Site and Hardware Planning Information

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About This Book

This book provides information for technical personnel planning for the installation of a system.

Audience Description

This book is intended for use by technical personnel planning for the installation of a system.

Overview of Contents

This book provides information to help when you are planning to install a system. It contains the following chapters:

- Chapter 1, “Site Planning and Preparation Overview,” provides a general overview of things to consider when doing site planning.
- Chapter 2, “Physical Planning,” contains information about the physical and electrical characteristics of most products and some associated products.
- Chapter 3, “Power Cords and Electrical Needs,” describes the electrical needs to be considered when planning for your installation.
- Chapter 4, “Cable Planning,” provides guidance for planning cable paths and lengths that are required for the installation.
- Chapter 5, “Cable Labeling,” provides guidance for labeling cables that are required for the installation.
- Chapter 6, “Additional Planning Considerations,” provides guidance for additional planning steps that may be necessary.
- An index is provided at the back of this book.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

Related Publications

The following is a list of catalogs and overview publications that provide information on systems and related products.

- *Adapters, Devices and Cable Information for Micro Channel Bus Systems*, order number SA23-2764, gives information about adapters and devices and detailed information about cables and cabling used with Micro Channel Bus Systems.
- *Adapters, Devices and Cable Information for Multiple Bus Systems*, order number SA23-2778, gives information about adapters and devices and detailed information about cables and cabling used with Multiple Bus Systems.
- *AIX Power Solutions*, order number GC67-0210, gives detailed information about software offerings.

- *AIX and Related Products Documentation Overview*, order number SC23-2456, provides information about documentation available for AIX and some other products.
- *Asynchronous Communications Guide*, order number SC23-2488, provides information about asynchronous communications.
- *International Catalog of Micro Channel Adapter Cards*, order number S246-0045, lists expansion adapters commercially marketed.
- *Diagnostic Information for Micro Channel Bus Systems*, order number SA23-2765 is the diagnostics manual for Micro Channel bus systems (formally Common Diagnostics Information Manual).
- *Diagnostics Information for Multiple Bus Systems*, order number SA23-2769 is the diagnostics manual for Multiple Bus systems.

Ordering This Publication

To order additional copies of this book, contact your sales representative and use order number SA38-0508.

Chapter 1. Site Planning and Preparation Overview

Successful installation does not happen by accident: It takes planning. You are the most valuable resource in site planning because you know where and how your system, and devices attached to it, will be used.

This chapter provides the basic information you need to plan for your system installation. It provides an overview of each planning task, as well as valuable reference information useful throughout the performance of these tasks. Depending on the complexity of the system you ordered and your existing computing resource you may not need to perform all the steps noted here.

First, with the help of your systems engineer, sales representative, or with the help of those coordinating your installation, sit down and list the hardware for which you need to plan. Use the summary of your order to help you when making your list. This list is now your “To Do” list. You can use the “Planning Task Checklist” on page 1-2 to assist you.

While you are responsible for planning, vendors, contractors, and your sales representative are also available to help with any aspect of the planning. For some system units, a customer service representative will install your system unit and verify correct operation. Other system units such as the 7006, 7009, and 7011 models are customer-installed. If you are not sure, check with your sales representative.

The physical planning section of this publication is a resource which provides the physical characteristics of many system units, and associated products. For information on products not in this publication contact your sales representative or your authorized dealer.

Before proceeding with planning, you should ensure that the hardware and software you have chosen meets your needs. Your sales representative is available to answer questions.

This book is for hardware planning. However, since the system memory and disk storage needed are a function of the software to be used, some things to consider are listed below. Information on software products is generally in or with the software Licensed Program Product itself. See “Related Publications” on page vii.

In assessing the adequacy of hardware and software, consider the following:

- Adequacy of available disk space and system memory for accommodating software, online documentation, and data (including future growth needs resulting from additional users, more data, and new applications).
- Compatibility of all devices.
- Compatibility of software packages with each other and with the hardware configuration.
- Adequate redundancy or backup capabilities in hardware and software.
- Software portability to the new system, if necessary.
- Prerequisites and corequisites of chosen software have been satisfied.
- Data to be transferred to the new system.

Planning Task Checklist

This checklist provides a convenient way for you to document your planning progress.

Working with your sales representative, you should establish completion dates for each of the tasks. You may want to review your planning schedule periodically with your sales representative.

Target Date	Completion Date	Person Responsible	Planning Step
			Plan Your Office or Computer Room Layout (Physical Planning)
			Prepare for Power Cords and Electrical Needs
			Prepare for Cables and Cabling
			Create or Modify Communications Networks
			Perform Building Alterations, as Needed
			Prepare Maintenance, Recovery, and Security Plans
			Develop an Education Plan
			Order Supplies
			Prepare for System Delivery

CSU/CE Feature Installation

Attention: The following information is to indicate which features on various systems/models are intended to be installed by the customer and which features are to be installed by a Customer Engineer/Customer Service Representative (CE/CSR) as part of a Miscellaneous Equipment Specification (MES). This information is for systems/models available as of 04/98.

Notes:

1. 7013 J30 was announced as CSU. US practice has been for CE install.
2. The acronym CSU means Customer Set-Up.

Machine Type	Model	System CSU	Features/Options	
			CE Install	Customer Install
7006	(ALL)	YES	ALL FEATURES	NONE
7007	(ALL)	YES	ALL FEATURES	NONE
7008	(ALL)	YES	ALL FEATURES	NONE
7009	(ALL)	YES	ALL FEATURES	NONE
7010	(ALL)	YES	ALL FEATURES	NONE
7011	(ALL)	YES	ALL FEATURES	NONE
7012	(ALL)	YES	ALL FEATURES	NONE
7013	(ALL) [1]	NO	ALL FEATURES	NONE
7015	(ALL)	NO	ALL FEATURES	NONE
7017	S70	NO	ALL FEATURES	NONE
7024	(ALL)	YES	FC 6309	ALL OTHER FEATURES
7025	(ALL)	YES	FC 2856, 6309, 6549	ALL OTHER FEATURES
7026	(ALL)	NO	ALL OTHER FEATURES	FC 2901,2911, 2913 3071, 3072, 3083
7027	(ALL)	NO	ALL OTHER FEATURES	FC 2616, 3080,3083 3084, 3090, 6142 6147, 3133, 3134 3137, 3138, 6153 6294, 6295
7043	(ALL)	YES	FC 2856 & 6309	ALL OTHER FEATURES
7236	(ALL)	NO	ALL FEATURES	NONE
7248	(ALL)	YES	FC 2856	ALL OTHER FEATURES
7317	(ALL)	NO	ALL FEATURES	NONE
7318	(ALL)	NO	ALL FEATURES	NONE
7319	(ALL)	NO	ALL FEATURES	NONE

Chapter 2. Physical Planning

Site preparation for the system is your responsibility. The primary task of your site planner is to ensure that each system is installed so that it can operate and be serviced efficiently.

General Considerations

When determining the placement of your system, consider the following:

- Adequate space for the devices.
- Working environment of personnel who will be using the devices (their comfort, ability to access the devices, supplies, and reference materials).
- Adequate space for maintaining and servicing the devices.
- Physical security requirements necessary for the devices.
- Weight of the devices.
- Heat output of the devices.
- Operating temperature requirements of the devices.
  - When using tape media, the maximum operating temperature is 16 to 32°C (60 to 90°F). The maximum operating wet bulb temperature is 23°C (73°F).
- Humidity requirements of the devices.
  - When using tape media, the humidity is 20 to 80%.
- Air flow requirements of the devices.
- Air quality of the location where the devices will be used. (For example, excess dust could damage your system.)
- Altitude limitations of the devices.
- Noise emission levels of the devices.
- Any vibration of equipment near where the devices will be placed.
- Paths of power cords.

The following pages contain the information you need to evaluate these considerations; simply turn to the page relating to the system units or devices you purchased.

Physical Characteristics for System Units

The following information can help you plan for your system units and related products. You only have to do physical planning for the units or products you have ordered. Footprints are not drawn to scale.

If you want to use full-sized footprints of the system units, use the measurements provided to construct them out of folded newspaper or sheets of construction paper. You can then use them to plan a layout within the actual office space.

Each footprint represents a top view of the system unit or device. All dimension given include air flow but not service accessibility.

Note: The electrical and thermal information provided for system units does not include displays or a operators terminal (such as an ASCII terminal). If a display is included in a system offering, be sure to include display or terminal characteristics when planning the installation of these system units.

7006 Graphics Workstation Models 41T, 41W, 42T, and 42W

Dimensions	**Desktop**		**Deskside**	
Height	119 mm	4.7 in.	447 mm	17.6 in.
Width[1]	447 mm	17.6 in.	215 mm	8.5 in.
Depth	451 mm	17.8 in.	451 mm	17.8 in.

Weight	12.7 kg 28 lbs.

Electrical	
Power source loading (typical in kVA)	0.170
Voltage range (V ac)	100 to 127 or 200 to 240 (switchable)
Frequency (hertz)	50 or 60
Thermal output (typical)	290 BTU/hr
Power requirements (typical)	85 watts
Power factor	0.5 to 0.7
Inrush current[6]	75 amps at 120 V ac, 150 amps at 240 V ac
Maximum altitude	2135 m (7000 ft.)

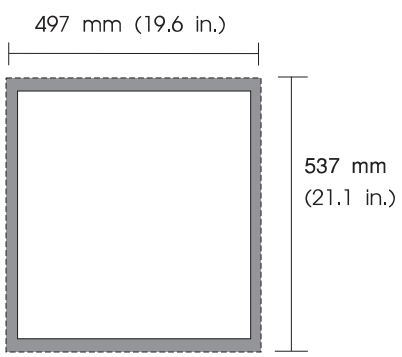
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90.5F)	10 to 43°C (50 to 110.5F)

Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73.5F)	27°C (80.5F)

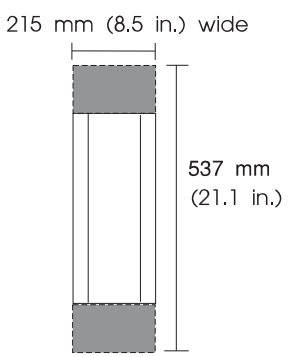
Noise Emissions[2]	**Operating**	**Idle**
L_{WAd}	5.2 bels	5.0 bels
L_{pAm}	41 dBA	38 dBA
$<L_{pA}>_m$	36 dBA	34 dBA
Impulsive or prominent discrete tones	No	No

Clearances[3]	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[4,5]	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mm(1 in)
Service	466mm(18 in)	N/A	N/A	N/A

1. Deskside width measurement includes the optional vertical stand.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Left and right measurements apply only when the system is used in the desktop position.
4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
5. When placed in the vertical position, the system requires 25mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.
6. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Desktop Footprint



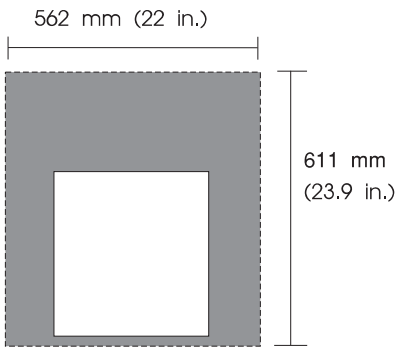
Deskside Footprint Includes Pedestal

Dimensions				
Height			51 mm	2.0 in.
Width			290 mm	11.8 in.
Depth			216 mm	8.5 in.
Weight			3.13 kg	6.9 lbs
Electrical				
Voltage range (V ac)			90 to 240 (autosensing)	
Frequency (hertz)			50 or 60	
Power requirements (typical)			55 watts	
Temperature Requirements			**Operating** 5 to 35.5°C (41 to 95.5°F)	
Humidity Requirements (Noncondensing) **Wet Bulb**			**Operating** 8 to 80% 23°C (73.5F)	
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		5.1 bels		4.8 bels
Impulsive or prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	N/A	N/A	N/A	N/A

*See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions				
Height			413 mm	16.1 in.
Width			410 mm	16.0 in.
Depth			459 mm	17.9 in.
Weight				
Minimum			23.5 kg	52 lbs.
Maximum			23.5 kg	52 lbs.
Electrical				
Power source loading (typical in kVA)			0.22	
Voltage range (V ac)			100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			550 BTU/hr	
Power requirements (typical)			160 watts	
Power factor			0.5 to 0.7	
Inrush current			20 amps at 120 V ac, 40 amps at 240 V ac	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating** 16 to 32°C (60 to 90°F)	**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)			**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb			23°C (73.5F)	27°C (80.5F)
Noise Emissions[1]			**Operating**	**Idle**
L_{WAd}			5.0 bels	5.0 bels
L_{pAm}			38 dBA	38 dBA
$<L_{pA}>_m$			38 dBA	38 dBA
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	N/A	152 mm(6 in)	76 mm(3 in)	76 mm(3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Model M20 and M2A Footprint

7009 Compact Server C10, and C20

Dimensions		
Height	394 mm	15.5 in.
Width	191 mm	7.5 in.
Width with pedestal	241 mm	9.5 in.
Depth	432 mm	17.0 in.
Weight		
Minimum	16 kg	35.0 lbs.
Maximum	18 kg	39.5 lbs.
Electrical		
Power source loading (max. in kVA)	0.232	
Voltage range (V ac)	100 to 127 or 200 to 240 (switchable)	
Frequency (hertz)	50 or 60	
Thermal output (max)	(C10) 512 BTU/hr (C20) 544 BTU/hr	
Power requirements (max)	(C10) 150 watts (C20) 160 watts	
Power factor	0.5 to 0.7	
Inrush current[3]	75 amps at 120 V ac, 150 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

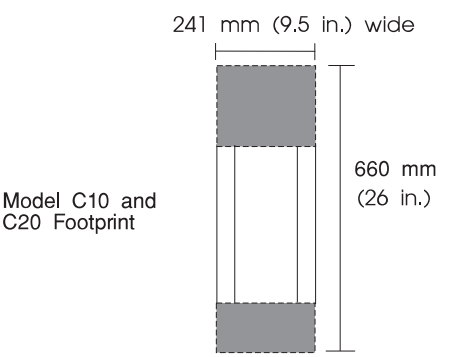
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.3 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	41 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	76 mm(3 in)	152 mm(6 in)	N/A	N/A
Service	Install so that it can be moved to an area providing 457 mm (18 in) on the front and 457 mm (18 in) on the left side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7011 POWERstation and POWERserver 220, and 230

Dimensions	**Desktop**		**Deskside**	
Height	84 mm	3.3 in.	432 mm	17.0 in.
Width[1]	406 mm	16.0 in.	216 mm	8.5 in.
Depth	419 mm	16.5 in.	419 mm	16.5 in.

Weight		
Minimum	9.0 kg	20 lbs.
Maximum	11.5 kg	25 lbs.

Electrical	
Power source loading (typical in kVA)	0.17
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60
Thermal output (typical)	340 BTU/hr
Power requirements (typical)	100 watts
Power factor	0.5 to 0.7
Inrush current	50 amps at 120 V ac, 100 amps at 240 V ac
Maximum altitude	2135 m (7000 ft.)

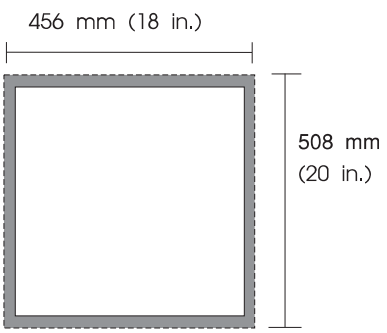
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

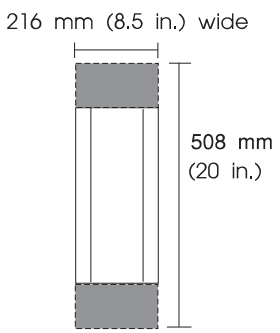
Noise Emissions[2]	**Operating**	**Idle**
L_{WAd}	5.2 bels	5.0 bels
L_{pAm}	41 dBA	40 dBA
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances[3]	**Front**	**Back**	**Left**	**Right**
Install/ Air Flow[4,5]	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mm(1 in)
Service	466mm(18 in)	N/A	N/A	N/A

1. Deskside width measurement includes the optional vertical stand.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Left and right measurements apply only when the system is used in the desktop position.
4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
5. When placed in the vertical position, the Model 220 requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.



Desktop Footprint



Deskside Footprint Includes Pedestal

7011 POWERstation and POWERserver 250

Dimensions	**Desktop**		**Deskside**	
Height	84 mm	3.3 in.	432 mm	17 in.
Width[1]	406 mm	16 in.	216 mm	8.5 in.
Depth	419 mm	16.5 in.	419 mm	16.5 in.

Weight		
Minimum	9.0 kg	20 lbs.
Maximum	11.5 kg	25 lbs.

Electrical	
Power source loading (typical in kVA)	0.185
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60
Thermal output (typical)	410 BTU/hr
Power requirements (typical)	120 watts
Power factor	0.5 to 0.7
Inrush current	50 amps at 120 V ac, 100 amps at 240 V ac
Maximum altitude	2135 m (7000 ft.)

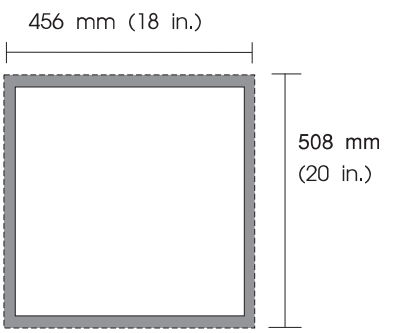
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

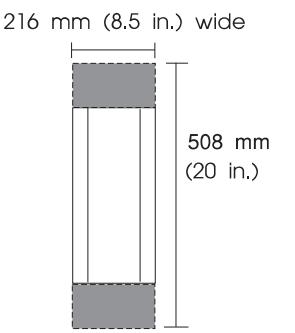
Noise Emissions[2]	**Operating**	**Idle**
L_{WAd}	5.2 bels	5.0 bels
L_{pAm}	41 dBA	40 dBA
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances[3]	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[4,5]	35 mm(1.5 in)	51 mm(2 in)	25 mm(1 in)	25 mm(1 in)
Service	466mm (18 in)	N/A	N/A	N/A

1. Deskside width measurement includes the optional vertical stand.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Left and right measurements apply only when the Model 250 is used in the desktop position.
4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
5. When placed in the vertical position, the Model 250 requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.



Desktop Footprint



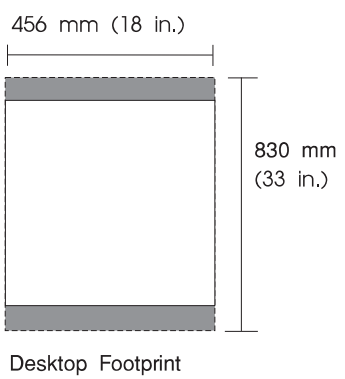
Deskside Footprint Includes Pedestal

7012 POWERstation and POWERserver 34H, 355, 360, 365, 370, and 375

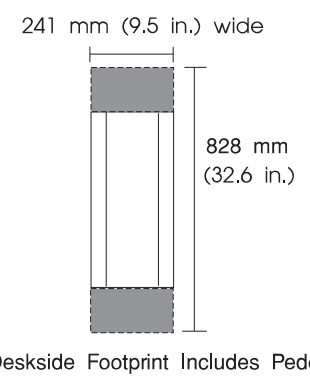
Dimensions	**Desktop**	**Deskside**
Height	162 mm 6.4 in.	466 mm 18.3 in.
Width (at pedestal for deskside)	456 mm 18.0 in.	241 mm 9.5 in.
Depth	523 mm 20.6 in.	523 mm 20.6 in.
Weight		
Minimum	12.7 kg 28 lbs.	12.7 kg 28 lbs.
Maximum	15.4 kg 34 lbs.	15.4 kg 34 lbs.
Electrical		
Power source loading (typical in kVA)	0.29	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	585 BTU/hr	
Power requirements (typical)	185 watts	
Power factor	0.5 to 0.7	
Inrush current	49 amps at 120 V ac, 98 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.5 bels
L_{pAm}	45 dBA N/A	45 dBA(desktop) N/A (deskside)
$<L_{pA}>_m$	41 dBA 38 dBA	41 dBA (desktop) 38 dBA(deskside)
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	760 mm(30 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.



Desktop Footprint



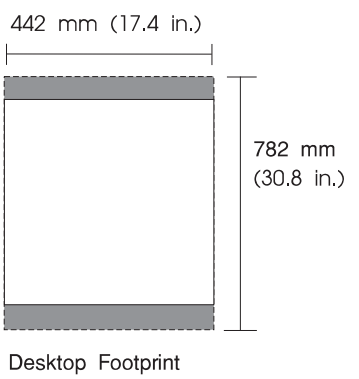
Deskside Footprint Includes Pedestal

7012 POWERserver Models 380, 390, and 39H

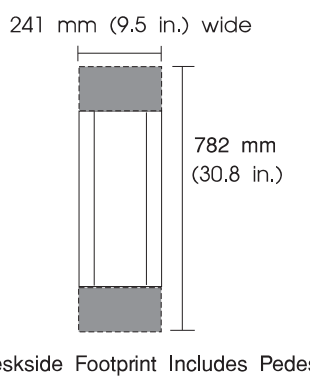
Dimensions	Desktop	Deskside
Height	162 mm 6.4 in.	452 mm 17.8 in.
Width (at pedestal for deskside)	442 mm 17.4 in.	241 mm 9.5 in.
Depth	478 mm 18.8 in.	478 mm 18.8 in.
Weight		
Minimum	18.1 kg 40 lbs.	18.1 kg 40 lbs.
Maximum	21.8 kg 48 lbs.	21.8 kg 48 lbs.
Electrical		
Power source loading (typical in kVA)	0.35	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	770 BTU/hr	
Power requirements (typical)	225 watts	
Power factor	0.5 to 0.7	
Inrush current[3]	42 amps at 120 V ac, 42 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating** 16 to 32°C (60 to 90°F)	**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.3 bels
L_{pAm}	41 dBA (desktop) 38 dBA (deskside)	41 dBA (desktop) 38 dBA (deskside)
$<L_{pA}>_m$	41 dBA (desktop) 38 dBA (deskside)	41 dBA (desktop) 38 dBA (deskside)
Impulsive or prominent discrete tones	No	No

Clearances	Front	Back	Left	Right
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	760 mm(30 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Desktop Footprint



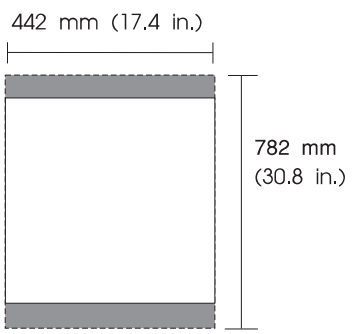
Deskside Footprint Includes Pedestal

7012 Model 397

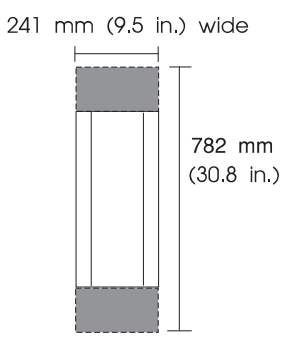
Dimensions	Desktop	Deskside
Height	162 mm 6.4 in.	452 mm 17.8 in.
Width (at pedestal for deskside)	442 mm 17.4 in.	241 mm 9.5 in.
Depth	478 mm 18.8 in.	478 mm 18.8 in.
Weight		
Minimum	18.1 kg 40 lbs.	18.1 kg 40 lbs.
Maximum	21.8 kg 48 lbs.	21.8 kg 48 lbs.
Electrical		
Power source loading (typical in kVA)	0.5	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	770 BTU/hr	
Power requirements (typical)	250 watts	
Power factor	0.8 to 0.94	
Inrush current[3]	20 amps at 120 V ac, 20 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating** 16 to 32°C (60 to 90°F)	**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.5 bels
L_{pAm}	46 dBA (desktop)	46 dBA (desktop)
$<L_{pA}>_m$	48 dBA (desktop)	47 dBA (desktop)
Impulsive or prominent discrete tones	No	No

Clearances	Front	Back	Left	Right
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	760 mm(30 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Desktop Footprint



Deskside Footprint Includes Pedestal

7012 Models G30, G40, and G02

Dimensions	**G30 & G40**		**G02**	
Height	450 mm	17.75 in.	450 mm	17.75 in.
Width	173 mm	6.9 in.	173 mm	6.9 in.
Width (at pedestal)	280 mm	11 in.	280 mm	11 in.
Depth	613 mm	24.1 in.	613 mm	24.1 in.
Weight	**G30 & G40**		**G02**	
Minimum	19 kg	43 lbs.	19 kg	43 kg
Maximum	25 kg	55 lbs.	25 lbs.	55 lbs.

Electrical	**G30 & G40**	**G02**
Power source loading (typical in kVA)	0.45	0.2
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	100 to 125 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60	50 or 60
Thermal output (typical)	1380 BTU/hr	615 BTU/hr
Power requirements (typical)	405 watts	180 watts
Power factor	0.8 to 1.0	0.8 to 1.0
Inrush current[3]	35 amps at 120 V ac 70 amps at 240 V ac	35 amps at 120 V ac 70 amps at 240 V ac
Maximum altitude	2135 m (7000 ft.)	2135 m (7000 ft.)

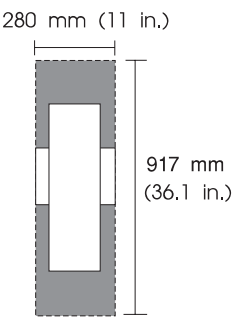
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.5 bels
L_{pAm}	39 dBA	37 dBA
$\langle L_{pA} \rangle_m$	39 dBA	37 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	760 mm(30 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Deskside Footprint Includes Pedestal

7013 POWERstation and POWERserver 52H

Dimensions		
Height	610 mm	24.0 in.
Width	360 mm	14.2 in.
Depth	675 mm	26.6 in.
Weight		
Minimum	36.7 kg	81 lbs.
Maximum	53.1 kg	117 lbs.
Electrical		
Power source loading (typical in kVA)	0.4	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	975 BTU/hr	
Power requirements (typical)	285 watts	
Power factor	0.8 to 1.0	
Inrush current	22 amps at 120 V ac, 44 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

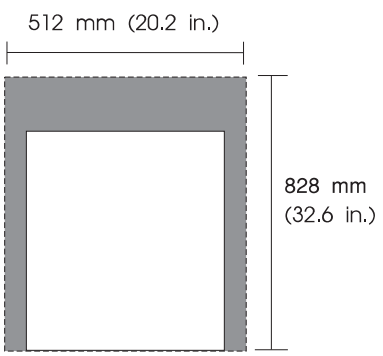
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	N/A	152mm(6 in)	76mm(3 in)	76mm(3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Model 52H Footprint

7013 POWERstation and POWERserver 550L

Dimensions		
Height	610 mm	24.0 in.
Width	360 mm	14.2 in.
Depth	675 mm	26.6 in.
Weight		
Minimum	36.7 kg	81 lbs.
Maximum	53.1 kg	117 lbs.
Electrical		
Power source loading (typical in kVA)	0.4	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	975 BTU/hr	
Power requirements (typical)	285 watts	
Power factor	0.8 to 1.0	
Inrush current	22 amps at 120 V ac, 44 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

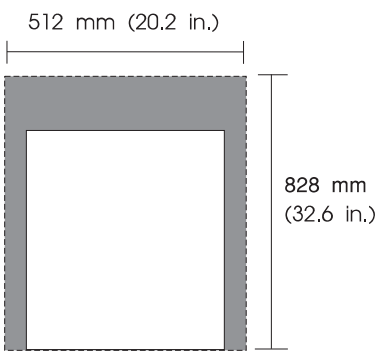
Temperature Range	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	N/A	152 mm(6 in)	76 mm(3 in)	76 mm(3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Model 550L Footprint

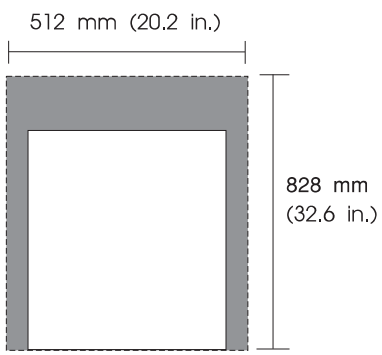
7013 POWERstation and POWERserver 570, and 580

Dimensions		
Height	610 mm	24.0 in.
Width	360 mm	14.2 in.
Depth	675 mm	26.6 in.
Weight		
Minimum	36.7 kg	81 lbs.
Maximum	53.1 kg	117 lbs.
Electrical		
Power source loading (typical in kVA)	0.43	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	1450 BTU/hr	
Power requirements (typical)	425 watts	
Power factor	0.8 to 1.0	
Inrush current	34 amps at 120 V ac, 68 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

Temperature Range	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	23°C (73°F)	27°C (80°F)
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	N/A	152 mm(6 in)	76 mm(3 in)	76 mm(3 in)
Service	Install so that it can be moved to an area providing 760 mm (3 in) on each side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Model 570 and 580 Footprint

Dimensions		
Height	610 mm	24 in.
Width	360 mm	14.2 in.
Depth	675 mm	26.6 in.
Weight		
Minimum	36.7 kg	81 lbs.
Maximum	53.1 kg	117 lbs.
Electrical		
Power source loading (typical in kVA)	0.5	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	1620 BTU/hr	
Power requirements (typical)	550 watts	
Power factor	0.8 to 1.0	
Inrush current	34 amps at 120 V ac, 68 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

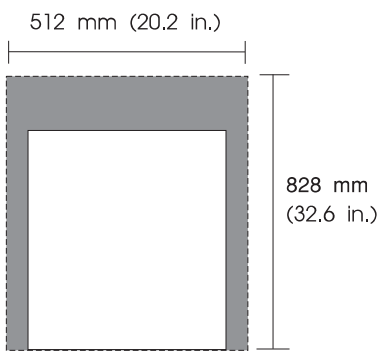
Temperature Range	**Operating**	**Non-Operating**
	16 to 32°C (61 to 90°F)	10 to 43°C (50 to 110°F)

Humidity (Noncondensing)	**Operating**	**Non-Operating**
Without tape media	8 to 80%	8 to 80%
With tape media	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape media	27°C (80°F)	27°C (80°F)
With tape media	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	N/A	152 mm(6 in)	76 mm(3 in)	76 mm(3 in)
Service	Install so that it can be moved to an area providing 760 mm (3 in) on each side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Models 58H, and all 59x Models Footprint

7013 Models J30, J40, and J01

Dimensions	**J30 & J40**		**J01**	
Height	610 mm	24 in.	610 mm	24 in.
Width	360 mm	14.2 in.	360 mm	14.2 in.
Depth	750 mm	29.5 in.	750 mm	29.5 in.
Weight	**J30 & J40**		**J01**	
Minimum	67 kg	148 lbs.	67 kg	148 lbs.
Maximum	84 kg	185 lbs.	84 kg	185 lbs.

Electrical	**J30 & J40**	**J01**
Power source loading (typical in kVA)	0.9	0.6
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	100 to 125 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60	50 or 60
Thermal output (typical)	2765 BTU/hr	1843 BTU/hr
Power requirements (typical)	810 watts	540 watts
Power factor	0.8 to 1.0	0.8 to 1.0
Inrush current[3]	35 amps at 120 V ac 70 amps at 240 V ac	35 amps at 120 V ac 70 amps at 240 V ac
Maximum altitude	2500 m (8202 ft.)	2500 m (8202 ft.)

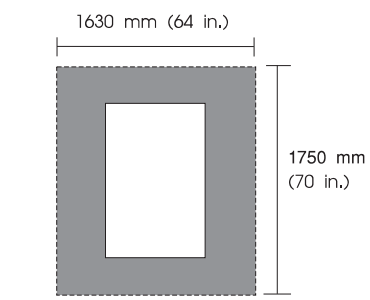
Temperature Range	**Operating**	**Non-Operating**
	10 to 32°C (50 to 90°F)	5 to 50°C (41 to 122°F)

Humidity (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	5 to 95%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	24°C (75°F)	28°C (82°F)
With tape drive	23°C (73°F)	27°C (80°F)

Noise Emissions[1,4]	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.5 bels
L_{pAm}	NA dBA	NA dBA
$<L_{pA}>_m$	No	No
Impulsive or prominent discrete tones		

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	500mm(20 in)	500mm(20 in)	500mm(20 in)	500mm(20 in)
Service	500mm(20 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
4. The values for $<L_{pA}>_m$ not available at the time of publishing.



Models J01, J30, and J40 Footprint

7013 Model J50

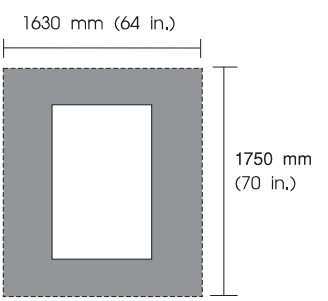
Dimensions		
Height	610 mm	24 in.
Width	360 mm	14.2 in.
Depth	750 mm	29.5 in.
Weight		
Minimum	67 kg	148 lbs.
Maximum	84 kg	185 lbs.
Electrical		
Power source loading (typical in kVA)	0.6	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	1843 BTU/hr	
Power requirements (typical)	540 watts	
Power factor	0.8 to 1.0	
Inrush current	35 amps at 120 V ac, 70 amps at 240 V ac	
Maximum altitude	2500 m (8202 ft.)	

Temperature Requirements	**Operating**	**Non-Operating (Power Off)**
	10 to 32°C (50 to 90°F)	10 to 43°C 50 to 109°F)
Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating (Power Off)**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	8 to 80%
Wet Bulb Requirements	23°C (73°F)	27°C (80°F)

Noise Emissions[1,4]	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.5 bels
L_{pAm}	NA dBA	NA dBA
$<L_{pA}>_m$	No	No
Impulsive or prominent discrete tones		

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	500mm(20 in)	500mm(20 in)	500mm(20 in)	500mm(20 in)
Service	500mm(20 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
4. The values for $<L_{pA}>_m$ not available at the time of publishing.

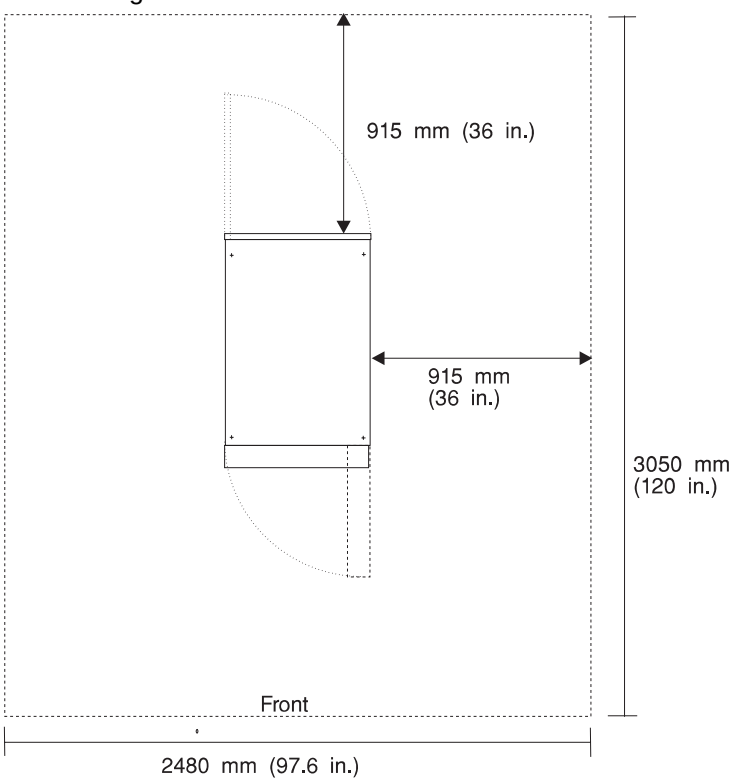


Model J50 Footprint

7014 Model S00 Rack

Dimensions				
Height			1577 mm	62.0 in.
Width			650 mm	25.5 in.
Depth			1019 mm	40.1 in.
Weight* (Base Rack)			159 kg	349 lbs.
Electrical	(see specifications for drawers or enclosures)			
Temperature Range	(see specifications for drawers or enclosures)			
Humidity Requirements	(see specifications for drawers or enclosures)			
Noise Emissions	(see specifications for drawers or enclosures)			
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	1650mm(65 in)	915mm(36 in)	915mm(36 in)	915mm(36 in)
* Configuration dependent, base weight plus weight of drawers.				

The amount of space needed by the unit during service operation is indicated by the lines on the footprint. For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack.



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging doors on the I/O rack. The illustration shows the minimum space required.

Dimensions		
Height	1578 mm	62.0 in.
Width	650 mm	25.5 in.
Depth	921 mm	36.0 in.
Weight		
Minimum	205kg	450 lbs.
Maximum	441kg	970 lbs.

Electrical[5]	**Maximum Entry Configuration**	**Maximum Configuration**
Power source loading (max)	1.0	2.4
Voltage range (V ac)	200 to 240 or -48V dc	200 to 240 or -48V dc
Frequency (hertz)	50 or 60	50 or 60
Thermal output (max)	2165 BTU/hr	4100 BTU/hr
Power requirements (max)	634 watts	1200 watts
Power factor[4]	0.5 to 0.7	0.5 to 0.7
Inrush current[6]	125 amps	125 amps
Maximum altitude	2135 m (7000 ft.)	2135 m (7000 ft.)

Temperature Range	**Non-Operating**
10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)

Humidity (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	23°C (73°F)	27°C (80°F)

Noise Emissions[1,2]	**Operating**	**Idle**
L_{WAd}	6.4 bels	6.2 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	49 dBA	47 dBA
Impulsive or prominent discrete tones	No	No

Clearances[3]	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow			
Service	1650mm(65 in)	760mm(30 in)	915mm(36 in)	915mm(36 in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for the 7015 system unit is based on the following configuration: a processor drawer with eight memory cards and eight I/O cards, a SCSI device drawer with four SCSI devices, the second eight I/O slots with eight asynchronous cards, two SCSI disk drawers with four SCSI devices each, and a Battery Back up Unit. Noise emissions data for the SCSI disk drawer is therefore included in the data.
3. For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended. See “7015 System Rack R00” on page 2-23 for additional clearance information.
4. Power factor is 0.7 to 0.9 without a Battery Back up Unit.
5. The figures for power source loading, thermal output, and power requirement represent maximums. Please work with your sales or service representative to determine the typical figures for your configuration.
6. Inrush currents occur only at initial application of power, no inrush occurs during normal use.

Dimensions				
Height			1578 mm	62.0 in.
Width			650 mm	25.5 in.
Depth			921 mm	36.0 in.
Weight				
Minimum			205 kg	450 lbs.
Maximum			441 kg	970 lbs.
Electrical[5]			**Maximum Entry Configuration**	**Maximum Configuration**
Power source loading (max)			1.0	2.4
Voltage range (V ac)			200 to 240 or -48V dc	200 to 240 or -48V dc
Frequency (hertz)			50 or 60	50 or 60
Thermal output (max)			2165 BTU/hr	4100 BTU/hr
Power requirements (max)			634 watts	1200 watts
Power factor[4]			0.5 to 0.7	0.5 to 0.7
Inrush current[6]			125 amps	125 amps
Maximum altitude			2135 m (7000 ft.)	2135 m (7000 ft.)
Temperature Range			**Operating**	**Non-Operating**
			16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity (Noncondensing)			**Operating**	**Non-Operating**
Without tape drive			8 to 80%	8 to 80%
With tape drive			20 to 80%	20 to 80%
Wet Bulb Requirements			23°C (73°F)	27°C (80°F)
Noise Emissions[1,2]			**Operating**	**Idle**
L_{WAd}			6.4 bels	6.2 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			49 dBA	47 dBA
Impulsive or prominent discrete tones			No	No
Clearances[3]	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow			
Service	1650mm(65 in)	760mm(30 in)	915mm(36 in)	915mm(36 in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for the 7015 system unit is based on the following configuration: a Processor Drawer with eight memory cards and eight I/O cards, a SCSI Device Drawer with four SCSI devices, the second eight I/O slots with eight asynchronous cards, two SCSI Disk Drawers with four SCSI devices each, and a Battery Back up Unit. Noise emissions data for the SCSI Disk Drawer is therefore included in the data.
3. For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended. See “7015 System Rack R00” on page 2-23 for additional clearance information.
4. Power factor is 0.7 to 0.9 without a Battery Back up Unit.
5. The figures for power source loading, thermal output, and power requirement represent maximums. Please work with your sales or service representative to determine the typical figures for your configuration.
6. Inrush currents occur only at initial application of power, no inrush occurs during normal use.

7015 SCSI Disk and Device Drawers

Dimensions		
Height	171 mm	6.7 in. (4 EIA units)
Width	443 mm	17.4 in.
Depth	686 mm	27.0 in.
Weight		
Minimum	25 kg	55 lbs.
Maximum	48 kg	105 lbs.
Electrical		
Power source loading (typical in kVA)	0.34	
Voltage range (V ac)	200 to 240	
Frequency (hertz)	50 or 60	
Thermal output (typical)	580 BTU/hr	
Power requirements (typical)	170 watts	
Power factor	0.5 to 0.7	
Inrush current*	39 amps	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)
Humidity (Noncondensing)	**Operating**	**Non-Operating**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	20 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	23°C (73°F)	27°C (80°F)
Noise Emissions		
Data included with calculations for the 7015 POWERservers.		
* Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.		

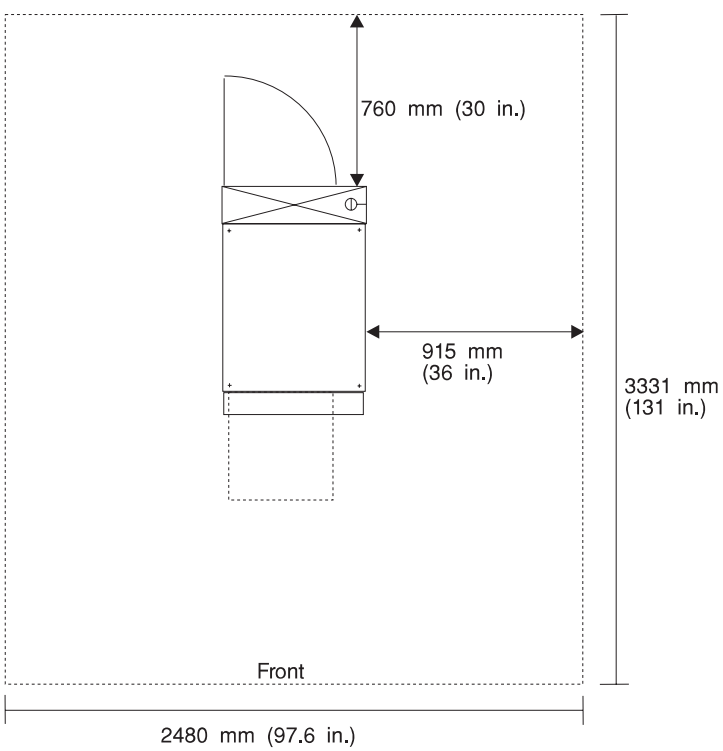
1/2-Inch 9-Track Tape Drive Drawer

Dimensions		
Height	222 mm	8.75 in. (6 EIA units)
Width	483 mm	19.00 in.
Depth	679 mm	26.75 in.
Weight		
Minimum	48.2 kg	106 lbs.
Maximum	48.2 kg	106 lbs.
Electrical		
Power source loading (typical in kVA)	0.2	
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	410 BTU/hr	
Power requirements (typical)	120 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Dimensions				
Height			1578 mm	62.0 in.
Width			650 mm	25.5 in.
Depth with Std. Door			921 mm	36.0 in.
Depth with SMP Door			1060 mm	41.8 in.
Weight			130 kg	286 lbs.
Electrical	(see specifications for drawers or enclosures)			
Temperature Range	(see specifications for drawers or enclosures)			
Humidity Requirements	(see specifications for drawers or enclosures)			
Noise Emissions	(see specifications for drawers or enclosures)			
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	1650mm(65 in)	760mm(30 in)	915mm(36 in)	915mm(36 in)

The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended.



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging door on the rear of the rack and a drawer in the extended position. The illustration shows the minimum space required.

7015 Models R10, R20, and R21 CPU Drawers

Dimensions				
Height			266.7 mm	10.5 in.
Width			445.5 mm	17.5 in.
Depth			610.0 mm	24.0 in.
Weight				
Minimum (Configuration dependant)			30.3 kg	65 lbs.
Electrical				
Power source loading (typical in kVA)			0.29KVA	
Voltage range (V ac)			200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			850 BTU/hr	
Power requirements (typical)			250 watts (Model R10) 280 watts (Model R20)	
Power factor			0.85 min	
Inrush current[3]			20 amps	
Maximum altitude			2135 m (7000 ft.)	
Temperature Range			**Operating** 10 to 40°C (50 to 104°F)	**Non-Operating** 10 to 40°C (50 to 104°F)
:hp2Humidity (Noncondensing)			**Operating**	**Non-Operating**
Without tape drive				
With tape drive			8 to 80%	8 to 80%
Wet Bulb Requirements			20 to 80%	20 to 80%
Without tape drive				
With tape drive			27°C (80°F) 23°C (73°F)	27°C (80°F) 27°C (80°F)
Noise Emissions[1,2]			**Operating**	**Idle**
L_{WAd}			6.4 bels	6.2 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			49 dBA	47 dBA
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	(See service clearances for the R00 System Rack)			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for Models R10 and R20 CPU Drawers are based on a processor drawer mounted in a R00 System Rack.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

Dimensions				
Height			445.5 mm	17.5 in.
Width			445.5 mm	17.5 in.
Depth			710.0 mm	28.0 in.
Weight				
Minimum (Configuration dependent)			51.3 kg	112 lbs.
Electrical				
Power source loading (typical in kVA)			0.685	
Voltage range (V ac)			200 to 240 or -48V dc	
Frequency (hertz)			50 or 60	
Thermal output (typical)			2100 BTU/hr	
Power requirements (typical)			615 watts	
Power factor			0.8 to 1.0	
Inrush current[3]			68 amps	
Maximum altitude			2135 m (7000 ft.)	
Temperature Range			**Operating**	**Non-Operating**
			10 to 40°C (50 to 104°F)	10 to 40°C (50 to 104°F)
Humidity (Noncondensing)			**Operating**	**Non-Operating**
Without tape drive			8 to 80%	8 to 80%
With tape drive			20 to 80%	20 to 80%
Wet Bulb Requirements				
Without tape drive			27°C (80°F)	27°C (80°F)
With tape drive			23°C (73°F)	27°C (80°F)
Noise Emissions[1,2]			**Operating**	**Idle**
L_{WAd}			6.4 bels	6.2 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			49 dBA	47 dBA
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	(See service clearances for the R00 System Rack)			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for the Model R24 CPU Media Enclosure are based on the following configuration: the enclosure is mounted in a R00 System Rack with three 2.0GB SCSI Disk drives are installed, two SCSI Disk Drawers with three 2.41GB disk drives installed, a power distribution unit is installed in the rack and the system is operating in a nominal environment of 25°C (78 °F)
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

Dimensions		
Height	267.0 mm	10.5 in.
Width	445.5 mm	17.5 in.
Depth	925.0 mm	36.4 in.
Weight		
Minimum (Configuration dependent)	59.7 kg	132 lbs.
Electrical		
Power source loading (typical in kVA)	0.8	
Voltage range (V ac)	200 to 240 or -48V dc	
Frequency (hertz)	50 or 60	
Thermal output (typical)	2457 BTU/hr	
Power requirements (typical)	720 watts	
Power factor	0.8 to 1.0	
Inrush current[3]	45 amps at 240 V ac 90 amps at 240 V ac with redundant power option	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating (Power Off)**
	10 to 40°C (50 to 104°F)	10 to 40°C (52 to 125°F)

Humidity (Noncondensing)	**Operating**	**Non-Operating (Power Off)**
Without tape drive	8 to 80%	8 to 80%
With tape drive	20 to 80%	8 to 80%
Wet Bulb Requirements		
Without tape drive	27°C (80°F)	27°C (80°F)
With tape drive	27°C (80°F)	27°C (80°F)

Noise Emissions[1,2,4]	**Operating**	**Idle**
L_{WAd}	6.4 bels	6.0 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	49 dBA	47 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	(See service clearances for the R00 System Rack)			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for the Models R30, R40, and R50 CPU Media Enclosure are based on the following configuration: the enclosure is mounted in a R00 System Rack and a power distribution unit is installed in the rack and the system is operating in a nominal environment of 25°C (78 °F)
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

System Rack

Dimensions				
Height			1577 mm	62.0 in.
Width			567 mm	22.3 in.
Depth			1041 mm	40.9 in.
Weight				
Minimum (Configuration dependant)			400 kg	880 lbs.
Electrical				
Power source loading (maximum in kVA)			1.887KVA	
Voltage range (V ac)			200 to 240	
Frequency (hertz)			50 - 60	
Thermal output (Maximum)			5796 BTU/hr	
Power requirements (Maximum)			1698 watts	
Power factor			0.9	
Inrush current[3]			102 amps	
Maximum altitude			2135 m (7000 ft.)	
		Operating		**Non-Operating**
Temperature Range[4]		10 to 37.8°C (50 to 100°F)		1 to 60°C (34 to 140°F)
		Operating		**Non-Operating**
Humidity (Noncondensing)		8 to 80%		8 to 80%
Wet Bulb Requirements[5]		23°C (73°F)		23°C (73°F)
Noise Emissions[1,2]		**Operating**		**Idle**
L_{WAd}		7.0 bels		7.0 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		N/A		N/A
Impulsive or prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	See “Service Clearances for System” on page 2-29.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for Model S70 System is based on a system with the doors closed.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
4. The upper limit of the dry bulb temperature must be derated 1 degree C per 137M (450 ft.) above 1295M (4250 ft.)
5. The upper limit of the wet bulb temperature must be derated 1 degree C per 274M (882 ft.) elevation above 1370M (4500 ft.)

S70 SCSI I/O Drawer 7 EIA

Dimensions				
Height	306.2 mm 12.1 in.			
Width	442.4 mm 17.4 in.			
Depth	748.2 mm 29.5 in.			
Weight				
Minimum configuration	43 kg 95 lbs.			
Maximum configuration	61 kg 135 lbs.			
Electrical	**AC**		**DC**	
Power source loading (typical in kVA)	0.4		0.4	
Power source loading (maximum in kVA)	1.0		1.0	
Voltage range	200 to 240 V ac		40 to 60 VDC	
Frequency (hertz)	50 / 60		N.A	
Thermal output (typical)	1228 BTU/hr		1365 BTU/hr	
Thermal output (maximum)	3071 BTU/hr		3412 BTU/hr	
Power requirements (typical)	360 watts		400 watts	
Power requirements (maximum)	900 watts		1000 watts	
Power factor	0.9		N/A	
Inrush current[3]	120 amps		300 amps	
Maximum altitude	2135 m (7000 ft.)		2135 m (7000 ft.)	
Temperature Requirements	**Operating**		**Non-Operating**	
	10 to 40°C[4] (50 to 104°F)		10 to 52°C (50 to 125.6°F)	
Humidity (Noncondensing)	**Operating**		**Non-Operating**	
Without tape drive	8 to 80%		8 to 80%	
With tape drive	20 to 80%		20 to 80%	
Wet Bulb Requirements				
Without tape drive	27°C (80°F)		27°C (80°F)	
With tape drive	23°C (73°F)		27°C (80°F)	
Noise Emissions[1,2]	**Operating**		**Idle**	
L_{WAd}	5.9 bels		5.8 bels	
L_{pAm}	NA		NA	
$<L_{pA}>_m$	39 dBA		38 dBA	
Impulsive or prominent discrete tones	No		No	
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	(See “Service Clearances for System” on page 2-29)			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for the Model S70 SCSI I/O Drawer are based on the I/O drawer mounted in a rack. See “S70 I/O rack” on page 2-29.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
4. Use of the PCI SSA Multi-Initiator/RAID EL in this S70 I/O Drawer limits the system usage to a 28°C (82°F) environment maximum.

S70 I/O rack

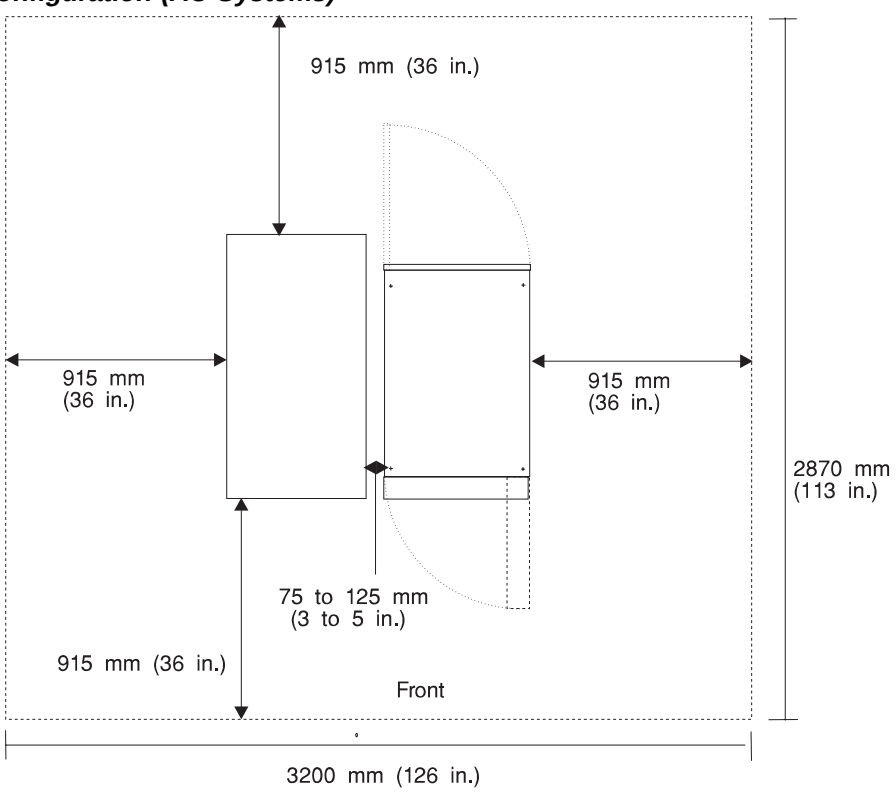
Dimensions				
Height			1577 mm	62.0 in.
Width			650 mm	25.5 in.
Depth			1019 mm	40.1 in.
Weight[1] (Base Rack)			159 kg	349 lbs.
Electrical	(see specifications for drawers or enclosures)			
Temperature Range	(see specifications for drawers or enclosures)			
Humidity Requirements	(see specifications for drawers or enclosures)			
Noise Emissions	(see specifications for drawers or enclosures)			
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	See “Service Clearances for System.”			
1. Configuration dependent, base weight plus weight of drawers.				

Service Clearances for System

The amount of space needed by the units during service is indicated by large box of the footprint.

For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack.

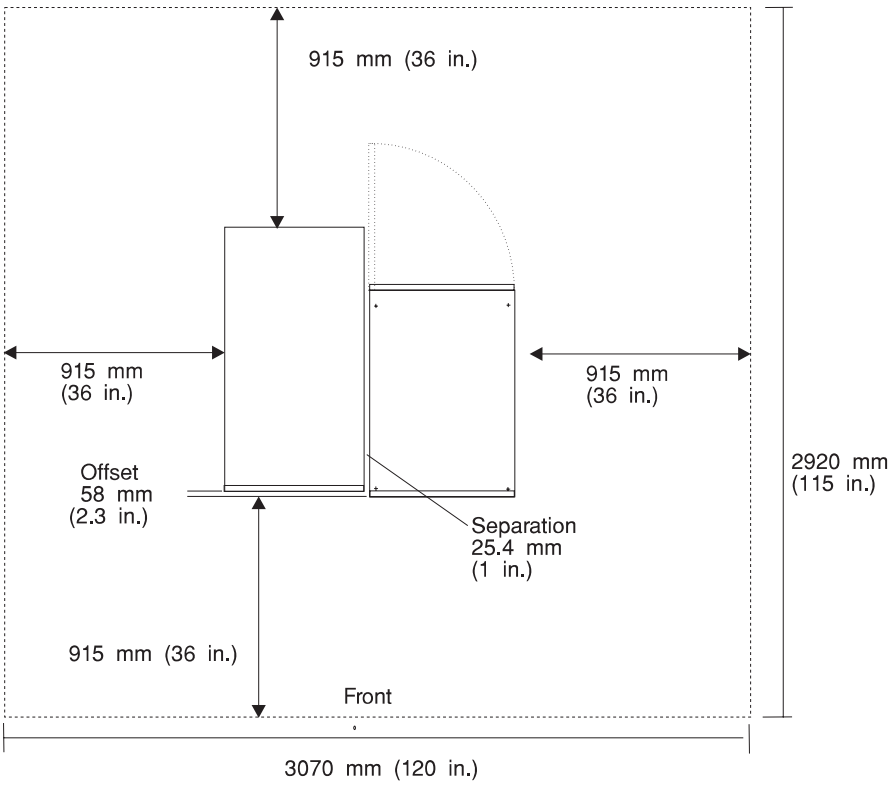
Rack Configuration (AC Systems)



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The

footprint shows the radius of the swinging doors on the I/O rack. The illustrations show the minimum space required.

Rack Configuration (-48v DC Systems)



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging doors on the I/O rack. The illustrations show the minimum space required.

7020 Entry Workstation Model 40P

Dimensions	Desktop		Deskside	
Height	124 mm	4.9 in.	477 mm	18.8 in.
Width[1]	454 mm	17.9 in.	215 mm	8.5 in.
Depth	447 mm	17.6 in.	447 mm	17.6 in.

Weight	
Minimum configuration	12 kg 26 lbs.
Maximum configuration	14.5 kg 32 lbs.

Electrical	
Power source loading (typical in kVA)	0.52
Voltage range (V ac)	100 to 127 or 200 to 240 (switchable)
Frequency (hertz)	50 or 60
Thermal output (typical)	290 BTU/hr
Power requirements (typical)	185 watts
Power factor	0.5 to 0.7
Inrush current[6]	23 amps at 120 V ac and at 240 V ac
Maximum altitude	2135 m (7000 ft.)

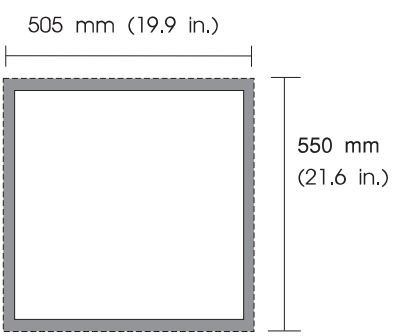
Temperature Requirements	Operating	Non-Operating
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

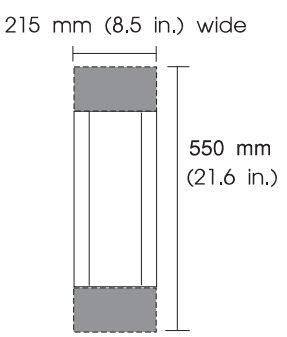
Noise Emissions[2]	Operating	Idle
L_{WAd}	5.1 bels	4.8 bels
L_{pAm}	43 dBA	43 dBA
$<L_{pA}>_m$	40 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances[3]	Front	Back	Left	Right
Install/Air Flow[4,5]	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mm(1 in)
Service	466mm(18 in)	N/A	N/A	N/A

1. Deskside width measurement includes the optional vertical stand.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Left and right measurements apply only when the system is used in the desktop position.
4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
5. When placed in the vertical position, the system requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.
6. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Desktop Footprint



Desktop Footprint Includes Pedestal

7024 Entry Deskside PowerPC Server E Series

Dimensions		
Height	648 mm	25.5 in.
Width[1]	315 mm	12.4 in.
Depth	450 mm	17.7 in.
Weight		
Maximum	25 kg	55 lbs.
Electrical		
Power source loading (typical in kVA)	0.17	
Voltage range (V ac)	100 to 127 or 200 to 240 (switchable)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	375 BTU/hr	
Power requirements (typical)	110 watts	
Power factor	0.5 to 07	
Inrush current[4]	75 amps at 120 V ac, 150 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

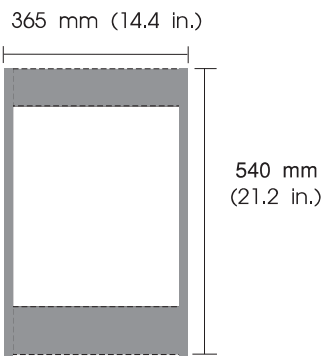
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[2]	**Operating**	**Idle**
L_{WAd}	5.2 bels	5.0 bels
L_{pAm}	41 dBA	38 dBA
$<L_{pA}>_m$	36 dBA	34 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[3]	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mm(1 in)
Service	466mm(18 in)	N/A	N/A	N/A

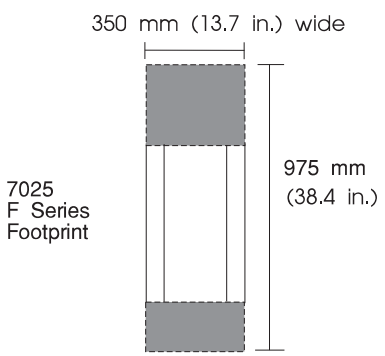
1. Width measurement includes the optional vertical stand.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
4. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7025 Deskside F30 Series

Dimensions				
Height	620 mm 24.3 in.			
Width	245 mm 9.6 in.			
Width with Pedestal	350 mm 13.7 in.			
Depth	695 mm 27.3 in.			
Depth with Pedestal	745 mm 29.3 in.			
Weight				
Minimum configuration	30 kg 65 lbs.			
Maximum configuration	50 kg 110 lbs.			
Electrical				
Power source loading (max. in kVA)	0.56			
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)			
Frequency (hertz)	50 or 60			
Thermal output (maximum)	1535 BTU/hr			
Power requirements (maximum)	450 watts			
Power factor	0.8			
Inrush current[3]	30 amps at 120 V ac, 60 amps at 240 V ac			
Maximum altitude	2135 m (7000 ft.)			
Temperature Requirements	**Operating** 16 to 32°C (60 to 90°F)		**Non-Operating** 10 to 43°C (50 to 110°F)	
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%		**Non-Operating** 8 to 80%	
Wet Bulb	23°C (73°F)		27°C (80°F)	
Noise Emissions[1]	**Operating**		**Idle**	
L_{WAd}	5.8 bels		5.5 bels	
L_{pAm}	NA		NA	
$<L_{pA}>_m$	41 dBA		38 dBA	
Impulsive or prominent discrete tones	No		No	
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	76mm(3 in)	152mm(6 in)	51mm(2 in)	51mm(2 in)
Service	Install so that it can be moved to an area providing 457mm (18 in.) on the front and 457 mm (18 in) on the left side.			

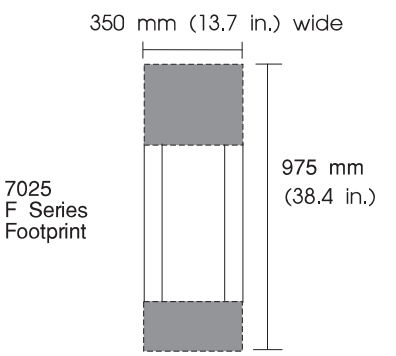
1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7025 Deskside F40 Series

Dimensions				
Height	620 mm 24.3 in.			
Width	245 mm 9.6 in.			
Width with Pedestal	350 mm 13.7 in.			
Depth	695 mm 27.3 in.			
Depth with Pedestal	745 mm 29.3 in.			
Weight				
Minimum configuration	30 kg 65 lbs.			
Maximum configuration	50 kg 110 lbs.			
Electrical				
Power source loading typical in kVA	0.41			
Power source loading maximum in kVA	0.56			
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)			
Frequency (hertz)	50 or 60			
Thermal output (typical)	1125 BTU/hr			
Thermal output (maximum)	1535 BTU/hr			
Power requirements (typical)	330 watts			
Power requirements (maximum)	450 watts			
Power factor	0.8 - 0.96			
Inrush current[3]	30 amps at 120 V ac, 60 amps at 240 V ac			
Maximum altitude	2135 m (7000 ft.)			
Temperature Requirements	**Operating** 16 to 32°C (60 to 90°F)		**Non-Operating** 10 to 43°C (50 to 110°F)	
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%		**Non-Operating** 8 to 80%	
Wet Bulb	23°C (73°F)		27°C (80°F)	
Noise Emissions[1]	**Operating**		**Idle**	
L_{WAd}	5.8 bels		5.5 bels	
L_{pAm}	NA		NA	
$<L_{pA}>_m$	41 dBA		38 dBA	
Impulsive or prominent discrete tones	No		No	
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	76mm(3 in)	152mm(6 in)	51mm(2 in)	51mm(2 in)
Service	Install so that it can be moved to an area providing 457 mm (18 in.) on the front and 457 mm (18 in) on the left side.			

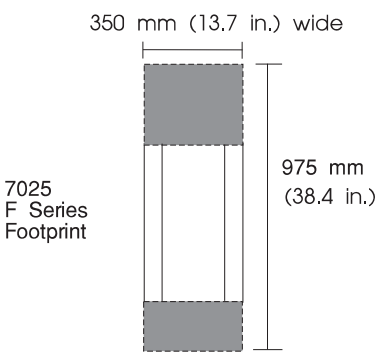
1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7025 Deskside F50 Series

Dimensions				
Height	620 mm 24.3 in.			
Width	245 mm 9.6 in.			
Width with Pedestal	350 mm 13.7 in.			
Depth	695 mm 27.3 in.			
Depth with Pedestal	745 mm 29.3 in.			
Weight				
Minimum configuration	30 kg 65 lbs.			
Maximum configuration	55 kg 120 lbs.			
Electrical				
Power source loading typical in kVA	0.52			
Power source loading maximum in kVA	0.56			
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)			
Frequency (hertz)	50 or 60			
Thermal output (typical)	975 BTU/hr			
Thermal output (maximum)	2050 BTU/hr			
Power requirements (typical)	285 watts			
Power requirements (maximum)	600 watts			
Power factor	0.8 - 0.96			
Inrush current[3]	50 amps			
Maximum altitude	2135 m (7000 ft.)			
Temperature Requirements	**Operating** 16 to 32°C (60 to 90°F)		**Non-Operating** 10 to 43°C (50 to 110°F)	
Humidity Requirements (Noncondensing) **Wet Bulb**	**Operating** 8 to 80% 23°C (73°F)		**Non-Operating** 8 to 80% 27°C (80°F)	
Noise Emissions[1]	**Operating**		**Idle**	
L_{WAd}	5.8 bels		5.5 bels	
L_{pAm}	NA		NA	
$<L_{pA}>_m$	41 dBA		38 dBA	
Impulsive or prominent discrete tones	No		No	
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	76mm(3 in)	152mm(6 in)	51mm(2 in)	51mm(2 in)
Service	Install so that it can be moved to an area providing 457 mm (18 in.) on the front and 457 mm (18 in) on the left side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7026 Model H10 Drawer

Dimensions				
Height			306.2 mm 12.1 in.	
Width			442.4 mm 17.4 in.	
Depth			748.2 mm 29.5 in.	
Weight				
Minimum configuration			42 kg 92 lbs.	
Maximum configuration			57 kg 126 lbs.	
Electrical				
Power source loading (typical in kVA)			0.41	
Power source loading (maximum in kVA)			0.56	
Voltage range (V ac)			200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			683 BTU/hr	
Thermal output (maximum)			1365 BTU/hr	
Power requirements (typical)			200 watts	
Power requirements (maximum)			400 watts	
Power factor			0.8 - 0.96	
Inrush current[3]			60 amps at 240 V ac	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125.6°F)
Humidity (Noncondensing)			**Operating**	**Non-Operating**
Without tape drive			8 to 80%	8 to 80%
With tape drive			20 to 80%	20 to 80%
Wet Bulb Requirements				
Without tape drive			27°C (80°F)	27°C (80°F)
With tape drive			23°C (73°F)	27°C (80°F)
Noise Emissions[1,2]			**Operating**	**Idle**
L_{WAd}			5.9 bels	5.8 bels
L_{pAm}			NA	NA
$<L_{pA}>_m$			39 dBA	38 dBA
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	(See service clearances for the “7015 System Rack R00” on page 2-23)			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Noise emissions data for the Model H10 CPU Drawer is based on the processor drawer mounted in a “7015 System Rack R00” on page 2-23.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

7026 Model H50 (Enterprise Server)

Dimensions				
Height			350 mm 13.8 in.	
Width			443 mm 17.5 in.	
Depth			844 mm 33.2 in.	
Weight				
Minimum configuration			71 kg 157 lbs.	
Maximum configuration			89 kg 195 lbs.	
Electrical				
Power source loading typical in kVA			0.4	
Power source loading maximum in kVA			0.63	
Voltage range (V ac)			200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			1296BTU/hr	
Thermal output (maximum)			2460 BTU/hr	
Power requirements (typical)			380 watts	
Power requirements (maximum)			600 watts	
Power factor			0.8 - 0.96	
Inrush current[2]			50 amps	
Maximum altitude[3]			915 m (3000 ft.)	
Temperature Requirements[3]			**Operating** 10 to 40°C (50 to 104°F)	**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)			**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb			23°C (73°F)	27°C (80°F)
Noise Emissions[1]			**Operating**	**Idle**
L_{WAd}			6.2 bels	5.9 bels
L_{pAm}			NA	NA
$<L_{pA}>_m$			43 dBA	40 dBA
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintence of proper service clearances should allow proper air flow.			
Service	1650mm(65 in)	1015mm(40 in)	915mm(36 in)	915mm(36 in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
3. For altitudes above 915 meters, the maximum temperature limit is derated by 1 degree C for every 137 meters of elevation above 915 meters.

Dimensions		
Height	307 mm	12.1 in. 7 (EIA units)
Width	445 mm	17.5 in.
Depth	748 mm	29.5 in.
Weight		
Empty	35 kg	75 lbs.
Maximum Configuration	80 kg	175 lbs.
Electrical		
Power source loading (kVA)	0.18 plus 0.027 for each additional disk drive	
Voltage range (V ac)	100 to 127 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output (BTUs/hr)	580 plus 89 for each additional disk drive	
Power requirements (watts)	170 plus 27 for each additional disk drive	
Power factor	0.95	
Maximum altitude	2135m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 110°F)	1 to 52°C (34 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8% to 80%	8% to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.5 bels
L_{pAm}	NA	N/A
$<L_{pA}>_m$	48 dBA	47.5 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.

7030 POWERstations 3AT, 3BT, and 3CT

Dimensions	**Desktop**		**Deskside**	
Height	162 mm	6.4 in.	452 mm	17.8 in.
Width (at pedestal for deskside)	442 mm	17.4 in.	280 mm	11.0 in.
Depth	478 mm	18.5 in.	478 mm	18.8 in.

Weight	
Minimum	18.1 kg 40 lbs.
Maximum	21.8 kg 48 lbs.

Electrical	
Power source loading (typical in kVA)	0.35
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60
Thermal output (typical)	770 BTU/hr
Power requirements (typical)	225 watts
Power factor	0.5 to 0.7
Inrush current[3]	42 amps at 120 V ac, 42 amps at 240 V ac
Maximum altitude	2135 m (7000 ft.)

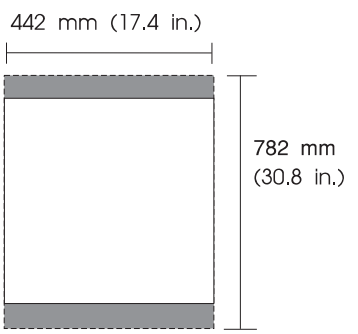
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

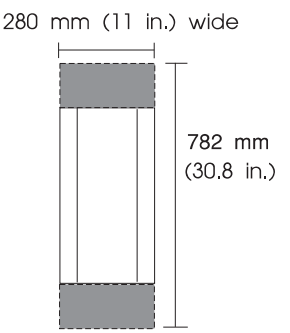
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.3 bels
L_{pAm}	41 dBA 38 dBA	41 dBA (desktop) 38 dBA (deskside)
$<L_{pA}>_m$	41 dBA 38 dBA	41 dBA (desktop) 38 dBA (deskside)
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	760 mm(30 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Desktop Footprint



Deskside Footprint Includes Pedestal

7043 43P Series Model 140

Dimensions	Desktop		Deskside	
Height	165 mm	6.5 in.	450 mm	17.7 in.
Width	420 mm	16.5 in.	165 mm	6.5 in.
Width[4]			235 mm	9.25 in.
Depth	460 mm	18.0 in.	460 mm	18.0 in.

Weight	
Minimum configuration	14.5 kg 32 lbs.
Maximum configuration	18.2 kg 40 lbs.

Electrical	
Power source loading (typical in kVA)	0.2
Power source loading (maximum in kVA)	0.4
Voltage range (V ac) - US and World Trade	100 to 127 or 200 to 240 (switchable)
Voltage range (V ac) - Japan	100 to 127 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60
Thermal output (typical)	425 BTU/hr
Thermal output (maximum)	850 BTU/hr
Power requirements (typical)	125 watts
Power requirements (maximum)	250 watts
Power factor - US and World Trade	0.6
Power factor - Japan	0.98
Inrush current[3]	less than 70 amps at 120 V ac and at 240 V ac
Maximum altitude	2135 m (7000 ft.)

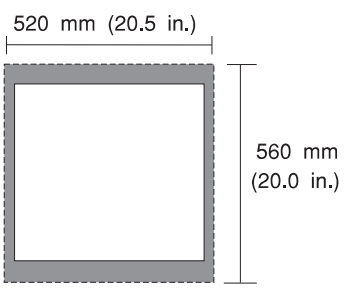
Temperature Requirements	Operating	Non-Operating
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

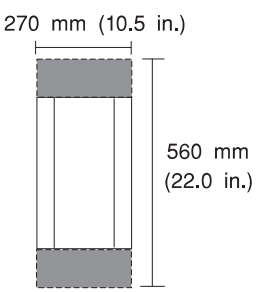
Noise Emissions[1]	Operating	Idle
L_{WAd}	5.3 bels	5.0 bels
L_{pAm}	43 dBA	43 dBA
$<L_{pA}>_m$	40 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	Front	Back	Left	Right
Install/Air Flow[2]	50mm(2 in)	50mm(2 in)	50mm(2 in)	50mm(2 in)
Service	Install so that it can be taken to an area providing 457mm(18 in) on the front and 457mm(18 in) on the left side.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
4. Width measurement includes the optional verticle stand.



Desktop Footprint



Deskside Footprint Includes Pedestal

7043 43P Series Model 240

Dimensions	Desktop		Deskside	
Height	165 mm	6.5 in.	450 mm	17.7 in.
Width	420 mm	16.5 in.	165 mm	6.5 in.
Width[4]			235 mm	9.25 in.
Depth	460 mm	18.0in.	460 mm	18.0 in.

Weight	
Minimum configuration	14.5 kg 32 lbs.
Maximum configuration	18.2 kg 40 lbs.

Electrical	
Power source loading (typical in kVA)	0.2
Power source loading (maximum in kVA)	0.4
Voltage range (V ac) - US and World Trade	100 to 127 or 200 to 240 (switchable)
Voltage range (V ac) - Japan	100 to 127 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60
Thermal output (typical)	425 BTU/hr
Thermal output (maximum)	850 BTU/hr
Power requirements (typical)	125 watts
Power requirements (maximum)	250 watts
Power factor - US and World Trade	0.6
Power factor - Japan	0.98
Inrush current[3]	less than 70 amps at 120 V ac and at 240 V ac
Maximum altitude	2135 m (7000 ft.)

Temperature Requirements	Operating	Non-Operating
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

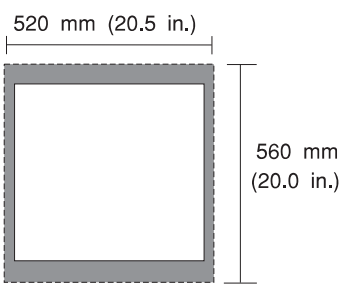
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	Operating	Idle
L_{WAd}	5.2 bels	5.0 bels
L_{pAm}	Ukn dBA	Unk dBA
$<L_{pA}>_m$	39 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

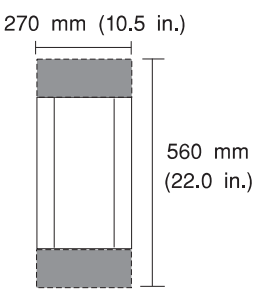
Clearances	Front	Back	Left	Right
Install/Air Flow[2]	50mm(2 in)	50mm(2 in)	50mm(2 in)	50mm(2 in)

Service	
	Install so that it can be taken to an area providing 457mm(18 in) on the front and 457mm(18 in) on the left side.

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
4. Width measurement includes the optional verticle stand.



Desktop Footprint



Deskside Footprint Includes Pedestal

7248 Model 43P

Dimensions	Desktop		Deskside	
Height	160 mm	6.3 in.	420 mm	16.5 in.
Width[1]	420 mm	16.5 in.	160 mm	6.3 in.
Depth	454 mm	17.7 in.	454 mm	17.7 in.

Weight	
Minimum	13.2 kg 29 lbs.
Maximum	15.9 kg 35 lbs.

Electrical	
Power source loading (typical in kVA)	0.23
Voltage range (V ac)	100 to 127 or 200 to 240 (switchable)
Frequency (hertz)	50 or 60
Thermal output (maximum)	510 BTU/hr
Thermal output (minimum)	225 BTU/hr
Power requirements (maximum)	150 watts
Power factor	0.5 to 0.7
Inrush current[6]	23 amps at 120 V ac, 23 amps at 240 V ac
Maximum altitude	2135 m (7000 ft.)

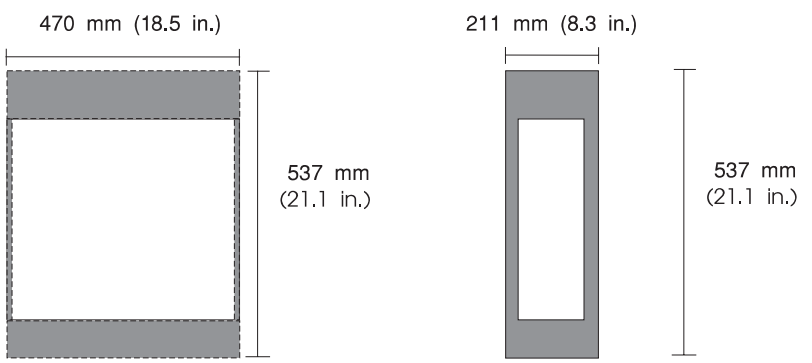
Temperature Requirements	Operating	Non-Operating
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	Operating	Idle
L_{WAd}	5.2 bels	5.0 bels
L_{pAm}	41 dBA	38 dBA
$<L_{pA}>_m$	36 dBA	34 dBA
Impulsive or prominent discrete tones	No	No

Clearances[3]	Front	Back	Left	Right
Install/Air Flow[4 5]	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mm(1 in)
Service	466mm(18 in)	N/A	N/A	N/A

1. Width measurement includes the optional vertical stand.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Left and right measurements apply only when the system is used in the desktop position.
4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
5. When placed in the vertical position, the system requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.
6. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Physical Characteristics for External Devices

The following information can help you plan for your external devices. You only have to do physical planning for the devices you have ordered. Footprints are not drawn to scale.

If you want to use full-sized footprints of the devices, use the measurements provided to construct them out of folded newspaper or sheets of construction paper. You can then use them to plan a layout within the actual office space.

Where a footprint is shown, the figure represents a top view of the device.

POWERdisplay 17 and POWERdisplay 20

POWERdisplay 17 (featuring a Trinitron (TM) CRT with a maximum viewable image size of 409 mm (16.1 inches) measured diagonally).

POWERdisplay 20 (featuring a Trinitron (TM) CRT with a maximum viewable image size of 486 mm (19.1 inches) measured diagonally).

Dimensions				
POWERdisplay 17				
Height			414 mm	16.3 in
Width			404 mm	15.9 in
Depth			450 mm	17.7 in
POWERdisplay 20				
Height			474 mm	18.6 in
Width			480 mm	18.9 in
Depth			505 mm	19.9 in
Weight				
POWERdisplay 17			22.5 kg	49.5 lbs
POWERdisplay 20			30.0 kg	66.3 lbs
Electrical				
Power source loading (typical in kVA)			.38	
Voltage range (V ac)			100 to 120 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			480 BTU/hr	
Power requirements (typical)			140 watts	
Power factor			0.7	
Maximum altitude			3048 m (10,000 ft.)	
Temperature Requirements		**Operating** 10 to 40°C (50 to 104°F)		**Non-Operating** 1 to 60°C (35 to 140°F)
Humidity Requirements (Noncondensing)		**Operating** 8 to 80 %		**Non-Operating** 8 to 80 %
Noise Emissions* L_{WAd}		**Operating** 3.5 bels		**Idle** 3.5 bels
Clearances	**Front**	**Back**	**Left**	**Right**
Service	Install so that air vents are not blocked.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

6091 Color Display Model 19i

6091 Color Display Model 19i (with a Trinitron (TM) CRT that has a fixed image size of 439 mm (17.3 inches) measured diagonally).

Dimensions				
Height			485 mm	19.1 in
Width			480 mm	18.9 in
Depth			506 mm	19.9 in
Weight			34 kg	75 lbs
Electrical				
Power source loading (typical in kVA)			.38	
Voltage range (V ac)			100 to 120 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			480 BTU/hr	
Power requirements (typical)			185 watts	
Power factor			0.7	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating** 10 to 40°C (50 to 104°F)	**Non-Operating** 1 to 60°C (35 to 140°F)
Humidity Requirements (Noncondensing)			**Operating** 8 to 80 %	**Non-Operating** 8 to 80 %
Noise Emissions* L_{WAd}			**Operating** 3.5 bels	**Idle** 3.5 bels
Clearances	**Front**	**Back**	**Left**	**Right**
Service	Install so that air vents are not blocked.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

9516 TFT LCD Color Monitor

9516 TFT LCD Color Monitor that has a fixed viewable image size of 408 mm (16.1 inches) measured diagonally.

Dimensions				
Height (Display only)			431 mm	17.0 in
(Display with Tilt/Swivel)			511 mm	21.1 in
Width			408 mm	16.1 in
Depth			250 mm	9.8 in
Weight			9.9 kg	21.8 lbs
Electrical				
Voltage range (V ac)			100 to 240	
Frequency (hertz)			50 or 60	
Thermal output (maximum)			188 BTU/hr	
Power requirements				
(in active mode VESA Standby)			18 watts	
(in enegry saving mode VESA off)			8 watts	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating** 10 to 40°C (50 to 104°F)		**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)		**Operating** 5 to 80 %		**Non-Operating** 5 to 80 %
Noise Emissions* L_{WAd}		**Operating** 4.5 bels		**Idle** NA bels
Clearances	**Front**	**Back**	**Left**	**Right**
Service	Install so that air vents are not blocked.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

P50 15" Display, P70 17" Display, P200 and P201 20" Displays

P50 15" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 345 mm (13.6 inches) measured diagonally).

P70 17" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 403 mm (15.9 inches) measured diagonally).

P200 20" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 486 mm (19.1 inches) measured diagonally).

P201 20" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 486 mm (19.1 inches) measured diagonally).

Dimensions		
P50 display		
Height	374 mm	14.7 in
Width	368 mm	14.5 in
Depth	390 mm	15.3 in
P70 display		
Height	414 mm	16.3 in
Width	406 mm	15.9 in
Depth	453 mm	17.8 in
P200 and P201 display		
Height	474 mm	18.6 in
Width	474 mm	18.6 in
Depth	505 mm	19.9 in
Weight		
P50	14.0 kg	30.8 lbs
P70	23.0 kg	50.6 lbs
P200	30.0 kg	66.3 lbs
P201	31.5 kg	69.4 lbs
Electrical		
Power source loading (typical in kVA)	.38	
Voltage range (V ac)	100 to 120 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	480 BTU/hr	
Power requirements (typical)	P50=110 watts, P70=140 watts P200=140 watts, P201=150 watts	
Power factor	0.85	
Maximum altitude	3048 m (10000 ft.)	

Temperature Requirements	**Operating** 10 to 40°C (50 to 104°F)	**Non-Operating** 0 to 60°C (32 to 140°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80 %	**Non-Operating** 5 to 90 %
Noise Emissions* L_{WAd}	**Operating** 3.5 bels	**Idle** 3.5 bels

Clearances	**Front** 152mm (6 in)	**Back** 152mm (6 in)	**Left** 152mm (6 in)	**Right** 152mm (6 in)
Service	Install so that air vents are not blocked.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

3490E Enhanced Magnetic Tape Subsystem C11 and C22

Dimensions				
Height			622 mm	24.5 in
Width			479 mm	18.6 in
Depth			885 mm	34.9 in
Weight				
C11			90 kg	198 lbs
C22			118 kg	260 lbs
Electrical				
Power source loading (typical in kVA)				
C11			0.57	
C22			0.90	
Temperature Requirements		**Operating** 16 to 32°C (60 to 90°F)		**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)		**Operating** 20 to 80 %		**Non-Operating** 20 to 80 %
Wet Bulb		25.6°C (78°F)		25.6°C (78°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}				
C11		6.1 bels		5.8 bels
C22		6.4 bels		6.3 bels
Clearances	**Front**	**Back**	**Left**	**Right**
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions E01 (Table Top)				
Height			268 mm	10.8 in
Width			220 mm	8.8 in
Depth			801 mm	32.0 in
Dimensions E01 (Rack Mounted)				
Height			336 mm	13.5 in
Width			220 mm	8.8 in
Depth			758 mm	30.3 in
Weight				
E01			25.9 kg	57 lbs
E11			36.0 kg	80 lbs
Electrical				
Power source loading (typical in kVA)				
E01			0.39	
E11			0.39	
Thermal Output (max)			540 BTU/hr	
Temperature Requirements		**Operating** 16 to 32°C (60 to 90°F)		**Non-Operating** 10 to 40°C (50 to 104°F)
Humidity Requirements (Noncondensing)		**Operating** 8 to 80 %		**Non-Operating** 8 to 80 %
Wet Bulb		27°C (80.6°F)		27°C (80.6°F)
Noise Emissions*		**Operating**		**Idle**
E01		58 dBA		53 dBA
E11		58 dBA		53 dBA
Clearances	**Front**	**Back**	**Left**	**Right**
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions		
Height	610 mm	24 in
Width		
Enclosure	260 mm	10.3 in
Base	345 mm	13.5 in
Depth	800 mm	31.5 in
Weight		
Minimum	58 kg	128 lbs
Maximum	64 kg	140 lbs
Electrical		
Power source loading (typical in kVA)	.33	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	1024 BTU/hr	
Power requirements (typical)	300 watts	
Power factor	0.91	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements**	**Operating**	**Non-Operating**
	16 to 32°C (50 to 90°F)	10 to 43°C (50 to 110°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	38 dBA	36 dBA
Impulsive noise or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	1 mm(40 in)	50 mm(2 in)	25 mm(1 in)	25 mm(1 in)
Service	Must provide reasonable service access to front and rear of unit. Recommended clearance provides enough room to slide unit forward for access to rear.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

**(Below 914 m (3000 ft) altitude, operating range is extended to 35°C(95°F)

Dimensions	**Horizontal**	**Vertical**
Height	112 mm 4.4 in.	320 mm 12.6 in.
Width	320 mm 12.6 in.	112 mm 4.4 in.
Depth	338 mm 13.3 in.	338 mm 13.3 in.
Weight		
Minimum	8.4 kg 18.5 lbs.	8.4 kg 18.5 lbs.
Maximum (with stand)	8.5 kg 18.7 lbs.	8.5 kg 18.7 lbs.
Electrical		
Power source loading (typical in kVA)	0.06	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	205 BTU/hr	
Power requirements(typical)	60 watts	
Power factor	0.99 (100 V ac) or 0.95 (200 V ac)	
Inrush current	30 amps at 100 V ac, 40 amps at 220 V ac	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (61 to 90°F)	10 to 43°C (50 to 109°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	26°C(79°F)	27°C(81°F)
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	37dBA	37dBA
Impulsive noise	None	None
Prominent discrete tones	None	None

Clearances	**Front**	**Back**	**Left**	**Right**
Install Air Flow[2]	76 mm (3 in)	76 mm (3 in)	None	None
Service	No additional clearance is needed for service.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Air flow is 25 CFM

3570 Models B01, and C01

Dimensions		
Height	217 mm	8.5 in.
Height (with stand)	242.4 mm	9.5 in.
Width	483 mm	19.0 in.
Depth	771 mm	30.4 in.
Weight		
Maximum	35.0 kg	77.1 lbs
Maximum (with stand)	39.8 kg	87.7 lbs
Electrical		
Power source loading (typical in kVA)	0.07	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	239 BTU/hr	
Power requirements(typical)	70 watts	
Power factor	0.99 (100 V ac) or 0.95 (200 V ac)	
Inrush current	30 amps at 120 V ac, 40 amps at 240 V ac	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (61 to 90°F)	10 to 43°C (50 to 109°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	26°C(79°F)	27°C(81°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.7 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	41dBA	36dBA
Impulsive noise	None	None
Prominent discrete tones	None	None.

Clearances	**Front**	**Back**	**Left**	**Right**
Install Air Flow[2]	76 mm (3 in)	76 mm (3 in)	None	None
Service	No additional clearance is needed for service.			

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Air flow is 25 CFM

Dimensions				
Height			217 mm	8.5 in.
Height (with stand)			242.4 mm	9.5 in.
Width			483 mm	19.0 in.
Depth			771 mm	30.4 in.
Weight				
Maximum			40.0 kg	88.2 lbs
Maximum (with stand)			44.8 kg	98.7 lbs
Electrical				
Power source loading (typical in kVA)			0.13	
Voltage range (V ac)			100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			444 BTU/hr	
Power requirements(typical)			130 watts	
Power factor			0.99 (100 V ac) or 0.95 (200 V ac)	
Inrush current[1]			30 amps at 120 V ac, 40 amps at 240 V ac	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			16 to 32°C (61 to 90°F)	10 to 43°C (50 to 109°F)
Humidity Requirements			**Operating**	**Non-Operating**
(Noncondensing)			8 to 80%	8 to 80%
Wet Bulb			26°C(79°F)	27°C(81°F)
Noise Emissions[2]			**Operating**	**Idle**
L_{WAd}			5.8 bels	5.5 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			43dBA	38dBA
Impulsive noise			None	None
Prominent discrete tones			None	None
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[3]	76 mm (3 in)	76 mm (3 in)	None	None
Service	No additional clearance is needed for service.			

1. Inrush current for each line cord. This model has two line cords.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Air flow is 50 CFM.

3570 Models B11, and C11

Dimensions				
Height			217 mm	8.5 in. (5EIA units)
Width			444 mm	17.5 in.
Depth			714 mm	28.1 in.
Weight				
Maximum			24.0 kg	52.8 lbs
Electrical				
Power source loading (typical in kVA)			0.07	
Voltage range (V ac)			100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			239 BTU/hr	
Power requirements(typical)			70 watts	
Power factor			0.99 (100 V ac) or 0.95 (200 V ac)	
Inrush current			30 amps at 120 V ac, 40 amps at 240 V ac	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			16 to 32°C (61 to 90°F)	10 to 43°C (50 to 109°F)
Humidity Requirements			**Operating**	**Non-Operating**
(Noncondensing)			8 to 80%	8 to 80%
Wet Bulb			26°C(79°F)	27°C(81°F)
Noise Emissions*			**Operating**	**Idle**
L_{WAd}			5.5bels	5.1bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			39 dBA	34 dBA
Impulsive noise			None	None
Prominent discrete tones			None	None
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	See service clearances for the “7015 System Rack R00” on page 2-23.			
* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.				

3570 Models B12, and C12

Dimensions				
Height			217 mm	8.5 in. (5EIA units)
Width			444 mm	17.5 in.
Depth			714 mm	28.1 in.
Weight				
Maximum			29.0 kg	63.9 lbs
Electrical				
Power source loading (typical in kVA)			0.13	
Voltage range (V ac)			100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (typical)			444 BTU/hr	
Power requirements(typical)			130 watts	
Power factor			0.99 (100 V ac) or 0.95 (200 V ac)	
Inrush current[1]			30 amps at 120 V ac, 40 amps at 240 V ac	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			16 to 32°C (61 to 90°F)	10 to 43°C (50 to 109°F)
Humidity Requirements			**Operating**	**Non-Operating**
(Noncondensing)			8 to 80%	8 to 80%
Wet Bulb			26°C(79°F)	27°C(81°F)
Noise Emissions[2]			**Operating**	**Idle**
L_{WAd}			5.6bels	5.3bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			41 dBA	36 dBA
Impulsive noise			None	None
Prominent discrete tones			None	None
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	See service clearances for the “7015 System Rack R00” on page 2-23.			

1. Inrush current for each line cord. This model has two line cords.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

MAGSTAR MP 3575 Tape Library Dataserver Model L06

Dimensions				
Height			991 mm	39 in.
Width			355 mm	14 in.
Depth			836 mm	37.9 in.
Weight				
Maximum			71 kg	157 lbs
Electrical				
Power source loading (typical in kVA)			0.175	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			600 BTU/hr	
Power requirements(typical)			175 watts	
Power factor			0.99	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating**		**Non-Operating**
		16 to 32°C (60 to 90°F)		10 to 43°C (50 to 110°F)
Humidity Requirements		**Operating**		**Non-Operating**
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		26°C(79°F)		27°C(80°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		6.6 bels		5.6 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		47dBA		34dBA
Impulsive noise		Yes		Yes
Prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

MAGSTAR MP 3575 Tape Library Dataserver Model L12

Dimensions				
Height			1029 mm	40.5 in.
Width			1009 mm	39.7 in.
Depth			861 mm	33.9 in.
Weight				
Maximum			127 kg	280 lbs
Electrical				
Power source loading (typical in kVA)			0.28	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			850 Btu/hr	
Power requirements(typical)			250 watts	
Power factor			0.89	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating**		**Non-Operating**
		16 to 32°C (60 to 90°F)		10 to 43°C (50 to 110°F)
Humidity Requirements		**Operating**		**Non-Operating**
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		26°C(79°F)		27°C(80°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		6.7 bels		5.9 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		47dBA		34dBA
Impulsive noise		Yes		Yes
Prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

MAGSTAR MP 3575 Tape Library Dataserver Model L18

Dimensions				
Height			1029 mm	40.5 in.
Width			1009 mm	39.7 in.
Depth			861 mm	33.9 in.
Weight				
Maximum			132 kg	290 lbs
Electrical				
Power source loading (typical in kVA)			0.45	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			1200 BTU/hr	
Power requirements(typical)			350 watts	
Power factor			0.78	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating**		**Non-Operating**
		16 to 32°C (60 to 90°F)		10 to 43°C (50 to 110°F)
Humidity Requirements		**Operating**		**Non-Operating**
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		26°C(79°F)		27°C(80°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		6.8 bels		6.2 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		47dBA		34dBA
Impulsive noise		Yes		Yes
Prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

MAGSTAR MP 3575 Tape Library Dataserver Model L24

Dimensions				
Height			1480 mm	58.3 in.
Width			1009 mm	39.7 in.
Depth			861 mm	33.9 in.
Weight				
Maximum			195 kg	428 lbs
Electrical				
Power source loading (typical in kVA)			0.45	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			1200 Btu/hr	
Power requirements(typical)			350 watts	
Power factor			0.78	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating**		**Non-Operating**
		16 to 32°C (60 to 90°F)		10 to 43°C (50 to 110°F)
Humidity Requirements		**Operating**		**Non-Operating**
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		26°C(79°F)		27°C(80°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		6.8 bels		6.2 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		47dBA		34dBA
Impulsive noise		Yes		Yes
Prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

MAGSTAR MP 3575 Tape Library Dataserver Model L32

Dimensions				
Height			1480 mm	58.3 in.
Width			1009 mm	39.7 in.
Depth			861 mm	33.9 in.
Weight				
Maximum			203 kg	446 lbs
Electrical				
Power source loading (typical in kVA)			0.45	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			1200 BTU/hr	
Power requirements(typical)			350 watts	
Power factor			0.78	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating**		**Non-Operating**
		16 to 32°C (60 to 90°F)		10 to 43°C (50 to 110°F)
Humidity Requirements		**Operating**		**Non-Operating**
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		26°C(79°F)		27°C(80°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		6.8 bels		6.2 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		47dBA		34dBA
Impulsive noise		Yes		Yes
Prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

3995 Model 063

Dimensions		
Height	681 mm	26.8 in.
Width	375 mm	14.8 in.
Depth	805 mm	31.7 in.
Weight		
Minimum	93 kg	205 lbs
Maximum	N/A	N/A
Electrical		
Power source loading (typical in kVA)	0.16	
Voltage range (V ac)	100 to 127 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	350 BTU/hr	
Power requirements (typical)	100 watts	
Power factor	0.63	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating** 10 to 38°C (50 to 100°F)	
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C(73°F)	27°C(80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6.0 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	43 dBA	37 dBA
Impulsive noise	Yes	No
Prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	1020mm(40 in)	1020mm(40 in)	559mm(22 in)	559mm(22 in)
Service	Install so that it can be moved to an area providing 760 mm(30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions				
Height			1800 mm	70.9 in.
Width			692 mm	27.3 in.
Depth			943 mm	37.1 in.
Weight				
Minimum			408 kg	900 lbs
Maximum			N/A	N/A
Electrical				
Power source loading (typical in kVA)			0.25	
Voltage range (V ac)			200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			750 BTU/hr	
Power requirements			220 watts	
Power factor			0.89	
Inrush current			10 amps	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements		**Operating**		**Non-Operating**
		16 to 32°C (60 to 90°F)		10 to 43°C (50 to 110°F)
Humidity Requirements		**Operating**		**Non-Operating**
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C(73°F)		27°C(80°F)
Noise Emissions*		**Operating**		**Idle**
L_{WAd}		6.5 bels		5.5 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		46 dBA		42 dBA
Impulsive noise		Yes		No
Prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	1020mm(40 in)	1020mm(40 in)	559mm(22 in)	559mm(22 in)
Service	Install so that it can be moved to an area providing 760 mm(30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions		
Height	492 mm	19.38 in.
Width	220 mm	8.70 in.
Depth	711 mm	28.00 in.
Weight		
Minimum	32.2 kg	75.5 lbs
Maximum	N/A	N/A
Electrical		
Power source loading (typical in kVA)	0.11	
Voltage range (V ac)	100 to 127 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output (typical)	250 BTU/hr	
Power requirements(typical)	60 watts	
Power factor	0.6 (100-127 V ac) or 0.55 (200-240 V ac)	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C(73°F)	27°C(80°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6.4 bels	5.1 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	47dBA	34dBA
Impulsive noise	Yes	Yes
Prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions				
Height			457 mm	18.0 in.
Width			216 mm	8.5 in.
Depth			737 mm	29.0 in.
Weight				
Minimum (w/o cartridges)			28.0 kg	61 lbs
Maximum (with 20 cartridges)			34.1 kg	75 lbs
Typical weight of cartridge			0.32 kg	0.7 lbs
Electrical				
Power source loading (typical in kVA) @ 120 V ac			0.14	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			275 BTU/hr	
Power requirements(typical)			80 watts	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating** 10 to 38°C (50 to 100.4°F)	**Non-Operating** 10 to 52°C (50 to 125.6°F)
Humidity Requirements (Noncondensing)			**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb			25.8°C(78.4°F)	27°C(80°F)
Noise Emissions*			**Operating**	**Idle**
L_{WAd}			6 bels	5.5 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			N/A	N/A
Impulsive noise			Yes	Yes
Prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions				
Height			991 mm	39.0 in.
Width			355 mm	14.0 in.
Width (with stabilizers)			464 mm	18.3 in.
Depth			737 mm	29.0 in.
Weight				
Minimum (w/o cartridges)			69 kg	152 lbs
Maximum (with 52 cartridges)			85.6 kg	188.4 lbs
Typical weight of cartridge			0.32 kg	0.7 lbs
Electrical				
Power source loading (typical in kVA) @ 120 V ac			0.16	
Voltage range (V ac)			100 to 127 or 200 to 240	
Frequency (hertz)			50 or 60	
Thermal output (typical)			310 BTU/hr	
Power requirements (typical)			90 watts	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating** 10 to 38°C (50 to 100.4°F)	**Non-Operating** 10 to 52°C (50 to 125.6°F)
Humidity Requirements (Noncondensing)			**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb			25.8°C(78.4°F)	27°C(80°F)
Noise Emissions*			**Operating**	**Idle**
L_{WAd}			6 bels	5.5 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			N/A	N/A
Impulsive noise			Yes	Yes
Prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions		
Height	1029 mm	40.5 in.
Width	813 mm	32.0 in.
Depth	762 mm	30.0 in.
Weight		
Minimum (w/o cartridges)	125 kg	275 lbs
Maximum (with 104 cartridges)	158 kg	348 lbs
Typical weight of cartridge	0.32 kg	0.7 lbs
Electrical		
Power source loading (typical in kVA) @ 120 V ac	0.17	
Voltage range (V ac)	100 to 127 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output (typical)	340 BTU/hr	
Power requirements(typical)	100 watts	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	10 to 38°C (50 to 100.4°F)	10 to 52°C (50 to 125.6°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	25.8°C(78.4°F)	27°C(80°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	N/A	N/A
Impulsive noise	Yes	Yes
Prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions		
Height	1029 mm	40.5 in.
Width	813 mm	32.0 in.
Depth	762 mm	30.0 in.
Weight		
Minimum (w/o cartridges)	125 kg	275 lbs
Maximum (with 156 cartridges)	175 kg	384 lbs
Typical weight of cartridge	0.32 kg	0.7 lbs
Electrical		
Power source loading (typical in kVA) @ 120 V ac	0.31	
Voltage range (V ac)	100 to 127 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output (typical)	475 BTU/hr	
Power requirements(typical)	140 watts	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	10 to 38°C (50 to 100.4°F)	10 to 52°C (50 to 125.6°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	25.8°C(78.4°F)	27°C(80°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	N/A	N/A
Impulsive noise	Yes	Yes
Prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions		
Height	1480 mm	58.3 in.
Width	813 mm	32.0 in.
Depth	762 mm	30.0 in.
Weight		
Minimum (w/o cartridges)	193 kg	425 lbs
Maximum (with 258 cartridges)	275 kg	606 lbs
Typical weight of cartridge	0.32 kg	0.7 lbs
Electrical		
Power source loading (typical in kVA) @ 120 V ac	0.31	
Voltage range (V ac)	100 to 127 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output (typical)	475 BTU/hr	
Power requirements(typical)	140 watts	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	10 to 38°C (50 to 100.4°F)	10 to 52°C (50 to 125.6°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	25.8°C(78.4°F)	27°C(80°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	N/A	N/A
Impulsive noise	Yes	Yes
Prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)
Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

4869 Model 002 5 1/4-Inch 1.2MB External Diskette Drive

Dimensions		
Height	62.5 mm	2.5 in.
Width	227.0 mm	8.9 in.
Depth	408.0 mm	16.0 in.
Weight		
Minimum	2.1 kg	4.6 lbs.
Maximum	2.1 kg	4.6 lbs.
Electrical		
Power source loading (typical in kVA)	0.02	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	35 BTU/hr	
Power requirements (typical)	10 watts	
Power factor	N/A	
Maximum altitude	2135 m (7000 ft.)	

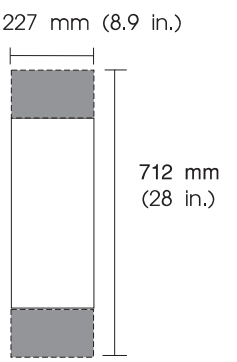
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)

Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating**
ANSI Media	8 to 80%	5 to 95%
ISO Media	20 to 80%	5 to 95%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	6.0 bels	N/A
L_{pAm}	54 dBA	N/A
$<L_{pA}>_m$	42 dBA	N/A
Impulsive or prominent discrete tones	Yes	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



4869 Model 002 Footprint

7010 Xstation 130

Dimensions		
Height	72 mm	2.9 in.
Width	375 mm	14.8 in.
Depth	380 mm	15.0 in.
Weight		
Minimum	7.7 kg	17 lbs.
Maximum	9.5 kg	21 lbs.
Electrical		
Power source loading (max. in kVA)	0.100	
Voltage range (V ac)	100 to 125 or	
Frequency (hertz)	200 to 240 (autoranging)	
Thermal output (typical)	50 or 60	
Power requirements (peak)	222 BTU/hr	
Power factor	65 watts	
Maximum altitude	0.5 to 0.7 2135 m (7000 ft.)	

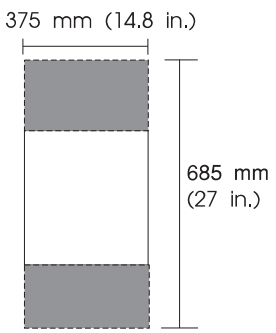
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.0 bels	4.8 bels
L_{pAm}	40 dBA	39 dBA
$<L_{pA}>_m$	37 dBA	36 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Xstation 130 Footprint

Dimensions		
Height	72 mm	2.9 in.
Width	375 mm	14.8 in.
Depth	380 mm	15.0 in.
Weight		
Minimum	7.3 kg	16 lbs.
Maximum	8.6 kg	19 lbs.
Electrical		
Power source loading (max. in kVA)	0.100	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (max)	222 BTU/hr	
Power requirements (peak)	65 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

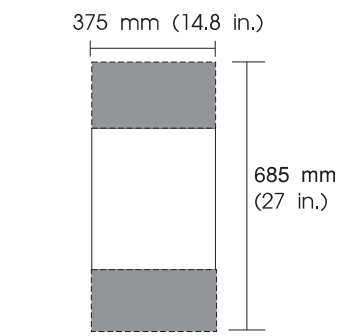
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	4.7 bels	4.7 bels
L_{pAm}	33 dBA	33 dBA
$<L_{pA}>_m$	31 dBA	31 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

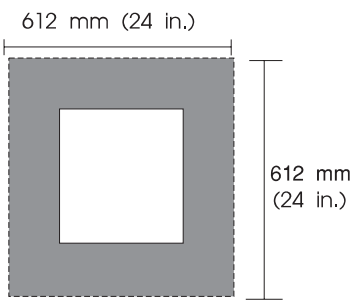


Xstation 140 and 150 Footprint

7010 Xstation Model 160

Dimensions				
Height		68 mm	2.75 in.	
Width		306 mm	12.00 in.	
Depth		306 mm	12.00 in.	
Weight				
Minimum		4.1 kg	10 lbs.	
Maximum		4.5 kg	9 lbs.	
Electrical				
Power source loading (max. in kVA)		0.121		
Voltage range (V ac)		100 to 125 or 200 to 240 (autoranging)		
Frequency (hertz)		50 or 60		
Thermal output (max)		143 BTU/hr		
Power requirements (peak)		50 watts		
Power factor		0.715		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		**Operating**	**Non-Operating**	
		16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)	
Humidity Requirements		**Operating**	**Non-Operating**	
(Noncondensing)		8 to 80%	8 to 80%	
Wet Bulb		23°C (73°F)	27°C (80°F)	
Noise Emissions[1]		**Operating**	**Idle**	
L_{WAd}		4.3 bels	4.3 bels	
L_{pAm}		37 dBA	37 dBA	
$<L_{pA}>_m$		41 dBA	41 dBA	
Impulsive or prominent discrete tones		No	No	
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	152 mm(6 in)	152 mm(6 in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Xstation 160 Footprint

7131 Model 105 SCSI Multi-Storage Tower

Dimensions		
Height	407 mm	16.0 in.
Width (at pedestal)	197 mm	7.8 in.
Depth	483 mm	19.0 in.
Weight		
Minimum	15.4 kg	34 lbs.
Maximum	20.0 kg	44 lbs.
Electrical		
Power source loading (typical in kVA)	0.76 to 0.96	
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (max)	1638 BTU/hr	
Power requirements (max)	480 watts	
Power factor	0.5	
Maximum altitude	2135 m (7000 ft.)	

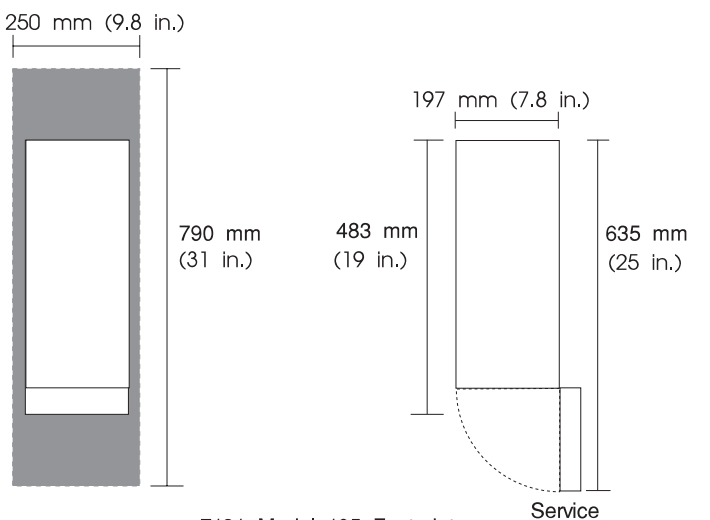
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd} (5 devices)	6.0 bels	5.6 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	50 dBA	46 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	25 mm(1 in)	25 mm(1 in)
Service	152 mm(6 in)	N/A	N/A	25 mm(1 in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7131 Model 105 Footprint

7131 Model 405 SSA Multi-Storage Tower

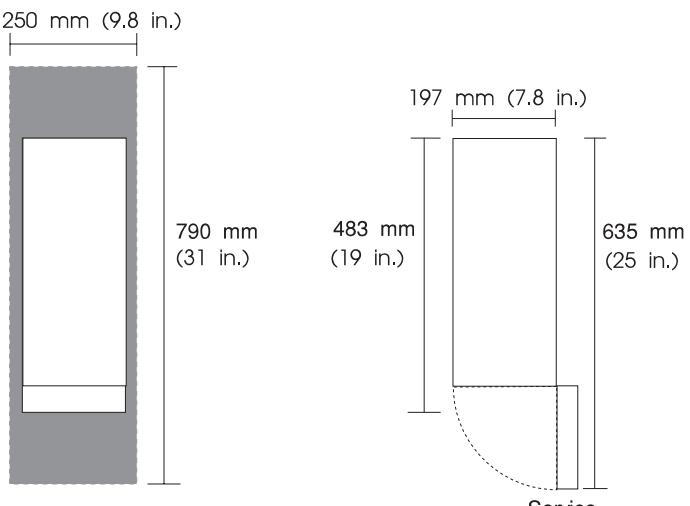
Dimensions		
Height	407 mm	16.0 in.
Width (at pedestal)	197 mm	7.8 in.
Depth	483 mm	19.0 in.
Weight		
Minimum	15.4 kg	34 lbs.
Maximum	18.0 kg	40 lbs.
Electrical		
Power source loading (typical in kVA)	0.39	
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (max)	785 BTU/hr	
Power requirements (max)	230 watts	
Power factor	0.5	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 20 to 80%	**Non-Operating** 20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd} (5 devices)	6.0 bels	5.6 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	50 dBA	46 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	25 mm(1 in)	25 mm(1 in)
Service	152 mm(6 in)	N/A	N/A	25mm(1in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7131 Model 405 Footprint

7133 Models 010 and 020 Rack-Mounted SSA Subsystem

Dimensions		
Height	171 mm	6.7 in. (4 EIA units)
Width	444 mm	17.5 in.
Depth	665 mm	26.2 in.
Weight		
Minimum	36 kg	79 lbs.
Maximum	50 kg	110 lbs.
Electrical		
Power source loading:		
Maximum start-up	0.657 kVA	
Maximum operating	0.499 kVA	
Maximum idling	0.45 kVA	
Power factor	greater than 0.95	
Voltage range (V ac)	100 to 240	
Voltage optional (V dc)	240 to 375	
Frequency (hertz)	50 or 60	
DC Power Supply -48 V dc (Model 020 only)	-40 to -60	
Thermal output (Maximum)	2074 BTU/hr (See note 1)	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F) (See note 2)	10 to 52°C (50 to 125°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8% to 80%	8% to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6.15 bels	6.1 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	48 dBA	45 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Notes:

1. Each 7133 rack-mounted unit requires an air flow of 2.46 cubic meters/minute (87 CFM). When racks containing many 7133 units are to be installed together, the following requirements must be met to ensure that the 7133 units are adequately cooled:
   - The airflow is in at the front of the rack and out at the back. To avoid moving exhaust air to the intake of another piece of equipment, racks should be positioned in alternate rows, back-to-back and front-to-front.
   - The front of racks should be positioned on floor-tile seams, with a full line of perforated tiles immediately in front of the racks. Each perforated tile should have an air flow of at least 11.34 m^3/min (400 CFM). The underfloor temperature must be at most 15°C (60°F).
   - Where racks are in rows front-to-front or back-to-back, there should be a gap of at least 1220 mm (48 in) separating the rows.
   - To ensure proper air flow within each rack, the rack filler plates must be installed in unused positions. Also, all the gaps in the front of the racks must be sealed, including the gaps between the 7133 units.
2. The recommended operating temperature is 22°C (72°F) or lower. At lower temperatures, the risk of failure in the unit is reduced. If the operating temperature is above 22°C (72°F) for long periods of time, the unit will be exposed to a greater risk of failure from external causes.

7133 Models 500 and 600 Deskside SSA Subsystem

Dimensions		
Height	610 mm	24.0 in.
Width (at pedestal)	210 mm	8.3 in.
Depth	820 mm	32.3 in.
Weight		
Minimum	58.5 kg	129 lbs.
Maximum	72.5 kg	160 lbs.
Electrical		
Power source loading:		
Maximum start-up	0.657 kVA	
Maximum operating	0.499 kVA	
Maximum idling	0.45 kVA	
Power factor	greater than 0.95	
Voltage range (V ac)	100 to 240	
Frequency (hertz)	50 or 60	
Thermal output (Maximum)	2074 BTU/hr	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F) (See note)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**		**Idle**	
	Avg.	Max.	Avg.	Max.
L_{WAd}	6.0 bels	6.8 bels	5.5 bels	6.6 bels
L_{pAm}	N/A		N/A	
$<L_{pA}>_m$	50 dBA	59 dBA	45 dBA	56 dBA
Impulsive or prominent discrete tones	No		No	

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

Note: The recommended operating temperature is 22°C (72°F) or lower. At lower temperatures, the risk of failure in the unit is reduced. If the operating temperature is above 22°C (72°F) for long periods of time, the unit will be exposed to a greater risk of failure from external causes.

7134 Model 010 High-Density SCSI Disk Subsystem

Dimensions		
Height	171 mm	6.7 in. (4EIA units)
Width	444 mm	17.4 in.
Depth	665 mm	26.2 in.
Weight		
Minimum	69 kg	31.5 lbs.
Maximum	129 kg	58.5 lbs.
Electrical		
Power source loading (kVA)	0.021 plus 0.024 for each 2GB Disk Drive, or 0.028 for each 4.5GB Disk Drive	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (max)	68 BTU/hr plus 77 BTU/hr for each 2GB Disk Drive or 90 BTU/hr for each 4.5 GB Disk Drive	
Power requirements	20 watts plus 22.5 watts for each 2GB Disk Drive or 26.5 watts for each 4.5GB Disk Drive	
Power factor	0.95 minimum	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating** 10 to 40°C (50 to 110°F)	**Non-Operating** 10 to 52°C (50 to 125°F)
Humidity Requirements (Noncondensing)	**Operating** 8% to 80%	**Non-Operating** 8% to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.6 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	46 dBA	46 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

7135 RAIDiant Array

Dimensions		
Height (control unit)	82 mm	3.4 in. (2 EIA units)
Height (disk drive units)	171 mm	6.7 in. (4 EIA units)
Width	444 mm	17.4 in.
Depth	665 mm	26.2 in.
Weight		
Empty	50.0 kg	110 lbs.
Maximum Configuration	128.5 kg	283 lbs.
Electrical		
Power source loading (kVA)	0.2 plus 0.03 for each disk drive	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output	648 BTU/hr plus 92 BTU/hr each disk drive	
Power requirements	190 watts plus 27 watts each disk drive	
Power factor	0.95	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 110°F)	1 to 52°C (34 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8% to 80%	8% to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6.35 bels	6.05 bels
L_{pAm}	NA	N/A
$<L_{pA}>_m$	48 dBA	47.5 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

7135 RAIDiant Array Deskside Mini-Rack

Dimensions		
Height	610 mm	24.0 in.
Width	560 mm	23.1 in.
Depth	750 mm	29.5 in.
Weight		
Empty	54.5 kg	120 lbs.
Maximum Configuration	177.0 kg	390 lbs.
Electrical[1,3]		
Power source loading (kVA)	0.2 plus 0.03 for each disk drive	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (max)	648 BTU/hr plus 92 BTU/hr for each disk drive	
Power requirements (max)	190 watts plus 27 watts for each disk drive	
Power factor	0.95	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20% to 80%	8% to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[2,3]	**Operating**	**Idle**
L_{WAd}	N/A	0 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	N/A	0 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	1 m(39.4 in)	1 m(39.4 in)	N/A	1 m(39.4 in)

1. The Mini-Rack has a 10A fuse, these values indicate the maximum values for the Mini-Rack with installed devices. The actual values depend on which devices are installed.
2. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
3. Dependant on the devices installed in the 7135 Mini-Rack.

7137 Disk Array Subsystem Models 412, 413, 414, and 415

Dimensions		
Height	610 mm	24.0 in.
Width		
Enclosure	210 mm	8.3 in.
Base	310 mm	12.2 in.
Depth	820 mm	32.3 in.
Weight		
Empty	49 kg	109 lbs.
Maximum Configuration	54 kg	119 lbs.
Electrical		
Power source loading (kVA)	0.33	
Voltage range (V ac)	100 to 125 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output	1050 BTU/hr	
Power requirements	308 watts	
Power factor	0.9	
Maximum altitude	2134m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 110°F)	1 to 52°C (34 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8% to 80%	8% to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.9 bels	5.8 bels
L_{pAm}	NA	N/A
$<L_{pA}>_m$	37 dBA	37 dBA
(4.5GB)	43 dBA	No
Impulsive or prominent discrete tones	No	

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

Dimensions		
Height	178 mm	7.0 in.
Width		
Enclosure	483 mm	19.0 in.
Depth	716 mm	28.2 in.
Weight		
Empty	32 kg	70 lbs.
Maximum Configuration	35 kg	76 lbs.
Electrical		
Power source loading (kVA)	0.33	
Voltage range (V ac)	100 to 125 or 200 to 240	
Frequency (hertz)	50 or 60	
Thermal output	1050 BTU/hr	
Power requirements	308 watts	
Power factor	0.9	
Maximum altitude	2134m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 110°F)	1 to 52°C (34 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8% to 80%	8% to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions[1,2]	**Operating**	**Idle**
L_{WAd}	5.9 bels	5.8 bels
L_{pAm}	NA	N/A
$<L_{pA}>_m$	39 dBA	38 dBA
(4.5GB)	44 dBA	(See Note 2)
Impulsive or prominent discrete tones	No	No

1. See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.
2. The value for $<L_{pA}>_m$ not available at the time of publishing.

7202 Model 900 Expansion Rack

Dimensions		
Height	1578 mm	62.0 in.
Width	650 mm	25.5 in.
Depth	921 mm	36.0 in.
Weight		
Minimum	136 kg	300 lbs.
Maximum	470 kg	1035 lbs.
Electrical[1]		
Power source loading (typical in kVA)	0 .004	
Voltage range (V ac)	200 to 240 or -48V dc	
Frequency (hertz)	50 or 60	
Thermal output (typical)	15 BTU/hr	
Power requirements (typical)	4 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)

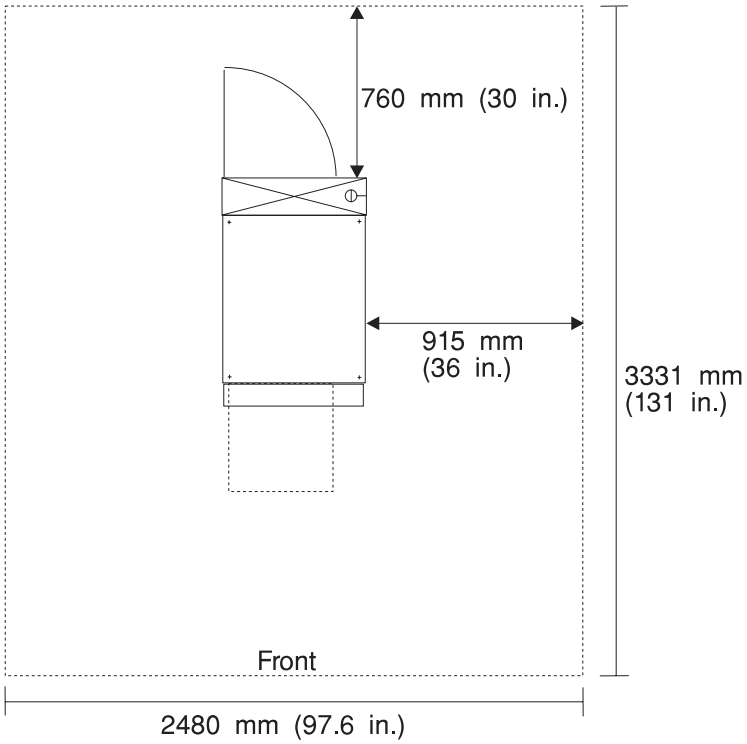
Noise Emissions[2,3]	**Operating**	**Idle**
L_{WAd}	6.2 bels	6.0 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	48 dBA	46 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	1650 mm(65 in)	760 mm(30 in)	915 mm(36 in)	915 mm(36 in)

1. No features installed.
2. See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.
3. Noise emissions data for the 7202 Model 900 is based on the following configuration:
   - two 9334 Model 10 Drawers with two disk drives in each and
   - two 9334 Model 10 Drawers with three disk drives in each.

The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended.



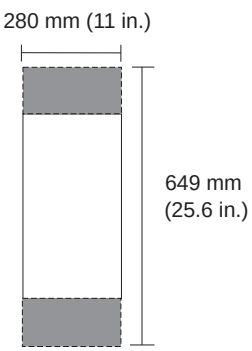
Footprint for the 7202 Model 900

Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging door on the rear of the rack and a drawer in the extended position. The illustration shows the minimum space required.

7203 Model 001 External Portable Disk Drive

Dimensions				
Height		160 mm	6.3 in.	
Width		280 mm	11.0 in.	
Depth		345 mm	13.6 in.	
Weight				
Minimum		6.12 kg 13.5 lbs.(without module)		
Maximum		10.3 kg 22.6 lbs.(with a 355 or 670MB module)		
Electrical				
Power source loading (typical in kVA)		0.08		
Voltage range (V ac)		100 to 125 or 200 to 240 (autoranging)		
Frequency (hertz)		50 or 60		
Thermal output (typical)		155 BTU/hr		
Power requirements (typical)		45 watts		
Power factor		0.5 to 0.7		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		**Operating** 16 to 32°C (60 to 90°F)		**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)		**Operating** 8 to 80%		**Non-Operating** 8 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions[1]		**Operating**		**Idle**
L_{WAd}		5.8 bels		5.6 bels
L_{pAm}		N/A		N/A
$<L_{pA}>_m$		42 dBA		41 dBA
Impulsive or prominent discrete tones		No		No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7203 Model 001 Footprint

7204 Model 010 1GB External Disk Drive

Dimensions		
Height	79 mm	3.13 in.
Width	280 mm	11.0 in.
Depth	287 mm	11.3 in.
Weight		
Minimum	3.9 kg	8.45 lbs.
Maximum	3.9 kg	8.45 lbs.
Electrical		
Power source loading (typical in kVA)	0.07	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	110 BTU/hr	
Power requirements (typical)	32 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

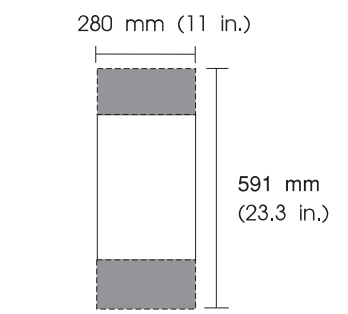
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.3 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	45 dBA	44 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm (6 in)	152 mm (6 in)	N/A	N/A
Service	152 mm (6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7204 Model 010 Footprint

7204 Models 112, 113, 114, 317, and 325 External Disk Drives

Dimensions		
Height	60 mm	2.36 in.
Width	250 mm	9.84 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	3.3 kg	7.3 lbs.
Maximum	3.3 kg	7.3 lbs.
Electrical		
Power source loading (typical in kVA)	0.02	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	225 BTU/hr	
Power requirements (typical)	46 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

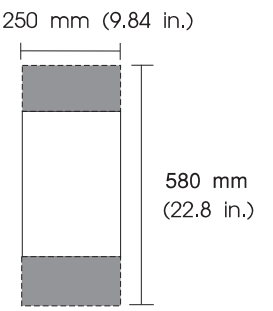
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.3 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	45 dBA	44 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm (6 in)	152 mm (6 in)	N/A	N/A
Service	152 mm (6 in)	N/A	N/A	N/A

Notes:

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7204 Model 112, 113, 114, 317 and 325 Footprint

7204 Models 118 and 418 18.0GB External Disk Drives

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	3.5 kg	7.8 lbs.
Maximum	3.5 kg	7.8 lbs.
Electrical		
Power source loading (typical in kVA)	0.05 @ 120 V ac	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	95 BTU/hr	
Power requirements (typical)	28 watts	
Power factor	0.4 to 0.6	
Inrush Current[3]	51 amps at 120 Vac, 99 amps at 208 Vac	
Maximum altitude	3048 m (10000 ft.)	

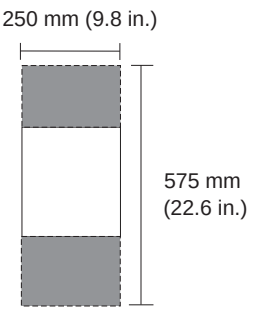
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 126°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (81°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.52 bels	5.48 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	39 dBA	38.9 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.
3. Inrush currents occur only at initial application of power, no inrush occurs during a normal power off-on cycle.



7204 Models 118, and 418 Footprint

7204 Models 139, and 339 9.1GB External Disk Drives

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	3.5 kg	7.8 lbs.
Maximum	3.5 kg	7.8 lbs.
Electrical		
Power source loading (typical in kVA)	0.05 @ 120 V ac	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	95 BTU/hr	
Power requirements (typical)	28 watts	
Power factor	0.4 to 0.6	
Inrush Current[3]	51 amps at 120 Vac, 99 amps at 208 Vac	
Maximum altitude	3048 m (10000 ft.)	

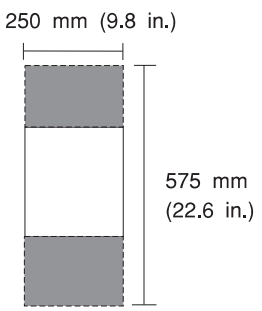
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 126°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (81°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.52 bels	5.48 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	39 dBA	38.9 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.
3. Inrush currents occur only at initial application of power, no inrush occurs during a normal power off-on cycle.



7204 Model 139, and 339 Footprint

7204 Models 215 and 315 External Disk Drives

Dimensions		
Height	79 mm	3.13 in.
Width	280 mm	11.0 in.
Depth	287 mm	11.3 in.
Weight		
Minimum	4.2 kg	9.25 lbs.
Maximum	4.2 kg	9.25 lbs.
Electrical		
Power source loading (typical in kVA)	0.07	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	110 BTU/hr	
Power requirements (typical)	32 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

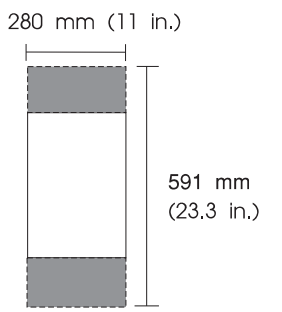
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.3 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	45 dBA	44 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm (6 in)	152 mm (6 in)	N/A	N/A
Service	152 mm (6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7204 Model 215 and 315 Footprint

7204 Models 402, and 404 External Disk Drives

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	3.0 kg	6.6 lbs.
Maximum	3.4 kg	7.5 lbs.
Electrical		
Power source loading (typical in kVA)	0.06 @ 120 V ac	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	107 BTU/hr	
Power requirements (typical)	31.5 watts	
Power factor	0.5 to 0.6	
Inrush Current[3]	47.6 amps at 120 Vac, 85.7 amps at 208 Vac	
Maximum altitude	2135 m (7000 ft.)	

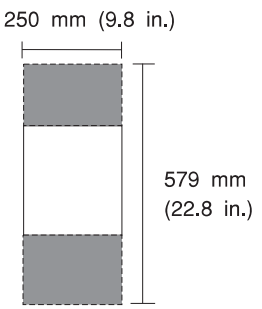
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating**
	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	38 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.
3. Inrush currents occur only at initial application of power, no inrush occurs during a normal power off-on cycle.



7204 Models 402, and 404 Footprint

7205 Model 311 External DLT Tape Drive

Dimensions		
Height	114 mm	4.8 in.
Width	280 mm	11.0 in.
Depth	292 mm	11.5 in.
Weight		
Minimum	6.63 kg	15 lbs.
Maximum	6.63 kg	15 lbs.
Electrical		
Power source loading (typical in kVA)	0.135	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	208 BTU/hr	
Power requirements (typical)	61 watts	
Power factor	0.8	
Maximum altitude	2135 m (7000 ft.)	

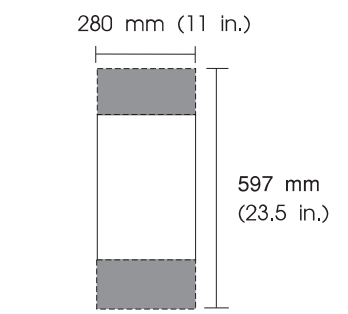
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	42 dBA	39 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7205 - Model 311 Footprint

7206 Model 005 External 4-mm Tape Drive

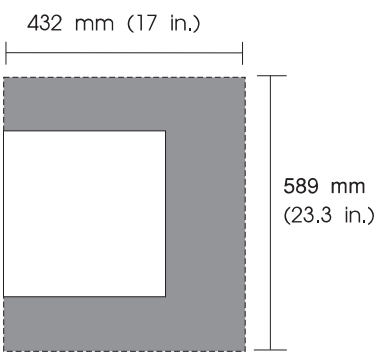
Dimensions		
Height	80 mm	3.3 in.
Width	280 mm	11.0 in.
Depth	285 mm	11.3 in.
Weight		
Minimum	5 kg	11 lbs.
Maximum	5 kg	11 lbs.
Electrical		
Power source loading (typical in kVA)	0.08	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	110 BTU/hr	
Power requirements (typical)	32 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 20 to 80%	**Non-Operating** 20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.9 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	46 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7206 Model 005 Footprint

7206 Model 110 External 4-mm DDS-3 Tape Drive

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	3.7 kg	8 lbs.
Maximum		
Electrical		
Power source loading (typical in kVA)	0.07	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (average)	100 BTU/hr	
Power requirements (typical)	30 watts	
Power factor	0.3 to 0.5	
Maximum altitude	2135 m (7000 ft.)	

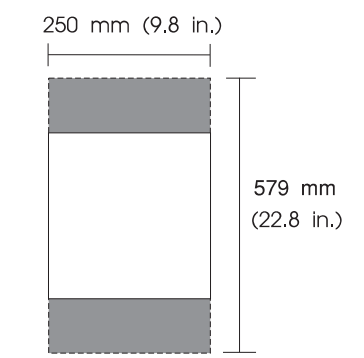
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.9 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	46 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7206 Model 110 Footprint

7207 Model 012 1.2GB External 1/4-Inch Cartridge Tape Drive

Dimensions		
Height	80 mm	3.3 in.
Width	280 mm	11.0 in.
Depth	285 mm	11.3 in.
Weight		
Minimum	4.5 kg	10.0 lbs.
Maximum	4.5 kg	10.0 lbs.
Electrical		
Power source loading (typical in kVA)	0.07	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	140 BTU/hr	
Power requirements (typical)	40 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

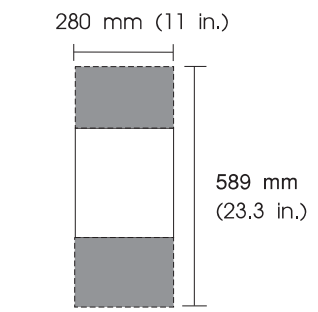
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	6.6 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	46 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7207 Model 112 Footprint

7207 Model 315 13GB External 1/4-Inch Cartridge Tape Drive

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	3.6 kg	7.9 lbs.
Maximum	3.6 kg	7.9 lbs.
Electrical		
Power source loading (typical in kVA)	0.029 @ 120 V ac	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	50 BTU/hr	
Power requirements (typical)	16 watts	
Power Factor	0.3 to 0.5	
Maximum altitude	2135 m (7000 ft.)	

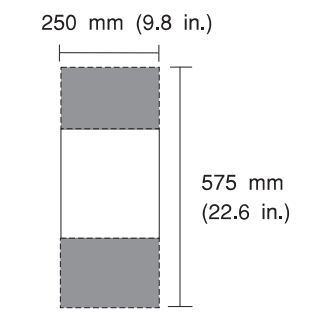
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.48 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	37.4 dBA	37 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7207 Model 315 Footprint

7208 Model 001 2.3GB External 8-mm Tape Drive

Dimensions		
Height	123 mm	4.8 in.
Width	280 mm	11.0 in.
Depth	285 mm	11.3 in.
Weight		
Minimum	6 kg	13.3 lbs.
Maximum	6 kg	13.3 lbs.
Electrical		
Power source loading (typical in kVA)	0.06	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	120 BTU/hr	
Power requirements (typical)	35 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

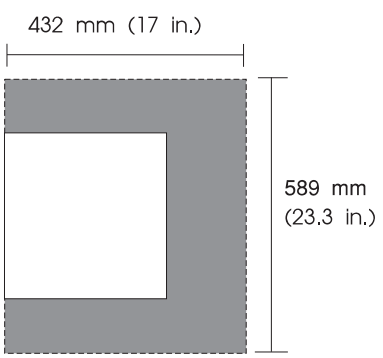
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.9 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	46 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	152 mm(6 in)
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7208 Model 001 Footprint

7208 Model 011 5/10GB External 8-mm Tape Drive

Dimensions		
Height	80 mm	3.3 in.
Width	280 mm	11.0 in.
Depth	285 mm	11.3 in.
Weight		
Minimum	4.7 kg	10.3 lbs.
Maximum	4.7 kg	10.3 lbs.
Electrical		
Power source loading (typical in kVA)	0.06	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	120 BTU/hr	
Power requirements (typical)	35 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

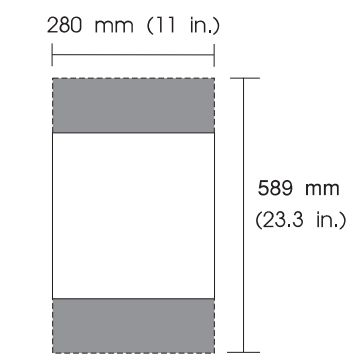
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.9 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	46 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7208 Model 011 Footprint

7208 Model 341 20/40GB External 8-mm Tape Drive

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
Minimum	5 kg	11 lbs.
Maximum	5 kg	11 lbs.
Electrical		
Power source loading (typical in kVA)	0.041	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	67 BTU/hr	
Power requirements (typical)	20 watts	
Power factor	0.58	
Maximum altitude	2135 m (7000 ft.)	

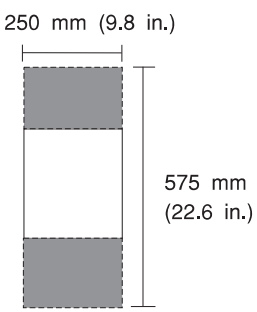
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.6 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	38 dBA	38 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7208 Model 341 Footprint

7209 Model 002 External Rewritable Optical Disk Drive

Dimensions		
Height	123 mm	4.8 in.
Width	280 mm	11.0 in.
Depth	290 mm	11.5 in.
Weight		
Minimum	6.3 kg	14 lbs.
Maximum	6.3 kg	14 lbs.
Electrical		
Power source loading (typical in kVA)	0.053	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	110 BTU/hr	
Power requirements (typical)	33 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

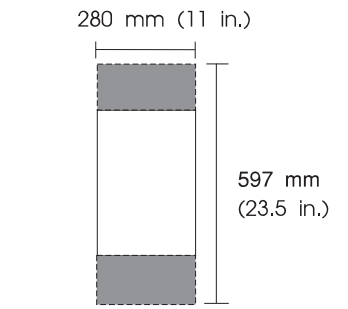
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	1 to 60°C (34 to 140°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	10 to 80%	10 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	45 dBA	45 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

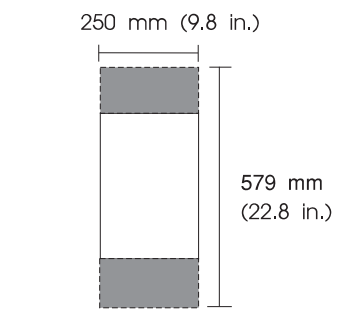


7209 Model 002 Footprint

7209 Model 003 External 2.6GB Rewritable Optical Disk Drive

Dimensions				
Height			55 mm	2.2 in.
Width			250 mm	9.8 in.
Depth			275 mm	10.5 in.
Weight				
			4.0 kg	8.8 lbs.
Electrical				
Power source loading (kVA)			0.045 @ 120 Vac	
Voltage range (V ac)			100 to 125 or 200 to 240 (auto-ranging)	
Frequency (hertz)			50 or 60	
Thermal output (maximum)			100 BTU/hr @ 230 Vac	
Thermal output (typical)			55 BTU/hr	
Power requirements (typical)			16 watts	
Power factor			0.4 to 0.6	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			16 to 32°C (60 to 90°F)	10 to 52°C (50 to 126°F)
Humidity Requirements			**Operating**	**Non-Operating**
(Noncondensing)			20 to 80%	8 to 80%
Wet Bulb			27°C (80°F)	27°C (80°F)
Noise Emissions*			**Operating**	**Idle**
L_{WAd}			5.5 bels	5.5 bels
L_{pAm}			N/A	N/A
$<L_{pA}>_m$			45 dBA	45 dBA
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.



7209 Model 003 Footprint

7210 Model 001 External CD-ROM Drive

Dimensions		
Height	80 mm	3.3 in.
Width	280 mm	11.0 in.
Depth	285 mm	11.3 in.
Weight		
Minimum	4.9 kg	10.8 lbs.
Maximum	4.9 kg	10.8 lbs.
Electrical		
Power source loading (typical in kVA)	0.05	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	85 BTU/hr	
Power requirements (typical)	25 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

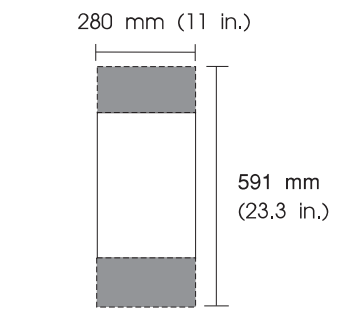
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	10 to 80%	10 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.1 bels	5.1 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	36 dBA	36 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	52 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7210 Model 001 Footprint

7210 Model 005 External CD-ROM Drive

Dimensions				
Height			50 mm	1.94 in.
Width			183 mm	7.2 in.
Depth			312 mm	12.3 in.
Weight				
Minimum			2.0 kg	4.4 lbs.
Electrical				
Power source loading (typical in kVA)			0.03	
Voltage range (V ac)			100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)			50 or 60	
Thermal output (max)			50 BTU/hr	
Power requirements (max)			18 watts	
Power factor (minimum)			0.6	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements			**Operating**	**Non-Operating**
(Noncondensing)			10 to 80%	10 to 80%
Wet Bulb			23°C (73°F)	27°C (80°F)
Noise Emissions[1]			**Operating**	**Idle**
L_{WAd}			4.7 bels	4.7 bels
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow	N/A	N/A	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

7210 Model 010 External Quad Speed CD-ROM Drive

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
	3.6 kg	7.9 lbs.
Electrical		
Power source loading (typical in kVA)	0.07	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	110 BTU/hr	
Power requirements (max)	18 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

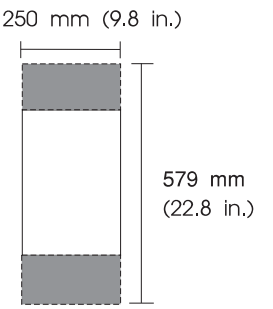
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	10 to 80%	10 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.1 bels	5.1 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	36 dBA	36 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

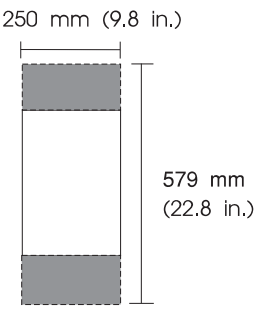


7210 Model 010 Footprint

7210 Model 015 External 8X Speed SCSI-2 CD-ROM Drive

Dimensions				
Height			55 mm	2.2 in.
Width			250 mm	9.8 in.
Depth			275 mm	10.8 in.
Weight				
			3.2 kg	7.1 lbs.
Electrical				
Power source loading (kVA)			0.023 @ 120 Vac	
Voltage range (V ac)			100 to 125 or 200 to 240 (auto-ranging)	
Frequency (hertz)			50 or 60	
Thermal output (maximun)			42 BTU/hr @240 Vac	
Power requirements (typical idle)			06 watts	
Power requirements (typical seek/read)			18 watts	
Power factor			0.4 to 0.6	
Maximum altitude			2135 m (7000 ft.)	
Temperature Requirements			**Operating**	**Non-Operating**
			16 to 32°C (60 to 90°F)	10 to 52°C (50 to 126°F)
Humidity Requirements			**Operating**	**Non-Operating**
(Noncondensing)			20 to 80%	8 to 80%
Wet Bulb			27°C (80°F)	27°C (80°F)
Noise Emissions[1]			**Operating**	**Idle**
L_{WAd}			4.8 bels	4.5 bels
L_{pAm}			N/A	N/A
Impulsive or prominent discrete tones			No	No
Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7210 Model 015 Footprint

7210 Model 015 External SCSI-2 CD-ROM Drive

Dimensions		
Height	55 mm	2.2 in.
Width	250 mm	9.8 in.
Depth	275 mm	10.8 in.
Weight		
	3.2 kg	7.1 lbs.
Electrical		
Power source loading (kVA)	0.023 @ 120 Vac	
Voltage range (V ac)	100 to 125 or 200 to 240 (auto-ranging)	
Frequency (hertz)	50 or 60	
Thermal output (maximun)	42 BTU/hr @240 Vac	
Power requirements (typical idle)	06 watts	
Power requirements (typical seek/read)	18 watts	
Power factor	0.4 to 0.6	
Maximum altitude	2135 m (7000 ft.)	

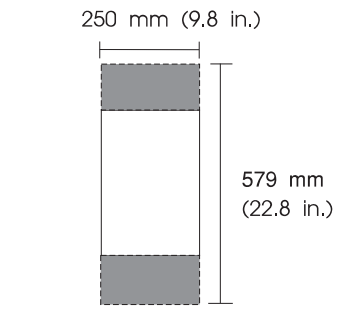
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 52°C (50 to 126°F)

Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating**
	20 to 80%	8 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	4.8 bels	4.5 bels
L_{pAm}	N/A	N/A
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7210 Model 015 Footprint

7235 POWER GTO Models 01i and 02i Graphics Subsystem

Dimensions	**Desktop**	**Deskside**
Height	160 mm 6.3 in.	466 mm 18.3 in.
Width	460 mm 18.0 in.	160 mm 6.3 in.
Width at pedestal (deskside)		241 mm 9.5 in.
Depth	525 mm 21.0 in.	525 mm 21.0 in.
Weight		
Minimum	16 kg 35 lbs.	16 kg 35 lbs.
Maximum	16 kg 35 lbs.	16 kg 35 lbs.
Electrical		
Power source loading (typical in kVA)	0.5	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	850 BTU/hr	
Power requirements (typical)	250 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

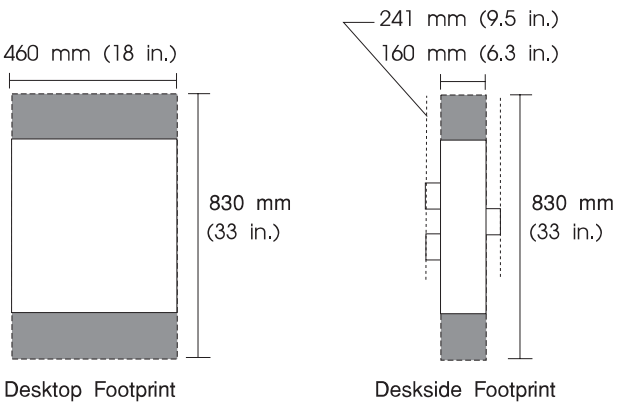
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)

Humidity Requirements (Noncondensing)	**Operating**	**Non-Operating**
	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.8 bels	5.5 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	54 dBA	N/A
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.

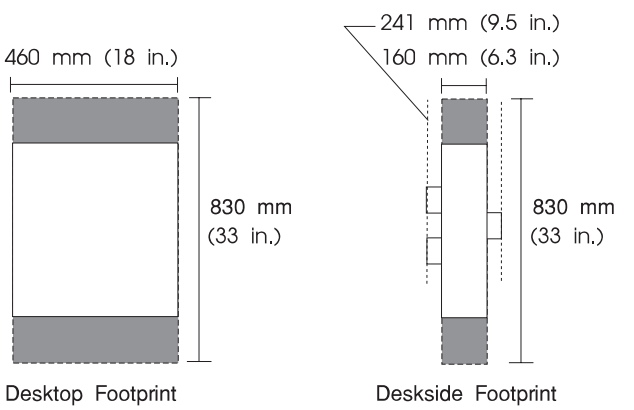


7250 POWER GXT1000 Graphics Accelerator

Dimensions	**Desktop**	**Deskside**
Height	160 mm 6.3 in.	466 mm 18.3 in.
Width	460 mm 18.0 in.	160 mm 6.3 in.
Width (at pedestal for deskside)		241 mm 9.5 in.
Depth	525 mm 21.0 in.	525 mm 21.0 in.
Weight		
Minimum	13.6 kg 30 lbs.	13.6 kg 30 lbs.
Maximum	13.6 kg 30 lbs.	13.6 kg 30 lbs.
Electrical		
Power source loading (typical in kVA)	0.5	
Voltage range (Vac)[2]	100 to 125 or 200 to 240 (autoranging)	
Frequency (Hertz)	50 or 60	
Thermal output (typical)	850 BTU/hr	
Power requirements (typical)	250 Watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating** 16 to 32°C (60 to 90°F)	**Non-Operating** 10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.2 bels	5.2 bels
L_{pAm}	N/A	N/A
Impulsive or prominent discrete tones	No	No
Noise Emissions[1] $<L_{pA}>_m$	36.8 dBA	

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[3]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The power supply may be autoranging or switchable. The switchable type has a red voltage selection switch near the power cord connector.
3. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.



7317 Model D10

Dimensions		
Height	464 mm	18.3 in.
Width	490 mm	19.3 in.
Depth with device handles	289 mm	11.4 in.
Weight		
Minimum	31.8 kg	70 lbs.
Maximum	45.4 kg	100 lbs.
Electrical		
Power source loading (typical in kVA)	N/A	
Voltage range (V dc)	-40 to -65	
Thermal output (typical)	360 BTU/hr	
Thermal output (maximum)	600 BTU/hr	
Power requirements (typical)	106 watts	
Power requirements (maximum)	176 watts	
Maximum altitude (operating) class c	0 to 2133 m (0 to 7000 ft.)	

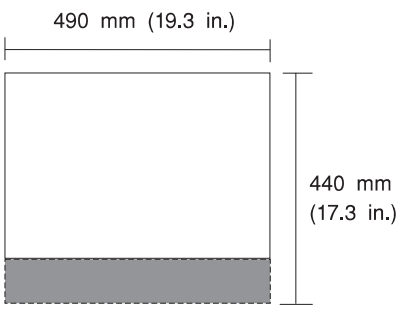
Temperature Range	**Operating**	**Non-Operating**
Class C	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)

Humidity (Noncondensing) Wet Bulb Requirements	**Operating** 8 to 80% 27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	6.0 bels	6.0 bels
L_{pAm}	N/A dBA	N/A dBA
$<L_{pA}>_m$	47 dBA	47 dBA
Impulsive or prominent discrete tones	None	None

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	150mm(6 in)	0	0	0
Service[3]	500mm(20 in)	0	0	0

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. All service is performed at the front of the machine.



Model D10 Footprint

7317 Model F3L

Dimensions	**w/o Media**		**with Media**	
Height	746 mm	29.4 in.	823 mm	32.4 in.
Width	440 mm	17.3 in.	440 mm	17.3 in.
Depth with device handles	289 mm	11.4 in.	289 mm	11.4 in.
Weight	**w/o Media**		**with Media**	
Minimum	45.5 kg	100 lbs.	50 kg	110 lbs.
Maximum	72.6 kg	160 lbs.	72.6 kg	160 lbs.

Electrical	
Power source loading (typical in kVA)	N/A
Voltage range (V dc)	-40 to -65
Thermal output (typical)	770 BTU/hr
Thermal output (maximum)	1100 BTU/hr
Power requirements (typical)	225 watts
Power requirements (maximum)	322 watts
Maximum altitude (operating)	0 to 2133 m (0 to 7000 ft.)

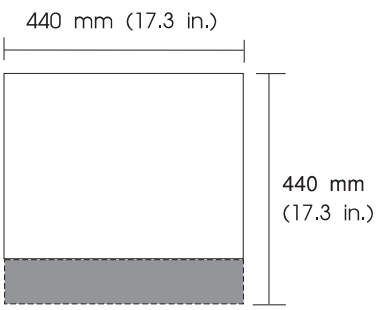
Temperature Range	**Operating**	**Non-Operating**
Class C	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)

Humidity (Noncondensing)	**Operating**	**Non-Operating**
with tape		
without tape	8 to 80%	
Wet Bulb Requirements	20 to 80%	
	28°C (82°F)	

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	6.0 bels	6.0 bels
L_{pAm}	N/A	NA dBA
$<L_{pA}>_m$	47 dBA	47 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	150mm(6 in)	0	0	0
Service[3]	500mm(20 in)	0	0	0

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
3. All service is performed at the front of the machine.



Model F3L Footprint

7318 Serial Communications Network Server Models P10, and S20

Dimensions		
Height	44 mm	1.73 in.
Width	381 mm	15.00 in.
Depth	229 mm	9.00 in.
Weight		
Maximum	2.6 kg	5.7 lbs.
Electrical		
Power source loading (typical in kVA)	0.085	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	170 BTU/hr	
Power requirements (max)	50 watts	
Maximum altitude	2135 meters (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	0 to 50°C (50 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	4.9 bels	4.9 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	54 dBA	54 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

7319 Model 100, and 110 Fibre Channel Switch

Dimensions		
Height	86 mm	3.39 in.
Width	483 mm	19.00 in.
Depth	495 mm	19.50 in.
Weight		
Maximum	12.2 kg	27 lbs.
Electrical		
Power source loading (typical in kVA)	0.18	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	570 BTU/hr	
Power requirements (typical)	170 watts	
Power factor	0.98	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating** 0 to 40°C (32 to 104°F)	**Non-Operating** 0 to 50°C (50 to 125°F)
Humidity Requirements (Noncondensing) **Wet Bulb**	**Operating** 0 to 90% 27°C (80°F)	**Non-Operating** 0 to 90% 27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	4.9 bels	4.9 bels
L_{pAm}	N/A	N/A
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

7331 Model 205 140/280GB or Model 305 400/800GB 8-mm Tape Library

Dimensions		
Height	637.0 mm	25.1 in.
Width	322.5 mm	12.7 in.
Depth	723.0 mm	28.5 in.
Weight		
Minimum	45 kg	92.5 lbs.
Maximum	45 kg	92.5 lbs.
Electrical		
Power source loading (kVA)	0.34	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output	580 BTU/hr for two drives	
Power requirements	340 watts	
Power factor	0.95	
Maximum altitude	3048 m (10,000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	5 to 40°C (41 to 110°F)	5 to 32°C (40 to 90°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20% to 80%	20% to 80%
Wet Bulb	26°C (79°F)	26°C (79°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6.2 bels	5.5 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	46 dBA	43 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions

7332 Model 005 4-mm DDS-2 Autoloading Tape

Dimensions		
Height	122 mm	4.8 in.
Width	280 mm	11.0 in.
Depth	290 mm	11.5 in.
Weight	6.4 kg	14 lbs.
Electrical		
Power source loading (kVA)	0.07	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (average)	120 BTU/hr	
Power requirements	35 watts	
Power factor	0.3 to 0.6	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.3 bels	5.3 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	39 dBA	39 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.

7332 Model 110 4-mm DDS-3 Autoloading Tape

Dimensions		
Height	122 mm	4.8 in.
Width	280 mm	11.0 in.
Depth	290 mm	11.5 in.
Weight	6.4 kg	14 lbs.
Electrical		
Power source loading (kVA)	0.07	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (average)	120 BTU/hr	
Power requirements (typcial)	35 watts	
Power factor	0.3 to 0.6	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.3 bels	5.3 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	39 dBA	39 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.

7336 Model 205 4-mm Tape Library

Dimensions		
Height	637.0 mm	25.1 in.
Width	322.5 mm	12.7 in.
Depth	723.0 mm	28.5 in.
Weight		
Minimum	45 kg	92.5 lbs.
Maximum	45 kg	92.5 lbs.
Electrical		
Power source loading (kVA)	0.34	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output	580 BTU/hr for two drives	
Power requirements	340 watts	
Power factor	0.95	
Maximum altitude	3048 m (10000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	5 to 40°C (41 to 110°F)	5 to 32°C (40 to 90°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	26°C (79°F)	26°C (79°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	6.2 bels	5.5 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	46 dBA	43 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.

7337 Model 305 DLT Tape Library

Dimensions		
Height	23.5 mm	9.25 in.
Width	47.9 mm	18.9 in.
Depth	67.3 mm	26.5 in.
Weight		
Minimum	41.8 kg	92 lbs.
Maximum	41.8 kg	92 lbs.
Electrical		
Power source loading (kVA)	0.34	
Voltage range (V ac)	100 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output	445 BTU/hr for two drives	
Power requirements	130 watts	
Power factor	TBD	
Maximum altitude	2438 m (6000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 35°C (50 to 95°F)	5 to 32°C (40 to 90°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73.4°F)	46°C (114°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.14 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	TBD dBA	TBD dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.

7337 Model 306 DLT Tape Library

Dimensions		
Height	22.2 mm	8.75 in.
Width	48.0 mm	18.9 in.
Depth	67.3 mm	26.5 in.
Weight		
Maximum	33 kg	72 lbs.
Electrical		
Power source loading (kVA)	0.34	
Voltage range (V ac)	100 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output	445 BTU/hr for two drives	
Power requirements	130 watts	
Power factor	TBD	
Maximum altitude	1828 m (6000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 35°C (50 to 95°F)	5 to 32°C (40 to 90°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73.4°F)	46°C (114°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.3 bels	6.0 bels
L_{pAm}	NA	NA
$<L_{pA}>_m$	TBD dBA	TBD dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of emissions positions.

9291 Models 10, and 20 Single Digital Trunk Processors

Dimensions		
Height	110 mm	4.33 in.
Width	220 mm	8.66 in.
Depth	430 mm	16.9 in.
Weight		
Minimum	7.5 kg	16.5 lbs.
Maximum	7.5 kg	16.5 lbs.
Electrical		
Power source loading (typical in kVA)	0.06	
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	170 BTU/hr	
Power requirements (typical)	50 watts	
Power factor	0.5 to 0.8	
Maximum altitude	2135 m (7000 ft.)	

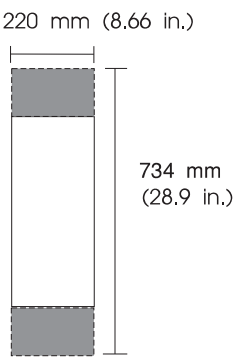
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	4.8 bels	4.8 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	40 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9291 Single Digital Trunk Processor Footprint

9295 Multiple Digital Trunk Processor With AC Power Supply

Dimensions	Base Unit	Each T1 or CEPT feature	Second Power Supply feature
Height	266 mm 10.5 in.	264 mm 10.3 in.	264.0 mm 10.3 in.
Width	449 mm 17.6 in.	50 mm 1.9 in.	69.5 mm 2.7 in.
Depth	400 mm 15.7 in.	373 mm 14.6 in.	373.0 mm 14.6 in.
Weight			
Minimum	13.2 kg 29.2 lbs.	2.1 kg 4.6 lbs.	5.0 kg 11.0 lbs.
Maximum	13.2 kg 29.2 lbs.	2.1 kg 4.6 lbs.	5.0 kg 11.0 lbs.

Electrical	
Power source loading per power supply (kVA) (typical in kVA)	0.40
Voltage range (V ac)	100 to 127 or 200 to 240 (autoranging)
Frequency (hertz)	50 or 60
Thermal output per power supply	1030 BTU/hr
Power requirements per power supply	300 watts
Power factor	0.5 to 0.8
Maximum altitude	2135 m (7000 ft.)

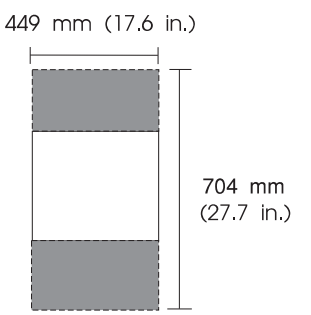
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	6.0 bels	6.0 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	42 dBA	42 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9295 Multiple Digital Trunk Processor Footprint

9295 Multiple Digital Trunk Processor With DC Power Supply

Dimensions	Base Unit	Each T1 or CEPT feature	Second Power Supply feature
Height	266 mm 10.5 in.	264 mm 10.3 in.	264.0 mm 10.3 in.
Width	449 mm 17.6 in.	50 mm 1.9 in.	69.5 mm 2.7 in.
Depth	400 mm 15.7 in.	373 mm 14.6 in.	373.0 mm 14.6 in.
Weight			
Minimum	13.2 kg 29.2 lbs.	2.1 kg 4.6 lbs.	5.0 kg 11.0 lbs.
Maximum	13.2 kg 29.2 lbs.	2.1 kg 4.6 lbs.	5.0 kg 11.0 lbs.

Electrical	
Voltage range (V dc)	-48 to -60 Vdc
Thermal output per power supply	1030 BTU/hr
Power requirements per power supply	300 watts
Maximum altitude	2135 m (7000 ft.)

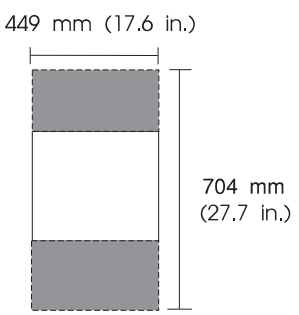
Temperature Requirements	Operating	Non-Operating
	10 to 40°C (50 to 104°F)	10 to 43°C (50 to 110°F)

Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)

Noise Emissions[1]	Operating	Idle
L_{WAd}	6.0 bels	6.0 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	42 dBA	42 dBA
Impulsive or prominent discrete tones	No	No

Clearances	Front	Back	Left	Right
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9295 Multiple Digital Trunk Processor Footprint

9333 Models 010, and 011 Drawer High-Performance Subsystem

Dimensions		
Height	171 mm	6.7 in. (4 EIA units)
Width	443 mm	17.4 in.
Depth	686 mm	27.0 in.
Weight		
Minimum	25 kg	55 lbs.
Maximum	49 kg	108 lbs.
Electrical		
Power source loading (typical in kVA)	0.36	
Voltage range for Model 010 (V ac)	200 to 240	
Voltage range for Model 011	200 to 240 V ac or -48 V dc	
Frequency (hertz)	50 or 60	
Thermal output (typical)	680 BTU/hr	
Power requirements (typical)	200 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.2 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	42 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

9333 Models 500, and 501 Deskside High-Performance Subsystem

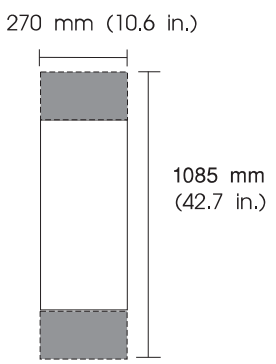
Dimensions		
Height	610 mm	24.0 in.
Width (at pedestal)	270 mm	10.6 in.
Depth	780 mm	30.7 in.
Weight		
Minimum	39 kg	85 lbs.
Maximum	63 kg	138 lbs.
Electrical		
Power source loading (typical in kVA)	0.37	
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	680 BTU/hr	
Power requirements (typical)	200 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	44 dBA	42 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9333 Model 500 and 501 Footprint

9334 Models 010, and 011 Drawer Expansion Units

Dimensions		
Height	171 mm	6.7 in. (4 EIA units)
Width	443 mm	17.4 in.
Depth	686 mm	27.0 in.
Weight		
Minimum	25 kg	55 lbs.
Maximum	43 kg	95 lbs.
Electrical		
Power source loading (typical in kVA)	0.34	
Voltage range for Model 010 (V ac)	200 to 240	
Voltage range for Model 011	200 to 240 V ac or -48 V dc	
Frequency (hertz)	50 or 60	
Thermal output (typical)	580 BTU/hr	
Power requirements (typical)	170 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	**Operating**	**Non-Operating**
	10 to 40°C (50 to 104°F)	10 to 52°C (50 to 125°F)
Humidity Requirements	**Operating**	**Non-Operating**
(Noncondensing)	8 to 80%	5 to 80%
Wet Bulb	27°C (80°F)	27°C (80°F)
Noise Emissions*	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.2 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	42 dBA	40 dBA
Impulsive or prominent discrete tones	No	No

* See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.

9334 Models 500, and 501 Deskside Expansion Units

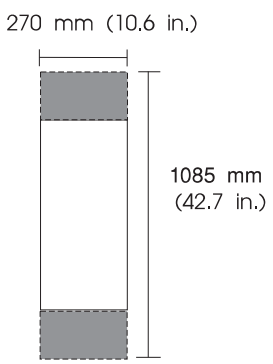
Dimensions		
Height	610 mm	24.0 in.
Width (at pedestal)	270 mm	10.6 in.
Depth	780 mm	30.7 in.
Weight		
Minimum	39 kg	85 lbs.
Maximum	65 kg	142 lbs.
Electrical		
Power source loading (typical in kVA)	0.4	
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	650 BTU/hr	
Power requirements (typical)	190 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 8 to 80%	**Non-Operating** 8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	5.5 bels	5.3 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	44 dBA	42 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[2]	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9334 Model 500 and 501 Footprint

9348 Model 012 Magnetic Tape Unit

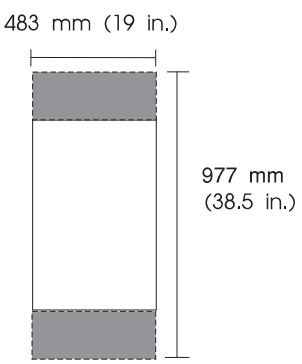
Dimensions		
Height	222 mm	8.75 in.
Width	483 mm	19.0 in.
Depth	673 mm	26.5 in.
Weight		
Minimum	48.2 kg	105 lbs.
Maximum	48.2 kg	105 lbs.
Electrical		
Power source loading (typical in kVA)	0.27	
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)	
Frequency (hertz)	50 or 60	
Thermal output (typical)	410 BTU/hr	
Power requirements (typical)	120 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	

Temperature Requirements	**Operating**	**Non-Operating**
	16 to 32°C (60 to 90°F)	10 to 43°C (50 to 110°F)
Humidity Requirements (Noncondensing)	**Operating** 20 to 80%	**Non-Operating** 20 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)

Noise Emissions[1]	**Operating**	**Idle**
L_{WAd}	7.0 bels[2]	6.8 bels
L_{pAm}	N/A	N/A
$<L_{pA}>_m$	51 dBA[2]	50 dBA
Impulsive or prominent discrete tones	No	No

Clearances	**Front**	**Back**	**Left**	**Right**
Install/Air Flow[3]	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152mm(6 in)	N/A	305mm(12 in)	305mm(12 in)

1. See “Noise Emission Notes” on page 2-125 for definitions of noise emissions positions.
2. Data applies when the tape unit is in streaming operating mode.
3. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9348 Model 012 Footprint

Noise Emission Notes

1. L_{WAd} is the declared sound power emission level for a production series of machines.
2. L_{pAm} is the mean value of the sound pressure emission levels at the operator position (if any) for a production series of machines.
3. $<L_{pA}>_m$ is the mean value of the space-averaged sound pressure emission levels at the one-meter positions for a production series of machines.
4. N/A = Not Applicable (no operator position).
5. All measurements are made in accordance with ISO DIS 779 and reported in conformance with ISO DIS 7574/4.

Chapter 3. Power Cords and Electrical Needs

General Considerations

In planning for your electrical needs, consider the following:

- You must have adequate power to meet the requirements of the devices.
- Electrical receptacles must be near enough to be reached by the power cords supplied with the devices.
- Electrical outlets must be compatible with the electrical plugs supplied with the devices.
- Electrical outlets must be functional and properly grounded.
- Paths of power cords.
- Depending on the computing environment, you may need surge protection devices.
- Radio, radar, or other strong radio frequency transmitters close to your location may cause computer malfunctions. Consult your sales representative if abnormally high radio frequency noise is anticipated.
- Functionality of uninterruptible power source (UPS), if used.
- Varying magnetic fields from high current electrical power distribution systems, elevators, or equipment employing high currents or magnets may cause annoying motion on video displays. Check for acceptable operation of video displays if varying magnetic fields may be encountered.

Power Cords

Power cords with attached plugs are provided for most AC powered systems. Power cords are 1.8 m (6 ft.) minimum length. Machine types 7012, 7013 and 7030 are supplied with 2.8 m (9 ft.) power cords. Types 7015 and 7202-900 racks are supplied with 4.3 m (14 ft) power cords. All products shipped to Chicago, are provided with 1.8 m (6 ft.) power cords to comply with local electrical standards

The power cord that is supplied with the system has an attached plug. The plug that is provided corresponds to the power-outlet receptacle most commonly used in the country to which the product is being shipped. A different plug may be selected by specifying its feature code from the following table when the product is ordered. You, the customer, must supply the corresponding power outlet receptacles.

Plugs

The table at the end of this section presents information concerning system unit plugs for various countries. The plugs are listed in order of feature code. Consult your sales representative for information on which type of plug is used in your area or country.

Notes:

1. Feature codes 6113, 6114, 6173, 6174, 9113, 9114, 9173 and 9174 are for a rack mounted power distribution units that include a power cord and plug. These codes indicate that the power distribution unit includes a power cord; therefore you do not need to order one separately. Unless otherwise noted, the system units have a 9111 power distribution unit, which does not include a power cord.
2. In the United States, raised floor installations involving racks may require a Russell and Stoll (R & S) watertight plug/connector/receptacle (feature code 9801 or 9987).

Electrical Considerations

Most of these electrical considerations apply to all system units, except for the "Power Phase Imbalance" and "Power Phase Rotation" sections, which apply only to the rack mounted or large systems.

Primary Computer Power Service

While a dedicated power supply is not necessary, for maximum reliability the computer power panel should connect to feeders that do not serve other loads. Connect electrical noise-producing devices to panels separate from those feeding the system units.

Grounding

A system unit or device must be properly grounded. It is recommended that an insulated green wire ground, the same size as the phase wire, be installed between the branch circuit panel and the receptacle.

To ensure proper grounding, a licensed electrician should check the grounding and receptacles for conformance with the country electrical codes.

Computer Room Emergency Power-Off Controls

As a safety precaution, you should provide room emergency power-off controls for disconnecting the main service wiring that supplies the computer equipment. Install these controls at a convenient place for the operator and next to the main exit doors of the room.

Lightning Protection

You should install lightning protection devices when:

- An overhead power service supplies the primary power.
- The area is subject to electrical storms or equivalent-type power surges.

Power Phase Imbalance

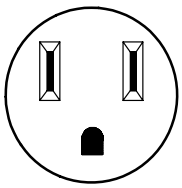
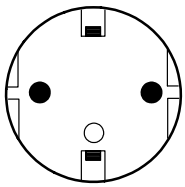
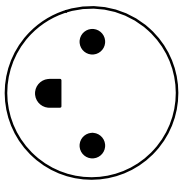
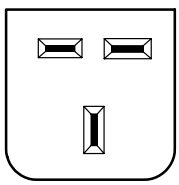
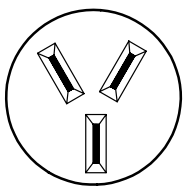
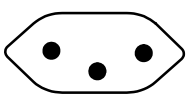
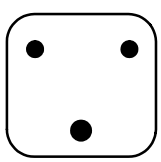
Three versions of rack power distribution units are available. The single-phase unit, feature code 9111, has a detachable line cord and can accept single-phase power or power from one phase of a three-phase source. The two multiphase units, feature codes 9113 and 9114, have attached line cords and connect to two and three phases, respectively, of a three-phase power source.

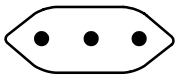
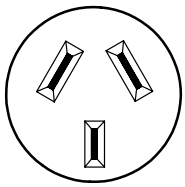
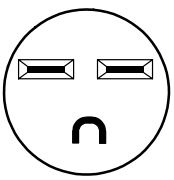
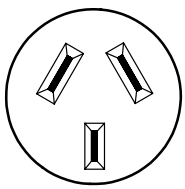
Systems with any of the power distribution units can cause a load imbalance when connected to a three-phase power source. You should consult a licensed electrician to properly balance the loads when new or additional systems are to be connected to a three-phase source.

Power Phase Rotation

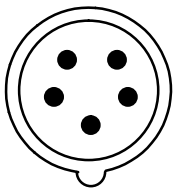
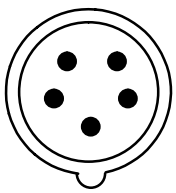
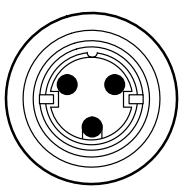
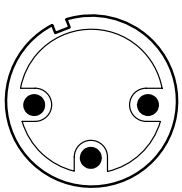
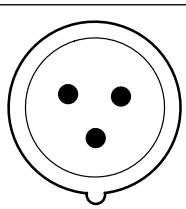
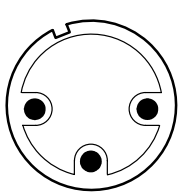
The phase rotation (sequence) is not critical for the rack multiphase power distribution units (feature codes 9113 and 9114). The system will operate correctly with a multiphase distribution unit connected to a 200- to 240-volt single-phase power source (all phases connected to one side of the power source, neutral to the other). Note, however, that the 9114 unit does not have a neutral line circuit breaker and must only be connected to power sources that have a grounded (earthed) neutral.

Desktop and Deskside System Unit Power Plugs

Feature Code	Plug	Standard Compliance or Type
9116 9800 9986		NEMA WD-1 5-15P 125 V, 15 A
9820		CEE7 VII 250 V, 16 A
9821		Afsnit 107 250 V, 10 A
9825		BS 1363 250 V, 13 A
9827		SII-32-1971 250 V, 16 A
9828		SEV 1011.1959 250 V, 10 A
9829		SABS 164, BS 546 250 V, 16 A

Feature Code	Plug	Standard Compliance or Type
9830		CEI 23-16/VII 250 V, 10 A
9831		AS 3122-1981 250 V, 10 A
9833		NEMA WD-1 6#15P 250 V, 15 A
9834		IEC 83-A5 1957 250 V, 10 A

Rack-Type System Unit Power Plugs

Feature Code	Plug	Standard Compliance or Type
6113 6173 9113 9173		IEC 309 380-415 V, 32 A
6114 6174 9114 9174		IEC 309 380-415 V, 16 A
9800 9824 9986		NEMA WD-5 L6-30P 250 V, 30 A
9801 9987		R & S 3750 250 V, 30 A
9822		Wilco Weatherproof WIP130 250 V, 30 A
9823		IEC 309 220 to 240 V, 32 A
9826		PDL Insulated 56PA330 250 V, 30 A

Chapter 4. Cable Planning

Before shipment, the customer is asked to provide specific planning information concerning the physical layout of the installation.

This section can help you plan your layout by presenting planning information on some cables used to interconnect the system units and devices. This chapter includes information on cable length and measuring techniques and some sample cable planning charts. Other cable planning charts can be laid out as necessary. The *Adapters, Devices, and Cable Information (ADCI) for Micro Channel Bus Systems*, order number SA23-2764 or *ADCI for Multiple Bus Systems*, order number SA23-2778 has detailed information on cable feature codes, part numbers, and pin-out charts for cables available to be purchased and customer-supplied cables.

You must plan the type of cable, cable path, and cable length. Consider not only your current needs, but also your anticipated growth and the relocation of personnel.

You should note cable paths on your office layout as this will assist with the installation of your system.

The customer is responsible for planning for the installation of interconnecting cables including the proper lightning and surge protection as necessary and should contact the appropriate contractor for guidance and assistance as requireed. If the cables discussed in the cable publication do not meet your needs, you should talk to your sales representative or cabling vendor about custom cabling alternatives.

General Considerations

In preparing for cabling, consider the following:

- Where applicable, electrical and physical specifications of cables you currently have and plan to use with the new system must be compatible with the standards mentioned in this book. If no standard is specifically mentioned in this book, the standards for the interface on that adapter must be met.
- Lengths and paths of cables. See "Cable Measuring" on page 4-2.
- Communication signal cables should be installed away from power lines or other sources of electrical interference.
- Toroid and special shielding considerations. The following cables, whether purchased from a vendor or supplied by you, must use a toroid: Lighted Programmable Function Keyboard, Dials, or Tablet Attachment Cable, the PC Parallel Printer Cable, the Display Adapter Cable, and the 7235 Signal Cable.
- Labeling of cables and ports you currently have in order to indicate which devices you want attached to them. See "Cable Labeling" on page 5-1.
- Electrostatic discharge (ESD) considerations. In particular, unprotected patch panels, punch blocks, or other intermediate routing or switching devices used in cabling can allow ESD into the network.

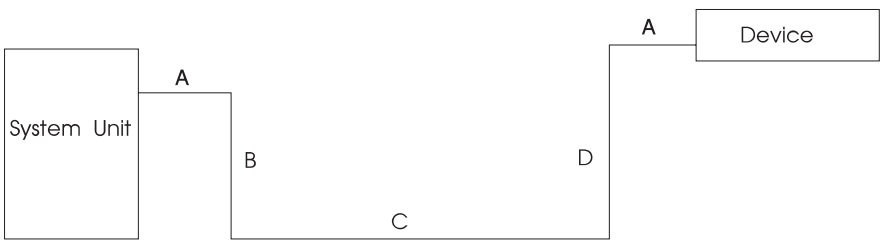
Note: Lightning protection must be provided on any cable which travels outside of the building in which the system or device such as a terminal or printer is installed. Contact a cabling vendor about providing lightning protection for those cables. Fiber-optic cables do not require lightning protection.

Cable Measuring

Accurate measuring of cables is critical to a successful and efficient installation. Do not guess or estimate your cable lengths.

In determining the cable lengths you need, be sure to consider the following:

- A=length allowed for service access, 51 mm (2 ft.) on both system unit and device ends.
- B=length from system unit to floor.
  - Tabletop to floor for desktop models.
  - 46 mm (1.5 ft.) for deskside units.
  - See "7015 Considerations" for rack-mounted system units.
- C=horizontal and vertical cable runs. Be sure to route cables around furniture to avoid tripping hazards.
- D=distance from floor to device. (This can include distance between floors, between buildings, etc., depending on complexity of installation.)

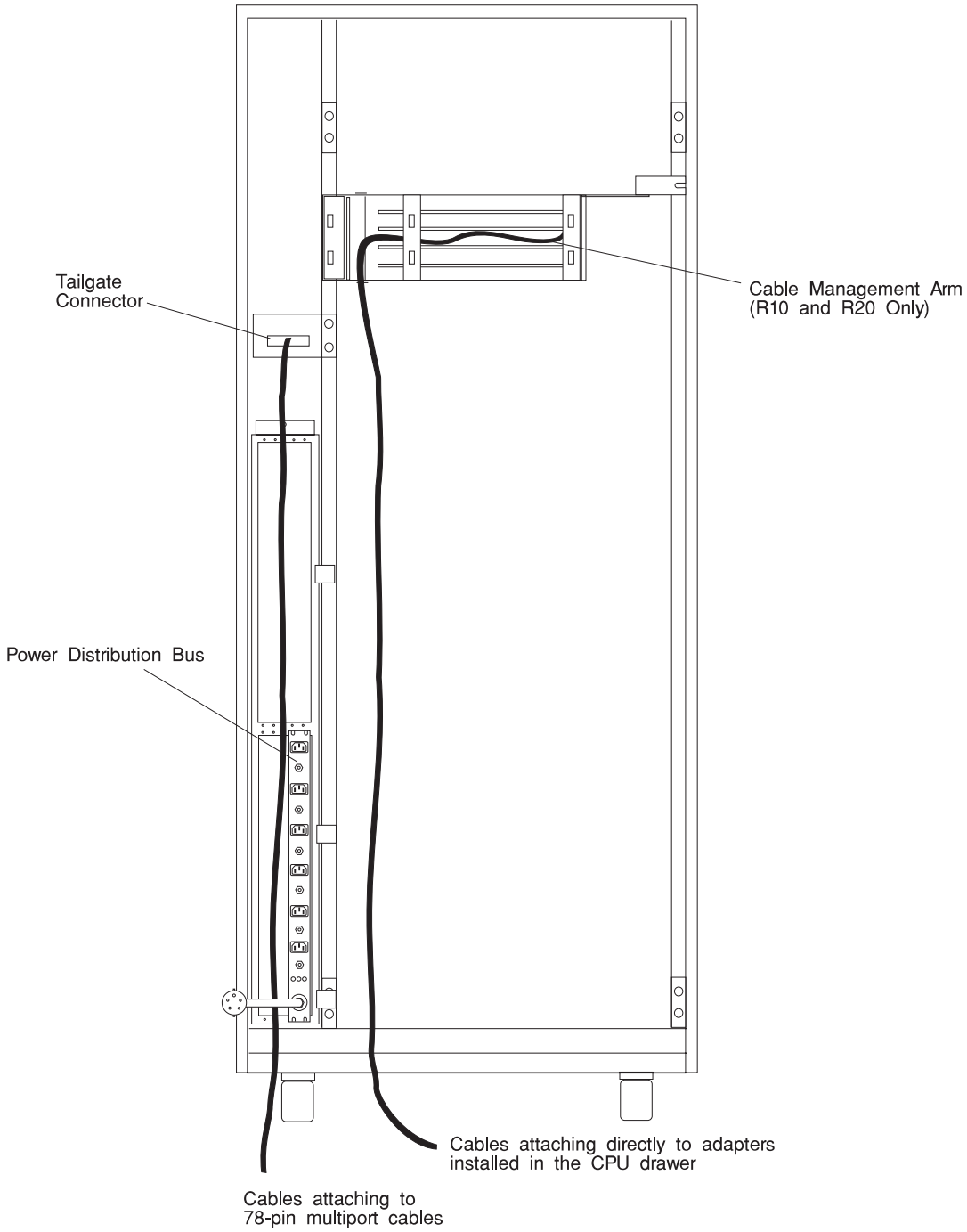


7015 Considerations

The 78-pin multiport interface cables for the 8-or 16-port Async Adapters when used with the 7015 Models R10 and R20 attach to the system tailgate connect rather than to the adapter itself. Internal cables not shown in the cable diagram run from the adapter through the cable management arm to the tailgate connector. You should begin your cable measurements at the tailgate connector for the 8-or 16-port Async Adapter multiport cables.

Other cables used with the 7015 Models R10 and R20 are routed through a cable management arm. The management arm is designed to ensure that the cables do not kink, stretch, or accidentally disconnect when a drawer is pulled out for service.

When planning the necessary lengths of cables routed through this arm, add 2.3 m (7.5 ft.) to the measured distance from the base of the rack.



Rear view of a 7015 system unit, showing system tailgate connector and cable management arm (Models R10 and R20). The EIA scale, which provides a standard unit of measure, is located on the inside right of the rack.

Cable Planning Charts

Cable planning charts help your electrician or cable vendor understand your master plan for cabling. These are particularly useful for large, complex installations.

For information about the cables see the following publications:

- *Adapters, Devices and Cable Information, for Micro Channel Bus Systems*, order number SA23-2764.
- *Adapters, Devices and Cable Information, for Multiple Bus Systems*, order number SA23-2778.
- For more information on asynchronous communications software, hardware, and cabling see *Asynchronous Communications Guide* order number SC23-2488.

Your responsibilities are as follows:

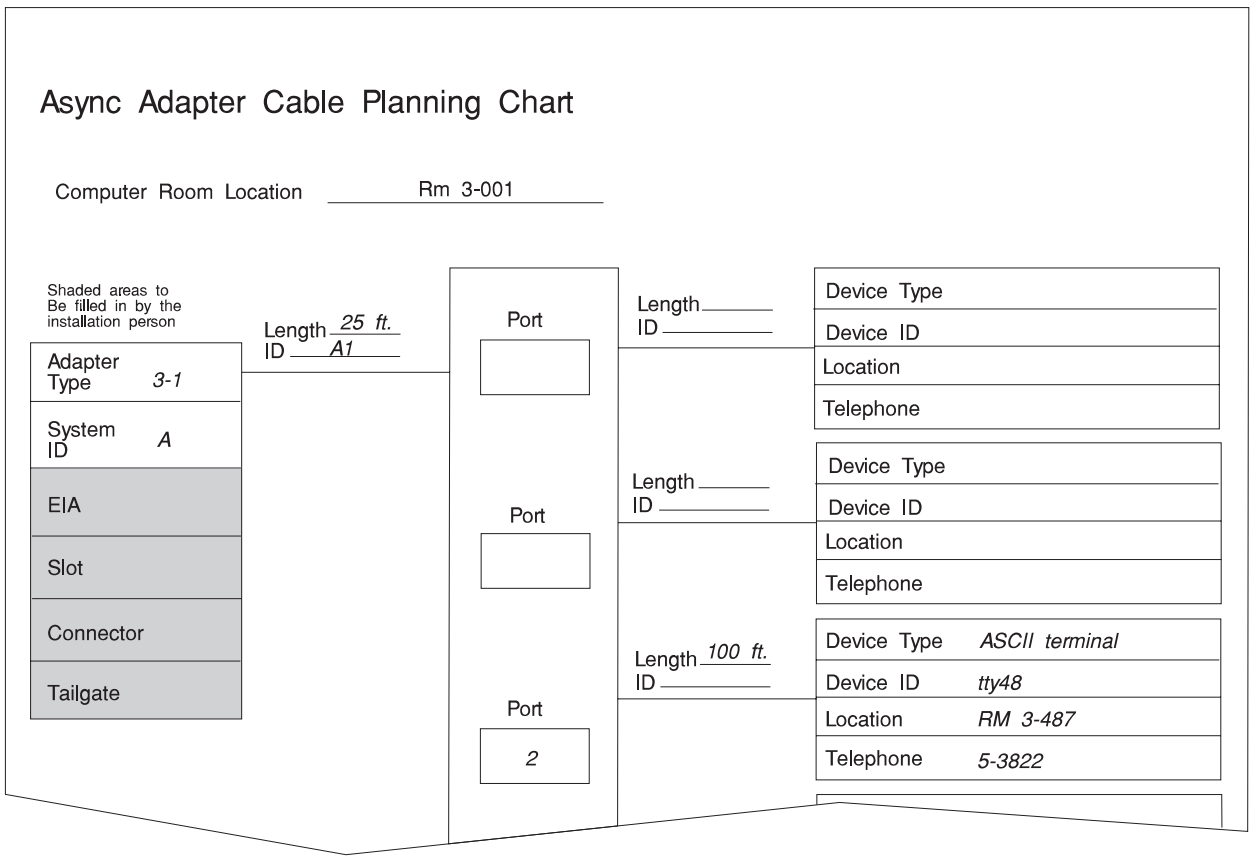
- Fill in each chart, except for the shaded areas, which will be completed by the electrician or cable vendor installing your system. You can make copies of the charts as needed. To help you complete the charts, samples are provided on the following pages.
- Verify that the proper cabling has been ordered and installed.
- Prepare and attach cable labels using the information from the completed charts.
- Once you have completed your sections, give the charts to your electrician or cable vendor who can use them to understand your cabling needs.

Note: Following the installation, the charts should be kept to help you remember the cabling scheme. These charts, in addition to the cable labels that are available (see Chapter 5), will be invaluable in the future as you move system units or devices and need to keep cabling in order.

There are four unique charts, one for each of the following adapters or adapter types:

- Asynchronous adapters
- Standard I/O adapters
- 4-Port Multiprotocol Communications Controller
- Other adapters

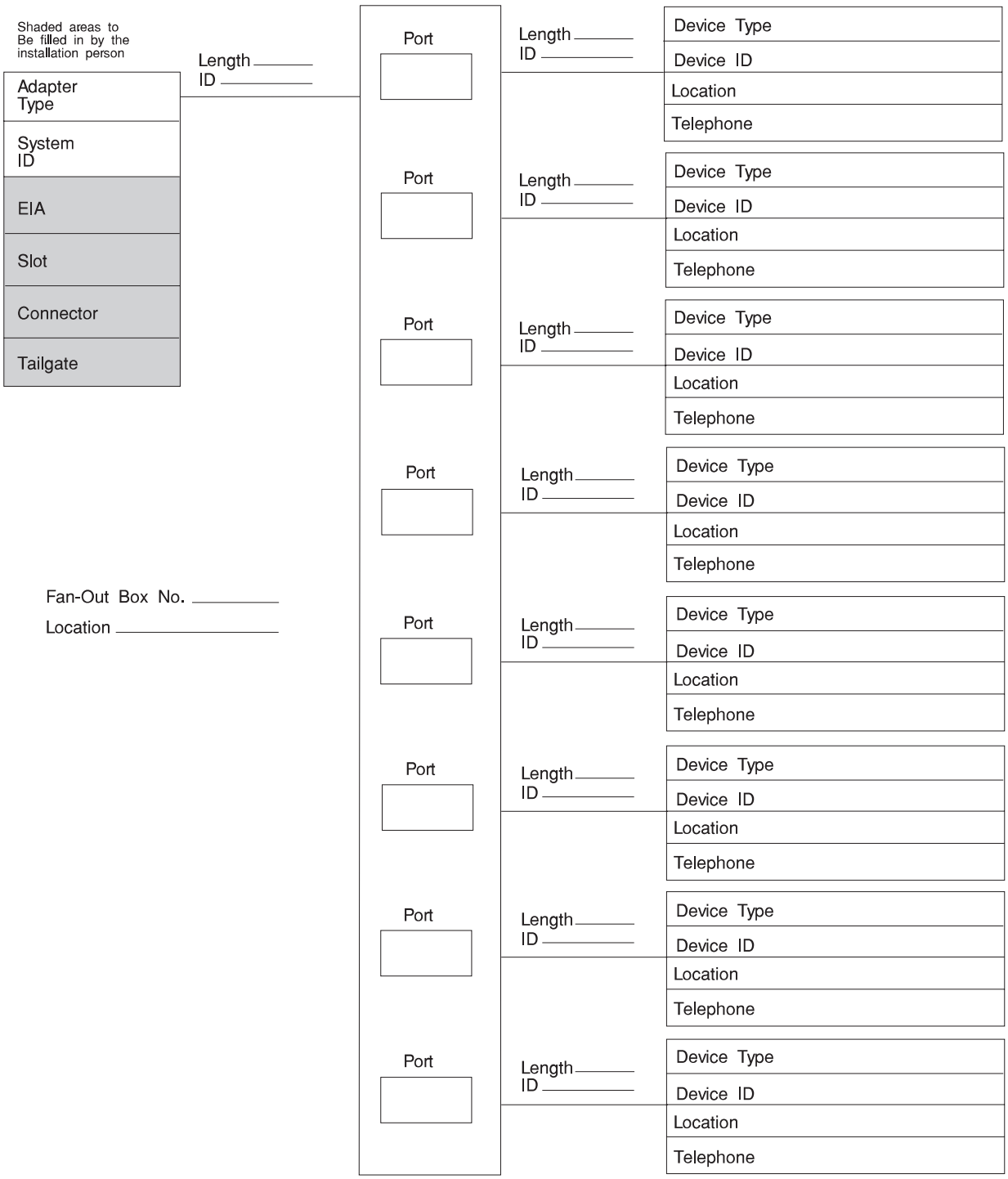
Asynchronous Adapter Planning Charts Example



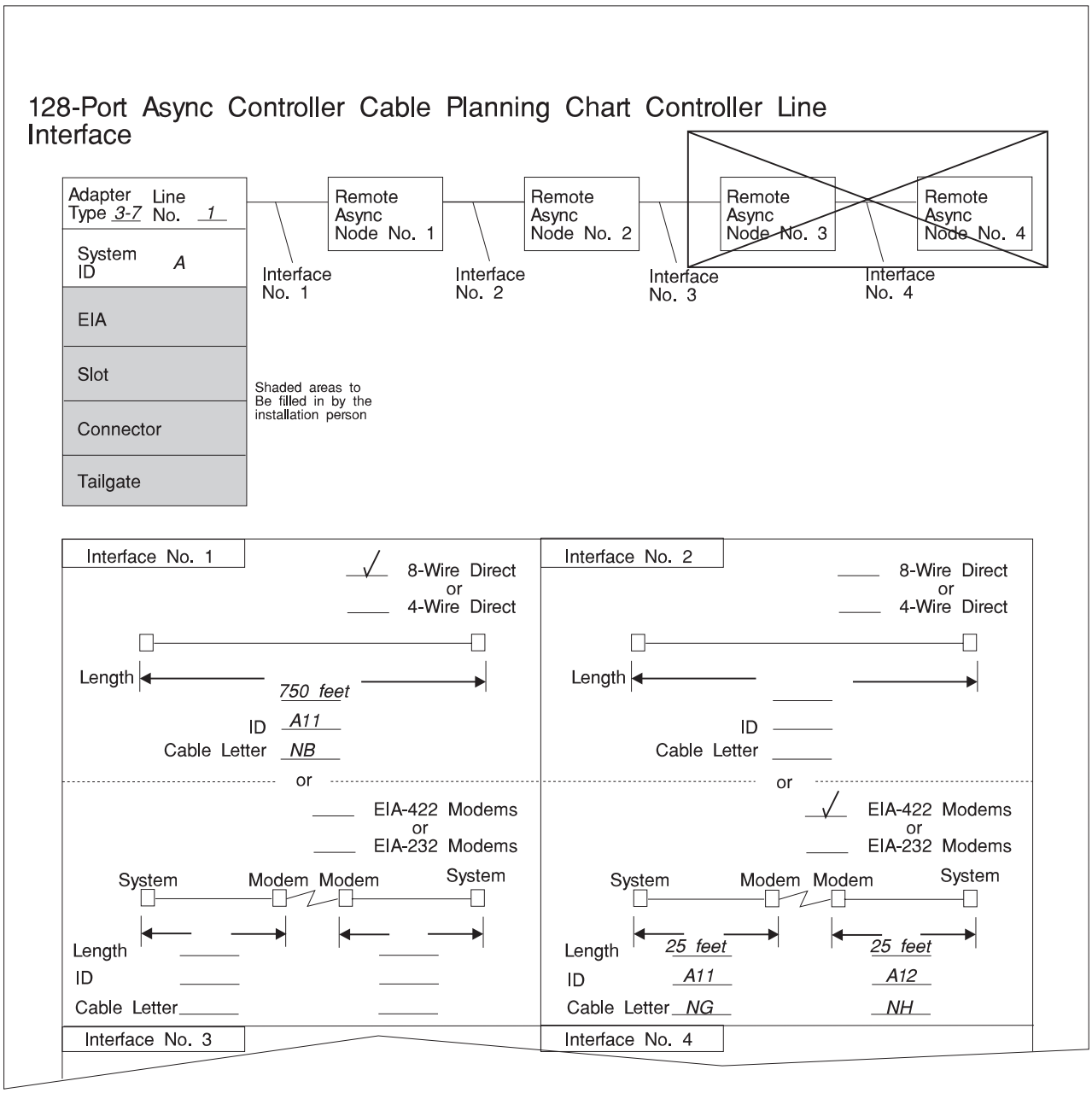
An example of an Async Cable Planning Chart for the 8 port async adapter complete for an ASCII terminal. In this example, the terminal is attached to Port 2. This chart can be used for 8-port or 16-port asynchronous adapters.

Async Adapter Cable Planning Chart

Computer Room Location _____

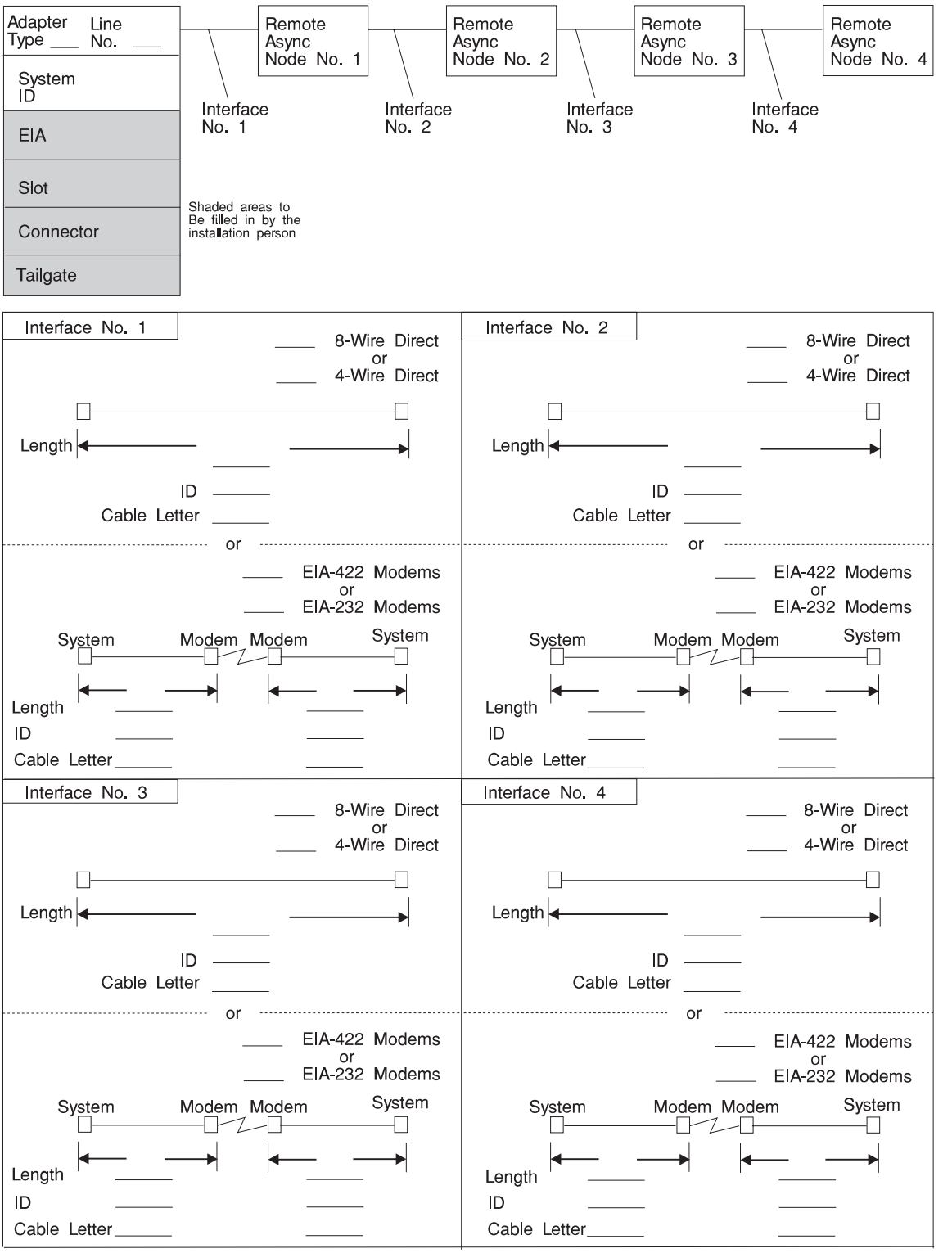


128-Port Async Controller Cable Planning Chart Example

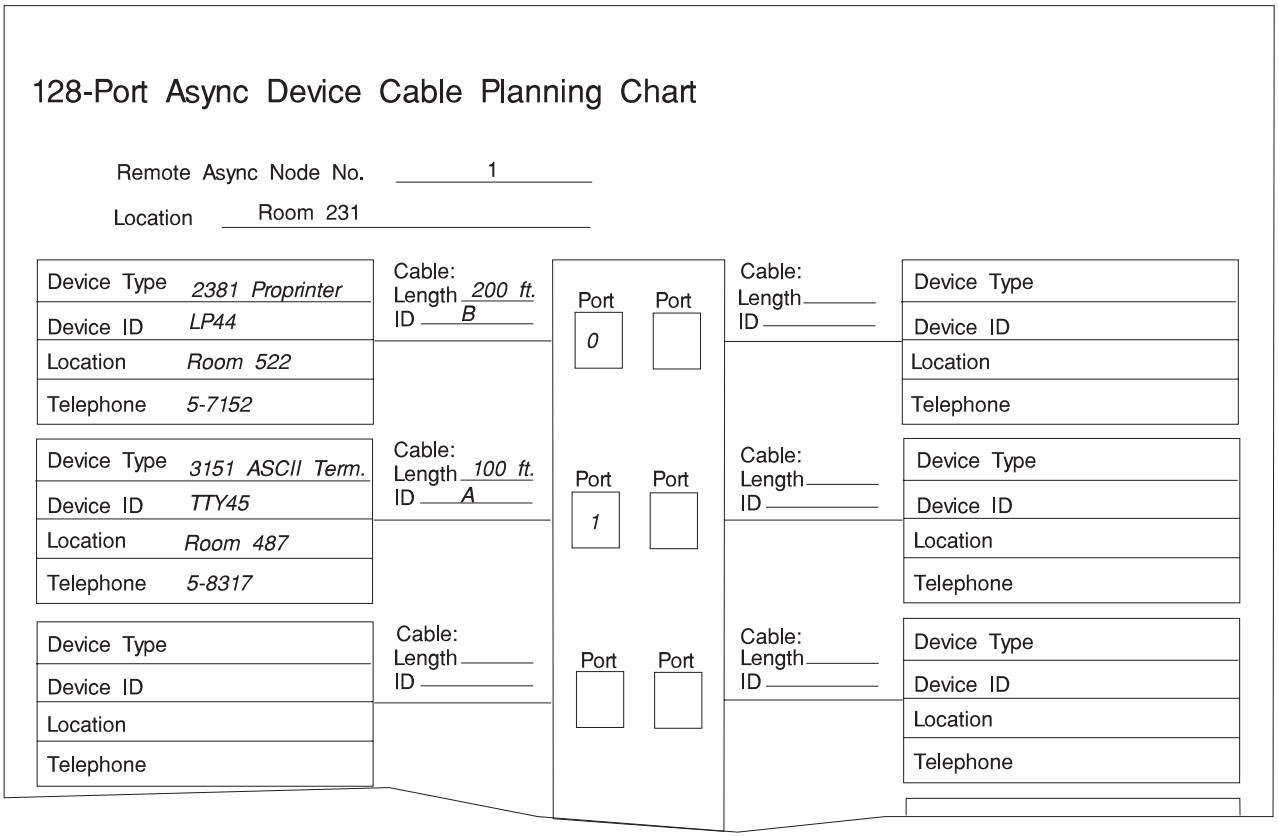


An example of a 128-Port Async Controller Cable Planning Chart, Controller Line Interface, completed for two interfaces. In this example, interface number 1 uses a 750-foot 8-wire cable, and interface number 2 uses two EIA-422 synchronous modems and associated cables. Cable IDs are assigned by the customer. For information about the cables represented by the cable letters shown in the example above, see *"Adapters and Cabling Chapters" for the 128-Port Async Controller* in the *Adapters, Devices and Cable Information, for Micro Channel Bus Systems*, order number SA23-2764 or *Adapters, Devices and Cable Information, for Multiple Bus Systems*, order number SA23-2778.

128-Port Async Controller Cable Planning Chart Controller Line Interface



128-Port Async Device Cable Planning Chart Example



An example of a 128-Port Async Device Cable Planning Chart, Remote Async Node, completed for a 2381 Proprinter and a 3151 ASCI terminal. In this example, the terminal is attached to Port 1 on Remote Async Node number 1, and the printer is connected to port 0. Cable IDs are assigned by the customer.

128-Port Async Device Cable Planning Chart

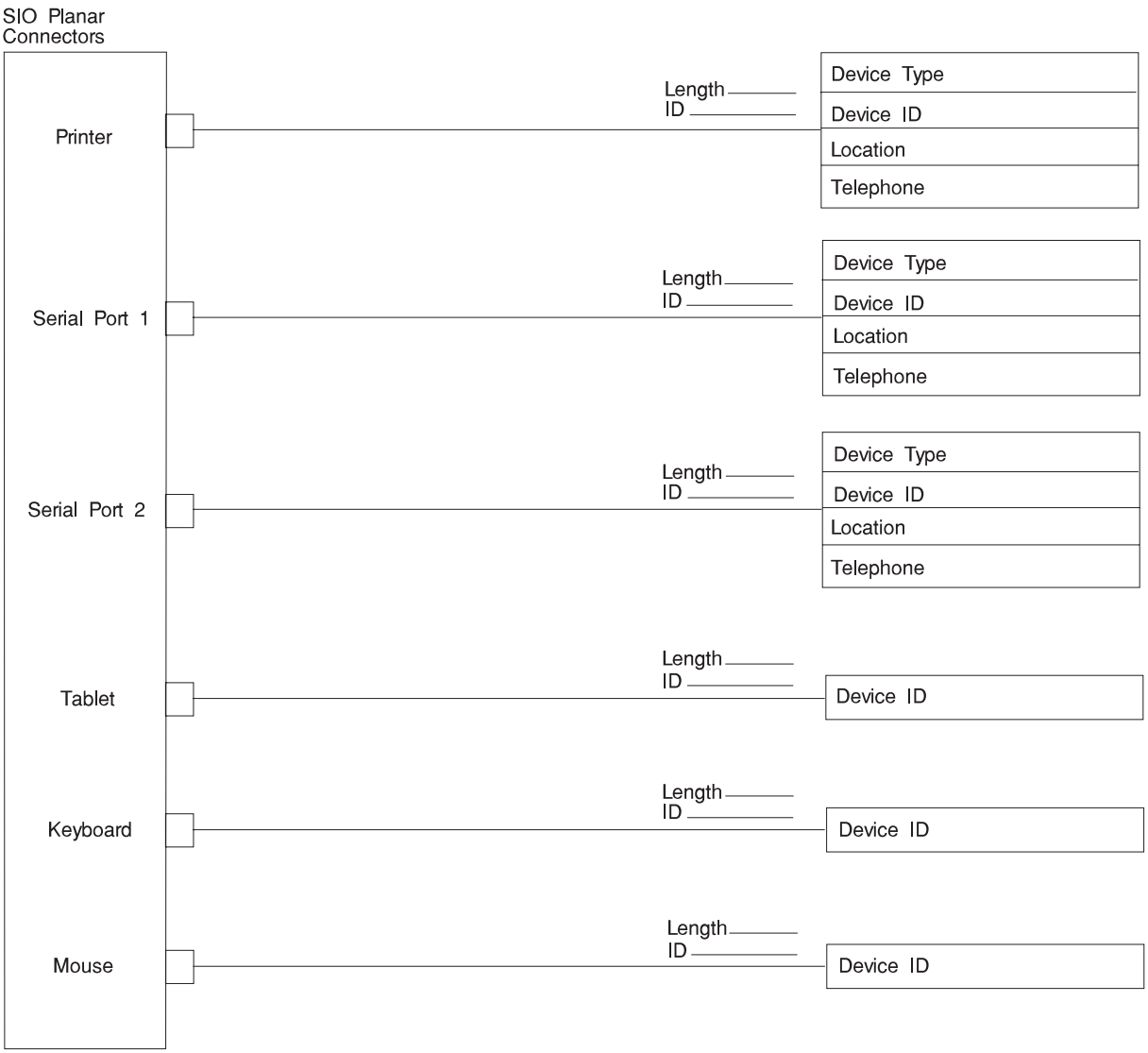
Remote Async Node No. _____

Location _____

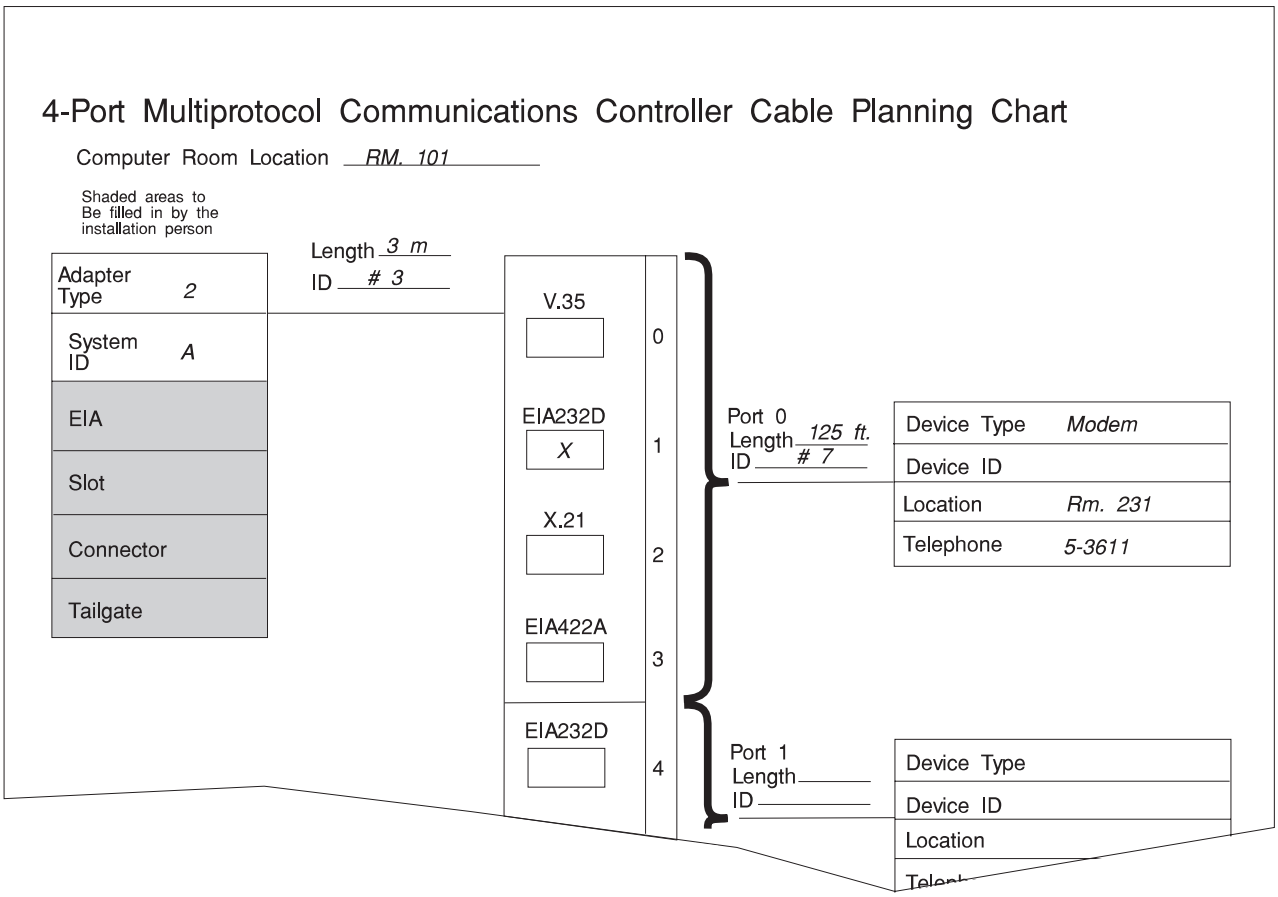
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length _____ ID _____	Port	Port	Cable: Length _____ ID _____	Device Type
Device ID					Device ID
Location					Location
Telephone					Telephone

Standard I/O Cable Planning Chart

Customer Room Location _____

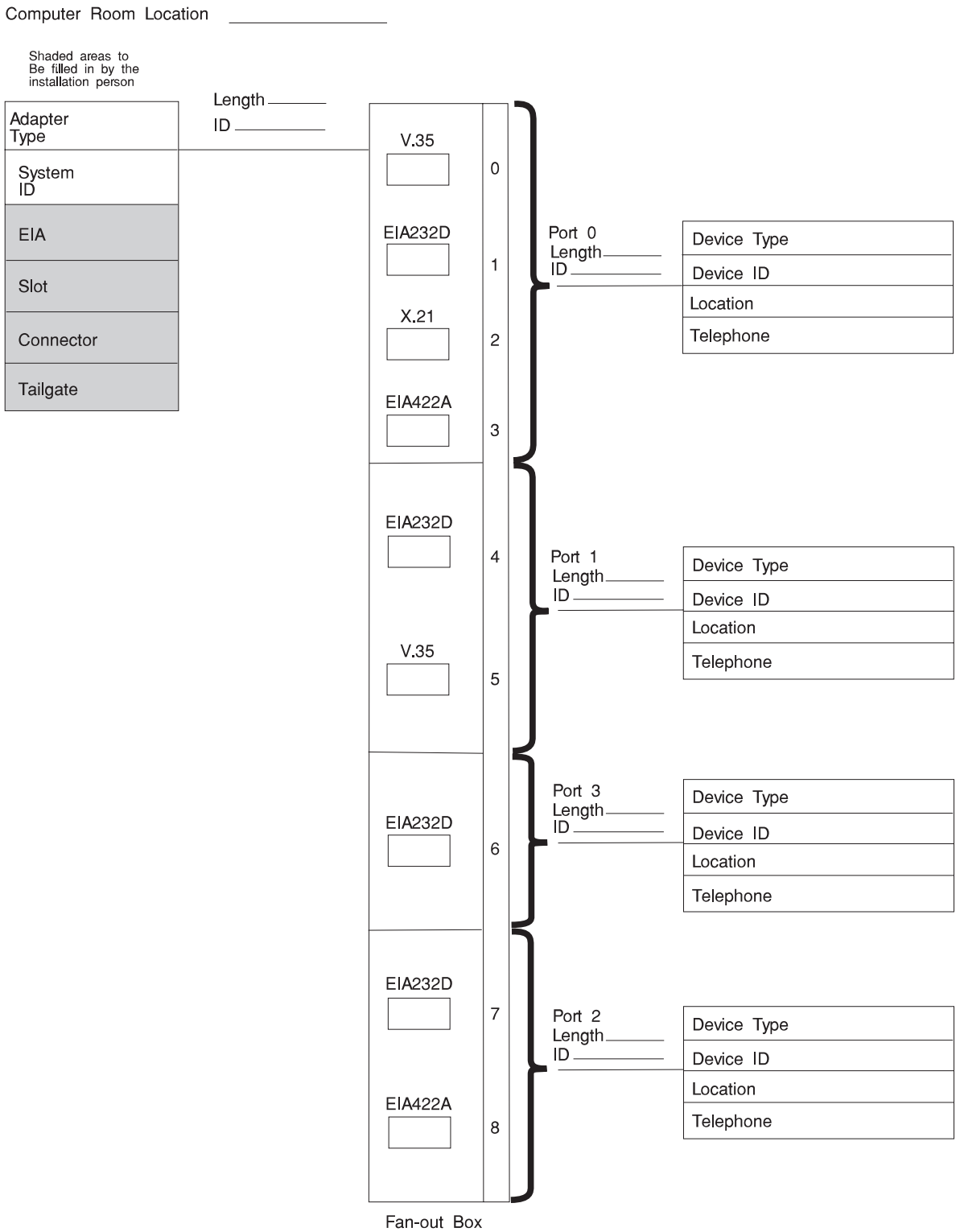


4-Port Multiprotocol Communications Controller Cable Planning Chart Example



An example of a 4-Port Multiprotocol Communications Controller Cable Planning Chart completed for a modem. In this example, the terminal is attached to Port 0. Protocol type, in this case EIA-232D, is noted with an X.

4-Port Multiprotocol Communications Controller Cable Planning Chart



Note: Select only one interface per port.

Cable Planning Chart Other Adapters

Computer Room Location _____

Shaded areas to Be filled in by the installation person

Adapter Type
System ID
Drawer
Slot
Tailgate

Length _____
ID _____

Interface
_____ X.21
_____ V.24
_____ V.35

Device Type
Device ID
Location
Telephone

Adapter Name _____

Adapter No. _____ of _____

Adapter Type
System ID
Drawer
Slot
Tailgate

Length _____
ID _____

Interface
_____ X.21
_____ V.24
_____ V.35

Device Type
Device ID
Location
Telephone

Adapter Name _____

Adapter No. _____ of _____

Adapter Type
System ID
Drawer
Slot
Tailgate

Length _____
ID _____

Interface
_____ X.21
_____ V.24
_____ V.35

Device Type
Device ID
Location
Telephone

Adapter Name _____

Adapter No. _____ of _____

Adapter Type
System ID
Drawer
Slot
Tailgate

Length _____
ID _____

Interface
_____ X.21
_____ V.24
_____ V.35

Device Type
Device ID
Location
Telephone

7318 Models P10 and S20 Cable Planning Chart Example

7318 Serial Communications Network Server Cable Planning Chart

Server ID *cns01* Ethernet Ports *AUI* Network Address *00000002*
Model *P10* Ethernet Address *6E001243*
Location *Room 101* Ethernet Cable ID *E1* Load Host *System A*

Cable		Device	
Type	*8-wire*	Type	*3151*
ID	*1A1*	ID	*T1*
Length	*10 ft.*	Interface	*422*
Location/Contact	*101/R. Hanson*		

Port 0 — Port 1

Cable		Device	
Type	*8-wire*	Type	*3151*
ID	*1A3*	ID	*T3*
Length	*30 ft.*	Interface	*232*
Location/Contact	*114/P. Nelson*		

Cable		Device	
Type	*8-wire*	Type	*3151*
ID	*1A2*	ID	*T2*
Length	*10 ft.*	Interface	*232*
Location/Contact	*101/E. King*		

Port 2 — Port 3

Cable		Device	
Type	*8-wire*	Type	*Hayes*
ID	*1A4*	ID	*M1*
Length	*10 ft.*	Interface	*232*
Location/Contact	*101/W. Jones*		

Cable		Device	
Type	*4-wire*	Type	*Wyse60*
ID	*1A5*	ID	*T8*
Length	*50 ft.*	Interface	*232*
Location/Contact	*210/M. Good*		

Port 4 — Port 5

Cable		Device	
Type	*4-wire*	Type	*Wyse 60*
ID	*1A7*	ID	*T9*
Length	*50 ft.*	Interface	*232*
Location/Contact	*210/F. Roberts*		

Cable		Device	
Type	*4-wire*	Type	*VT100*
ID	*1A8*	ID	*T10*
Length	*200 ft.*	Interface	*232*
Location/Contact	*Remote/S. Brown*		

Port 6 — Port 7

Cable		Device	
Type	*4-wire*	Type	*2380*
ID	*1A7*	ID	*P4*
Length	*550 ft.*	Interface	*422*
Location/Contact	*Remote/A. Smith*		

Cable		Device	
Type		Type	
ID		ID	
Length		Interface	
Location/Contact			

Cable		Device	
Type		Type	
ID		ID	
Length		Interface	
Location/Contact			

P1 — P2

Cable		Device	
Type	*Printer*	Type	*2380*
ID	*1A9*	ID	*P3*
Length	*6 ft.*	Interface	*Parallel*
Location/Contact	*101/H. White*		

An example of the 7318 Terminal Server Cable Planning Chart showing connection of six terminals, 1 modem, 1 serial printer, and 1 parallel printer. The IDs assigned in the example above are assigned by the configuration planner. Refer to the *7318 Serial Communications Network Server Guide and Reference*, order number SC23-2542 for information about slew rates, interface types and 7318 configurations.

7318 Serial Communications Network Server Cable Planning Chart

Server ID _____ Ethernet Ports _____ Network Address _____

Model _____ Ethernet Address _____

Location _____ Ethernet Cable ID _____ Load Host _____

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 0

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 1

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 2

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 3

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 4

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 5

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 6

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 7

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 8

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 9

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 10

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 11

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 12

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 13

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 14

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Port 15

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

P1

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

P2

Cable	Device
Type	Type
ID	ID
Length	Interface
Location/Contact	

Chapter 5. Cable Labeling

Reasons for Labeling Cables

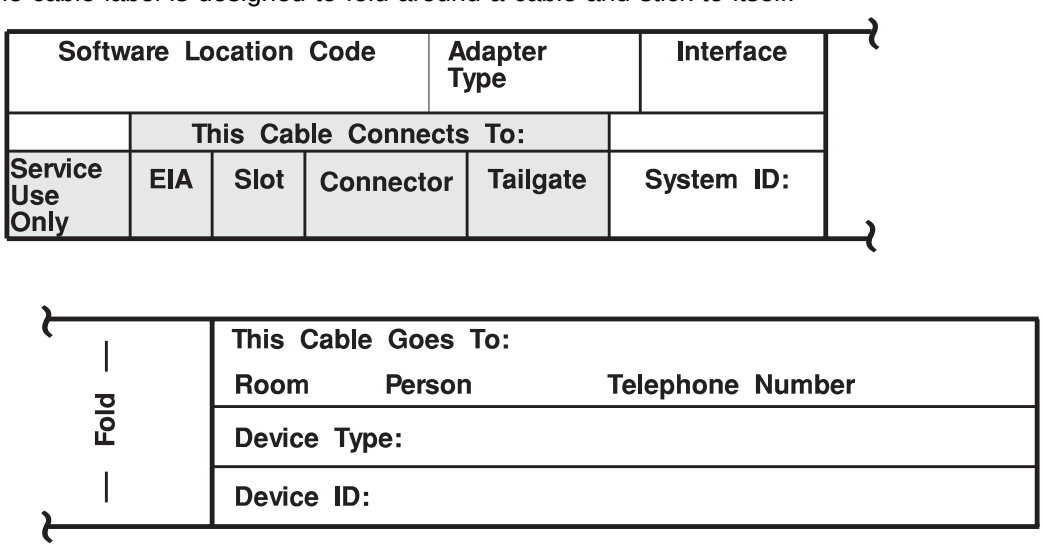
For system installations requiring cabling between rooms and use a variety of different interfaces, cable labelling is especially important. This is because there are several different interfaces that have cable connectors which are identical in appearance. Cable labeling can help you keep track of how each cable is being used and provide correct location data. By attaching a cable label to each end of a cable, you can always know the source and destination of any cable. This information will facilitate installation and the inevitable moving of devices that occurs in any office.

Cable labels can be ordered using order number GX23-0819 from your sales representative. The 7015 system units have several sheets of cable labels shipped with them. However, if you would like to label the cables before your system arrives, they will need to be ordered. If you attach the cable labels in advance, the installer can make connections to match your cable planning charts. See Chapter 4, “Cable Planning” on page 4-1 for more details on cable planning charts.

Process for Labeling Cables

As a customer, you are primarily interested in the side of the label that describes the cable's destination. However, each side is shown and explained so you can understand the labels.

The cable label is designed to fold around a cable and stick to itself.



Cable labels can be ordered using order number GX23-0819.

The following topics describe the information in each area of the label.

This Cable Goes To:

Prior to shipment, the customer is asked to provide specific planning information concerning the physical layout of the installation.

This task includes tagging each of the cables that are installed prior to the system unit installation. The cables should be identified with information describing the type and location of the device it attaches.

Use that information to fill out the right hand side of the label.

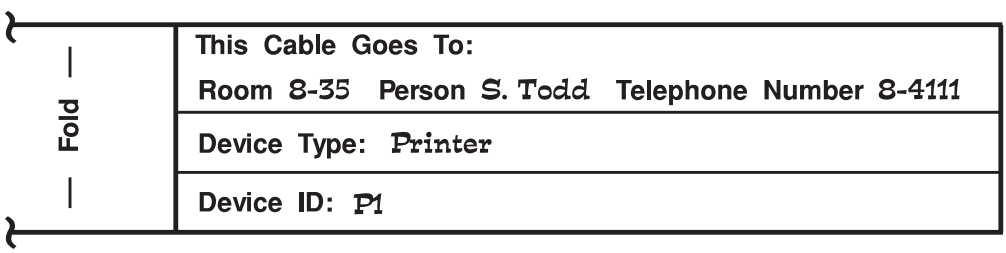
Room The room number, or other information about the physical location of the device.

Person The name of the person who uses the device.

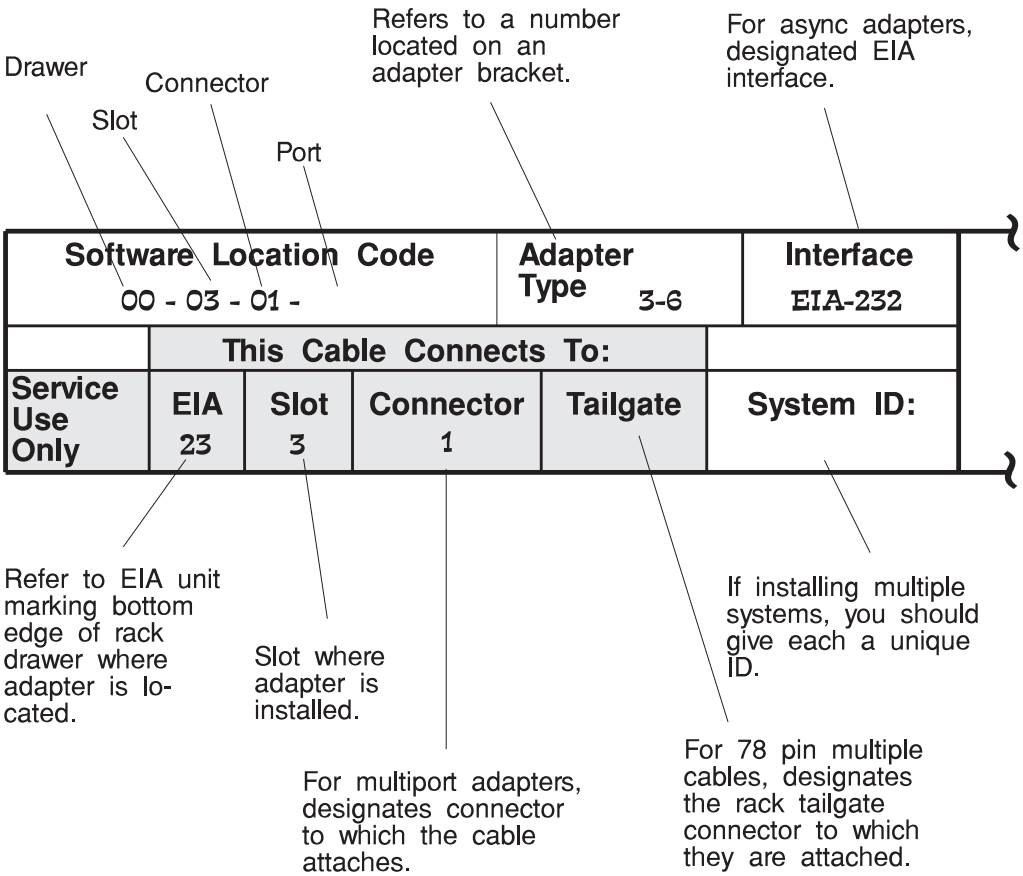
Telephone # The nearest telephone number to the device.

Device Type This could be a printer, plotter, TTY, or similar device.

Device ID The device ID is determined at the time the software is configured on the system.



The right side of the cable label.



The left side of the cable label, which has shaded areas, is primarily for use by the customer engineer installing your system.

Software Location Code

The software location code is the link between the hardware and software. This code appears in the software configuration menus and in the hardware diagnostic menus.

Note: Refer to the Diagnostic Information manual for your system:

- *Diagnostic Information for Micro Channel Bus Systems*, order number SA23-2765 (formally Common Diagnostics Information Manual).
- *Diagnostics Information for Multiple Bus Systems*, order number SA23-2769

for specific location code information.

Because the same diagnostic programs are used on all of the system units, a software location code is used to physically locate a failing device or unit. The software location code is displayed along with the service request number (SRN) when the diagnostic programs isolate a failure. The information you are instructed to record appears in the software configuration menus and in the hardware diagnostics menus. The software location code identifies the path from the adapter in the system unit through the signal cables to the device. Without this information it may be difficult to determine which adapter controls a device.

There are two types of software location codes:

- The non-SCSI device location code. These include all built-in adapters and all other adapters except the SCSI controller.
- The SCSI device location code. This is used to identify SCSI devices.

Adapter Type

The adapter type is two digits separated by a hyphen. This number is on a label attached to the end of the adapter. Refer to chapter1 of one *Adapters, Devices, and Cable Information for Multiple Bus Systems Systems*, order number SA23-2778 or *Adapters, Devices, and Cable Information for Micro Channel Bus Systems*, order number SA23-2764 for a listing of adapter types.

Note: Some of the adapters in the multiple bus systems do not have an adapter type.

Interface The name of the asynchronous adapters, and some network adapters, generally includes the name of the interface.

Since several different types of cables have the same kind of connectors, it is easy to connect them incorrectly because the connectors match. Therefore, it becomes an important check to write the name of the interface on the label. Examples of common interfaces are X.25, EIA-232, and EIA-422.

EIA The EIA number is used in a rack-type system unit to identify the physical location of the drawer within the rack. There is a label along the right side of the rack (with rear cover open) numbered from 1, at the bottom, to 32, at the top of the rack. The number at the bottom right corner of the drawer is the EIA location for this drawer.

Slot The slot number is the physical position within the system unit or drawer where the adapter is located. Each adapter slot is identified by a single digit number. Usually, the number is embossed in the adapter mounting frame.

Connector This is the connector number on the adapter. Most adapters have only one connect so this number is 1. Refer to Chapter 8 in this book for more information about the adapter you are connecting.

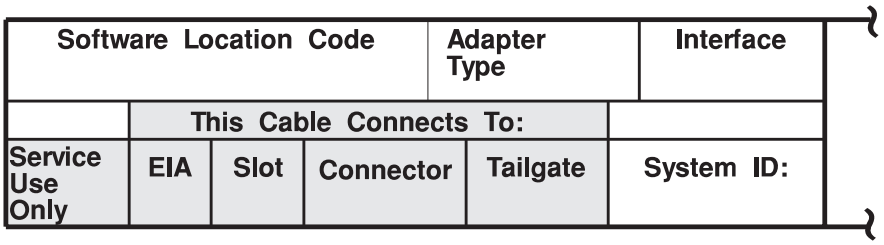
Tailgate This number is only used on a rack-type system unit. Record the number of the tailgate connector to which this cable is attached.

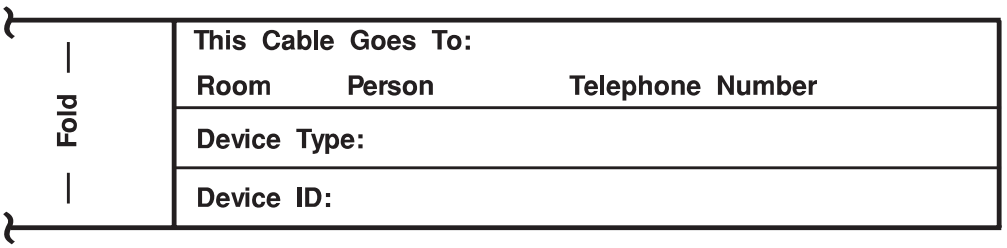
System ID If an installation has more than one system unit, each one must be identified to prevent connecting devices to the wrong system unit. The customer should determine the System ID.

Attaching the Cable Label

1. Type or print the information for the labels you need for a given set of cables.
2. Peel the label off of the sheet and place it on the cable with the words "-Fold -" parallel to the cable; then fold the label around and stick it to itself.

Note: The glue on the label is designed to pull apart if you need to remove and reinstall the label when the cable is exchanged.

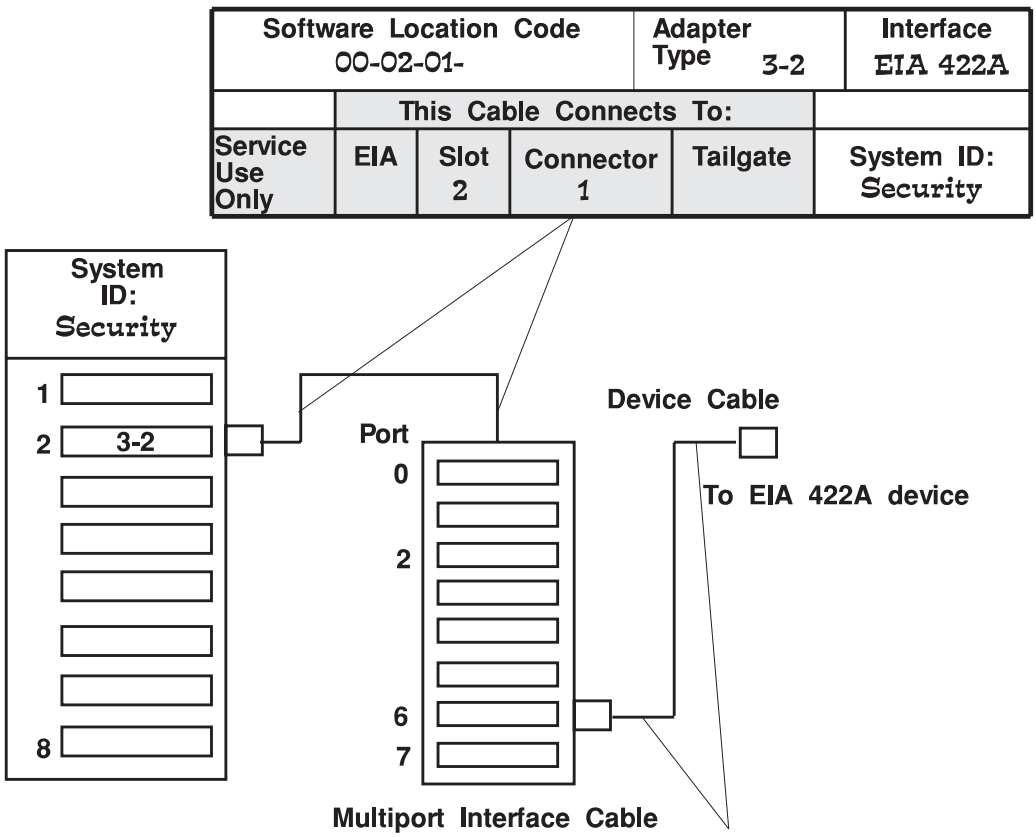




Example of 8-Port Async Adapter EIA-422A in Slot 2

This example shows the filled-in cable labels for a Multiport Interface Cable attached to an 8-Port Async Adapter EIA-422A in slot 2. The second cable label has the port number for the interface cable added to the software location code.

You may want to use a label at each end of a cable (as shown here) if the cable is long.



Chapter 6. Additional Planning Considerations

The following topics provide guidance for additional planning steps that may be necessary.

Create or Modify Communications Networks

If you intend to use the system in a network environment, appoint a central site or system administrator to help design and maintain a system that provides maximum availability of all devices in the network. The system administrator may need to consider the following:

- Types of networks with which your network users must communicate (for example, local and wide area networks, asynchronous, coaxial).
- Types of communications functions your network users need (for example, file transfer, mail, 3278/79 emulation, X-Window server support, data conversion, printing).
- Communications software that is required to communicate between systems within your own network and with systems on external networks.
- International language considerations, if any, between communicating systems.
- Network management functions that you wish to use within your network, including error isolation procedures and performance and monitoring tools.
- Information needed to properly configure your system. The following list provide some of the types of information needed:
  - Transmission speed (in bits per second)
  - Parity checking (whether none, odd, or even)
  - Pacing protocols required or allowed by remote system
  - Dialing or calling protocols, such as autoanswer and autocall, and information such as phone numbers (including back-up phone numbers in case no connection is possible)
  - Times you can call and communicate with the remote systems
  - Naming and addressing requirements within your network and between your systems and remote systems
  - Security relationships within your network and between your systems and remote systems
  - Gateway or bridge requirements
  - Information needed to configure the system software for correct operation in the network.
- Any necessary cables, control units, or other specialized communications hardware.
- Preparation of communications lines:
  - Number of concurrent communications users
  - Amount of data to be transmitted
  - Communications software licensing restrictions.

Perform Building Alterations as Needed

Perform any building alterations that you determine are necessary to accommodate your new computing equipment. These may include the following:

- Electrical wiring modifications to accommodate the added computing equipment.
- Network cabling additions to accommodate the replaced or added computing equipment.
- Fire protection measures to protect your data and equipment.
- Antistatic measures to protect your data and equipment.
- Radio or radar shields if you are installing near transmitters.
- Installation of uninterruptable power source (UPS), if required.
- Air conditioning installation.

Prepare Maintenance, Recovery, and Security Plans

Maintenance, recovery, and security plans can help protect your investment and maximize productivity. The system administrator may need to formulate the following plans:

- System maintenance program for both hardware and software
- System recovery and availability plan
- Logical security plan
- Physical security plan.

Develop an Education Plan

Depending on the applications you will be using, your employees may need formal and/or informal training. The *AIX and Related Products Documentation Overview*, order number SC23-2456, provides a list of publications available with the system.

Order Any Needed Supplies

You may need to order some of the following items:

- Publications *AIX and Related Products Documentation Overview*, order number SC23-2456, lists publications available for AIX and the system.
- InfoExplorer, a hypertext database of documentation that provides an alternative to hardcopy books, is also described in the *AIX and Related Products Documentation Overview*, order number SC23-2456.
- Tapes or diskettes for backing up software and data.
- Printer supplies (paper, printer toner, printer ribbons).
- Plotter supplies (paper, vellum, film, pens).

Note: Where x.x.x is the current level of AIX.

Prepare for System Delivery

Once your system unit arrives, you are responsible for moving it to the installation location. Some systems such as Machine Types 7006, 7009 and 7011, you are also responsible for setting up the system unit. Check your system information or with your sales representative to find out who sets up your system. This section explains how to both identify and inventory your shipment.

Identifying Your Shipment

If you have more than one machine being delivered at the same time, it is import to keep their components separate. Your order, for example, may come from various locations, software from one place and hardware from another.

The shipping label on each box has several numbers that will help you keep everything organized. No matter where they come from, the parts of the order, from the display to the system unit, have the same system number. The serial number identifies all components that come with a particular system unit's processor. The figure below is an example of a shipping Label, with the system number and the serial number indicated.

Customer No.	Sched Date	CL	System Number	Mach Type	Serial No.	Br. Off
			340045		2600512	

If you have any difficulty identifying your order or which products are for a particular system, contact your sales representative.

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