code (9761).
- 9091 ASCII Character Set (A) (3275-1, -2, -11, -12, 3277, 3284, 3286, 3288)**  
Provides the 64 ASCII characters, but substitutes the logical OR and logical NOT for the exclamation mark and circumflex. Mutually exclusive with Data Analysis – APL (1066). Prerequisite: ASCII Transmission Code (9762 or 1200).
- 9092 ASCII Character Set (B) (3275-1, -2, -11, -12, 3277, 3284, 3286, 3288)**  
Provides the standard 64 ASCII characters. Mutually exclusive with Data Analysis – APL (1066). Prerequisite: ASCII Transmission Code (9762 or 1200).
- 9093 EBCDIC TN/T11 Character Set (3277, 3288)**  
Provides the 120 characters of the TN/T11 print train. Prerequisites: Text Print feature (7880) and EBCDIC Transmission Code (9761).
- 9110 Configuration Support A (All 3274 Models)**  
Configuration Support A is shipped with all 3274s unless Configuration Support B (9111) or Configuration Support C (9112) is specified. It provides support for all 3270 functions listed in the storage figures in Appendix A. It also provides support for solicitation of summary maintenance statistics from 3274 Models 1A, 21A, 31A, 1C/SNA, 21C/SNA, 31C/SNA, and 51C/SNA through the use of Network Problem Determination Application (NPDA), and support for base color on attached terminals.
- 9111 Configuration Support B (All 3274 Models except 1B and 21B)**  
Configuration Support B provides support for all 3270 functions included in Configuration Support A, plus the ability to attach the 3278 Model 5 and support for the following using systems network architecture/synchronous data link control (SNA/SDLC):
- Pacing of inbound message traffic (Models 1A, 21A, 31A, 1C/SNA, 21C/SNA, 31C/SNA, and 51C/SNA)
  - Automatic session recovery in both single- and multidomain networks (Models 1C/SNA, 21C/SNA, 31C/SNA, and 51C/SNA)
  - Host notification of changes in the power on/off status of attached terminals (Models 1A, 21A, 31A, 1C/SNA, 21C/SNA, 31C/SNA, and 51C/SNA)



**9112 Configuration Support C (All 3274 Models except 1B, 21A, 21B, 21C, and 21D)**

Configuration Support C provides support for all 3270 functions included in Configuration Support B, plus support for the following:

- Structured Field and Attribute Processing (SFAP) (EBCDIC only)
- Programmed Symbols (PS) on attached terminals
- Extended Color on attached terminals
- Extended Highlighting on attached terminals
- Decompression of PS load data
- BSC Text Blocking
- BSC Transparency
- Integrated Modems (Models 31C and 51C only)
- Switched Network Operation (Model 51C/SNA only)
- Loop Attachment (Model 51C only)

Prerequisites: For Model 1C, Extended Function Store Type C2 (3623) or C3 (3625); for Model 51C, Extended Function Store Type D1 (3630) or D2 (3632).

*Note for 9111 and 9112: The Configuration Support required for the 3274 must be determined before special features are ordered or the 3274 is attached to certain terminals. See Appendix A.*

**9135 Base Color Black (3287-1C, -2C)**

When this feature is specified, color mapping occurs as follows: when the display station displays in green, or when the appropriate attribute byte is received, the printer will print in black; when the display station displays in white, or when the appropriate attribute byte is received, the printer will print in green.

**9136 Base Color Green (3287-1C, -2C)**

When this feature is specified, color mapping occurs as follows: when the display station displays in green, or when the appropriate attribute byte is received, the printer will print in green; when the display station displays in white, or when the appropriate attribute byte is received, the printer will print in black.

**9162 Pin Feed Platen: 126-Position (3284, 3286)**

**9167 Pin Feed Platen: 120-Position (3284, 3286)**

**9168 Pin Feed Platen: 132-Position (3284, 3286)**

Provide for the indicated number of print positions. Hole-to-hole spacing is:

120 positions (9167) – 31.8 cm (12-1/2 inches)

126 positions (9162) – 33.3 cm (13-1/8 inches)

132 positions (9168) – 35.2 cm (13-7/8 inches)

**9185 Variable Width Forms Tractor – Paper Handling (3287)**

Provides for handling forms with an overall width from 76.2 to 203.2 mm (3 to 8 inches). Prerequisite: Variable Width Forms Tractor (8700).

**9399 1.8-Meter (6-Foot) Keyboard Cable (3276, 3278)**

Provides a keyboard cable of the indicated length in lieu of the standard 0.9-meter (3-foot) cable.

- 9405 4.3-Meter (14-Foot) Loop Station Connector Cable (3274-51C; 3276-11, -12, -13, -14)**  
Provides a communication cable of the indicated length in lieu of the standard 1.8-meter (6-foot) cable for attachment to a loop of the 8100 Information System.
- 9488 X Print Error Indication (3287)**  
Provides an error indication by printing an X on the print line immediately below the last line normally printed. This feature is inactive when the printer is in SNA Character String (SCS) mode of operation.
- 9488 Print Error Indication (3289)**  
Provides an error indication by printing an error graphic on the line immediately below the last print line for that data buffer when the printer is used in 3270 Data Stream mode.
- 9490 Switched Network (3276-11, -12, -13, -14)**  
Provides for operation on the public switched network.
- 9491 Nonswitched Network (3276)**  
Provides for operation on nonswitched communication facilities.
- 9490 48-Character Set EBCDIC Print Belt (3289)**  
**9491 64-Character Set EBCDIC Print Belt (3289)**  
**9492 94-Character Set EBCDIC Print Belt (3289)**  
**9493 48-Character Set ASCII Print Belt (3289)**  
**9494 64-Character Set ASCII Print Belt (3289)**  
**9495 94-Character Set ASCII Print Belt (3289)**  
**9496 125-Character Text Print Belt EBCDIC (3289)**  
Provide a print belt or the indicated character set. (U.S. only; contact IBM for other character set languages.)
- 9520 480-Character Print Operation (3287)**  
**9521 960-Character Print Operation (3287, 3289)**  
**9522 1920-Character Print Operation (3287, 3289)**  
**9523 2560-Character Print Operation (3287, 3289)**  
**9524 3440-Character Print Operation (3287, 3289)**  
**9525 3564-Character Print Operation (3287, 3289)**  
Provide for operation with a program that requires a printer buffer of the indicated size.

**Notes:**

1. To provide compatibility with 3271/3272 application programs using the Erase/Write command for the 3270 system, feature 9521 provides 480-character print operation and 9522, 9523, 9524, and 9525 provide 1920-character print operation. Allowable usage in SCS of the full buffer varies with the control unit (3274 or 3276) to which the printer is attached and with programming considerations. Copy operation from a larger screen display to a smaller printer buffer is not acceptable.
2. Features 9523, 9524, and 9525 on the printer require the Extended Print Buffer (3880) feature.

- 9651 4-Wire Facility (3274-51C, 3276)**  
**9652 2-Wire Facility (3274-51C, 3276)**

Provide for operation with the indicated communication facility. Prerequisites: 5500, 5507, or 5508.

**9660 SCS Support (3287)**

In the SNA environment, provides the capability for receiving the SNA Character String (SCS) data stream from the host system via a 3274 or 3276. This feature allows the printer to perform such functions as:

- Vertical forms skipping to a header or to a vertical tab position.
- Horizontal skipping to a horizontal tab stop position.

Page size, header location, and vertical and horizontal tab positions are host-loaded through the 3274 or 3276 via application programming. Included in SCS Support (9660) are the Cancel and Program Attention 1/Program Attentions 2 (PA1/PA2) switches. The Cancel switch allows operator termination of the current print operation. The PA1/PA2 switch allows the operator to request a specific action from the user-written program in the host. Operator settings for page-length control, 6 or 8 lines per inch, and maximum print position are set by the host program when the 3287 has the 3274/3276 Attachment (8331) and SCS Support (9660) and only when the user is operating in SCS mode. SCS mode always operates in dual case. Mutually exclusive with 3271/3272 Attachment (8330) ASCII Character Set (B) (9084). It cannot be installed on a 3287 that is attached to a 3274 Model 1B, 1D, 21B, 21D, or 31D.

*Note: 9660 does not support PS-2 (5781), PS-4 (5782), PS-4A (5783), or color printing.*

**9661 SCS Support for Structured Field and Attribute Processing (SFAP) (3287)**

In the SNA environment, provides support of Extended Highlighting (underscore), Programmed Symbols (PS-2 and PS-4 on all models, PS-4A on Models 1C and 2C), decompression of PS load data, and Read Partition (query). Limitations: Cannot be installed when the 3287 is attached to a 3274 Model 1B, 1D, 21B, 21D, or 31D, or when ASCII Character Set (B) (9084) is used. Prerequisites: Extended Character Set Adapter (3610), PS-2 (5781, for Models 1 and 2 only), SCS Support (9660), and a 3274 Model 1A, 1C, 21A, 21C, 31A, 31C, or 51C with the structured field and attribute processing (SFAP) and SCS options of Configuration Support C (9112).

**9761 EBCDIC Transmission Code (3271-1, -2, 3275-1, -2, -3)**

**9762 ASCII Transmission Code (3271-1, -2, 3275-1, -2)**

Provide the indicated 8-bit transmission code over the transmission facilities (U.S. only).

**9850 Vertical Forms Control (3288)**

Allows insertion of the forms-feed character (hex '0C') into the data stream. Upon detection of this character, the printer will skip to the first print line of the next form. The form length (00–99) is entered via two decade switches by the operator. Mutually exclusive with Katakana Character Generator (2706).

**9944 X Print Error Indication (3288)**

Provides error indication by printing an X on the print line immediately below the last line normally printed.

## Special Features

Following are the special features for the 3270 system.

### Notes:

- 1. A variety of keyboard features are available. Variations among keyboards include 78- and 66-key versions: operator console, data entry, data entry-keypunch layout, typewriter EBCDIC, and typewriter ASCII layouts. Refer to the IBM 3270 Information Display System: Character Set Reference, GA27-2837, for the keyboard layouts and characters.*  
*The 66-key keyboard fulfills the basic needs of the display operator. The 78-key keyboard provides expanded operator-to-program message flexibility with 12 additional keys for the use of the application program.*  
*The operator console key layout, which is similar to an IBM 1052-7 keyboard, is available as a 78-key keyboard. The data entry layout and the data entry-keypunch layout, which are similar to the keyboards on the 29 Card Punch and 129 Card Data Recorder, are available as 66-key keyboards.*
- 2. The Data Analysis – APL feature (1066) makes possible interactive operations between the terminal user and host-initiated APL and Text programs. This feature permits 3270 devices attached to the 3271-2 or -12, or the 3272-2, to display or print any of the 204 characters that make up the character set. The APL keyboard, attached to a 3277-2 with this feature installed, can directly input 169 of the 204 characters available; an attached Text Keyboard can directly input 151 of the 204. The 3284, 3286, and 3287, with this feature installed, can print out all 204 characters. The 3288 with the Text Print feature (7880) can print out 120 of the characters.*
- 3. Keyboards used on 3275 and 3277 display stations are not interchangeable with keyboards used on 3276, 3278, and 3279 display stations.*

### 1009 Address Keylock (3276)

Controls access to the unit address switches (and, in some units, transmit level switches), which are located in the Operator Panel Drawer.

### 1066 Data Analysis – APL (3271-2, -12, 3272-2, 3277-2, 3284-2, 3286-2, 3287)

Provides dual-case US EBCDIC, the APL set, and (output only) TN print train characters. Mutually exclusive with Page Length Control (9550), 3271/3272 Attachment (8330) to a 3274, or 3274/3276 Attachment (8331), or Character Set (9082) or (9084). Prerequisite: Data Analysis – APL (1066) on the control unit and on 3287 1920-Character Print Operation (9522).

### 1067 APL/Text Control (3276)

Provides control of the 3276, 3278, 3279, and 3287 equipped with APL/Text (1120) and Extended Character Set Adapter (3610) or the 3289 equipped with Text Print (1130). Mutually exclusive with SDLC/BSC Switch (6315). Prerequisite: Extended Function Base (1068).

**Note:** *APL/Text capability is provided with the 3279-2B and -3B.*

### 1068 Extended Function Base (3276)

Provides additional control to access APL/Text Control (1067), Color Display Attachment (1950), and/or X.21 Adapter for Switched Networks (5656) in the 3276. Mutually exclusive with SDLC/BSC Switch (6315) and ASCII Character Set (9084).

**1120 APL/Text (3276, 3278, 3279, 3287)**

Enables the 3276, 3278, and the 3279-2B and -3B to display and the 3287 to print the 222-character APL/Text character set, including the 94-character EBCDIC set. This feature can be used on 3278s, 3279s, and 3287s connected to (1) a 3274-1A, -1C, -1D, 21A, 21C, 21D, 31A, 31C, 31D, or 51C, customized to include the APL/Text Control Function and (2) an APL/Text featured 3276. This feature is not compatible with ASCII and is mutually exclusive with 3271/3272 Attachment (8330). Prerequisite: Extended Character Set Adapter (3610).

**Notes:**

1. *APL/Text capability is provided with the 3279-2B and -3B.*
2. *This feature cannot be installed on a 3287 Printer that is attached to a 3276 without the APL/Text Control feature (1067), on a 3274 Model 1B or 21B, or to a 3274 that is not customized for the APL/Text function.*

**1130 Text Print (3289)**

Provides the ability to print 32 Text characters in addition to 93 characters of the 94-character EBCDIC set (U.S. English only). Printers with or without this feature may be mixed with displays and printers with or without the APL/Text feature (1120) on an appropriately configured control unit. The text print belt provided with this feature is interchangeable with only the 48/64/94-character EBCDIC print belts.

*Note: Installing a text print belt on a 3289 limits the 3289-1 to 40 lines per minute (lpm) and the 3289-2 to 160 lpm; when the 48/64/94-character EBCDIC print belts are used on a Text Print featured 3289, the normal print speeds are maintained.*

**1200 ASCII Transmission Code (3271-11, -12, 3275-11, -12)**

Provides the 8-bit ASCII transmission code over the transmission facilities (U.S. only).

**1550 Copy (3271-1, -2)**

Permits the complete contents of the storage buffer of one device to be transferred into the storage buffer of another device – either display or printer. These devices must share a common control unit.

**1550 CCITT V.35 Interface (3274-1C, -21C, -31C, -51C)**

Provides a cable and a CCITT interface for attachment to an external modem or other data-circuit-terminating equipment (DCE) complying with CCITT recommendation (1976) V.35, ISO Standard 2593, and other relevant CCITT recommendations, and provides clocking of up to 57,600 bits per second (bps). Prerequisites: Communications Adapter (6302 or 6303) for speeds up to 9600 bps or High Performance Communications Adapter (6303) for speeds over 9600 bps. Limitations: (1) Cannot be installed with any other Communications Interface feature, (2) BSC is not supported at speeds greater than 9600 bps, and (3) multipoint operation is not supported at speeds greater than 19,200 bps.

**Notes:**

1. *For 3274 Models 1C, 21C, and 31C, this feature may also be used for direct connection to an IBM 3705 Communications Controller at speeds up to 57,600 bps.*
2. *For 3274 Model 51C, this feature may also be used for direct connection to an IBM 8100 Processor at speeds up to 9600 bps or to an IBM 3705 Communications Controller at speeds up to 57,600 bps.*

- 1720 Switch Control Unit (3278, 3279)**  
Permits switching operational control of the device between two different control units.
- 1801 Control Storage Expansion (3274-1A, -1C, -1D)**  
Permits the storage addresses to be accessed above the basic level. This feature is a prerequisite to Extended Function Store Type C1 (3622) or C2 (3623). One of these combinations (1801 and 3622 or 3623) is a prerequisite for the other Extended Function Store features (3625, 3627, and 3628).
- 1802 Control Storage Expansion (3274-51C)**  
Permits the storage addresses to be accessed above the basic level. The feature is a prerequisite to Extended Function Store Type D1 (3630) and Type D2 (3632).
- 1950 Color Display Attachment (3276)**  
Permits attachment of 3279 Color Display Stations (Models 2A, 3A, 2B, and 3B). Prerequisites: Extended Function Base (1068) and APL/Text Control (1067) for use with 3279-2B or -3B for APL/Text operation. Limitations: This feature is not available for 3276-1. The 3276 does not support Programmed Symbols, Extended Color, or Extended Highlighting.
- 2706 Katakana Character Generator (3277, 3284, 3286, 3288)**  
Provides the ability to display or print the characters described on the Katakana keyboard. Maximum of 4-part paper is recommended. Speed is reduced to 40 lpm. Mutually exclusive with Data Analysis – APL (1066), Text Print feature (7880), and the Vertical Forms Control (9850) features. Prerequisite: Katakana Control (2707) on the control unit.
- 2707 Katakana Control (3271, 3272)**  
Provides the controls and conversion for the additional Katakana characters. Control units with this feature may service only devices that contain the Katakana Character Generator (2706). Mutually exclusive with Data Analysis – APL (1066).
- 2707 Katakana Character Generator and Control (3275)**  
Provides the controls, conversion, and character generation for the additional Katakana characters. Mutually exclusive with Dial (3440).
- 2708 88-key Attribute Select Japanese English/Japanese Katakana Typewriter Keyboards (3278, 3279)**  
Typewriter layout, movable keyboards, similar to the 88-key Japanese English and Japanese Katakana typewriter keyboards (2717). Attribute select functions are shown on the 12 program function keys at the right-hand side of these keyboards. Prerequisite: Japanese English (2955) or Japanese Katakana (2973). Limitation: Cannot be installed on a 3278 or 3279 that is attached to a 3276 Control Unit Display Station.
- 2715 76-Key Japanese English/Japanese Katakana Typewriter Keyboards (3276, 3278, 3279)**  
Typewriter layout, movable keyboards. Twelve program function keys are available in the top row of data keys through use of an Alternate shift key. The 76-key Japanese English Typewriter Keyboard provides 49 data keys and 27 control keys. Prerequisite: Keyboard Language: Japanese English (2955) or Japanese Katakana (2973).

- 2716 76-Key Japanese Katakana Data Entry Keyboard (3276, 3278, 3279)**  
A movable, 4-level shift keyboard, providing 49 data keys, 10 program function keys, and 27 control keys. Prerequisite: Keyboard Language: Japanese Katakana (2973).
- 2717 88-Key Japanese English/Japanese Katakana Typewriter Keyboards (3276, 3278, 3279)**  
Typewriter layout, movable keyboards with 49 data keys, 26 control keys, and 12 program function keys. Twelve additional program function keys in the top row of data keys are available through the use of an Alternate shift key. The Japanese Katakana keyboard provides 4-level shift, 49 data keys, and 27 control keys. Prerequisite: Keyboard Language: Japanese English (2955) or Japanese Katakana (2973).
- 2718 88-Key Japanese English/Japanese Katakana Typewriter/APL Keyboards (3276; 3278; 3279-2B; -3B)**  
Typewriter, movable keyboards with 49 data keys, 26 control keys, and 12 program function keys. These keyboards are similar to the 88-Key Japanese English and Japanese Katakana Keyboards (2717); however, it does not have the 12 additional program function keys. The keytops are modified to allow entry of 81 APL specific characters in addition to the basic character set. An APL On/Off key controls whether the keyboard is in APL or character set mode. Prerequisite: APL/Text (1120) and Keyboard Language: Japanese English (2955) or Japanese Katakana (2973).
- 2719 88-Key Japanese English/Japanese Katakana Typewriter Overlay Keyboards (3278, 3279)**  
Typewriter layout, movable keyboards, similar to the 88-key Japanese English and Japanese Katakana typewriter keyboards (2717). The 48 character keys in the typewriter section of these keyboards have narrow keytops. Blank overlays are available for the user to mark up special characters or symbols assigned to the keys when using Programmed Symbols (PS). Attribute select functions are shown on the 12 program function keys at the right-hand side of these keyboards. Prerequisite: Japanese English (2955) or Japanese Katakana (2973). Limitation: Cannot be installed on a 3278 or 3279 that is attached to a 3276 Control Unit Display Station.
- 2721 88-Key Attribute Select Japanese English/Japanese Katakana Typewriter/APL Keyboards (3278, 3279)**  
Typewriter layout, movable keyboards, similar to the 88-key Japanese English and Japanese Katakana Typewriter/APL keyboards (2718). Attribute select functions are shown on the 12 program function keys at the right-hand side of these keyboards. Prerequisite: Japanese English (2955) or Japanese Katakana (2973). Limitation: Cannot be installed on a 3278 or 3279 that is attached to a 3276 Control Unit Display Station.
- 2955 Katakana Typewriter Keyboard (3275-1, -2; 3277-1, -2)**  
A typewriter layout, movable, 4-level shift keyboard providing 55 Katakana, 36 alphanumeric, 33 special characters, and 12 program function keys. Prerequisite: Katakana Character Generator (2706) or Katakana Control (2707) on the control unit.
- 2973 Katakana Data Entry Keyboard (3275, 3277)**  
A movable 4-level shift keyboard providing 55 Katakana, 36 alphanumeric, and 33 special characters. Prerequisite: Katakana Character Generator (2706) or Katakana Control (2707) on the control unit.
- 3250 Device Adapter (3271, 3272)**  
Permits the addition of four devices (3277s, 3284s, 3286s, and/or 3288s in any combination). Up to seven adapters may be used for a maximum of 32 attached devices.

- 3255 Terminal Adapter No. 1 (3276)
- 3256 Terminal Adapter No. 2 (3276)
- 3257 Terminal Adapter No. 3 (3276)

Each adapter provides for the attachment of two devices (3262-13s, 3278s, 3279s, 3287s and/or 3289s). (See Figure 1-1 for model restrictions.) One each of these adapters can be installed and they must be installed in sequence.

Adapter Number	Terminals	Prerequisites (Adapter Number)
1 (3255)	3 and 4	—
2 (3256)	5 and 6	1 (3255)
3 (3257)	7 and 8	1 (3255) 2 (3256)

**3440 Dial (3275-1, -2)**

Permits operation over the switched network at 600 or 1200 bps. Provides a unique terminal address assigned by IBM. Clocking is provided by the device. Mutually exclusive with the Katakana features (2707, 2955, and 2973). Prerequisite: 1200-bps Transmission Speed (7820).

**3610 Extended Character Set Adapter (3276, 3278, 3287)**

Provides the additional control and buffering necessary for the extended character set in the APL/Text (1120) feature. For the 3278, provides the additional character and field attributes required for the extended highlighting capabilities, and the Programmed Symbols features (5781 and 5782). On 3287, this feature is mutually exclusive with 3271/3272 Attachment (8330). It cannot be installed on a 3287 that is to be attached to a 3274 Model 1B or 21B.

3276 Model	3278 Model					3279 Model	
	1	2	3	4	5	2A, 2B	3A, 3B
1	Yes	No	No	No	No	No	No
11	Yes	Yes	Yes	Yes	No	Yes	Yes
2	Yes	Yes	No	No	No	Yes	Yes
12	Yes	Yes	Yes	Yes	No	Yes	Yes
3	Yes	Yes	Yes	No	No	Yes	Yes
13	Yes	Yes	Yes	Yes	No	Yes	Yes
4	Yes	Yes	Yes	Yes	No	Yes	Yes
14	Yes	Yes	Yes	Yes	No	Yes	Yes

**Notes:**

1. The 3276-1, -2, and -3 (with SDLC/BSC switch in SDLC mode) support the same 3278 models as the 3276-11, -12, and -13.
2. The 3276 provides a display and a port for attaching one device: a 3262-13, 3278, 3279, 3287, or 3289. The 3276 with the three Terminal Adapters (3255, 3256, and 3257) thus allows a maximum cluster of eight displays and/or printers.

**Figure 1-1. 3276/3278/3279 Attachment Matrix**



- 3622 Extended Function Store Type C1 (3274-1A, -1C, -1D)
- 3623 Extended Function Store Type C2 (3274-1A, -1C, -1D)
- 3625 Extended Function Store Type C3 (3274-1A, -1C, -1D)
- 3627 Extended Function Store Type D1 (3274-1A, -1C, -1D)
- 3628 Extended Function Store Type D2 (3274-1A, -1C, -1D)

Provide increments of additional control storage positions to accommodate combinations of functional features that exceed the storage capacity of the basic unit. Prerequisite: Control Storage Expansion (1801). Increment sizes are:

Types C1, C3, and D1 – 16,384 bytes  
 Types C2 and D2 – 32,768 bytes

Feature	Prerequisites: Control Storage Expansion (1801) and	Mutually Exclusive with:
C1 (3622)	–	C2
C2 (3623)	–	C1
C3 (3625)	C1	–
D1 (3627)	C1 or C2	–
D2 (3628)	C1 or C2	–

*Note: To determine which Extended Function Store features are required, see Appendix A.*

- 3630 Extended Function Store Type D1 (3274-51C)
- 3631 Extended Function Store Type D3 (3274-51C)
- 3632 Extended Function Store Type D2 (3274-51C)

Provide increments of additional control storage positions to accommodate combinations of functional features that exceed the storage capacity of the basic unit.

Types D1 and D3 – 32,768 positions  
 Type D2 – 65,536 positions

Feature	Prerequisites: Control Storage Expansion (1802) and	Mutually Exclusive with:
D1 (3630)	–	D2
D2 (3632)	–	D1
D3 (3631)	D1	–

*Note: To determine which Extended Function Store features are required for the 3274-51C, see Figures A-5, A-6, and A-8 in Appendix A.*

**3680 Encrypt/Decrypt (3274-1C, -21C, -31C, -51C; 3276-11, -12, -13, -14)**

Provides a hardware implementation of the Federal Data Encryption Standard algorithm to encrypt and decrypt data messages under a 56-bit key variable. When used in conjunction with the Advanced Communications Function for Virtual Telecommunications Access Method (ACF/VTAM) Encrypt/Decrypt feature (Feature Number 6010, Program Number 5735-RC2) or Advanced Communications Function for Telecommunications Access Method (ACF/TCAM) Version 2 (Program Number 5735-RC3) and either the IBM 3848 Cryptographic Unit and the Operating System/Virtual Storage 1 (OS/VS1) and OS/VS2 Multiple Virtual Storage (MVS) Cryptographic Unit Support Program Product (Program Number 5740-XY6), or the OS/VS1 and OS/VS2 MVS Programmed Cryptographic Facility Program Product (Program Number 5740-XY5), data transmitted over unprotected communication lines can be safeguarded through cryptography. For installation on the 3276, the Security Keylock (6340) must also be installed.

**3701 External Modem Interface (3274-1C, -21C, -31C, -51C; 3276)**

Provides a cable and an RS-232C interface for attachment to an IBM modem [or CCITT interface for attachment to an external IBM modem or to a Post Telephone and Telegraph Administration (PTT) mandatory modem complying with CCITT recommendations (1976) V.24, V.28, ISO Standard 2110, and other relevant CCITT recommendations] that provides clocking of up to 9600 bps. Prerequisite: For 3274, Communications Adapter (6301, 6302, or 6303). For 3276, Communications Feature with or without Business Machine Clock (6301 or 6302). Limitation: Cannot be installed with any other Communications Interface feature.

**Notes:**

- 1. For 3274 Models 1C, 21C, and 31C, this feature may also be used for direct attachment to an IBM 4331 Processor at speeds up to 9600 bps.*
- 2. For 3274 Model 51C, this feature may also be used for direct attachment to an IBM 3704 or 3705 Communications Controller or 4331 or 8100 Processor at speeds up to 9600 bps.*

**3880 Extended Print Buffer (3287)**

Provides additional buffer storage to allow 2560-, 3440-, or 3564-character print operation. Mutually exclusive with 3271/3272 Attachment (8330). Allowable usage in SNA Character String (SCS) of the full buffer varies with the control unit (3274 or 3276) to which the printer is attached and with programming considerations.

**4110 Friction Feed Paper Handling (3287)**

Provides for friction feeding of single-part, non-preprinted, continuous roll or fan-fold paper with a minimum width of 203.2 mm (8 inches). Included is a paper tear bar for tearing continuous forms approximately 63.5 mm (2-1/2 inches) from the last line printed. This feature is used interchangeably with the Variable Width Forms Tractor and is attached and removed by the user. It must be ordered on all machines without the Variable Width Forms Tractor-Covers (9850).

**4450 Forms Stand (3284, 3286, 3287, 3288)**

This accessory permits placement of continuous forms (out of the carton) on a stand above the floor and provides for stacking after printing.

- 4600 Operator Identification Card Reader (3275-1, -2, -11, -12; 3277)**  
Enables the reading of a small, 53.9-by-85.7-mm (2-1/8-by-3-3/8-inch) credit-card-size, plastic card with a magnetic stripe on the back. The card can be encoded with 1 to 40 characters (including control characters) at 75 bits per inch. This feature reads an operator identification card to allow identification of the display operator, thus enhancing system data security capability.
- 4621 75-Key EBCDIC Typewriter Keyboard (3276, 3278, 3279)**  
A typewriter layout, movable keyboard, with 49 data keys and 26 control keys. Twelve program function keys are included in the top row of data keys and are available through the use of an Alternate shift key.
- 4622 75-Key EBCDIC Data Entry Keyboard (3276, 3278, 3279)**  
A movable keyboard, with 35 data keys, 10 program function keys, and 30 control keys.
- 4623 75-Key EBCDIC Data Entry Keypunch Layout Keyboard (3276, 3278, 3279)**  
A keypunch layout, movable keyboard, with 35 data keys, 10 program function keys, and 30 control keys. This is the recommended keyboard for high-volume data entry.
- 4624 75-Key ASCII Typewriter Keyboard (3276, 3278, 3279)**  
An ASCII typewriter layout, movable keyboard, with 49 data keys and 26 control keys. Twelve program function keys are included in the top row of the data keys and are available through the use of an Alternate shift key.
- 4626 87-Key EBCDIC Typewriter/APL Keyboard (3276; 3278; 3279-2B, -3B)**  
A typewriter layout, movable keyboard, with 49 alphanumeric data keys, 26 control keys, and 12 program function keys. This keyboard is similar to the 87-Key EBCDIC Typewriter Keyboard (4627); however, it does not have the 12 additional program function keys. The keytops are modified to allow entry of 81 APL specific characters in addition to the basic character set. An APL On/Off key controls whether the keyboard is in APL or basic character set mode. Prerequisite: APL/Text (1120).
- 4627 87-Key EBCDIC Typewriter Keyboard (3276, 3278, 3279)**  
A typewriter layout, movable keyboard, with 49 alphanumeric data keys, 26 control keys, and 12 program function keys. Twelve additional program function keys are included in the top row of data keys and are available through the use of an Alternate shift key.
- 4628 87-Key ASCII Typewriter Keyboard (3276, 3278, 3279)**  
An ASCII typewriter layout, movable keyboard, with 49 alphanumeric data keys, 26 control keys, and 12 program function keys. Twelve additional program function keys are included in the top row of data keys and are available through the use of an Alternate shift.
- 4629 87-Key EBCDIC Typewriter/Text Keyboard (U.S. English only) (3276; 3278; 3279-2B, -3B)**  
A typewriter layout, movable keyboard, with 49 alphanumeric data keys, 26 control keys, and 12 program function keys. This keyboard is similar to the 87-Key EBCDIC Typewriter Keyboard (4627); however, it does not have the 12 additional program function keys. The keytops are modified to allow entry of 65 Text specific characters in addition to the basic character set. A Text On/Off key controls whether the keyboard is in Text or basic character set mode. Prerequisite: APL/Text (1120).

- 4630 66-Key EBCDIC Typewriter Keyboard (3275-1, -2, -11, -12; 3277)**  
 A typewriter layout, movable keyboard, with 45 alphanumeric keys and 21 control keys. Prerequisite: EBCDIC Character Set (9089) or a keyboard language.
- 4631 66-Key EBCDIC Data Entry Keyboard (3275-1, -2, -11, -12; 3277)**  
 A movable keyboard, with 36 alphanumeric keys and 30 control keys. Prerequisite: EBCDIC Character Set (9089) or a keyboard language.
- 4631 66-Key EBCDIC Data Entry Keypunch Layout Keyboard (3275-3)**  
 A keypunch layout, movable keyboard, with 36 alphanumeric keys and 30 control keys (U.S. only).
- 4632 78-Key Operator Console Keyboard (3275-1, -2, -11, -12; 3277)**  
 An operator console layout, movable keyboard, with 45 alphanumeric keys, 21 control keys, and 12 program function keys. Prerequisite: EBCDIC Character Set (9089).  
  
*Note: Available only in U.S. English (in World Trade countries, language features 2705 and 2956 should be specified).*
- 4633 78-Key EBCDIC Typewriter Keyboard (3275-1, -2, -11, -12; 3277)**  
 A 66-key EBCDIC typewriter layout, movable keyboard, with 12 additional program function keys. Prerequisite: EBCDIC Character Set (9089) or a keyboard language.
- 4634 66-Key ASCII Typewriter Keyboard (3275-1, -2, -11, -12; 3277)**  
 A 66-key ASCII typewriter layout, movable keyboard, with 45 alphanumeric keys and 21 control keys. Prerequisite: ASCII(A) or (B) (9091 or 9092). (U.S. only)
- 4635 76-Key ASCII Typewriter Keyboard (3275-1, -2, -11, -12; 3277)**  
 A 66-key ASCII typewriter layout, movable keyboard, with 12 additional program function keys. Prerequisite: ASCII (A) or (B) (9091 or 9092). (U.S. only)
- 4636 66-Key EBCDIC Data Entry Keypunch Layout Keyboard (3275-1, -2, -11, -12; 3277)**  
 A keypunch layout, movable keyboard, with 36 alphanumeric keys and 30 control keys. Prerequisite: EBCDIC Character Set (9089) or a keyboard language.
- 4637 66-Key EBCDIC Typewriter/APL Keyboard (3277)**  
 A movable keyboard, with 45 alphanumeric and 21 control keys. Prerequisite: Data Analysis – APL (1066).
- 4638 78-Key EBCDIC Typewriter/APL Keyboard (3277)**  
 A movable keyboard, with 45 alphanumeric keys, 21 control keys, and 12 program keys. Prerequisite: Data Analysis – APL (1066).
- 4639 78-Key EBCDIC Text Keyboard (3277)**  
 A movable keyboard, with 45 alphanumeric keys, 21 control keys, and 12 program function keys. Prerequisite: Data Analysis – APL feature (1066) on both device and control unit. (U.S. only)

- 4639 78-Key EBCDIC Fast Cursor Text Keyboard (3277)**  
A movable keyboard, with 45 alphanumeric keys, 21 control keys, and 12 program function keys. The speed of the cursor and typamatic key operation is approximately twice that of a nontext keyboard. Includes Typamatic Delete and a function similar to typewriter carriage return. Prerequisite: Data Analysis – APL feature (1066) on both device and control unit.
- 4640 87-Key EBCDIC Typewriter Overlay Keyboard (3278, 3279)**  
A typewriter layout, movable keyboard, similar to the 87-Key EBCDIC Typewriter Keyboard (4627). The 48 character keys in the typewriter section of the keyboard have narrow keytops. Blank overlays are available for the user to mark up special characters or symbols assigned to keys when using Programmed Symbols (PS). Attribute select functions are shown on the 12 program function keys at the right-hand side of the keyboard. Limitation: Cannot be installed on a 3278 or 3279 attached to a 3276 Control Unit Display Station.
- 4651 87-Key EBCDIC Attribute Select Typewriter Keyboard (3278, 3279)**  
A typewriter layout, movable keyboard, similar to the 87-Key EBCDIC Typewriter Keyboard (4627). Attribute select functions are shown on the 12 program function keys at the right-hand side of the keyboard. Limitation: Cannot be installed on a 3278 or a 3279 attached to a 3276 Control Unit Display Station.
- 4652 87-Key EBCDIC Attribute Select Typewriter/APL Keyboard (3278, 3279)**  
A typewriter layout, movable keyboard, similar to the 87-Key EBCDIC Typewriter/APL Keyboard (4626). Attribute select functions are shown on the 12 program function keys at the right-hand side of the keyboard. Limitation: Cannot be installed on a 3278 or 3279 attached to a 3276 Control Unit Display Station.
- 4690 Keyboard Numeric Lock (3275, 3276, 3277, 3278, 3279)**  
Enables keyboards 4621, 4622, 4623, 4627, 2715, 2716, and 2717 to be locked if a nonnumeric key (that is, other than 0–9, minus (-), decimal sign, or DUP) is operated in a predefined numeric-only field.
- Note:** *For devices with an attribute-select keyboard, Numeric Lock is defined as on or off during the control unit customizing procedure. (Overlay keyboards are included in the group of attribute-select keyboards.)*
- 4850 Loop Adapter (3274-51C; 3276-11, -12, -13, -14)**  
Permits attachment to a direct or data-link loop of the 8100 Information System. Direct loop attachment supports speeds up to 38,400 bps. Data-link loop attachment supports 2400, 4800, or 9600 bps. A direct-attached loop can use a 9.6-kilohertz (kHz) or 38.4-kHz carrier; a data-link attached loop uses a 9.6-kHz carrier. Limitations: Mutually exclusive with any other Communications Interface features (3701, 5500, 5501, 5502, 5507, 5508, 5650, and 5651), Encrypt/Decrypt feature (3680) and for 8100 attachment, Terminal Adapter Type B (7801). Prerequisites: For 3276, Communications Feature without Business Machine Clock (6302). For 3274-51C, High Performance Communications Adapter (6303) and Configuration Support C (9112).

**4999 Magnetic Reader Control (3276, 3278, 3279)**

Permits attachment of the magnetic hand scanner to a 3278 or 3279, or of the magnetic slot reader to a 3276, 3278, or 3279.

- **Magnetic Hand Scanner**

The magnetic hand scanner (MHS) is attached by a 1.5-meter (4.9-ft) coiled cable to a 3278 or 3279 that is connected to a properly configured 3274 Control Unit. It reads magnetic-stripped labels that are attached to shelves, cartons, and other objects. The MHS has three lights and a buzzer to provide the user with feedback on the status of the scanned data. Extension cable assemblies, 6 meters (19.7 ft) and 12 meters (39.4 ft), are available to extend operating distances from the 3278. Limitation: Extension cables cannot be plugged into other extension cables. See *IBM 3270 Information Display System: 3274 Description and Programmer's Guide*, GA23-0061, for descriptions of the applicable character sets and recording capacities.

- **Magnetic Slot Reader**

The magnetic slot reader (MSR) is attached by a 1.5-meter (4.9-ft) cable to a 3276 or to a 3278 or 3279 connected to a 3276 or a properly configured 3274. It reads information encoded on magnetic-stripped cards such as job tickets, operator ID badges, and both large and small credit cards. The MSR has three lights and a buzzer to provide the user with feedback on the status of the scanned data. Extension cable assemblies, 6 meters (19.7 ft) and 12 meters (39.4 ft), are available to extend operating distances from the 3278. Limitation: Extension cables cannot be plugged into other extension cables. See *IBM 3270 Information Display System: 3274 Description and Programmer's Guide*, GA23-0061, for descriptions of the applicable character sets and recording capacities.

**5500 1200-bps Integrated Modem, (3275-1, -2, -11, -12)**

Provides an integrated modem for operation over nonswitched (at 1200 bps) or switched (at 600 or 1200 bps) communication facilities. Prerequisite: Nonswitched, 1200-bps Transmission Speed (7820); switched, Dial (3440).

**5500 1200-bps Integrated Modem, Nonswitched (3274-51C, 3276)**

Provides an integrated modem for operation over nonswitched communication facilities at 600 or 1200 bps. No external modem is required. Mutually exclusive with other interface/modem features (3701, 4850, 5501, 5502, 5507, 5508, 5650, and 5651). Prerequisites: For 3276, Communications Feature with Business Machine Clock (6301). For 3274-51C, Common Communications Adapter with Business Machine Clock (6301) and Configuration Support C (9112). Specify: 9651 for use with a 4-wire facility or 9652 for use with a 2-wire facility, and (for Japan only) 2943, if used on Nippon Telephone and Telegraph (NTT) D-1 service.

**5501 1200-bps Integrated Modem, Switched, Auto Answer (3274-51C; 3275-1, -2; 3276-11, -12, -13, -14)**

Provides an integrated modem with auto/manual answer capabilities for operation over switched communication facilities at 600 or 1200 bps. No external modem is required. Mutually exclusive with other interface/modem features (3701, 4850, 5500, 5502, 5507, 5508, 5650, and 5651). Prerequisites: For 3275, Dial (3440); for 3276 and 3274, Communications Feature with Business Machine Clock (6301). For 3274-51C, Common Communications Adapter with Business Machine Clock (6301) and Configuration Support C (9112).

*Note: In Canada and the U.S., this feature requires a data access arrangement type CBS or Federal Communications Commission (FCC)-registered equivalent. In World Trade countries, this feature includes the Public Switched Network (PSN) line plate, which is mandatory for attachment to the public switched telephone network.*

**5502 1200-bps Integrated Modem, Switched, Manual Answer (3274-51C; 3276-11, -12, -13, -14)**

Provides an integrated modem for communication with a remote processor at 600 or 1200 bps over the public switched telephone network. No external modem is required. Mutually exclusive with other interface/modem features (3701, 4850, 5500, 5501, 5507, 5508, 5650, and 5651). Prerequisites: For 3276, Communications Feature with Business Machine Clock (6301). For 3274-51C, Common Communications Adapter with Business Machine Clock (6301) and Configuration Support C (9112).

**Notes:**

1. *In Canada and the U.S., this feature requires a data access arrangement type CDT or FCC-registered equivalent. In World Trade countries, this feature includes the PSN line plate, which is mandatory for attachment to the public switched telephone network.*

2. *Canada only: This feature is for SNA/SDLC only.*

**5507 1200-bps Integrated Modem, Nonswitched with Switched Network Backup (3274-51C, 3276)**

Provides an integrated modem at 600 or 1200 bps for operation over nonswitched communications facilities, and also provides manual switched network backup capability. No external modem is required. Mutually exclusive with other interface/modem features (3701, 4850, 5500, 5501, 5502, 5508, 5650, and 5651). Prerequisites: For 3276, Communications Feature with Business Machine Clock (6301). For 3274-51C, Common Communications Adapter with Business Machine Clock (6301) and Configuration Support C (9112). Specify: 9651 for use with a 4-wire facility or 9652 for use with a 2-wire facility.

*Note: In Canada and the U.S., this feature requires a data access arrangement type CDT or FCC-registered equivalent. In World Trade countries, this feature includes the PSN line plate, which is mandatory for attachment to the public switched telephone network.*

**5508 1200-bps Integrated Modem, Nonswitched with Switched Network Backup, Auto Answer (3274-51C, 3276)**

Provides an integrated modem for operation over nonswitched communications facilities at 600 or 1200 bps and also provides auto/manual answer switched network backup capabilities. No external modem is required. Mutually exclusive with other interface/modem features (3701, 4850, 5500, 5501, 5502, 5507, 5650, and 5651). Prerequisite: For 3276, Communications Feature with Business Machine Clock (6301). For 3274-51C, Common Communications Adapter with Business Machine Clock (6301) and Configuration Support C (9112). Specify: 9651 for use with a 4-wire facility or 9652 for use with a 2-wire facility.

*Note: In Canada and the U.S., this feature requires a data access arrangement type CBS or FCC-registered equivalent. In World Trade countries, this feature includes the PSN line plate, which is mandatory for attachment to the public switched telephone network.*

**5550 Printer Adapter (3275)**

Permits attaching the 3284-3 printer. The adapter provides the controls to print out the contents of the 3275 buffer.

**5550 Power Expansion (3274-51C)**

Provides the additional power required for the installation of Terminal Adapter Type B (7801).

**5640 2400-bps Integrated Modem, Nonswitched (3274-31C, -51C)**

Provides a self-clocked, microprocessor-based, integrated modem that operates in data half-duplex mode over 4-wire, nonswitched duplex communication facilities at speeds of 1200 and 2400 bps. It is line-compatible with, and suitable for, communication with an IBM 3863 Model 1 Modem. Speed selection is under both operator and/or host control. It operates in point-to-point or multipoint mode. Equalization is automatic and is continuously performed. Supports the same Link Problem Determination Aid (LPDA) diagnostic functions provided by the base 3863 Model 1 Modem for enhanced network management and network problem determination. Also provides an "out-of-band" tone to the host modem when the integrated modem or the control unit has lost power and can no longer communicate. LPDA and power-loss detection operate with Network Problem Determination Application (NPDA) Release 2. (See Network Problem Determination Application, Program Number 5735-XX8, for the program products required on the host system.) Limitation: Cannot be used with any other Communications Interface feature or Terminal Adapter Type B. Detection of power loss is not supported unless the Extended Diagnostic Card feature (7930) is installed in the host modem. Prerequisites: Communications Adapter without Business Machine Clock (6302 or 6303) and Configuration Support C (9112).

**Notes:**

1. *Specify 9321 for operation as a tributary station in a multipoint network or 9322 for point-to-point operation.*
2. *For Japan only, specify 2943 if used on NTT D1 service.*

**5650 DDS Adapter, Point-to-Point Operation (3274-1C, -21C, -31C, -51C; 3276) (U.S. only)**

**5651 DDS Adapter, Multipoint Operation (3274-1C, -21C, -31C, -51C; 3276) (U.S. only)**

Provides an integrated adapter for BSC or SDLC data transmission at speeds of 2400, 4800, or 9600 bps, or SDLC data transmission at 56,000 bps, over the AT&T non-switched Dataphone<sup>1</sup> digital data service (DDS) network. This adapter interfaces with a DDS channel service unit, the customer site termination of the DDS network. Mutually exclusive with other interface/modem features (3701, 4850, 5500, 5501, 5502, 5507, and 5508). Prerequisites: For 3274, Communications Adapter (6302 or 6303) for speeds up to 9600 bps or High Performance Communications Adapter (6303) for speeds above 9600 bps. Specify 9822 for 2400 bps, 9823 for 4800 bps, 9825 for 9600 bps, or 9833 for 56,000 bps.

**5655 X.21 Adapter for Nonswitched Networks (Japan only) (3274-1C, -21C, -31C, -51C; 3276-11, -12, -13, -14)**

An interface adapter for connection to the DDC network in Japan. It operates in SDLC mode at speeds of 2400, 4800, 9600, or 48,000 bps through X.21 Nonswitched data communication equipment. Limitation: Cannot be used with any other Communications Interface feature. Does not support BSC transmission control protocol. Prerequisite: Communications Adapter (6302 or 6303) for communication up to 9600 bps or High Performance Communications Adapter (6303) for communication at 48,000 bps.

---

<sup>1</sup>Trademark of the American Telephone and Telegraph Co.



**5656 X.21 Switched Adapter (Japan and Nordic Countries only) (3274-21C, -31C, -51C; 3276-11, -12, -13, -14)**

An interface adapter for connection to the DDX Network in Japan. It operates in SDLC mode only at speeds up to 48,000 bps. Limitation: Cannot be used with any other Communications Interface feature. Does not support BSC transmission control protocol. Prerequisite: Communications Adapter (6301, 6302, or 6303) for communication up to 9600 bps or High Performance Communications Adapter (6303) (3274 only) for communication at 48,000 bps.

**5740 4800-bps Integrated Modem, Nonswitched (3274-31C, -51C)**

Provides a self-clocked, microprocessor-based, integrated modem that operates in data half-duplex mode over 4-wire, nonswitched duplex communication facilities at speeds of 2400 and 4800 bps. It is line-compatible with, and suitable for, communication with an IBM 3864 Model 1 Modem. Speed selection is under both operator and/or host control. It operates in point-to-point or multipoint mode. Equalization is automatic and is continuously performed. Supports the same Link Problem Determination Aid (LPDA) diagnostic functions provided by the base 3864 Model 1 Modem for enhanced network management and network problem determination. Also provides an "out-of-band" tone to the host modem when the integrated modem or the control unit has lost power and can no longer communicate. LPDA and power-loss detection operate with Network Problem Determination Application (NPDA) Release 2. (See Network Problem Determination Application, Program Number 5735-XX8, for the program products required on the host system.) Limitation: Cannot be used with any other Communications Interface feature or Terminal Adapter Type B. Detection of power loss is not supported unless Extended Diagnostic Card feature (7930) is installed in the host modem. Prerequisites: Communications Adapter without Business Machine Clock (6302 or 6303) and Configuration Support C (9112).

**Notes:**

- 1. Specify 9321 for operation as a tributary station in a multipoint network or 9322 for point-to-point operation.*
- 2. For Japan only, specify 2943 if used in NTT D1 service.*

**5781 Programmed Symbols 2 (PS-2) (3278-2, -3, -4; 3279-2B, -3B; 3287)**

PS-2 provides storage and accessing of two 190-character symbol sets whose shapes and codes are customer-definable. The symbol sets are loaded under program control and accessed for display or printing through programming or by an operator from the display keyboard. Prerequisites: For the 3278, Extended Character Set Adapter (3610). For the 3279, none. For the 3287, Extended Print Buffer (3880) and Extended Character Set Adapter (3610).

**5782 Programmed Symbols 4 (PS-4) (3278-2, -3, -4; 3279-2B, -3B; 3287)**

PS-4 provides storage and accessing for an additional four 190-character symbol sets whose shapes and codes are customer-definable. Prerequisite: PS-2 (5781)

**Notes for 5781 and 5782:**

- 1. The number of symbols in any one set that can be accessed from the display station keyboard is 94 (or 116 for Canadian French or 127 for Japanese Katakana) plus space.*
- 2. These features are available only on the 3278 Models 2, 3, and 4, the 3279 Models 2B and 3B, and the 3287.*
- 3. These features can only be used with a 3274 equipped with a Category A terminal port having the Programmed Symbols (PS) Control and the Structured Field and Attribute Processing options of Configuration Support C.*

4. *If display operator selection of Programmed Symbols is required, keyboard 4640, 4651, 4652, 2708, 2719, or 2721 must be used.*
5. *On the 3287 Models 1C and 2C, also permits printing within a character location in a selected color (black, blue, green, or red).*

**5783 Programmed Symbols 4A (PS-4A) (3287-1C, -2C)**

PS-4A provides the storage and accessing of four 190-symbol sets whose shapes and codes are customer-definable. Three of the symbol sets allow printing within a character location in a selected color (black, blue, green, *or* red), and the remaining set allows printing of up to four colors (black, blue, green, *and* red) within a given character location. Limitations: Can only be used with a 3274 equipped with a Category A terminal port having the PS Control and the Structured Field and Attribute Processing (SFAP) options of Configuration Support C. Cannot be installed with PS-2 (5781) or PS-4 (5782). Prerequisites: Extended Character Set Adapter (3610) and Extended Print Buffer (3880).

- 5811 48-Character ASCII Print Belt (3289)
- 5812 64-Character ASCII Print Belt (3289)
- 5813 94-Character ASCII Print Belt (3289)
- 5821 48-Character EBCDIC Print Belt (3289)
- 5822 64-Character EBCDIC Print Belt (3289)

**5823 94-Character EBCDIC Print Belt (3289)**

Provides a print belt of the indicated character set. (U.S. only; contact IBM for other character set languages.)

**5840 9600-bps Integrated Modem, Nonswitched, Point-to-Point (3274-31C, -51C)**

Provides a self-clocked, microprocessor-based, integrated modem that operates in data half-duplex mode over 4-wire, nonswitched duplex communication facilities at speeds of 4800 and 9600 bps. It is line-compatible with, and suitable for, communication with an IBM 3865 Model 1 Modem. Speed selection is under both operator and/or host control. It operates in point-to-point mode. Equalization is automatic and is continuously performed. Supports the same Link Problem Determination Aid (LPDA) diagnostic functions provided by the base 3865 Model 1 Modem for enhanced network management and network problem determination. Also provides an "out-of-band" tone to the host modem when the integrated modem or the control unit has lost power and can no longer communicate. LPDA and power-loss detection operate with Network Problem Determination Application (NPDA) Release 2. (See Network Problem Determination Application, Program Number 5735-XX8, for the program products required on the host system.) Limitation: Cannot be used with any other Communications Interface feature or Terminal Adapter Type B. Detection of power loss is not supported unless the Extended Diagnostic Card feature (7930) is installed in the host modem. Prerequisites: Communications Adapter without Business Machine Clock (6302 or 6303) and Configuration Support C (9112).

**5842 9600-bps Integrated Modem, Nonswitched, Multipoint (3274-31C, -51C)**

Provides a self-clocked, microprocessor-based, integrated modem that operates in data half-duplex mode over 4-wire, nonswitched duplex communication facilities at speeds of 4800 and 9600 bps. It is line-compatible with, and suitable for, communication with an IBM 3865 Model 2 Modem. Speed selection is under both operator and/or host control. It operates as a multipoint tributary station. Equalization is automatic and is continuously performed. Supports the same Link Problem Determination Aid (LPDA) diagnostic functions provided by the base 3865 Model 2 Modem for enhanced network management and network problem determination. Also provides an "out-of-band" tone

to the host modem when the integrated modem or the control unit has lost power and can no longer communicate. LPDA and power-loss detection operate with Network Problem Determination Application (NPDA) Release 2. (See Network Problem Determination Application, Program Number 5735-XX8, for the program products required on the host system.) Limitation: Cannot be used with any other Communications Interface feature or Terminal Adapter Type B. Detection of power loss is not supported unless the Extended Diagnostic Card feature (7930) is installed in the host modem. Prerequisites: Communications Adapter without Business Machine Clock (6302 or 6303) and Configuration Support C (9112).

**5920 EBCDIC Print Belt (3288)**

This accessory provides a print belt of the 64 characters described on the EBCDIC keyboard.

**5921 Text Print Belt (3288)**

This accessory provides a print belt of the 120 sans serif characters in the TN/T11 character set.

**6301 Communications Feature with Business Machine Clock (3276)**

Required for attachment to communication facilities through any 600- or 1200-bps integrated modem, or the External Modem Interface (3701) at 1200 bps (SNA/SDLC or BSC), or to any external modem that does not provide its own clocking. Mutually exclusive with Communications Feature without Business Machine Clock (6302).

**6301 Common Communications Adapter with Business Machine Clock (3274-51C)**

Required for attachment to communication facilities through any 600 or 1200 bps integrated modem, to the External Modem Interface (3701) at 1200 bps (SNA/SDLC or BSC), or to any external modem that does not provide its own clocking. Mutually exclusive with 6302 and 6303.

**6302 Communications Feature without Business Machine Clock (3276)**

Required for attachment to communication facilities, at speeds up to 9600 bps using SDLC, or up to 7200 bps using BSC, through any external modem that provides its own clocking, or through the DDS Adapter (5650 or 5651). It is also required for attachment to the directly attached or data-link-attached loops of the 8100 Information System at speeds of up to 9600 bps. Mutually exclusive with Communications Feature with Business Machine Clock (6301).

**6302 Common Communications Adapter without Business Machine Clock (3274-1C, -21C, -31C)**

Required for attachment to communication facilities at speeds up to 9600 bps. SNA/SDLC and BSC transmission control protocols are supported. Clocking must be provided by the modem or communication facility. Limitations: When a Category B Terminal Adapter(s) (7802, 7803, 7804, or 7805) is installed, the High Performance Communications Adapter (6303) must be installed in lieu of this feature, if SNA/SDLC protocol is required with a line speed greater than 7200 bps. This feature cannot be installed with the High Performance Communications Adapter (6303).

**6302 Common Communications Adapter (3274-51C)**

Required for attachment to communication facilities at speeds up to 9600 bps. SNA/SDLC and BSC transmission control protocols are supported. Clocking must be provided by the modem or communication facility. Limitations: When a Category B Terminal Adapter (7801) is installed, the High Performance Communications Adapter (6303) must be installed in lieu of this feature, if SNA/SDLC protocol is required with a line speed greater than 7200 bps. When a Category B Terminal Adapter is not installed, this feature (6302), 6301, and 6303 are mutually exclusive.

**6303 High-Performance Communications Adapter (3274-1C, -21C, -31C, -51C)**

Required for attachment to the communication lines through a modem with its own clocking when SNA/SDLC protocol is required with a line speed of 9600 bps, and a Category B Terminal Adapter(s) (7802, 7803, 7804, or 7805) is installed. It is required when the line speed exceeds 9600 bps. It is also required for attachment to the directly attached or data-link-attached loops of the IBM 8100 Information System at speeds of up to 38,400 bps. Mutually exclusive with Common Communications Adapter 6301 and 6302.

*Note: Operation is restricted to SNA/SDLC protocol; initial microcode load (IML) for BSC protocol is not possible.*

**6315 SDLC/BSC Switch (3276-1, -2, -3, -4)**

Provides SNA/SDLC transmission control in addition to the basic binary synchronous communication (BSC). SDLC or BSC can be selected by the operator with a switch on the operator panel. Mutually exclusive with Extended Function Base (1068).

**Notes:**

- 1. The 3276 Models 1, 2, and 3 with feature 6315 installed and operating in SDLC mode support the same 3278 models as the 3276 Models 11, 12, and 13, respectively.*
- 2. A 3276 with feature 6315 installed does not support attachment of the 3279 Color Display Station.*

**6340 Security Keylock (3275, 3276, 3277, 3278, 3279)**

A lock and key which prevents modification or display of data in the 3276, 3278, or 3279 display station when in the "off" position. When the Security Keylock feature is combined with the Encrypt/Decrypt feature (3680) on the 3276, a third position of the lock permits modification of the 56-bit encrypt/decrypt key variable.

**6350, 6351 Selector Pen (3275, 3276, 3277, 3278, 3279)**

A hand-held, pen-like device that permits the operator to select fields of data from a display for input to the host system. The 6351 Selector Pen has a slightly wider field of view to make the light pen easier for the operator to use. It is available on the 3276 Models 1, 2, 11, and 12 and the 3278 Models 1 and 2 only.

- 6901 Terminal Adapter Type A1 (All 3274 Models except 51C)**
- 6902 Terminal Adapter Type A2 (All 3274 Models except 51C)**
- 6903 Terminal Adapter Type A3 (All 3274 Models except 51C)**

Each adapter permits attachment of an additional eight Category A terminals. The base control unit, which provides for attachment of eight Category A terminals (1–8), can be expanded with these three adapters to a maximum configuration of 32 Category A terminals. One each of these adapters can be installed and they must be installed in sequence.

<b>Adapter Type</b>	<b>Terminals</b>	<b>Mutually Exclusive with Type</b>	<b>Prerequisites</b>
A1 (6901)	9–16	—	—
A2 (6902)	17–24	—	A1 (6901)
A3 (6903)	25–32	B3 (7804) B4 (7805)	A1 (6901) A2 (6902)

**7801 Terminal Adapter Type B (3274-51C)**

Permits attachment of four Category B terminals, thus expanding the capability of the control unit to attach up to 12 terminals. Prerequisite: Power Expansion (5550). Limitations: Category B terminals are not supported when attached to an 8100 Information System.

**7802 Terminal Adapter Type B1 (All 3274 Models except 21A, 21C/SNA, and 51C)**

Permits four Category B terminals (1–4) to be attached and provides for installation of Terminal Adapter Types B2, B3, and B4 (7803, 7804, and 7805) when additional Category B terminals are desired.

**7803 Terminal Adapter Type B2 (All 3274 Models except 21A, 21C/SNA, and 51C)**

**7804 Terminal Adapter Type B3 (All 3474 Models except 21A, 21C/SNA, and 51C)**

**7805 Terminal Adapter Type B4 (All 3274 Models except 21A, 21C/SNA, and 51C)**

Each adapter permits four additional Category B terminals to be attached. A maximum of one each of these adapters can be installed for a combined total of 12 additional or 16 total Category B terminals attached to a control unit. One each of these adapters can be installed, and they must be installed in sequence.

<b>Adapter Type</b>	<b>Terminals</b>	<b>Mutually Exclusive with Type</b>	<b>Prerequisites</b>
B2 (7803)	5–8	—	B1 (7802)
B3 (7804)	9–12	A3 (6903)	B1 (7802) B2 (7803)
B4 (7805)	13–16	A3 (6903)	B1 (7802) B2 (7803) B3 (7804)

**7820 1200-bps Transmission Speed (3271; 3275-1, -2, -11, -12)**

Permits operation over the communication facilities at 1200 bps. Clocking is provided by the unit. Mutually exclusive with 4800/7200-bps Transmission Speed (7821).

**7821 4800/7200-bps Transmission Speed (3271-1, -2, 3275-1, -2)**

Permits operation over the communication facilities at speeds up to 7200 bps. Clocking is provided by the modem. Mutually exclusive with 1200-bps Transmission Speed (7820).

- 7825 9600-bps Transmission Speed (3275-3)**  
Permits operation over a 3651 Store Controller local loop at 9600 bps.
- 7880 Text Print Feature (3288)**  
Provides the 120 sans serif characters in the TN/T11 character set. Also provides character underscore and overstrike (using a line advance inhibiting order). Mutually exclusive with Katakana Character Generator (2706). Prerequisite: EBCDIC TN/T11 Character Set (9093).
- 8330 3271/3272 Attachment (3287)**  
Provides one interface for attaching a 3287 to a 3271, 3272, 3274, 3791 Controller, 8101 Storage and I/O Unit, or S/370 Model 138 or 148. Provides the buffer storage required for print operation. Mutually exclusive with 3274/3276 Attachment (8331). Also, the 127 character plus space and null Katakana enhancement is not supported. Prerequisites: For 3271 or 3272, an available port or added Device Adapter (3250); for 3274, an available Type B port or added Terminal Adapter Type B (7802, etc.).
- 8331 3274/3276 Attachment (3287)**  
Provides one interface for attaching a 3287 to a 3274 or 3276. Provides the buffer storage required for print operation and also Buffer Reprint support. Mutually exclusive with 3271/3272 Attachment (8330) or Data Analysis – APL (1066). Prerequisites: For 3274, an available Type A port or added Terminal Adapter Type A (6901, etc.); for 3276, an available port or added Terminal Adapter (3255, etc.).
- 8700 Variable-Width Forms Tractor (3287)**  
A forms-feeding device for continuous margin-punched forms. Overall forms width from 76.2 to 381.0 mm (3 to 15 inches) can be fed. Forms of up to six parts, with a total thickness of 0.457 mm (0.018 inch), may be used. Prerequisite: Variable Width Forms Tractor – Paper Handling (9185) where there is a requirement to handle forms with an overall width from 76.2 to 203.2 mm (3 to 8 inches).
- 8801 Waterproof Power Connector (3274-1A, -1B, -1D, -21A, -21B, -21D, -31A, and -31D)**  
Provides a waterproof connector on the power cable to satisfy local ordinances requiring termination of this type in specific locations.

## Chapter 2. Feature Lists

Figures 2-1 through 2-42 give the configuration feature codes for the units in the IBM 3270 Information Display System.

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	S/360 Model 25		9571		
	S/360 Model 30		9572		
	S/360 Model 40		9573		
	S/360 Model 50		9575		
	S/360 Model 65		9576		
	S/360 Model 67		9577		
	S/360 Model 75		9578		
	S/360 Model 85		9579		
	S/360 Model 195		9580		
	S/370 Model 115		9589		
	S/370 Model 125		9586		
	S/370 Model 135, 135-3		9581		
	S/370 Model 138		9595		
	S/370 Model 145, 145-3		9582		
	S/370 Model 148		9596		
	S/370 Model 155, 155 II		9583		
	S/370 Model 158, 158 MP		9587		
	S/370 Model 165, 165 II		9584		
	S/370 Model 168, 168 MP		9588		
	S/370 Model 195		9580		
3031 Processor		9599			
3032 Processor		9598			
3033 Processor		9597			
4331 Processor		9606			
4341 Processor		9607			

Figure 2-1. 3271/3272 System Attachment – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	115 V Locking Plug		9880		
	208 V Locking Plug		9884		
	230 V Locking Plug		9886		
	115 V Nonlocking Plug		9881		
	208 V Nonlocking Plug		9885		
	230 V Nonlocking Plus		9887		
1 N Choose one	<u>Transmission Codes</u>				
	EBCDIC		9761		
	ASCII		9762		
O	Data Analysis – APL (Not available for Model 1 or 11)	1066			
O	Copy	1550			
O	Device Adapter (Each permits four additional devices.)	3250			
O	<u>Transmission Speeds</u>				
	1200 bps	7820			
	4800 or 7200 bps (Models 1, 2)	7821			
1 N	ASCII Transmission Code for Models 11, 12		1200		

**Legend:**

1 ASCII is available in U.S. only.

Figure 2-2. 3271 Control Unit – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
1 N Choose one	208 V Locking Plug		9884		
	230 V Locking Plug		9886		
	208 V Nonlocking Plug		9885		
	230 V Nonlocking Plug		9887		
N (For record purposes)	<u>Host System Operator Console (Model 2 only)</u>				
	3277 Model 2		9480		
	None		9481		
O	Data Analysis – APL (Model 2)	1066			
O	Device Adapter (Each permits four additional devices.)	3250			

**Legend:**

1 U.S. and Canada.

Figure 2-3. 3272 Control Unit – Universal



Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
	115 V, 60 Hz		9901		
	200 V, 60 Hz		2732		
1 Choose one (Japan only)	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	Japanese Spanish		2930 2931		
O	Katakana Character Generator	2706			
O	Katakana Control	2707		2706	

**Legend:**

- 1** Available for all voltages under 200V.

Figure 2-4. 3271/3272 Control Units – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
	115V, 60 Hz		9901		
	200 V, 60 Hz		2732		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	French		2928		
	German		2929		
	Italian Spanish		2932 2931		

Figure 2-5. 3271/3272 Control Units – Additions for Americas/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
<b>1</b> N <b>6</b> Choose one	120V Locking Plug (model 1C only)		9890		
	208V Locking Plug		9884		
	240V Locking Plug		9894		
	120V Nonlocking Plug (Model 1C only)		9891		
	208V Nonlocking Plug		9885		
	240V Nonlocking Plug		9895		
O	Power Connector, Waterproof (U.S. and Canada)	8801		9884 or 9894	
<b>2</b> O	Power Cable, 1.8 meters (6 ft)		9511		
<b>13</b> O	Power Expansion	5550		7801	
<b>3</b> O <b>22</b> Choose one	Communication Cable 3.0 meters (10 ft)		9061		
	Communication Cable 9.1 meters (30 ft)		9062		
	Communication Cable 12.2 meters (40 ft)		9063		
O Choose as needed (8 terminals per adapter)	Terminal Adapter Type A1	6901			
	Terminal Adapter Type A2	6902		6901	
	Terminal Adapter Type A3	6903		6902	7804
<b>13</b> <b>14</b> O	Terminal Adapter – Type B	7801		5550	<b>26</b> 4850
<b>20</b> O Choose as needed (4 terminals per adapter)	Terminal Adapter Type B1 <b>21</b>	7802			
	Terminal Adapter Type B2	7803		7802	
	Terminal Adapter Type B3	7804		7803	6903
	Terminal Adapter Type B4	7805		7804	6903
N (Models 1C and 51C only) Choose one Special Feature; then choose one Specify Feature	External Modem Interface	3701		6301, 6302 or 6303	5650 or 5651
	Digital Data Service Adapter <b>10</b> (nonswitched, point-to-point)	5650		6302 or 6303	3701 or 5651
	Digital Data Service Adapter <b>10</b> (nonswitched, multipoint)	5651		6302 or 6303	3701 or 5650
	2000 bps <b>9</b>		9821		
	2400 bps		9822		
	4800 bps		9823		
	7200 bps <b>9</b>		9824		
	9600 bps		9825	<b>5</b> 6303	
<b>13</b> O Choose one (Model 51C only)	<b>15</b> 1200 bps Integrated Modem, Switched with Manual Answer	5502		<b>19</b> 6301	3701, 4850, 5500, 5501, 5507, 5508, 5650, 5651
	1200 bps Integrated Modem, Nonswitched	5500	9651 or 9652	<b>19</b> 6301	3701, 4850, 5501, 5502, 5507, 5508, 5650, 5651
	<b>15</b> 1200 bps Integrated Modem, Nonswitched with Switched Network Backup and Manual Answer	5507	9651 or 9652	<b>19</b> 6301	3701, 4850, 5500, 5501, 5502, 5508, 5650, 5651
	<b>16</b> 1200 bps Integrated Modem, Switched with Auto Answer	5501		<b>19</b> 6301	3701, 4850, 5500, 5502, 5507, 5508, 5650, 5651
	<b>16</b> 1200 bps Integrated Modem, Nonswitched with Switched Network Backup and Auto Answer	5508	9651 or 9652	<b>19</b> 6301	3701, 4850, 5500, 5501, 5502, 5507, 5650, 5651
O	Encrypt/Decrypt Feature	<b>8</b> 3680			
O	Alternate Mailing Address <b>10</b>	9011			
N Choose one (See Limitations in text.)	<b>13</b> Common Communications Adapter with Business Machine Clock	6301			6302, 6303
	<b>22</b> Common Communications Adapter without Business Machine Clock	6302			6301 (Model 51C) and 6303
	<b>22</b> High-Performance Communications Adapter	6303			6301 (Model 51C) and 6302

Figure 2-6. 3274 Control Unit – Universal (Part 1 of 2)

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
<b>24</b> O <b>25</b>	2400 bps Integrated Modem, Nonswitched	5640	9321 or 9322	6302 or 6303 and 9112	
<b>24</b> O <b>25</b>	4800 bps Integrated Modem, Nonswitched	5740	9321 or 9322	6302 or 6303 and 9112	
<b>24</b> O <b>25</b>	9600 bps Integrated Modem, Nonswitched, Point-to-Point	5840		6302 or 6303 and 9112	
<b>24</b> O <b>25</b>	9600 bps Integrated Modem, Nonswitched, Multipoint	5842		6302 or 6303 and 9112	
<b>4</b> O	Control Storage Expansion	1801		3622 or 3623	
<b>13</b> O	Control Storage Expansion	1802		3630, 3632	
<b>4</b> O Specify as needed. See Appendix A.	<b>7</b> Extended Function Store Type C1	3622		1801	3623
	<b>12</b> Extended Function Store Type C2	3623		1801	3622
	<b>7</b> Extended Function Store Type C3	3625		1801, 3622	
	<b>7</b> Extended Function Store Type D1	3627		1801, 3622 or 3623	
	<b>12</b> Extended Function Store Type D2	3628		1801, 3622 or 3623	
<b>13</b> O Specify as needed. See Appendix A.	<b>12</b> Extended Function Store Type D1	3630		1802	3632
	<b>12</b> Extended Function Store Type D2	3632		1802	3631
	<b>18</b> Extended Function Store Type D3	3631		1802, 3630	
<b>11</b> O Specify as needed. See text.	<b>17</b> Configuration Support B (9111)		9110		
	<b>23</b> Configuration Support C (9112)				
<b>13</b> O	<b>16</b> Loop Adapter	4850		6303, 9112	3680, 3701, 5500, 5501, 5502, 5507, 5508, 5650, 5651 <b>26</b>
<b>13</b> N with 5500, 5507, or 5508	4-wire facility		9651	5500, 5507,	
	2-wire facility		9652	5508	
<b>22</b> O	CCITT V.35 Interface	1550		6301, 6302, 6303	<b>25</b>

**Legend:**

- 1** AC voltage, 1 phase, 3-wire, 60 Hz.
- 2** 4.3 meters (14 ft) normally supplied. Optionally specify other lengths.
- 3** 6.1 meters (20 ft) normally supplied. Optionally specify other lengths.
- 4** Models 1A, 1C, and 1D only.
- 5** Prerequisite only when SNA/SDLC protocol is required and feature code 7802 is installed.
- 6** Not available in E/ME/A countries.
- 7** Provides an increment of 16,384 positions of additional control storage.
- 8** Available with SDLC line control only.
- 9** Not available with Special Features 5650 and 5651.
- 10** U.S. only
- 11** Configuration Support A is shipped with all 3274s unless Configuration Support B or C is specified.
- 12** Provides increments of 32,768 positions of additional control storage.
- 13** Model 51C only.
- 14** Category B terminals are not supported when attached to the 8100 Information System.
- 15** Data Coupler Type CDT or FCC-certified equivalent is required (U.S. and Canada only).
- 16** Requires a CBS type data access arrangement or FCC-registered equivalent (U.S. and Canada only).
- 17** All models except Models 1B and 21B.
- 18** Provides increments of 65,536 positions of additional control storage.
- 19** For Model 51C, also Configuration Support C (9112).
- 20** All models except Model 51C.
- 21** When installed on a Model 1A, or on a Model 1C to be used in SNA/SDLC, Extended Function Store feature(s) (3622, 3625, 3627) and Control Storage Expansion (1801) are required. See Appendix A to determine accurately what storage features are required in specific configurations.
- 22** Models 1C, 21C, 31C, and 51C only.
- 23** All models except 1B, 21A, 21B, 21C, and 21D.
- 24** Models 31C and 51C only.
- 25** Cannot be used with any other Communications Interface feature.
- 26** For 8100 attachment, cannot be used with 7801.

Figure 2-6. 3274 Control Unit—Universal (Part 2 of 2)

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power – World Trade A/FE except Canada		2998		
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	200 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	230 V, 50 Hz		2821		
	240 V, 50 Hz		2801		
	100 V, 60 Hz		2730		
	110 V, 60 Hz		2822		
	120 V, 60 Hz		2800		
	127 V, 60 Hz		2823		
	200 V, 60 Hz		2732		
	208 V, 60 Hz		9902		
	220 V, 60 Hz		2803		
	240 V, 60 Hz		2831		
<b>1</b> <b>2</b> Choose one	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	Brazilian		2933		
	Canadian/French		2935		
	English (US)		2924		
	Japanese		2930		
	Spanish-speaking		2931		
<b>2</b> O	X.21 Adapter for Nonswitched Networks	5655		6301, 6302 or 6303	
<b>3</b> O	X.21 Switched Adapter	5656			

Legend:

**1** Available for all voltages under 200V.

**2** Japan only.

**3** Japan and Nordic countries only.

Figure 2-7. 3274 Control Unit – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power		2999		
	220 V, 50 Hz		2813		
	240 V, 50 Hz		2801		
	<b>1</b> 120V, 60 Hz		2800		
O (UK only)	Communication Cable – Datel 2412 Service, Facility 3		2835		
O (Germany only)	Communication cable – D2400S Direct-Call Facility Service		2899		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2924		
	French		2928		
	German		2929		
	Italian		2932		
	Spanish		2931		

Legend:

**1** Saudia Arabia only.

Figure 2-8. 3274 Control Unit – Additions for Europe/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite	Mutually Exclusive
N Choose one	System Attachment				
	S/360 Model 25		9571		
	S/360 Model 30		9572		
	S/360 Model 40		9573		
	S/360 Model 50		9575		
	S/360 Model 65		9576		
	S/360 Model 67		9577		
	S/360 Model 75		9578		
	S/360 Model 85		9579		
	S/360 Model 195		9580		
	S/370 Model 115		9589		
	S/370 Model 125		9586		
	S/370 Model 135, 135-3		9581		
	S/370 Model 138		9595		
	S/370 Model 145, 145-3		9582		
	S/370 Model 148		9596		
	S/370 Model 155		9583		
	S/370 Model 158		9587		
	S/370 Model 165		9584		
S/370 Model 168		9588			
3031 Processor		9599			
3032 Processor		9598			
3033 Processor		9597			
N Choose one	Transmission Code				
	EBCDIC <b>2</b>		9761	9089	
	ASCII <b>2 4</b>		9762	9091 or 9092	
N Choose one	Character Set				
	EBCDIC		9089	9761	
	<b>4</b> ASCII (A)		9091	9762	
O	Audible Alarm	1090			
	<b>2</b> Dial	3440			7820,7821
	Operator Identification Card Reader	4600		Any keyboard	
<b>1</b> N Choose one	Power				
	115 Vac Locking Plug		9880		
O Choose one	Keyboards				
	66-key EBCDIC Typewriter	4630		9089	
	66-key EBCDIC Data Entry	4631		9089	
	66-key EBCDIC Data Entry with keypunch layout	4636		9089	
	78-key Operator Console	4632		9089	
	78-key EBCDIC Typewriter	4633		9089	
	<b>4</b> 66-key ASCII	4634		9091 or 9092	
<b>4</b> 78-key ASCII	4635		9091 or 9092		
O	Keyboard Numeric Lock	4690			
<b>1</b> O	<b>2</b> 1200-bps Integrated Modem with Auto-Answer	5501		3440	
O	Printer Adapter	5550			
O	Security Keylock	6340			
O	Selector Pen	6350			
O	Transmission Speed				
	1200 bps	7820			3440,7821
O	<b>2</b> 4800 or 7200 bps	7821			3440,7820
	1200-bps Integrated Modem	5500		3440 or 7820	

Legend:

- 1** U.S. and Canada only.
- 2** For 3275 Models 1 and 2 only.
- 3** For 3275 Models 11 and 12 only.
- 4** ASCII is available in U.S. only.

Figure 2-9. 3275 Display Station – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2811		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
	115 V, 60 Hz		9901		
1 Choose one (Japan only)	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	Japanese		2930		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	English (UK)		2703		
	English (US)		2705		
	Portuguese		2712		
	Spanish		2714		
N Choose one	<u>Keyboard Language</u>				
	English (UK)		2958		
	English (US)		2956		
	Portuguese		2959		
	Spanish		2961		
O	Katakana Character Generator	2706			3440
O	Katakana Typewriter Keyboard	2955		2707	2973
O	Katakana Data Entry Keyboard	2973		2707	2955

**Legend:**

**1** Available for all voltages under 200V.

Figure 2-10. 3275 Display Station – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2811		
	220 V, 50 Hz		2813		
	100 V, 60 Hz		2730		
	115 V, 60 Hz		9901		
	235 V, 50 Hz		2814		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	French		2928		
	German		2929		
	Italian		2932		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	Austrian/German		2704		
	Belgian/French (dual case)		2709		
	Belgian/French (mono case)		2705		
	Danish/Norwegian		2710		
	English (UK)		2703		
	English (US)		2705		
	Finnish/Swedish		2708		
	Italian (dual case)		2702		
	Italian (mono case)		2705		
	Portuguese		2712		
	Spanish		2714		
N Choose one	<u>Keyboard Language</u>				
	Austrian/German		2957		
	Belgian		2971		
	Danish		2965		
	English (UK)		2958		
	English (US)		2956		
	Finnish/Swedish		2963		
	French		2964		
	Italian		2968		
	Norwegian		2966		
	Portuguese		2959		
	Spanish		2961		

Figure 2-11. 3275 Display Station – Additions for Europe/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
O	Audible Alarm	1090			
O Choose as many as needed (2 terminals per adapter)	Terminal Adapter 1	3255			
	Terminal Adapter 2	3256		3255	
	Terminal Adapter 3	3257		3256	
N Choose one	75-Key EBCDIC Typewriter Keyboard	4621			
	75-Key EBCDIC Data Entry Keyboard	4622			
	75-Key EBCDIC Data Entry Keypunch Layout Keyboard	4623			
	<b>5</b> 75-Key ASCII Typewriter Keyboard	4624			1067
	<b>1</b> 87-Key EBCDIC Typewriter Keyboard (12 additional PF keys)	4627			
	<b>1</b> 87-Key ASCII Typewriter Keyboard <b>5</b> (12 additional PF keys)	4628			1067
	<b>4</b> 87-Key EBCDIC Typewriter/Text Keyboard (U.S. English only)	4629		1120, 1067	
	87-Key EBCDIC Typewriter/APL Keyboard	4626		1120, 1067	
<b>1</b> O	Keyboard Cable, 1.8 meters (6 ft)		9399		
O	Keyboard Numeric Lock	4690		Any keyboard	1067
O	Security Keylock	6340			
O	Address Keylock	1009			
O	Selector Pen	<b>6</b> 6350 or <b>7</b> 6351			
O	Color Display Attachment	1950		<b>10</b> 1067, 1068	
O	SDLC/BSC Switch (Models 1, 2, 3, and 4 only)	6315			1068
N Choose one	120V, 60 Hz Locking Plug		<b>11</b> 9890		
	120V, 60 Hz Nonlocking Plug		<b>12</b> 9891		
<b>2</b> O Choose one	<b>4</b> Power Cable, 1.8 meters (6 ft)		9511		
	<b>4</b> Power Cable, 3.7 meters (12 ft)		9512		
	Power Cable, 4.5 meters (15 ft)		9513		
O Choose one	<b>3</b> Communication Cable 3.0 meters (10 ft)		9061		
	9.1 meters (30 ft)		9062		
	12.2 meters (40 ft)		9063		
	<b>8</b> Communication Cable 4.3 meters (14 ft)		9405		
N Choose one	Communications Feature with Business Machine Clock	6301			6302
	Communications Feature without Business Machine Clock	6302			6301

**Legend:**

- |   |   |
|---|---|
| <p><b>1</b> 91 cm (3 ft) normally supplied.</p> <p><b>2</b> DPD, AFE: 2.8 meters (9 ft); EMEA: 4.5 meters (15 ft) – normally supplied. Optionally specify other lengths.</p> <p><b>3</b> 6.1 meters (20 ft) normally supplied. Optionally specify other lengths.</p> <p><b>4</b> U. S. and Canada only.</p> <p><b>5</b> ASCII is available in U. S. only.</p> <p><b>6</b> Models 3, 4, 13, and 14 only.</p> <p><b>7</b> Models 1, 2, 11, and 12 only.</p> | <p><b>8</b> 1.8 meters (6 ft) normally supplied for attachment to a directly attached or data-link-attached loop.</p> <p><b>9</b> Not available on Model 1.</p> <p><b>10</b> Feature code 1067 is required for 3279-2B, 3B with APL/Text.</p> <p><b>11</b> For Japan, locking plug normally supplied as a default option.</p> <p><b>12</b> For U. S. and Canada. Nonlocking plug normally supplied as a default option.</p> |
|---|---|

Figure 2-12. 3276 Control Unit Display Station – Universal (Part 1 of 3)



Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
O	External Modem Interface	3701		6301 or 6302	4850, 5500, 5501, 5502,
N	● Public Switched Network <b>1</b>		9490		5507, 5508, 5650, 5651,
Choose one	● Private Nonswitched Communications Facilities		9491		5655, 5656
O	Digital Data Service Adapter (nonswitched, point-to-point) U. S. only	5650	9822, 9823, or 9825	6302	3701, 5500, 5501, 5502, 5507, 5508, 5651, 5655, 5656
Choose one	Digital Data Service Adapter (nonswitched, multipoint) U. S. only	5651	9822, 9823, or 9825	6302	3701, 5500, 5501, 5502, 5507, 5508, 5650, 5655, 5656
O	X.21 Adapter for Nonswitched Networks, Japan only	5655		6302	3701, 4850, 5500, 5501, 5502, 5507, 5508, 5650, 5651, 5656
O	X.21 Adapter for Switched Networks, Japan and Nordic countries only	5656		1068, 6302	3701, 4850, 5500, 5501, 5502, 5507, 5508, 5650, 5651, 5655
N	● 2400 bps		9822	6302	
Choose one with 5650, or 5651	● 4800 bps		9823	6302	4850
	● 9600 bps (SDLC only)		9825	6302	
O	<b>2</b> 1200 bps Integrated Modem, Switched with Manual Answer (Models 11, 12, 13, and 14 only)	5502		6301	3701, 4850, 5500, 5501, 5507, 5508, 5650, 5651, 5655, 5656
Choose one	1200 bps Integrated Modem, Nonswitched	5500	9651 or 9652	6301	3701, 4850, 5501, 5502, 5507, 5508, 5650, 5651, 5655, 5656
	<b>2</b> 1200 bps Integrated Modem, Nonswitched with Switched Network Backup and Manual Answer	5507	9651 or 9652	6301	3701, 4850, 5500, 5501, 5502, 5508, 5650, 5651, 5655, 5656
	<b>3</b> 1200 bps Integrated Modem, Switched with Auto Answer (Models 11, 12, 13, and 14 only)	5501		6301	3701, 4850, 5500, 5502, 5507, 5508, 5650, 5651, 5655, 5656
	<b>3</b> 1200 bps Integrated Modem, Nonswitched with Switched Network Backup and Auto Answer	5508	9651 or 9652	6301	3701, 4850, 5500, 5501, 5502, 5507, 5650, 5651, 5655, 5656
N with 5500, 5507, or 5508	● 4-wire facility		9651 or 9652	5500, 5507, 5508	
	● 2-wire facility				

**Legend:**

- 1** Models 11, 12, 13, and 14 only.
- 2** Data Coupler Type CDT or FCC-certified equivalent is required (U.S. and Canada only).
- 3** Requires a CBS type data access arrangement or FCC-registered equivalent (U. S. and Canada only).

Figure 2-12. 3276 Control Unit Display Station – Universal (Part 2 of 3)

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
O	Magnetic Reader Control	4999			
O	<b>1</b> Magnetic Slot Reader	9441		4991	
O	<b>2</b> Magnetic Reader Extension Cable				
	6 meters (19.7 ft)	9106			
	12 meters (39.4 ft)	9107			
O	<b>3</b> Encrypt/Decrypt	3680		6340	4850
O	Extended Character Set Adapter	3610		1067	9084
O	APL/Text	1120		1067, 3610	9084
O	<b>3</b> Loop Adapter	4850		6302	3680, 3701, 5500, 5501, 5502, 5507, 5508, 5650, 5651, 5655, 5656
O	APL Text Control	1067		1068	9084
O	Extended Function Base	1068			6315

**Legend:**

- 1** Accessory Item – purchase only.
- 2** 1.5 meters (4.9 ft) cable normally supplied. Optionally specify extension cables.
- 3** Models 11, 12, 13, and 14 only.

Figure 2-12. 3276 Control Unit Display Station – Universal (Part 3 of 3)

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power — World Trade A/FE except Canada		2998		
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	200 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	230 V, 50 Hz		2821		
	240 V, 50 Hz		2801		
	100 V, 60 Hz		2730		
	110 V, 60 Hz		2822		
	120 V, 60 Hz		2800		
	127 V, 60 Hz		2823		
N Choose one (Japan only)	Locking plug		9890		
	Nonlocking plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	Brazilian		2933		
	Canadian/French		2935		
	English (US)		2924		
	English (UK)		2927		
	Japanese		2930		
	Spanish-Speaking		2931		
N Choose one	<u>Keyboard Languages</u>				
	Brazilian		2975		2715, 2716, 2717, 2718
	Canadian/French		2977		2715, 2716, 2717, 2718
	EBCDIC		2951		2715, 2716, 2717, 2718
	English (US)		2956		2715, 2716, 2717, 2718
	International		2950		2715, 2716, 2717, 2718
	Japanese (English)		2955		2716, 4621, 4627, 4629
	Japanese (Katakana)		2973		4621, 4622, 4623, 4626, 4626, 4629
	Spanish-speaking		2969		2715, 2716, 2717, 2718
N Choose one	76-Key Japanese English/Japanese Katakana Typewriter Keyboard	2715		2955 or 2973	
	76-Key Japanese Katakana Data Entry Keyboard	2716		2973	2955
	88-Key Japanese English/Japanese Katakana Typewriter Keyboard	2717		2955 or 2973	
	88-Key Japanese English/Japanese Katakana/APL Keyboard	2718		2955 or 2973 and 1120	

**Legend:**

■ Available for all voltages under 200V.

Figure 2-13. 3276 Control Unit Display Station – Additions for Americas/Far East (Part 1 of 2)

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
O Choose one	1 1200-bps Integrated Modem, Non-switched	5500	9651 or 9652	6301	3701, 4850, 5501, 5502, 5507, 5508, 5650, 5651 5655, 5656
	2 1200-bps Integrated Modem, Switched with Auto-Answer (Models 11, 12, 13, and 14 only)	5501		6301	3701, 4850, 5500, 5502, 5507, 5508, 5650, 5651, 5655, 5656
	2 1200-bps Integrated Modem, Non-switched with Switched Network Backup and Auto-Answer	5508	9651 or 9652	6301	3701, 4850, 5500, 5501, 5502, 5507, 5650, 5651, 5655, 5656
O	X.21 Adapter for Nonswitched Networks. Japan only	5655		6302	3701, 4850, 5500, 5501, 5502, 5507, 5508, 5650, 5651, 5656
O	X.21 Adapter for Switched Networks. Japan and Nordic countries only	5656		1068 6302	3701, 4850, 5500, 5501, 5502, 5507, 5508, 5650, 5651, 5655

**Legend:**

- 1 Japan only – Specify 2943 if used on NTT D-1 service.
- 2 Excluding Canada – This feature includes the PSN line plate, which is mandatory for attachment to the public switched telephone network.

Figure 2-13. 3276 Control Unit Display Station – Additions for Americas/Far East (Part 2 of 2)

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N	Power		2999		
Choose one	220 V, 50 Hz		2813		
	240 V, 50 Hz		2801		
	<b>1</b> 120 V, 60 Hz		2800		
O (Germany only)	Communication Cable – D1200S/D2400S Switched or Direct Call Facility Service		2899		
O (UK only)	Communication Cable – Datel 2412 Service, Facility 3		2835		
O (Germany only)	Dial Disconnect Switch – D1200S/D2400S Switched Service		2898	2899	
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2924		
	French		2928		
	German		2929		
	Italian		2932		
N Choose one	<u>Character Set Language</u>				
	Austrian/German (Alternate)		2748		
	Danish/Norwegian (Alternate)		2742		
	Finnish/Swedish (Alternate)		2743		
N Choose one	<u>Keyboard Language</u>				
	Austrian/German		2957		
	Belgian		2971		
	Danish		2965		
	EBCDIC		2951		
	English (UK)		2958		
	English (US)		2956		
	Finnish		2963		
	French (AZERTY)		2964		
	French (QWERTY)		2970		
	International		2950		
	Italian		2968		
	Norwegian		2966		
	Portuguese		2959		
O Choose one	<b>2</b> 1200-bps Integrated Modem, Switched with Auto-Answer (Models 11, 12, 13, and 14 only)	5501		6301	3701, 5500, 5502, 5507, 5508
	<b>2</b> 1200-bps Integrated Modem, Non-switched with Switched Network Backup and Auto-Answer	5508	9651 or 9652	6301	3701, 5500, 5501, 5502, 5507
	1200-bps Integrated Modem, Non-switched	5500	9651 or 9652	6301	3701, 5501, 5502, 5507, 5508
O	X.21 Adapter for Switched Networks. Japan and Nordic countries only	5656		1068 6302	3701, 4850, 5500, 5501, 5502, 5507, 5508, 5650, 5651, 5655

**Legend:**

**1** Saudi Arabia only.

**2** Excluding Canada – This feature includes the PSN line plate, which is mandatory for attachment to the public switched telephone network.

Figure 2-14. 3276 Control Unit Display Station – Additions for Europe/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
<b>2</b> N Choose one	115 V Locking Plug		9880		
	115 V Nonlocking Plug		9881		
<b>1</b> N Choose one	<u>Character Set</u> EBCDIC		9089		
	<b>4</b> ASCII (A)		9091		
	<b>4</b> ASCII (B)		9092		
O	<b>3</b> Data Analysis -- APL	1066			
O	Audible Alarm	1090			
O	Operator Identification Card Reader	4600		Any keyboard	
O	<u>Keyboards</u>				
	66-Key EBCDIC Typewriter	4630		9089	
	66-Key EBCDIC Data Entry	4631		9089	
	78-Key Operator Console	4632		9089	
	78-Key EBCDIC Typewriter	4633		9089	
	<b>4</b> 66-Key ASCII Typewriter	4634		9091 or 9092	
	<b>4</b> 78-Key ASCII Typewriter	4635		9091 or 9092	
	66-Key EBCDIC Data Entry	4636		9089	
	66-Key EBCDIC Typewriter/APL	4637		1066	
	78-Key EBCDIC Typewriter/APL	4638		1066	
	<b>5</b> 78-Key EBCDIC Fast Cursor Text	4639		1066	
O	Keyboard Numeric Lock	4690		Any keyboard	
O	Security Keylock	6340			
O	Selector Light Pen	6350			

**Legend:**

- 1** If the 3277 is attached to a 3271, the corresponding transmission code must be specified for the 3271.
- 2** US and Canada only.
- 3** 3277 Model 2 only.
- 4** ASCII is available in U.S. only.
- 5** Not available in E/ME/A.

Figure 2-15. 3277 Display Station – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2811		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
1 Choose one (Japan only)	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	Japanese		2930		
N Choose one	<u>Spanish</u>		2931		
	<u>Character Generator Language</u>				
	English (UK)		2703		
	English (US)		2705		
N Choose one	Portuguese		2712		
	Spanish		2714		
	<u>Keyboard Language</u>				
	English (UK)		2958		
N Choose one	English (US)		2956		
	Portuguese		2959		
	Spanish		2961		
	O	Katakana Character Generator	2706		
O	Katakana Typewriter Keyboard	2955		2706	2973
O	Katakana Data Entry Keyboard	2973		2706	2955

**Legend:**

Available for all voltages under 200V.

**Figure 2-16. 3277 Display Station – Additions for Americas/Far East**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2811		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
	115 V, 60 Hz		9901		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	French		2928		
	German		2929		
	Italian		2932		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	Austrian/German		2704		
	Belgian/French (dual case)		2709		
	Belgian/French (mono case)		2705		
	Danish/Norwegian		2710		
	English (UK)		2703		
	English (US)		2705		
	Finnish/Swedish		2708		
	Italian (dual case)		2702		
	Italian (mono case)		2705		
	Portuguese		2712		
	Spanish		2714		
N Choose one	<u>Keyboard Language</u>				
	Austrian/German		2957		
	Belgian		2971		
	Danish		2965		
	English (UK)		2958		
	English (US)		2956		
	Finnish/Swedish		2963		
	French		2964		
	Italian		2968		
	Norwegian		2966		
	Portuguese		2959		
	Spanish		2961		

Figure 2-17. 3277 Display Station – Additions for Europe/Middle East/Africa



Necessary (N) or Optional (O)	Feature/Model Name	Special Feature Code <b>6</b>	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
O	3278 Model 5			<b>14</b> 9111	
	Audible Alarm	1090			
	75-Key EBCDIC Typewriter Keyboard	4621			
	75-Key EBCDIC Data Entry Keyboard	4622			
	75-Key EBCDIC Data Entry Key punch Layout Keyboard	4623			
	<b>9</b> 75-Key ASCII Typewriter Keyboard	4624			
	<b>7</b> 87-Key EBCDIC Typewriter/APL Keyboard	4626		1120	
	87-Key EBCDIC Typewriter Keyboard (12 additional PF keys)	4627			
	<b>9</b> 87-Key ASCII Typewriter Keyboard (12 additional PF keys)	4628			
	<b>4</b> <b>7</b> 87-Key EBCDIC Typewriter/Text Keyboard (U.S. English only)	4629		1120	
	<b>15</b> 87-Key EBCDIC Typewriter Overlay Keyboard	4640			
	<b>15</b> 87-Key EBCDIC Attribute Select Typewriter Keyboard	4651			
	<b>15</b> 87-Key EBCDIC Attribute Select Typewriter/ APL Keyboard	4652			
O	<b>3</b> Keyboard Cable, 1.8 meters (6 ft)		9399	Any keyboard	
O	Keyboard Numeric Lock	4690		4621, 4622, 4623, 4627, 2715, 2716, 2717	
O	Security Keylock	6340			
O	Selector Pens	<b>10</b> 6350 <b>11</b> 6351			
O	Programmed Symbols (PS-2)	5781		3610	
O	Programmed Symbols (PS-4)	5782		3610	
N Choose one	<b>1</b> <b>4</b> 120V, 60 Hz Locking Plug		9890		
	<b>1</b> <b>4</b> 120V, 60 Hz Nonlocking Plug		9891		
O	<b>7</b> Extended Character Set Adapter	3610			
O	<b>7</b> APL/Text	1120		3610	9084
<b>2</b> O	<b>8</b> Power Cable, 1.8 meters (6 ft)		9511		
	<b>8</b> Power Cable, 3.7 meters (12 ft)		9512		
	Power Cable, 4.5 meters (15 ft)		9513		
O	Switch Control Unit	1720			
O	Magnetic Reader Control	4999			
O	<b>5</b> <b>12</b> Magnetic Slot Reader – Accessory	9441		4999	
O	<b>5</b> <b>12</b> <b>13</b> Magnetic Hand Scanner – Accessory	9440		4999	
	<b>5</b> Magnetic Accessory Extension Cable 6 meters (19.7 ft)	9106		9440 or 9441	
	12 meters (39.4 ft)	9107			

**Legend:**

- 1** 120V, 1-phase, 60 Hz (U.S. and Canada only).
- 2** 2.8 meters (9 ft) normally supplied. Optionally specify other lengths.
- 3** 91 centimeters (3 ft) normally supplied. Optionally specify other lengths.
- 4** Not available in E/ME/A countries.
- 5** 1.5-meter cable normally supplied. Optionally specify one extension.
- 6** Support of the 3278 special features may require increments of 3274 control storage. When ordering any of the special features, check the figures in Appendix A to ensure that adequate Extended Function Store is available.
- 7** The 3278 must be attached either to a 3274 Model 1A, 1C, 1D, 21A, 21C, 21D, 31A, 31C, 31D, or 51C or to a 3276 unit with APL/Text Control Feature 1067.

- 8** U.S. and Canada only.
- 9** ASCII is available in U.S. only.
- 10** Models 3, 4, and 5 only.
- 11** Models 1 and 2 only.
- 12** 1.5 meter (4.9-ft) cable normally supplied. Optionally specify extension cables of 6 meters (19.7 ft) or 12 meters (39.4 ft) if desired.
- 13** When attached to the 3274 only.
- 14** Configuration Support B or C on the Model 3274 1C, 1D, or 51C is prerequisite for Model 5.
- 15** These keyboards permit entry of color and high-lighting attributes and Programmed Symbols selection.

Figure 2-18. 3278 Display Station – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive
N	Power – World Trade A/FE except Canada		2998		
Choose one 8	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	200 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	230 V, 50 Hz		2821		
	240 V, 50 Hz		2801		
	100 V, 60 Hz		2730		
	110 V, 60 Hz		2822		
	6 120 V, 60 Hz		2800		
	127 V, 60 Hz		2823		
1 N Choose one (Japan only)	9 Locking plug		9890		
	Nonlocking plug		9891		
O (Japan only)	7 Character Set Language		2773		
O 2 3	Keyboard Languages				
	Brazilian		2975		2715, 2716, 2717, 2718
	Canadian/French		2977		2715, 2716, 2717, 2718
	EBCDIC		2951		2715, 2716, 2717, 2718
	English (UK)		2958		2715, 2716, 2717, 2718
	English (US)		2956		2715, 2716, 2717, 2718
	International		2950		2715, 2716, 2717, 2718
	Japanese English		2955	2755	4621, 4627, 2716
	Japanese Katakana		2973	2773	4621, 4622, 4623, 4627
Spanish-speaking		2969		2715, 2716, 2717, 2718	
O	76-key Japanese English/Japanese Katakana Typewriter Keyboards	2715		2955 or 2973	
	76-key Japanese Katakana – Data Entry Keyboard	2716		3973	2955
	88-key Japanese English/Japanese Katakana Typewriter Keyboards	2717		2955 or 2973	
	4 88-Key Japanese English/Japanese Katakana Typewriter/APL Keyboards	2718		2955 or 2973 and 1120	
	88-Key Attribute Select Japanese English/Japanese Katakana Typewriter Keyboards	2708		2955 or 2973	
	88-Key Japanese English/Japanese Katakana Typewriter Overlay Keyboards	2719		2955 or 2973	
	3 88-Key Attribute Select Japanese English/Japanese Katakana Typewriter/APL Keyboards	2721		2955 or 2973	

**Legend:**

- 1 Available for all voltages under 200V.
- 2 All 3278s attached to a 3274 or 3276 must have the same keyboard language that is selected during 3274 customizing or that is specified for the 3278.
- 3 For all keyboards except the 87-key EBCDIC Typewriter/Text Keyboard (4629), which is available in English (U.S.) only.
- 4 Unit must be attached to a 3274 Model 1A, 1C, 1D, or 51C, or to a 3276.
- 5 Support of the 3278 special features may require increments of 3274 control storage. When ordering any of the special features, check the figures in Appendix A to ensure that adequate Extended Function Store is available.
- 6 Includes requirements for 115V.
- 7 Specify if Japanese Katakana is required.
- 8 Single-phase ac.
- 9 For voltages under 200V.

Figure 2-19. 3278 Display Station – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N	Power		2999		
Choose one <b>4</b>	220 V, 50 Hz		2813		
	240 V, 50 Hz		2801		
	<b>1</b> 120 V, 60 Hz		2800		
<b>2</b> O <b>3</b>	<u>Keyboard Language</u>				
	Austrian/German		2957	2748 or 2757	
	Belgian		2971	2771	
	Danish		2965	2742 or 2762	
	EBCDIC (WT)		2951	2756	
	English (UK)		2958	2758	
	English (US)		2956	2756	
	Finnish		2963	2743 or 2763	
	French (AZERTY)		2964	2770	
	French (QWERTY)		2970	2770	
	International		2950	2750	
	Italian		2968	2768	
	Norwegian		2966	2742 or 2762	
Portuguese		2959	2749		
Spanish		2960	2760		
Swedish		2967	2743 or 2763		

**Legend:**

- 1** Saudi Arabia only.
- 2** All 3278s attached to a 3274 or 3276 must have the same keyboard language that is selected during customizing or that is specified for the 3276.
- 3** For all keyboards except the 87-key EBCDIC Typewriter/Text Keyboard (4629), which is available in English (U.S.) only.
- 4** Single-phase ac.

Figure 2-20. 3278 Display Station – Additions for Europe/Middle East/Africa

N (Necessary) O (Optional) D (Default)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
O <b>1</b>	75-Key EBCDIC Typewriter Keyboard	4621			
	75-Key EBCDIC Data Entry Keyboard	4622			
	75-Key EBCDIC Data Entry Keypunch Layout Keyboard	4623			
	<b>2</b> 75-Key ASCII Typewriter Keyboard	4624			
	<b>3</b> 87-Key EBCDIC Typewriter/APL Keyboard	4626		3279 Model 2B or 3B	
	87-Key EBCDIC Typewriter Keyboard	4627			2955, 2973
	<b>2</b> 87-Key ASCII Typewriter Keyboard	4628			
	<b>3</b> <b>4</b> 87-Key EBCDIC Typewriter/Text Keyboard (U.S. English only)	4629		3279 Model 2B or 3B	2999
	<b>5</b> 87-Key EBCDIC Typewriter Overlay Keyboard	4640			
	<b>5</b> 87-Key EBCDIC Attribute Select Typewriter Keyboard	4651		3279 Model 2B or 3B	
	<b>5</b> 87-Key EBCDIC Attribute Select Typewriter/ APL Keyboard	4652		3279 Model 2B or 3B	
O	<b>6</b> Keyboard Numeric Lock	4690		Any Keyboard	
O	Security Keylock	6340			
O	Selector Pen	6350		3279 Model 3A or 3B	
	Selector Pen	6351		3279 Model 2A or 2B	
O	Programmed Symbols (PS-2)	5781		3279 Model 2B or 3B	
	Programmed Symbols (PS-4)	5782		5781	
D <b>4</b> <b>7</b>	If nothing is specified, the following is supplied: 120V, 60 Hz, Nonlocking Plug If alternative required, specify: 120V, 60 Hz, Locking Plug				
			9890		
D	If nothing is specified, the following is supplied: Power Cable 2.8 meters (9 feet) If alternative required, specify: <b>2</b> Power Cable 1.8 meters (6 feet) or Power Cable 4.5 meters (15 feet)				
			9511		
			9513		
O	Switch Control Unit	1720			
O	Magnetic Reader Control	4999			
O	<b>8</b> Magnetic Slot Reader – Accessory	9441		4999	
	<b>8</b> <b>9</b> Magnetic Hand Scanner – Accessory	9440		4999	
O	Magnetic Reader Extension Cable 6 meters (19.7 feet)	9106		9440 or 9441	
	12 meters (39.4 feet)	9107			

**Legend:**

N A feature code must be specified.

O A feature code may be specified but is not mandatory.

D If no feature code is specified, the country code determines which feature is supplied.

**1** Each 3279 must be equipped with a keyboard.

**2** U.S. only.

**3** The 3279 must be attached either to a 3274 Model 1A, 1C, 51C, or 1D, or to a 3276 with the APL/Text Control feature (1067).

**4** Not available in E/ME/A countries.

**5** One of these keyboards is required if the operator is to select the extended highlighting, extended color, or symbol set attributes.

**6** For keyboards 2708, 2719, 2721, 4640, 4651, and 4652, the numeric lock function is enabled as an option when customizing the 3274.

**7** 120 V, 60 Hz (U.S. and Canada only).

**8** 1.5-meter (4.9 feet) cable supplied. If required, extension cable may be specified (see Specify Feature codes 9106 and 9107).

**9** Available only for 3279s that are attached to a 3274.

Figure 2-21. 3279 Color Display Station – Universal

N (Necessary) O (Optional) D (Default)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N	Power-World Trade A/FE except Canada		2998		
5 D	<p><u>Power</u></p> <p>If nothing is specified, the following are supplied:</p> <p>Australia—200-240V  Brazil—100-127V  Canada—100-127V  Japan—100-127V  New Zealand—200-240V</p> <p>For other countries, or for alternative, specify:</p> <p>100-127V  200-240V</p>		2804 2806		
1 D	<p><u>Power Cable Plug</u></p> <p>If nothing is specified, the following are supplied:</p> <p>Canada—Nonlocking plug  Japan—Locking plug  Other countries— the most commonly used power plug in each country</p> <p>For alternatives in Canada and Japan only, specify:</p> <p>Locking Plug—Canada  Nonlocking Plug—Japan</p>		9890 9891		
D	<p><u>Machine Nomenclature</u></p> <p>If nothing is specified, the following are supplied:</p> <p>Argentina—Spanish  Australia—English (U.S.)  Brazil—Brazilian  Canada—English (U.S.)  Japan—Japanese Katakana  Mexico—Spanish  Venezuela—Spanish  Other countries—English (U.S.)</p> <p>The following alternative may be specified for all countries:</p> <p>English (U.S.)</p> <p>Additionally, in Canada only:  Canadian/French</p>		2924 2935		
2 D 3	<p><u>Keyboard Languages</u></p> <p>If nothing is specified, the following are supplied:</p> <p>Argentina—Spanish  Australia—English (U.S.)  Brazil—Brazilian  Canada—English (U.S.)  Japan—Japanese Katakana  Mexico—Spanish  Venezuela—Spanish  Other countries—English (U.S.)</p> <p>If alternate keyboard language is required, specify:</p>				
	Brazilian		2975		4629, 2708, 2715, 2716, 2717, 2718, 2719, and 2721
	Canadian/French		2977		4629, 2708, 2715, 2716, 2717, 2718, 2719, and 2721
	EBCDIC (World Trade)		2951		4629, 2708, 2715, 2716, 2717, 2718, 2719, and 2721

Figure 2-22. 3279 Color Display Station – Additions for Americas/Far East (Part 1 of 2)

N (Necessary) O (Optional) D (Default)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
	(Keyboard Languages—continued) English (U.K.)		2958		4629, 2708, 2715, 2716, 2717, 2718, 2719, and 2721
	English (U.S.)		2956		2708, 2715, 2716, 2717, 2718, 2719, and 2721
	International		2950		4629, 2708, 2715, 2716, 2717, 2718, 2719, and 2721
	Japanese English		2955	4622, 4626, 2708, 2715, 2717, 2718, 2719, or 2721	4621, 4623, 4624, 4627, 4629, 4640, 4651, 4652, and 2716
	Japanese Katakana		2973	2708, 2715, 2716, 2717, 2718, 2719, or 2721	4621, 4623, 4624, 4627, 4629, 4640, 4651, and 4652
	Spanish-speaking		2969		4629, 2708, 2715, 2716, 2717, 2718, 2719, and 2721
O	<u>Keyboards</u> 76-Key Japanese English/Japanese Katakana Typewriter Keyboards	2715			
	76-Key Japanese Katakana Data Entry Keyboard	2716			2955
	88-Key Japanese English/Japanese Katakana Typewriter Keyboards	2717			
	<b>4</b> 88-Key Japanese English/Japanese Katakana Typewriter/APL Keyboards	2718		3279 Model 2B or 3B	
	88-Key Attribute Select Japanese English/Japanese Katakana Typewriter Keyboards	2708		3279 Model 2B or 3B. 2955 or 2973 or default Japanese Katakana	
	88-Key Japanese English/Japanese Katakana Typewriter Overlay Keyboards	2719			
	<b>4</b> 88-Key Attribute Select Japanese English/Japanese Katakana Typewriter/APL Keyboards	2721		3279 Model 2B or 3B. 2955 or 2973 or default Japanese Katakana	

**Legend:**

N A feature code must be specified.

O A feature code may be specified, but is not mandatory.

D If no feature code is specified, the country code determines which feature is supplied.

**1** Available only for 100-124V in Canada and Japan. For all other countries in World Trade A/FE, the power cable plug supplied is the most commonly used plug in the country.

**2** All 3279s attached to a 3274 or 3276 must have the same keyboard language as that selected when customizing the 3274 or specified for the 3276.

**3** The 87-Key EBCDIC Typewriter/Text Keyboard (4629) is only available with English (U.S.) as the keyboard language.

**4** The 3279 must be attached either to a 3274 Model 1A, 1C, 1D, or 51C or to a 3276.

**5** Single-phase ac; each supply is suitable for the range of voltages defined and for both 50-Hz and 60-Hz supplies.

Figure 2-22. 3279 Color Display Station – Additions for Americas/Far East (Part 2 of 2)



N (Necessary) O (Optional) D (Default)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
	(Machine Nomenclature—continued) For Switzerland only, the following alternatives may be specified: French German Italian		2928 2929 2932		

**Legend:**

N A feature code must be specified.

O A feature code may be specified, but is not mandatory.

D If no feature code is specified, the country code determines which feature is supplied.

**1** Single-phase ac; each supply is suitable for the range of voltages defined and for both 50-Hz and 60-Hz supplies.

**2** All 3279s attached to a 3274 or 3276 must have the same keyboard language as the 3274 or 3276.

**Figure 2-23. 3279 Color Display Station – Additions for Europe/Middle East/Africa (Part 2 of 2)**



Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite	Mutually Exclusive
<b>1</b> N Choose One	115 Vac Locking Plug		9880		
	115 Vac Nonlocking Plug		9881		
N Choose one	<u>Pinfeed Platen</u>				
	126 Print Positions		9162		
	120 Print Positions		9167		
	132 Print Positions		9168		
<b>2</b> N Choose one	<u>Character Set</u>				
	EBCDIC (required for use with 3275 Model 3)		9089		
	<b>5</b> <b>4</b> ASCII A		9091		
	<b>5</b> ASCII (B)		9092		
O	<b>4</b> Data Analysis -- APL	1066			
O	<b>3</b> Forms Stand	4450			

**Legend:**

- 1** U.S. and Canada only.
- 2** If the 3284 is used with the 3271, the corresponding transmission code must be specified for the 3271.
- 3** Accessory item -- purchase only.
- 4** Not available when attached to a 3271/3272 Model 1 or 11 or to a 3274.
- 5** ASCII is available in U.S. only.

Figure 2-24. 3284 Printer -- Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite	Mutually Exclusive
N Choose one	<u>Power</u>				
	60 Hz -- 100 V (Japan only)		2730		
	60 Hz -- 115 V		9901		
	50 Hz -- 100 V (Japan only)		2804		
	50 Hz -- 110 V		2805		
	50 Hz -- 235 V		2814		
	50 Hz -- 220 V		2813		
<b>1</b> Choose one (Japan only)	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	Japanese		2930		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	English (UK)		2703		
	English (US)		2705		
	Portuguese		2712		
	Spanish		2714		
O	Katakana Character Generator	2706		2707 on 3271/ 3272 or 3275	1066

**Legend:**

- 1** Available for all voltages under 200 V.

Figure 2-25. 3284 Printer -- Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2811		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
	115 V, 60 Hz		9901		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	French		2928		
	German		2929		
	Italian		2932		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	Austrian/German		2704		
	Belgian/French (dual case)		2709		
	Belgian/French (mono case)		2705		
	Danish/Norwegian		2710		
	English (UK)		2703		
	English (US)		2705		
	Finnish/Swedish		2708		
	Italian (dual case)		2702		
	Italian (mono case)		2705		
	Portuguese		2712		
	Spanish		2714		

Figure 2-26. 3284 Printer – Additions for Europe/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
<b>1</b> N Choose One	115 V Locking Plug		9880		
	115 V Nonlocking Plug		9881		
N Choose one	<u>Pinfeed Platen</u>				
	120 Print Positions		9167		
	126 Print Positions		9162		
	132 Print Positions		9168		
<b>2</b> N Choose one	<u>Character Set</u>				
	EBCDIC (required for use with 3275 Model 3)		9089		
	<b>4</b> <b>5</b> ASCII (A)		9091		
	<b>5</b> ASCII (B)		9092		
O	<b>4</b> Data Analysis – APL	1066			
O	<b>3</b> Forms Stand	4450			

Legend:

- 1** U.S. and Canada only.
- 2** If the 3284 is used with the 3271, the corresponding transmission code must be specified for the 3271.
- 3** Accessory item – purchase only.
- 4** Not available when attached to a 3271/3272 Model 1 or 11 or to a 3274.
- 5** ASCII is available in U.S. only.

Figure 2-27. 3286 Printer – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz (Japan only)		2804		
	110 V, 50 Hz		2805		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz (Japan only)		2730		
	115 V, 60 Hz		9901		
<b>1</b> Choose one (Japan only)	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	Japanese		2930		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	English (UK)		2703		
	English (US)		2705		
	Portuguese		2712		
	Spanish		2714		
O	Katakana Character Generator	2706		2707 on 3271/ 3272 or 3275	1066

Legend:

- 1** Available for all voltages under 200 V.

Figure 2-28. 3286 Printer – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	123.5 V, 50 Hz		2811		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
115 V, 60 Hz		9901			
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	French		2928		
	German		2929		
	Italian		2932		
Spanish		2931			
N Choose one	<u>Character Generator Language</u>				
	Austrian/German		2704		
	Belgian/French (dual case)		2709		
	Belgian/French (mono case)		2705		
	Danish/Norwegian		2710		
	English (UK)		2703		
	English (US)		2705		
	Finnish/Swedish		2708		
	Italian (dual case)		2702		
	Italian (mono case)		2705		
Portuguese		2712			
Spanish		2714			

Figure 2-29. 3286 Printer – Additions for Europe/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N	3271/3272 Attachment	8330			
N Choose one	Character Print Operation				
	480		<b>6</b> 9520		1066
	1920		<b>7</b> 9522		
<b>1</b> N Choose one	Character Set				
	EBCDIC		9082		1066
	<b>1</b> <b>4</b> ASCII(B)		9084		1066
O	<b>3</b> Data Analysis – APL	1066		9522	9082, 9084, 9520
O	Forms Stand Accessory	4450			
O	Friction Feed Paper Handling (Required if 8700 is not ordered.)	4110			
<b>2</b> N Choose one	120 V Locking Plug		9890		
	120 V Nonlocking Plug		9891		
<b>5</b> O Choose one	Power Cord 1.8 meters (6 ft)		9511		
	Power Cord 3.7 meters (12 ft)		9512		
	Power Cord 4.5 meters (15 ft)		9513		
O	Variable-Width Forms Tractor	8700			
O	Variable-Width Forms Tractor – Paper Handling		9185	8700	
O	X Print Error Indication		9488		
O	Blower		9030		

**Legend:**

- 1** The character set specified must be the same as the transmission code/character set used on the control unit to which the 3287 is attached.
- 2** U.S. and Canada only.
- 3** 3271 Models 2 and 12 only and 3272 Model 2 only.
- 4** ASCII is available only in U.S.
- 5** 2.8 meters (9 ft) normally supplied. Optionally specify other lengths.
- 6** For use with a 3271 Model 1 or 11, or a 3272 Model 1
- 7** For use with a 3271 Model 2 or 12, or a 3272 Model 2.

**Figure 2-30. 3287 Printer (3271/3272 Attachment) – Universal**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power <b>3</b>		2998		
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	200 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	230 V, 50 Hz		2821		
	240 V, 50 Hz		2801		
	100 V, 60 Hz		2730		
	110 V, 60 Hz		2822		
	120 V, 60 Hz <b>3</b>		2800		
	127 V, 60 Hz		2823		
<b>2</b> N <b>3</b> Choose one	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	Brazilian		2933		
	Canadian/French		2935		
	English (US)		2924		
	English (UK)		2927		
	French		2928		
	Japanese		2930		
	Spanish-speaking		2931		
<b>1</b> N Choose one	<u>Character Generator Language</u>				1066
	English (UK)		2758		
	English (US)		2756		
	French		2770		
	Katakana		2773	2707	
	Portuguese		2749		
	Spanish-speaking		2769		

**Legend:**

- 1** The same language must be specified for control units, displays, and printers in the cluster.
- 2** Japan only must specify if under 200V.
- 3** Canada must specify.

Figure 2-31. 3287 Printer (3271/3272 Attachment) – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power		2999		
	220 V, 50 Hz		2813		
	240 V, 50 Hz		2801		
	<b>2</b> 120 V, 60 Hz		2800		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2924		
	French		2928		
	German		2929		
	Italian		2932		
	Spanish		2931		
<b>1</b> N Choose one	<u>Character Generator Language</u>				1066
	Austrian/German (Alternate)		2748		
	Belgian		2771		
	Danish/Norwegian (Alternate)		2742		
	English (UK)		2758		
	English (US)		2756		
	Finnish/Swedish (Alternate)		2743		
	French		2770		
	Italian		2768		
	Portuguese		2749		
	Spanish (Alternate)		2740		

**Legend:**

- 1** The same language must be specified for control units, displays, and printers in the cluster.
- 2** Saudi Arabia only.

**Figure 2-32. 3287 Printer (3271/3272 Attachment) – Additions for Europe/Middle East/Africa**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
10 N	1 3271/3272 Attachment	8330			3610, 8331, 9660
	2 3274/3276 Attachment	8331			1066, 8330
N Choose one (Specifies Control Unit)	15 3271		9251		
	15 3272		9252		
	3274 Models 1A, 21A, and 31A		9549		
	3274 Models 1B and 21B		9554		
	3274 Models 1C, 21C, and 31C		9551		
	3274 Models 1D, 21D, and 31D		9261		
	3274 Model 51C		9609		
	3276 Models 1-4		9552		
3 N Choose one	Locking Plug		9890		
	Nonlocking Plug		9891		
4 O Choose one	7 Power Cord, 1.8 meters (6 ft)		9511		
	7 Power Cord, 3.7 meters (12 ft)		9512		
	Power Cord, 4.5 meters (15 ft)		9513		
11 N Choose one	Character Set – EBCDIC		9082		
	8 Character Set – ASCII (B)		9084		1120, 9660
O	9 Extended Character Set Adapter	3610			1066, 9084 8330
O	9 APL/Text	1120		3610, 8331, 9082	1066, 9084 8330
O	5 Friction Feed Paper Handling	4110			
O	Blower		9030		
O	12 SCS (SNA Character String)		9660	8331, 9082	8330, 9084
O	12 SCS Support for SFAP		9661	3610, 9660 Also 5781 for Models 1 and 2	8330, 9084
O	X Print Error Indication		9488		
N Choose one	960-Character Print		9521	8331	8330
	1920-Character Print		9522	8330 or 8331	
	2560-Character Print		9523	3880 and 8331	8330
	3440-Character Print		9524	3880 and 8331	8330
	16 3654-Character Print		9525	3880 and 8331	8330
O	Variable-Width Forms Tractor	8700			
O	Variable-Width Forms Tractor – Paper Handling		9185	8700	
O	Extended Print Buffer	3880		8331	8330
O	6 Forms Stand	4450			
O	13 Programmed Symbols (PS-2)	5781		3610, 3880	5783
O	13 Programmed Symbols (PS-4)	5782		5781	5783
O	14 Programmed Symbols (PS-4A)	5783		3610, 3880	5781, 5782
N Choose one	Base Color Black		9135		9136
	Base Color Green		9136		9135

**Legend:**

- 1 To be attached to the 3274 Type B Terminal Adapter.
- 2 To be attached to the 3276 or 3274 Type A Terminal Adapter or base ports.
- 3 120V, 1-phase, 3-wire, 60 Hz (US/Canada).
- 4 2.8 meters (9 ft) normally supplied. Optionally specify other lengths.
- 5 Can be used interchangeably with 8700.
- 6 Accessory item – purchase only.
- 7 Not available in E/ME/A countries.
- 8 ASCII is available only in U.S.
- 9 Unit must be attached either to a 3274 Model 1A, 1C, 1D, 21A, 21C, 21D, 31A, 31C, 31D, or 51C or to a 3276 unit with APL/Text Control Feature 1067. Corequisites: APL/Text (1120) or PS-2 (5781).
- 10 Choose one for Models 1 and 2 only.
- 11 The character set must be the same as the transmission code/character set used on the control unit to which the 3287 is attached.
- 12 Unit cannot be attached to 3274 Model 1B, 1D, 21B, 21D, or 31D.
- 13 Models 1, 1C, 2, and 2C.
- 14 Models 1C and 2C only.
- 15 Models 1 and 2 only.
- 16 Unit cannot be attached to a 3274 Model 1B or 21B.

Figure 2-33. 3287 Printer (3274/3276 Attachment) – Universal



Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N	Power <sup>2</sup>		2998		
Choose one	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	200 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	230 V, 50 Hz		2821		
	240 V, 50 Hz		2801		
	100 V, 60 Hz		2730		
	110 V, 60 Hz		2822		
	120 V, 60 Hz <sup>2</sup>		2800		
	127 V, 60 Hz		2823		
<sup>1</sup> N <sup>2</sup> Choose one	120 V, 60 Hz Locking Plug		9890		
	120 V, 60 Hz Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	Brazilian		2933		
	Canadian/French		2935		
	English (US)		2924		
	English (UK)		2927		
	French		2928		
	Japanese		2930		
	Spanish-speaking		2931		
N Choose one	<u>Character Set Language</u>				
	Brazilian		2775	8331	8330
	Canadian/French		2777	8331	8330
	EBCDIC		2751	8331	8330
	English (UK)		2758	8330 or 8331	
	English (US)		2756	8330 or 8331	
	International		2750	8331	8330
	Japanese (English)		2755	8331	8330
	Japanese (Katakana)		2773	8330 or 8331	
Spanish-speaking		2769	8330 or 8331		

**Legend:**

<sup>1</sup> Japan only must specify if under 200 V.

<sup>2</sup> Canada must specify.

**Figure 2-34. 3287 Printer (3274/3276 Attachment) – Additions for Americas/Far East**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power		2999		
	220 V, 50 Hz		2813		
	240 V, 50 Hz		2801		
	<b>1</b> 120 V, 60 Hz		2800		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2924		
	French		2928		
	German		2929		
	Italian		2932		
N Choose one	<u>Character Set Language</u>				
	Austrian/German		2757	8331	8330
	Austrian/German (Alternate)		2748	8330 or 8331	
	Belgian		2771	8330 or 8331	
	Danish/Norwegian		2762	8331	8330
	Danish/Norwegian (Alternate)		2742	8330 or 8331	
	English (UK)		2758	8330 or 8331	
	English (US)		2756	8330 or 8331	
	Finnish/Swedish		2763	8331	8330
	Finnish/Swedish (Alternate)		2743	8330 or 8331	
	French		2770	8330 or 8331	
	International		2750	8331	8330
	Italian		2768	8330 or 8331	
	Portuguese		2749	8330 or 8331	
Spanish		2760	8331	8330	
Spanish (Alternate)		2740	8330 or 8331		

**Legend:**

**1** Saudi Arabia only.

**Figure 2-35. 3287 Printer (3274/3276 Attachment) – Additions for Europe/Middle East/Africa**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
<b>1</b> N Choose one	115 V Locking Plug		9880		
	115 V Nonlocking Plug		9881		
<b>2</b> N Choose one	Character Set				
	EBCDIC		9089		
	<b>6 3</b> ASCII (A)		9091		
	<b>6 3</b> ASCII (B)		9092		
	<b>1</b> EBCDIC 'TN/T11'		9093	7880	
N	X-Print Error Indication		9944		
N	Vertical Forms Control		9850		2706
O	<b>1 5</b> Text Print Feature	7880		9093	
O	<b>4</b> Forms Stand	4450			
O	<b>4</b> EBCDIC Print Belt	5920		9089	
O	<b>1 4 5</b> Text Print Belt	5921		7880	

**Legend:**

- 1** US and Canada only.
- 2** If used with the 3271, the corresponding transmission code must be specified.
- 3** Not available with 3272. Available with 3274 Models 1C, 21C, 31C, and 51C.
- 4** Accessory item – purchase only.
- 5** Available only with 3271/3272 Model 2 or 3271 Model 12.
- 6** ASCII is available in U.S. only.

Figure 2-36. 3288 Line Printer – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 60 Hz		2730		
<b>1</b> Choose one (Japan only)	Locking Plug		9890		
	Nonlocking Plug		9891		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	Japanese		2930		
N Choose one	Spanish		2931		
	<u>Character Generator Language</u>				
	English (UK)		2703		
	English (US)		2705		
O	Portuguese		2712		
	Spanish		2714		
O	Katakana Character Generator	2706		2707 on 3271/ 3272 or 3275	1066

**Legend:**

- 1** Available for all voltages under 200 V.

Figure 2-37. 3288 Line Printer – Additions for Americas/Far East

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	<u>Power</u>				
	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	220 V, 50 Hz		2813		
	235 V, 50 Hz		2814		
	100 V, 50 Hz		2730		
	115 V, 60 Hz		9901		
N Choose one	<u>Machine Nomenclature</u>				
	English (UK)		2927		
	English (US)		2750		
	French		2928		
	German		2929		
	Italian		2932		
	Spanish		2931		
N Choose one	<u>Character Generator Language</u>				
	Austrian/German		2704		
	Belgian/French (dual case)		2709		
	Belgian/French (mono case)		2705		
	Danish/Norwegian		2710		
	English (UK)		2703		
	English (US)		2705		
	Finnish/Swedish		2708		
	Italian (dual case)		2702		
	Italian (mono case)		2705		
	Portuguese		2712		
	Spanish		2714		

Figure 2-38. 3288 Line Printer – Additions for Europe/Middle East/Africa

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
N Choose one	3274 Models 1A, 21A, and 31A		9549		
	3274 Models 1B and 21B		9550		
(Specifies Control Unit)	3274 Models 1C, 21C, and 31C		9551		
	3274 Models 1D, 21D, and 31D		9261		
	3274 Model 51C		9609		
	3276 Models 1–4		9552		
	3276 Models 11–14		9553		
<b>1</b> N Choose one	Locking Plug		9890		
	Nonlocking Plug		9891		
<b>2</b> O Choose one	<b>8</b> Power Cord, 1.8 meters (6 ft)		9511		
	<b>9</b> Power Cord, 3.7 meters (12 ft)		9512		
	Power Cord, 4.5 meters (15 ft)		9513		
<b>3</b> N <b>6</b> Choose one	48-Character Set Print Belt – EBCDIC		9490		
	64-Character Set Print Belt – EBCDIC		9491		
	94-Character Set Print Belt – EBCDIC		9492		
	<b>5</b> 48-Character Set Print Belt – ASCII (B)		9493		
	<b>5</b> 64-Character Set Print Belt – ASCII (B)		9494		
	<b>5</b> 94-Character Set Print Belt – ASCII (B)		9495		
	<b>8</b> <b>9</b> 125-Character Text Print – EBCDIC		9496	1130	
O	Print Error Indication		9488		
N Choose one	960-Character Print		9521		
	1920-Character Print		9522		
	2560-Character Print		9523		
	3440-Character Print		9524		
	<b>10</b> 3564-Character Print		9525		
O	Audible Alarm		1090		
<b>4</b> O <b>6</b>	48-Character Set Print Belt –EBCDIC (Additional)		5821		
	64-Character Set Print Belt –EBCDIC (Additional)		5822		
	94-Character Set Print Belt – EBCDIC (Additional)		5823		
	<b>8</b> <b>9</b> 125-Character Text Print Belt – EBCDIC (Additional)		5824		
	<b>5</b> 48-Character Set Print Belt – ASCII (B) (Additional)		5811		
	<b>5</b> 64-Character Set Print Belt – ASCII (B) (Additional)		5812		
	<b>5</b> 94-Character Set Print Belt – ASCII (B) (Additional)		5813		
O	<b>7</b> <b>8</b> Text Print (U.S. English only)		1130		

**Legend:**

- |  |   |
|--|---|
| <p><b>1</b> 120V, 1-phase, 3-wire, 60 Hz (U.S. and Canada).</p> <p><b>2</b> 2.8 meters (9 ft) normally supplied. Optionally specify other lengths.</p> <p><b>3</b> Available at time of manufacturing only.</p> <p><b>4</b> Accessory item – purchase only.</p> <p><b>5</b> ASCII is available in U.S. only.</p> <p><b>6</b> EBCDIC and ASCII (B) print belts are not interchangeable.</p> | <p><b>7</b> The 3289 must be attached either to a 3274 Model 1A, 1C, 1D, 21A, 21C, 21D, 31A, 31C, 31D, or 51C, or to a 3276 unit with APL/Text Control Feature 1067.</p> <p><b>8</b> Not available in E/ME/A countries.</p> <p><b>9</b> Interchangeable only with U.S. English print belts.</p> <p><b>10</b> Unit cannot be attached to a 3274 Model 1B or 21B.</p> |
|--|---|

Figure 2-39. 3289 Line Printer – Universal

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N	Power – World Trade A/FE except Canada		2988		
Choose one	100 V, 50 Hz		2804		
	110 V, 50 Hz		2805		
	200 V, 50 Hz		2806		
	220 V, 50 Hz		2813		
	230 V, 50 Hz		2821		
	240 V, 50 Hz		2801		
	100 V, 60 Hz		2730		
	110 V, 60 Hz		2822		
	120 V, 60 Hz		2800		
	127 V, 60 Hz		2823		
<b>5</b> N Choose one (Japan only)	Locking plug		9890		
	Nonlocking plug		9891		
O Choose one (Canada only)	120 V, 60 Hz Locking Plug (Canada only)		9890		
	120 V, 60 Hz Nonlocking Plug (Canada only)		9891		
N Choose one	<u>Machine Nomenclature</u>				
	Brazilian/Portuguese		2933		
	Canadian/French		2935		
	English		2924		
	Japanese		2930		
	Spanish-speaking		2931		
N Choose one each from Groups A and B	<u>Print Belt Character Set</u>				
	<u>Group A</u>				
	48-Character Set		2767		
	64-Character Set		2768		
	94-Character Set		2769		
	116-Character Set (Canadian/French only)		2820		
	125-Character Set (Text Print)		2825	1130	
	127-Character Set (Japanese Katakana only)		2873		
	EBCDIC		2951		
<b>1</b>	Group B				
	Brazilian		2975		
	<b>3</b> Canadian/French		2977		
	EBCDIC		2951		
	English (US)		2956		
	International		2950		
	<b>4</b> Text Print EBCDIC		2953		
	Japanese (English)		2955		
	<b>2</b> Japanese (Katakana)		2973		
	Spanish-speaking		2969		

**Legend:**

- 1** Group B belts are not interchangeable.
- 2** The 127-character Japanese (Katakana) belt is interchangeable only with the 48- and 64-character Japanese (English) belts.
- 3** 116-character Canadian/French is interchangeable with 48-, 64-, and 94-character Canadian/French belts.
- 4** The 125-character Text Print belt is interchangeable only with the 48-, 64-, and 94-character U.S. English belts.
- 5** Available for all voltages under 200V.

**Figure 2-40. 3289 Line Printer – Additions for Americas/Far East**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with)	Mutually Exclusive (Must not be ordered with)
N Choose one	Power		2999		
	220 V, 50 Hz		2813	1 2759	
	240 V, 50 Hz		2801	1 2759	
	2 120 V, 60 Hz		2800		
N Choose one	<u>Machine Nomenclature</u>				
	English (US)		2924		
	French		2928		
	German		2929		
	Italian		2932		
N Choose one each from Groups A and B	<u>Print Belt Character Set</u>				
	<u>Group A</u>				
	48-Character Set		2767		
	64-Character Set		2768		
3	<u>Group B</u>				
	Austrian/German		2957		
	Austrian/German (Alternate)		2948		
	Belgian		2971		
	Danish/Norwegian		2962		
	Danish/Norwegian (Alternate)		2942		
	English (UK)		2958		
	English (US)		2956		
	Finnish/Swedish		2963		
	Finnish/Swedish (Alternate)		2943		
	French		2970		
	International		2950		
	Italian		2968		
	Portuguese		2959		
Spanish		2960			
Spanish (Alternate)		2940			

**Legend:**

- 1 Order SC 2759 for Germany only.
- 2 Saudi Arabia only.
- 3 Group B belts are not interchangeable.

**Figure 2-41. 3289 Line Printer – Additions for Europe/Middle East/Africa**

Necessary (N) or Optional (O)	Feature Name	Special Feature Code	Specify Feature Code	Prerequisite (Must be ordered with):	Mutually Exclusive (Must not be ordered with):
<b>1</b> <b>2</b> N (Choose one)	Voltage Cabling		9080 or 9081		
O	Power cord		<b>3</b> 9511		
<b>4</b> N	Printer Band Character Set:				
	● 48-character set EBCDIC		9520		
	● 64-character set EBCDIC		9522		
	● 63-character set EBCDIC (optimized)		9523		
	● 96-character set EBCDIC		9526	9950	
	● 128-character set Text		9F27		
<b>5</b> N (Choose one)	Character Set Height:				
	● 2.0 mm (0.079 in.)		9951		
	● 2.4 mm (0.095 in.)		9950		
<b>5</b> N (Choose one)	Accent Panel Color:				
	● Willow green		9060		
	● Garnet rose		9061		
	● Sunrise yellow		9062		
	● Classic blue		9063		
	● Charcoal brown		9064		
	● Pebble gray		9065		

**Legend:**

- 1** 120 Vac, 1-phase, 3-wire, 60 Hz
- 2** 9080 for below floor; 9081 for on floor.
- 3** If standard 4.3-meter (14-ft) power cord is not desired, specify 9511 for 1.8-meter (6-ft) cord.
- 4** Specify one feature number for character set size and one feature number for character set height.
- 5** Background color is pearl white. One accent panel color must be specified.

Figure 2-42. 3262 Line Printer Models 3 and 13 – Universal



## Appendix A. 3274 Control Storage Requirements

The following paragraphs describe how to determine the control storage requirements for the selected model of the 3274 Control Unit.

### Models 1A, 1C, 1D, and 51C

After having selected the configuration support and the desired special features for your 3274, you will have to determine the control storage required. Because some combinations of functions and features exceed the basic storage capacity of the control unit you have chosen, you may have to order Extended Function Store features to provide adequate control storage. Still other combinations may exceed the maximum control storage possible with all Extended Function Store features. Such combinations are invalid configurations. In these situations, you must forfeit feature(s) in order to reduce the control storage requirements to an amount not exceeding the maximum control storage possible.

Do the following procedural steps to determine which, if any, Extended Function Store features must be ordered on the model you have selected:

1. Select the Configuration Support option that contains the functions you want.
2. Refer to the appropriate figure of control storage requirements, and select the features and functions you want.
  - a. Use Figure A-1 for a 3274 Model 1A.
  - b. Use Figure A-2 for a 3274 Model 1C using SNA protocol.
  - c. Use Figure A-3 for a 3274 Model 1C using BSC protocol.
  - d. Use Figure A-4 for a 3274 Model 1D.
  - e. Use Figure A-5 for a 3274 Model 51C using SNA protocol.
  - f. Use Figure A-6 for a 3274 Model 51C using BSC protocol.
3. Determine the total Type C and total Type D storage required for the features and functions you selected in step 2.
4. Add the Type C and Type D totals to determine the total control storage required. If this total is less than 65,536, no Extended Function Store features are required and you can stop here. If the total is greater than 65,536, continue with step 5.
5. For Model 1A, 1C, or 1D, refer to Figure A-7. If you chose Configuration Support A or B, begin at Line 1 and work down. If you chose Configuration Support C, begin at Line 4 and work down. Stop at the first line that satisfies the control storage requirements you determined in steps 3 and 4. This line tells you the Extended Function Store features that your 3274 Model 1A, 1C, or 1D requires.

For Model 51C, refer to Figure A-8. Begin at the top and work down. Stop at the first line that satisfies the control storage requirements you determined in steps 3 and 4. This line tells you the Extended Function Store features that your 3274 Model 51C requires.

## Models 21A, 21C, 21D, 31A, 31C, and 31D

Some combinations of functions and features will exceed the basic control-storage capacity of the Model 21 control unit you have chosen. After having selected the Configuration Support option and the desired special features, you will have to determine the control storage required. If the sum of the control storage requirements exceeds 65,536, a Model 21 control unit cannot be used and a Model 31 control unit is required.

Do the following procedural steps to determine the control storage requirements for the functions and features you have selected:

1. Determine which Configuration Support option contains the functions you want.
2. Refer to the appropriate figure of control storage requirements, and select the features and functions you want.
  - a. Use Figure A-9 for a 3274 Model 21A.
  - b. Use Figure A-10 for a 3274 Model 21C using SNA protocol.
  - c. Use Figure A-11 for a 3274 Model 21C using BSC protocol.
  - d. Use Figure A-12 for a 3274 Model 21D.
3. Determine the total storage requirements for the features and functions you selected in step 2.
4. If the total storage requirement calculated in step 3 is equal to or less than 65,536, the Model 21 can be used. If the storage requirement exceeds 65,536, however, the Model 21 Control Unit cannot be used and a Model 31 Control Unit is required.

3274 Model 1A	Type C	Type D
Model 1A Base (including Copy) (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> <li>● Configuration Support C (#9112)</li> </ul>	41,200 45,072 50,030	13,600 14,484 17,940
Category A terminals (Choose one) <sup>2</sup> <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 0 0 0	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>4</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717, 2719, 2708)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718, 2721)</li> </ul>	0 0 0 0 0 500 0 0 0 0 0 0 0 0	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560 150 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816 1,304 1,304 2,072
Category B terminals (Choose one) <sup>2,3</sup> <ul style="list-style-type: none"> <li>● 1 to 4 terminals</li> <li>● 1 to 8 terminals</li> <li>● 1 to 12 terminals</li> <li>● 1 to 16 terminals</li> </ul>	4,900 4,900 4,900 4,900	5,624 6,648 7,672 8,696
APL/Text Control Function (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A or B</li> <li>● Configuration Support C</li> </ul>	1,700 0	1,200 0
3289 Text Print Control	0	512
Host Loadable Printer Authorization Matrix	500	0
Between Bracket Printer Sharing	800	100
SCS Printer Support (3287-#9660, 9661) <sup>5</sup> (3262 & 3289-basic function)	1,600	100
Magnetic Reader Control (3278/3279-#4999) (Choose one) <ul style="list-style-type: none"> <li>● 3275/3277-Compatible 10-Character Set</li> <li>● Numeric and Alphanumeric Character Sets</li> </ul>	600 1,630	60 316
Color Convergence (Base or Extended Color)	4,296	1,198
The following are available with Configuration Support C only		
Structured Field and Attribute Processing (SFAP)	4,950	950
Programmed Symbols (PS)	2,700	190
Decompression	900	0
Extended Attribute Terminals (add 256 for each terminal) (3278/3287-#3610/3279 Model 2B or 3B)	0	#x256

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the Type D storage requirements in addition to that listed.

<sup>2</sup> If the total type D requirement for Category A and Category B terminals exceeds 10,744, use 10,744.

<sup>3</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>4</sup> Add the indicated amount for each keyboard type to be used.

<sup>5</sup> The structured field and attribute processing (SFAP) function is also required when the SCS support for SFAP feature (9661) is to be used on the 3287 Printer Models 1, 1C, 2, and 2C.

Figure A-1. 3274 Model 1A Control Storage Requirements

3274 Model 1C/SNA	Type C	Type D
Model 1C/SNA (including Copy) (Choose one) EBCDIC <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> <li>● Configuration Support C (#9112)</li> </ul> ASCII <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> <li>● Configuration Support C (#9112)</li> </ul>	 41,030 46,102 50,580  41,446 46,518 51,700	 13,700 15,096 17,940  14,100 15,496 18,090
Category A terminals (Choose one) <sup>2</sup> <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	 0 0 0 0	 0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>4</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717, 2719, 2708)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718, 2721)</li> </ul>	 0 0 0 0 0 450 0 0 0 0 0 0 0 0 0	 786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560 150 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816  1,304 1,304 2,072
Category B terminals (Choose one) <sup>2,3</sup> <ul style="list-style-type: none"> <li>● 1 to 4 terminals</li> <li>● 1 to 8 terminals</li> <li>● 1 to 12 terminals</li> <li>● 1 to 16 terminals</li> </ul>	 4,900 4,900 4,900 4,900	 5,624 6,648 7,672 8,696
APL/Text Control Function (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A or B</li> <li>● Configuration Support C</li> </ul>	 1,700 0	 1,200 0
3289 Text Printer Control	0	512
High Performance Communications Adapter (#6303) <ul style="list-style-type: none"> <li>● Configuration Support A or B</li> <li>● Configuration Support C</li> </ul>	 600 600	 -500 +400
Host Loadable Printer Authorization Matrix	500	0
Between Bracket Printer Sharing	800	100
SCS Printer Support <sup>5</sup> (3287-#9660,9661) (3262 and 3289-basic feature)	1,600	100

Figure A-2. 3274 Model 1C/SNA Control Storage Requirements (Part 1 of 2)

3274 Model 1C/SNA	Type C	Type D
Magnetic Reader Control (3278/3279-#4999) (Choose one)		
● 3275/3277-Compatible 10-Character Set	600	60
● Numeric and Alphanumeric Character Sets	1,630	316
Encrypt/Decrypt (#3680)	3,200	2,000
Color Convergence (Base or Extended Color)	4,296	1,198
The following are available with Configuration Support C only		
Structured Field and Attribute Processing (SFAP) (EBCDIC only)	4,950	950
Programmed Symbols (PS)	2,700	190
Decompression	900	0
Extended Attribute Terminals (add 256 for each terminal) (3278/3287-#3610/3279 Model 2B or 3B)	0	#x256

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the Type D storage requirements in addition to that listed.

<sup>2</sup> If the total Type D requirement for Category A and Category B terminals exceeds 10,744, use 10,744.

<sup>3</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>4</sup> Add the indicated amount for each keyboard type to be used.

<sup>5</sup> The structured field and attribute processing (SFAP) function is also required when the SCS support for SFAP feature (9661) is to be used on the 3287 Printer Models 1, 1C, 2, and 2C.

Figure A-2. 3274 Model 1C/SNA Control Storage Requirements (Part 2 of 2)

3274 Model 1C/BSC	Type C	Type D
Model 1C/BSC (Choose one) EBCDIC <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> <li>● Configuration Support C (#9112)</li> </ul> ASCII <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> <li>● Configuration Support C (#9112)</li> </ul>	38,000 41,872 47,150  38,000 41,872 48,650	13,800 14,684 22,200  14,500 15,384 22,900
Category A terminals (Choose one) <sup>2</sup> <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 0 0 0	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>4</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717, 2719, 2708)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718, 2721)</li> </ul>	0 0 0 0 0  500 0 0 0 0 0 0	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560  150 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816  1,304 1,304 2,072
Category B terminals (Choose one) <sup>2,3</sup> <ul style="list-style-type: none"> <li>● 1 to 4 terminals</li> <li>● 1 to 8 terminals</li> <li>● 1 to 12 terminals</li> <li>● 1 to 16 terminals</li> </ul>	4,700 4,700 4,700 4,700	1,724 2,748 3,772 4,796
APL/Text Control Function (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A or B</li> <li>● Configuration Support C</li> </ul>	2,200 0	4,700 0
3289 Text Printer Control	0	512
Host Loadable Printer Authorization Matrix	550	0
Copy (Print Key Function)	2,700	0

Figure A-3. 3274 Model 1C/BSC Control Storage Requirements (Part 1 of 2)

3274 Model 1C/BSC	Type C	Type D
Magnetic Reader Control (3278/3279-#4999) (Choose one)		
● 3275/3277-Compatible 10-Character Set	600	60
● Numeric and Alphanumeric Character Sets	1,630	316
Color Convergence (Base or Extended Color)	4,296	1,198
The following are available with Configuration Support C only		
Structured Field and Attribute Processing (SFAP) (EBCDIC only)	4,950	950
Programmed Symbols (PS)	2,700	9,610
Decompression	900	0
Extended Attribute Terminals (add 256 for each terminal) (3278/3287-#3610/3279 Model 2B or 3B)	0	#x256

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Key punch Layout) are required on display stations attached to the 3274, add 1000 to the Type D storage requirements in addition to that listed.

<sup>2</sup> If the total Type D requirement for Category A and Category B terminals exceeds 6844, use 6844.

<sup>3</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>4</sup> Add the indicated amount for each keyboard type to be used.

**Figure A-3. 3274 Model 1C/BSC Control Storage Requirements (Part 2 of 2)**

3274 Model 1D	Type C	Type D
Model 1D (including copy) (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> <li>● Configuration Support C (#9112)</li> </ul>	34,500 38,372 39,720	17,000 17,884 24,900
Category A terminals (Choose one) <sup>2</sup> <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 0 0 0	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>4</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626, 4652)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717, 2719, 2708)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718, 2721)</li> </ul>	0 0 0 0 0 500 0 0 0 0 0 0 0 0	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560 150 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816 1,304 1,304 2,072
Category B terminals (Choose one) <sup>2,3</sup> <ul style="list-style-type: none"> <li>● 1 to 4 terminals</li> <li>● 1 to 8 terminals</li> <li>● 1 to 12 terminals</li> <li>● 1 to 16 terminals</li> </ul>	4,300 4,300 4,300 4,300	3,724 4,748 5,772 6,796
APL/Text Control Function (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A or B</li> <li>● Configuration Support C</li> </ul>	1,700 0	4,600 0
Copy (Print Key Function)	2,700	0
3289 Text Print Control	0	512
Host Loadable Printer Authorization Matrix	550	0
Magnetic Reader Control (3278/3279-#4999) (Choose one) <ul style="list-style-type: none"> <li>● 3275/3277-Compatible 10-Character Set</li> <li>● Numeric and Alphanumeric Character Sets</li> </ul>	600 1,120	60 316

Figure A-4. 3274 Model 1D Control Storage Requirements (Part 1 of 2)



3274 Model 1D	Type C	Type D
Color Convergence (Base or Extended Color)	4,296	1,198
The following are available with Configuration Support C only		
Structured Field and Attribute Processing (SFAP)	4,950	950
Programmed Symbols (PS)	2,700	190
Decompression	900	0
Extended Attribute Terminals (add 256 for each terminal) (3278/3287-#3610/3279 Model 2B or 3B)	0	#x256

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the Type D storage requirements in addition to that listed.

<sup>2</sup> If the total Type D requirement for Category A and Category B terminals exceeds 8844, use 8844.

<sup>3</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>4</sup> Add the indicated amount for each keyboard type to be used.

**Figure A-4. 3274 Model 1D Control Storage Requirements (Part 2 of 2)**

3274 Model 51C/SNA	Type C	Type D
Model 51C/SNA (including copy) (Choose one)		
EBCDIC		
● Configuration Support A (#9110)	41,030	13,700
● Configuration Support B (#9111)	46,102	15,096
● Configuration Support C (#9112)	50,580	17,940
ASCII		
● Configuration Support A (#9110)	41,446	14,100
● Configuration Support B (#9111)	46,518	15,496
● Configuration Support C (#9112)	51,700	18,090
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>3</sup>		
● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)	0	786 <sup>1</sup>
● Data Entry (3278/3279-#4622)	0	786 <sup>1</sup>
● Data Entry Keypunch Layout (3278/3279-#4623)	0	786 <sup>1</sup>
● Text (3278/3279-#4629)	0	1,560
● APL (3278/3279-#4626, 4652)	0	1,560
Canadian French Keyboards (any)	450	150
● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)	0	1,042 <sup>1</sup>
● Data Entry (3278/3279-#4622)	0	1,042 <sup>1</sup>
● Data Entry Keypunch Layout (3278/3279-#4623)	0	1,042 <sup>1</sup>
● APL (3278/3279-#4626, 4652)	0	1,816
Japanese Katakana Keyboards		
● Typewriter (3278/3279-#2715, 2717, 2719, 2708)	0	1,304
● Data Entry (3278/3279-#2716)	0	1,304
● APL (3278/3279-#2718, 2721)	0	2,072
Category B terminals <sup>2</sup>	4,900	5,624
APL/Text Control Function (Choose one)		
● Configuration Support A or B	1,700	1,200
● Configuration Support C	0	0
3289 Text Print Control	0	512
High Performance Communications Adapter (#6303)		
● Configuration Support A or B	600	-500
● Configuration Support C	600	+400
Host Loadable Printer Authorization Matrix	500	0
Between Bracket Printer Sharing	800	100
SCS Printer Support <sup>4</sup> (3287-#9660, 9661) (3262 and 3289-basic feature)	1,600	100
Magnetic Reader Control (3278/3279-#4999) (Choose one)		
● 3275/3277-Compatible 10-Character Set	600	60
● Numeric and Alphanumeric Character Sets	1,630	316
Encrypt/Decrypt (#3680)	3,200	2,000

Figure A-5. 3274 Model 51C/SNA Control Storage Requirements (Part 1 of 2)

<b>3274 Model 51C/SNA</b>	<b>Type C</b>	<b>Type D</b>
Color Convergence (Base or Extended Color)	4,296	1,198
The following are available with Configuration Support C only		
Structured Field and Attribute Processing (SFAP) (EBCDIC only)	4,950	950
Programmed Symbols (PS)	2,700	190
Decompression	900	0
Extended Attribute Terminals (add 256 for each terminal) (3278/3287-#3610/3279 Model 2B or 3B)	0	#x256
Loop Attachment (EBCDIC only)	3,200	850
X.21 Switched Network Operation	6,500	2,100

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the Type D storage requirements in addition to that listed.

<sup>2</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3271.

<sup>3</sup> Add the indicated amount for each keyboard type to be used.

<sup>4</sup> The structured field and attribute processing (SFAP) function is also required when the SCS support for SFAP feature (9661) is to be used on the 3287 Printer Models 1, 1C, 2, and 2C.

**Figure A-5. 3274 Model 51C/SNA Control Storage Requirements (Part 2 of 2)**

3274 Model 51C/BSC	Type C	Type D
Model 51C (Choose one)		
EBCDIC		
● Configuration Support A (#9110)	38,000	13,800
● Configuration Support B (#9111)	41,872	14,684
● Configuration Support C (#9112)	47,150	22,200
ASCII		
● Configuration Support A (#9110)	38,000	14,500
● Configuration Support B (#9111)	41,872	15,384
● Configuration Support C (#9112)	48,650	22,900
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>3</sup>		
● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)	0	786 <sup>1</sup>
● Data Entry (3278/3279-#4622)	0	786 <sup>1</sup>
● Data Entry Keypunch Layout (3278/3279-#4623)	0	786 <sup>1</sup>
● Text (3278/3279-#4629)	0	1,560
● APL (3278/3279-#4626, 4652)	0	1,560
Canadian French Keyboards (any)	450	150
● Typewriter (3278/3279-#4621, 4624, 4627, 4628, 4640, 4651)	0	1,042 <sup>1</sup>
● Data Entry (3278/3279-#4622)	0	1,042 <sup>1</sup>
● Data Entry Keypunch Layout (3278/3279-#4623)	0	1,042 <sup>1</sup>
● APL (3278/3279-#4626, 4652)	0	1,816
Japanese Katakana Keyboards		
● Typewriter (3278/3279-#2715, 2717, 2719, 2708)	0	1,304
● Data Entry (3278/3279-#2716)	0	1,304
● APL (3278/3279-#2718, 2721)	0	2,072
Category B terminals <sup>2</sup>	4,700	1,724
APL/Text Control Function (Choose one)		
● Configuration Support A or B	2,200	4,700
● Configuration Support C	0	0
3289 Text Print Control	0	512
Host Loadable Printer Authorization Matrix	550	0
Copy (Print Key Function)	2,700	0
Magnetic Reader Control (3278/3279-#4999) (Choose one)		
● 3275/3277-Compatible 10-Character Set	600	60
● Numeric and Alphanumeric Character Sets	1,630	316
Color Convergence (Base or Extended Color)	4,296	1,198
The following are available with Configuration Support C only		
Structured Field and Attribute Processing (SFAP) (EBCDIC only)	4,950	950
Programmed Symbols (PS)	2,700	9,610
Decompression	900	0
Extended Attribute Terminals (add 256 for each terminal) (3278/3287-#3610/3279 Model 2B or 3B)	0	#x256

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the Type D storage requirements in addition to that listed.

<sup>2</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>3</sup> Add the indicated amount for each keyboard type to be used.

Figure A-6. 3274 Model 51C/BSC Control Storage Requirements

Line	Factors	Storage Size	Feature Codes
1	Type C + Type D	$\leq 65,536$	None
2	Type C + Type D and Type C and Type D	$> 65,536$ $\leq 49,152$ $\leq 32,768$	1801 and 3622
3	Type C + Type D and Type C and Type D	$> 65,536$ $\leq 49,152$ $\leq 49,152$	1801, 3622, and 3627
4	Type C + Type D and Type C and Type D	$> 65,536$ $\leq 65,536$ $\leq 32,768$	1801, 3622, and 3625, or 1801 and 3623
5	Type C + Type D and Type C and Type D	$> 65,536$ $\leq 65,536$ $\leq 49,152$	1801, 3622, 3625, and 3627, or 1801, 3623, and 3627
6	Type C + Type D and Type C and Type D	$> 65,536$ $\leq 65,536$ $> 49,152$	1801, 3622, 3625, and 3628, or 1801, 3623, and 3628
7	Type C and Type C and Type D	$> 65,536$ $\leq 71,680$ Any	1801, 3622, 3625, and 3628, or 1801, 3623, and 3628
8	Type C	$> 71,680$	Invalid Configuration

Figure A-7. 3274 Model 1A, 1B, 1C, and 1D Extended Function Store Features

Factors	Storage Size	Feature Codes
Type C + Type D	$\leq 65,536$	None
Type C + Type D and Type C and Type D	$> 65,536$ $\leq 65,536$ $\leq 32,768$	1802 and 3630
Type C + Type D and Type C and Type D	$> 65,536$ $\leq 65,536$ $> 32,768$	1802 and 3632 (or 1802, 3630, and 3631 – Field Upgrade Only)
Type C and Type C and Type D	$> 65,536$ $\leq 71,680$ Any	1802 and 3632 (or 1802, 3630, and 3631 – Field Upgrade Only)
Type C	$> 71,680$	Invalid Configuration

Figure A-8. 3274 Model 51C Extended Function Store Features

<b>3274 Model 21A</b>	<b>Storage Requirements</b>
Model 21A (including copy) (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> </ul>	54,800 59,556
Category A terminals (Choose one) <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>2</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718)</li> </ul>	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560 650 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816 1,304 1,304 2,072
APL/Text Control Function	2,900
3289 Text Print Control	512
Host Loadable Printer Authorization Matrix	500
Between Bracket Printer Sharing	900
SCS Printer Support (3287-#9660) (3262 and 3289-basic function)	1,700
Magnetic Reader Control (3278/3279-#4999) (Choose one) <ul style="list-style-type: none"> <li>● 3275/3277-Compatible 10-Character Set</li> <li>● Numeric and Alphanumeric Character Sets</li> </ul>	660 1,946
Color Convergence (Base color)	5,494

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the storage requirements in addition to that listed.

<sup>2</sup> Add the indicated amount for each keyboard type to be used.

**Figure A-9. 3274 Model 21A Control Storage Requirements**

<b>3274 Model 21C/SNA</b>	<b>Storage Requirements</b>
Model 21C/SNA (including copy) (Choose one) EBCDIC <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> </ul> ASCII <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> </ul>	54,730 61,198  55,546 62,014
Category A Terminals (Choose one) <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>2</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718, 2721)</li> </ul>	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560  600 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816  1,304 1,304 2,072
APL/Text Control Function	2,900
3289 Text Print Control	512
High Performance Communications Adapter (#6303)	100
Host Loadable Printer Authorization Matrix	500
Between Bracket Printer Sharing	900
SCS Printer Support (3287-#9660) (3262 and 3289-basic feature)	1,700
Magnetic Reader Control (3278/3279-#4999) (Choose one) <ul style="list-style-type: none"> <li>● 3275/3277-Compatible 10-Character Set</li> <li>● Numeric and Alphanumeric Character Sets</li> </ul>	660 1,946
Encrypt/Decrypt (#3680)	5,200
Color Convergence (Base color)	5,494

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the storage requirements in addition to that listed.

<sup>2</sup> Add the indicated amount for each keyboard type to be used.

Figure A-10. 3274 Model 21C/SNA Control Storage Requirements

3274 Model 21C/BSC	Storage Requirements
Model 21C/BSC (Choose one) EBCDIC <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> </ul> ASCII <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> </ul>	51,800 56,556  52,500 57,256
Category A Terminals (Choose one) <sup>3</sup> <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>4</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718)</li> </ul>	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560  650 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816  1,304 1,304 2,072
Category B terminals (Choose one) <sup>2,3</sup> <ul style="list-style-type: none"> <li>● 1 to 4 terminals</li> <li>● 1 to 8 terminals</li> <li>● 1 to 12 terminals</li> <li>● 1 to 16 terminals</li> </ul>	6,424 7,448 8,472 9,496
APL/Text Control Function	6,900
3289 Text Print Control	512
Host Loadable Printer Authorization Matrix	550
Copy (Print Key Function)	2,700
Magnetic Reader Control (3278/3279-#4999) (Choose one) <ul style="list-style-type: none"> <li>● 3275/3277-Compatible 10-Character Set</li> <li>● Numeric and Alphanumeric Character Sets</li> </ul>	660 1,436
Color Convergence (Base color)	5,494

<sup>1</sup> Configuration Support A consideration only: If all three keyboards (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the storage requirements in addition to that listed.

<sup>2</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>3</sup> If the total requirement for Category A and Category B terminals exceeds 11,544, use 11,544.

<sup>4</sup> Add the indicated amount for each keyboard type to be used.

Figure A-11. 3274 Model 21C/BSC Control Storage Requirements



3274 Model 21D	Storage Requirements
Model 21D (Choose one) <ul style="list-style-type: none"> <li>● Configuration Support A (#9110)</li> <li>● Configuration Support B (#9111)</li> </ul>	51,500 56,256
Category A Terminals (Choose one) <sup>3</sup> <ul style="list-style-type: none"> <li>● 1 to 8 terminals (included in base)</li> <li>● 1 to 16 terminals</li> <li>● 1 to 24 terminals</li> <li>● 1 to 32 terminals</li> </ul>	0 2,048 4,096 6,144
Keyboards on Category A terminals (Select all that apply, choosing at least one) <sup>4</sup> <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● Text (3278/3279-#4629)</li> <li>● APL (3278/3279-#4626)</li> </ul> Canadian French Keyboards (any) <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#4621, 4624, 4627, 4628)</li> <li>● Data Entry (3278/3279-#4622)</li> <li>● Data Entry Keypunch Layout (3278/3279-#4623)</li> <li>● APL (3278/3279-#4626)</li> </ul> Japanese Katakana Keyboards <ul style="list-style-type: none"> <li>● Typewriter (3278/3279-#2715, 2717)</li> <li>● Data Entry (3278/3279-#2716)</li> <li>● APL (3278/3279-#2718)</li> </ul>	786 <sup>1</sup> 786 <sup>1</sup> 786 <sup>1</sup> 1,560 1,560 600 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,042 <sup>1</sup> 1,816 1,304 1,304 2,072
Category B terminals (Choose one) <sup>2,3</sup> <ul style="list-style-type: none"> <li>● 1 to 4 terminals</li> <li>● 1 to 8 terminals</li> <li>● 1 to 12 terminals</li> <li>● 1 to 16 terminals</li> </ul>	8,024 9,048 10,072 11,096
APL/Text Control Function	6,300
Copy (Print Key Function)	2,700
3289 Text Print Control	512
Host Loadable Printer Authorization Matrix	550
Magnetic Reader Control (3278/3279-#4999) (Choose one) <ul style="list-style-type: none"> <li>● 3275/3277-Compatible 10-Character Set</li> <li>● Numeric and Alphanumeric Character Sets</li> </ul>	660 1,436
Color Convergence (Base color)	5,494

<sup>1</sup> Configuration Support A consideration only: If all three keyboard types (Typewriter, Data Entry, and Data Entry Keypunch Layout) are required on display stations attached to the 3274, add 1000 to the storage requirements in addition to that listed.

<sup>2</sup> No customizing option or additional control storage is required to support the 3275/3277-compatible character set for the Operator Identification Card Reader (4600) on 3277 Display Stations (Category B terminals) attached to a 3274.

<sup>3</sup> If the total requirement for Category A and Category B terminals exceeds 13,144, use 13,144.

<sup>4</sup> Add the indicated amount for each keyboard type to be used.

Figure A-12. 3274 Model 21D Control Storage Requirements



Order No. GA27-2849-7

This manual is part of a library that serves as a reference source for systems analysts, programmers, and operators of IBM systems. This form may be used to communicate your views about this publication. They will be sent to the author's department for whatever review and action, if any, are deemed appropriate. Comments may be written in your own language; use of English is not required.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation whatever. You may, of course, continue to use the information you supply.

*Note: Copies of IBM publications are not stocked at the location to which this form is addressed. Please direct any requests for copies of publications, or for assistance in using your IBM system, to your IBM representative or to the IBM branch office serving your locality.*

How did you use this publication?

- |                          |                                     |                          |                        |
|--------------------------|-------------------------------------|--------------------------|------------------------|
| <input type="checkbox"/> | As an introduction                  | <input type="checkbox"/> | As a text (student)    |
| <input type="checkbox"/> | As a reference manual               | <input type="checkbox"/> | As a text (instructor) |
| <input type="checkbox"/> | For another purpose (explain) _____ |                          |                        |

Is there anything you especially like or dislike about the organization, presentation, or writing in this manual? Helpful comments include general usefulness of the book; possible additions, deletions, and clarifications; specific errors and omissions.

Page Number:

Comment:

What is your occupation? \_\_\_\_\_

Newsletter number of latest Technical Newsletter (if any) concerning this publication: \_\_\_\_\_

If you wish a reply, give your name and address:

IBM branch office serving you

Thank you for your cooperation. No postage stamp necessary if mailed in the U.S.A. (Elsewhere, an IBM office or representative will be happy to forward your comments or you may mail directly to the address in the Edition Notice on the back of the title page.)

Note: Staples can cause problems with automated mail sorting equipment.  
Please use pressure sensitive or other gummed tape to seal this form.

GA27-2849-7

Reader's Comment Form

Fold and tape

Please Do Not Staple

Fold and tape

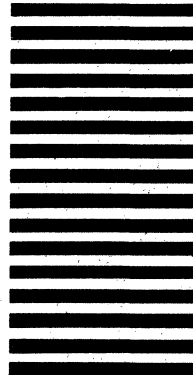


NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**  
FIRST CLASS      PERMIT NO. 40      ARMONK, N.Y.

POSTAGE WILL BE PAID BY ADDRESSEE:

International Business Machines Corporation  
Department 52Q  
Neighborhood Road  
Kingston, New York 12401



Fold and tape

Please Do Not Staple

Fold and tape



International Business Machines Corporation  
Data Processing Division  
1133 Westchester Avenue, White Plains, N.Y. 10604

IBM World Trade Americas/Far East Corporation  
Town of Mount Pleasant, Route 9, North Tarrytown, N.Y., U.S.A. 10591

IBM World Trade Europe/Middle East/Africa Corporation  
360 Hamilton Avenue, White Plains, N.Y., U.S.A. 10601

Cut or Fold Along Line

IBM 3270 Information Display System Configurator (File No. S360/S370/S3/4300/8100-09) Printed in U.S.A. GA27-2849-7



# Technical Newsletter

**This Newsletter No.** GN31-1400  
**Date** 20 Aug 82  
**Base Publication No.** GA27-2849-7  
**File No.** S360/S370/S3/4300/8100-09  
**Previous Newsletters** None

## IBM 3270 Information Display System Configurator

© Copyright International Business Machines Corporation 1977, 1978, 1979, 1980, 1981

This Technical Newsletter provides replacement pages for the subject publication. The pages to be replaced are:

Title page, edition-notice page  
iii, blank  
B-1, back cover

A change to the text is indicated by a vertical line to the left of the change.

### Summary of Changes

1. The revision notice has been rewritten for clarification. No further revision is planned for the base publication, which will remain at the -7 change level. The reader should retain (or order) this edition, GA27-2849-7, for the 3270 system units to which it still applies. For the other units, the reader should order *IBM 3270 Information Display System Feature Description*, GA23-0113.
2. The Preface has been revised to direct the reader to the publication that is applicable and current for a particular unit. For configuration data on the features available for the 3270 system units, use the publication indicated for the units that follow:

#### *Configurator*, GA27-2849-7

3271 Control Unit  
3272 Control Unit  
3275 Display Station  
3284 Printer  
3286 Printer  
3287 Printer (attached to a 3271 or 3272 unit)  
3288 Line Printer

#### *Feature Description*, GA23-0113

3230 Printer  
3262 Line Printer  
3268 Printer  
3274 Control Unit  
3276 Control Unit Display Station  
3277 Display Station  
3278 Display Station  
3279 Color Display Station  
3287 Printer (attached to a 3274 unit)  
3289 Line Printer

**Note:** Please file this cover letter at the back of the manual to provide a record of changes.

## Appendix B. Abbreviations

**A/FE.** Americas/Far East.

**ac.** Alternating current.

**ACF.** Advanced communications function.

**APL.** A programming language.

**ASCII.** American National Standard Code for Information Interchange.

**bps.** Bits per second.

**BSC.** Binary synchronous communication.

**CCITT.** Consultative Committee on International Telephone and Telegraph.

**DCE.** Data-circuit-terminating equipment.

**DDC.** Denden digital circuit.

**DDS.** Digital data service.

**DDX.** Digital Data Exchange.

**E/ME/A.** Europe/Middle East/Africa.

**EBCDIC.** Extended binary-coded decimal interchange code.

**FCC.** Federal Communications Commission.

**IML.** Initial microcode load.

**kHz.** kilohertz.

**LPDA.** Link Problem Determination Aid.

**lpm.** Lines per minute.

**MHS.** Magnetic hand scanner.

**MSR.** Magnetic slot reader.

**MVS.** Multiple virtual storage.

**NPDA.** Network Problem Determination Application.

**NTT.** Nippon Telephone and Telegraph.

**OS.** Operating System.

**PA.** Program attention.

**PS.** Programmed Symbols.

**PSN.** Public Switched Network.

**PTT.** Post Telephone and Telegraph Administration.

**SCS.** SNA character string.

**SDLC.** Synchronous data link control.

**SFAP.** Structured field and attribute processing.

**SNA.** Systems network architecture.

**TCAM.** Telecommunications access method.

**U.S.** United States.

**VS.** Virtual system.

**VTAM.** Virtual telecommunications access method.

