SA23-2766-01

Cluster Power Control Operator and Service Guide

Cluster Power Control
Operator and Service Guide

Second Edition (July 1995)

This edition notice applies to the *Cluster Power Control Operator and Service Guide*.

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Table of Contents

Communications Statements

The following statement applies to this product. The statement for other products intended for use with this product appears in their accompanying manuals.

Federal Communications Commission (FCC) Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Neither the provider nor the manufacturer are responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

United Kingdom Telecommunications Safety Requirements

This equipment is manufactured to the International Safety Standard EN60950 and as such is approved in the UK under the General Approval Number NS/G/1234/J/100003 for indirect connection to the public telecommunication network.

The network adapter interfaces housed within this equipment are approved separately, each one having its own independent approval number. These interface adapters, supplied by the manufacturer, do not use or contain excessive voltages. An excessive voltage is one which exceeds 70.7 V peak ac or 120 V dc. They interface with this equipment using Safe Extra Low Voltages only. In order to maintain the separate (independent) approval of the manufacturer's adapters, it is essential that other optional cards, not supplied by the manufacturer, do not use main voltages or any other excessive voltages. Seek advice from a competent engineer before installing other adapters not supplied by the manufacturer.

European Union (EU) Statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Neither the provider nor the manufacturer can accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of option cards not supplied by the manufacturer.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22 / European Standard EN 55022. The limits

for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures

International Electrotechnical Commission (IEC) Statement

This product has been designed and built to comply with IEC Standard 950.

Avis de conformité aux normes du ministère des Communications du Canada

Cet appareil numérique de la classe A respecte toutes les exigences du Réglement sur le matériel brouilleur du Canada.

Canadian Department of Communications Compliance Statement

This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

電波障害自主規制　届出装置の記述

この装置は，第一種情報装置（商工業地域において使用されるべき情報装置）で商工業地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。
従って，住宅地域またはその隣接した地域で使用すると，ラジオ，テレビジョン受信機等に受信障害を与えることがあります。
取扱説明書に従って正しい取り扱いをしてください。

VCCI Statement

The following is a summary of the VCCI Japanese statement in the box above.

This equipment is in the Class 1 category (information equipment to be used in commercial and/or industrial areas) and conforms to the standards set by the Voluntary Control Council For Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in commercial and/or industrial areas.
Consequently, when used in a residential area or in an adjacent area thereto, radio interference may be caused to radios and TV receivers, etc.
Read the instructions for correct handling. VCCI–1.

Radio Protection for Germany

Dieses Gerät ist berechtigt in Übereinstimmung mit dem deutschen EMVG vom 9.Nov 92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM Germany.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse A. Für diese Klasse von Geräten gilt folgende Bestimmung nach dem EMVG:

Geräte dürfen an Orten, für die sie nicht ausreichend entstört sind, nur mit besonderer Genehmigung des Bundesministers für Post und Telekommunikation oder des Bundesamtes für Post und Telekommunikation betrieben werden. Die Genehmigung wird erteilt, wenn keine elektromagnetischen Störungen zu erwarten sind.

(Auszug aus dem EMVG vom 9.Nov.92, Para.3, Abs.4)

Hinweis:

Dieses Genehmigungsverfahren ist von der Deutschen Bundespost noch nicht veröffentlicht worden.

Safety Notices

Note: For a translation of danger and caution notices, see the *System Unit Safety Information* manual, form number SA23-2652.

Definitions of Safety Notices

A *danger* notice indicates the presence of a hazard that has the potential of causing death or serious personal injury. *Danger* notices appear on the following pages:

2-1560-1
3-1
4-4
4-6

A *caution* notice indicates the presence of a hazard that has the potential of causing moderate or minor personal injury. *Caution* notices appear on the following pages:

2-1560-1
3-1
4-4
4-6

A *warning* notice indicates an action that could cause damage to a program, device, system, or data.

Safety Notice for Servicing

For safety checks when servicing, refer to Chapter 4, "Removal and Replacement Procedures."

About This Book

This book provides maintenance information that is specific to the Cluster Power Control. It also contains maintenance analysis procedures (MAPs) that are not common to other systems.

MAPs that are common to all systems are contained in the *POWERstation and POWERserver Common Diagnostics Information Manual, order number* SA23-2765

This book is used by the service technician to repair system failures. It is assumed in this book that the service technician has had training on the Cluster Power Control.

Related Publications

The *POWERstation and POWERserver Common Diagnostics Information Manual*, order number SA23-2765, contains reference information about adapters and devices, checkout procedures for problem determination, system verification, using the diagnostics, and cabling for the system units. This manual also contains the removal-and-replacement procedures for the logic boards on the disk drives and cabling information that can be used to isolate problems with customer cabling.

The *7015 Model R00 Rack Installation and Service Guide*, order number SA23-2744, contains information about installing the rack, servicing the power components within the rack, and switching the CPU drawer on and off.

The *System Unit Safety Information* manual, order number SA23-2652, contains translations of danger and caution notices.

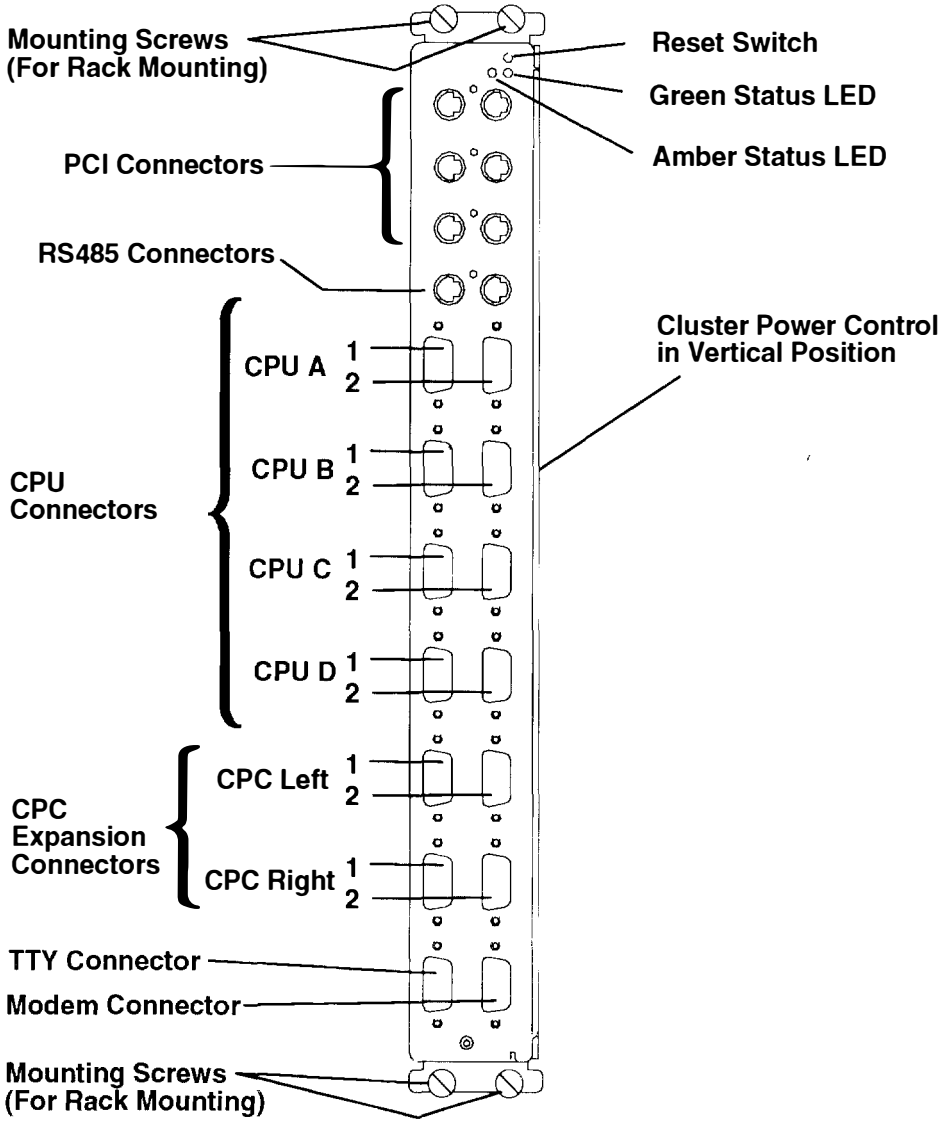
Chapter 1. Reference Information

This chapter contains information about the connector locations on the cluster power control.

Cluster Power Control

The cluster power control (CPC) is a multiple power control interface unit that is capable of controlling power from one system unit or CPU to multiple system units, CPUs, or disk drive drawers. In addition, multiple CPCs can be connected for broader power control of multiple system units, CPUs, and disk drive drawers.

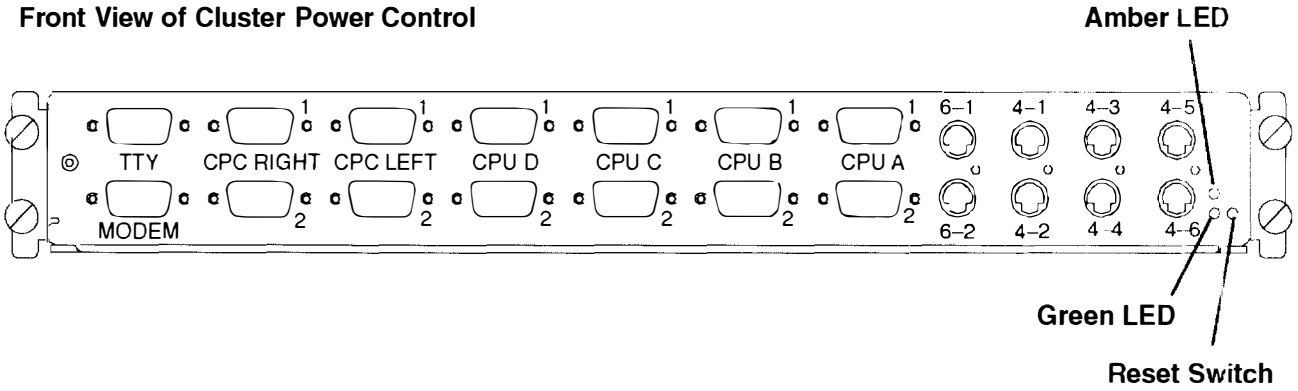
The CPC can be connected to the G Series system units, J Series system units, Models R10, R20, R21, R24, and R30 CPUs. The 7015 Model R00 rack can contain a maximum of two CPCs. The CPC provides ports for connection of multiple system units or CPUs for power control interface connection. The CPC also contains ports for connection of a modem and a TTY.



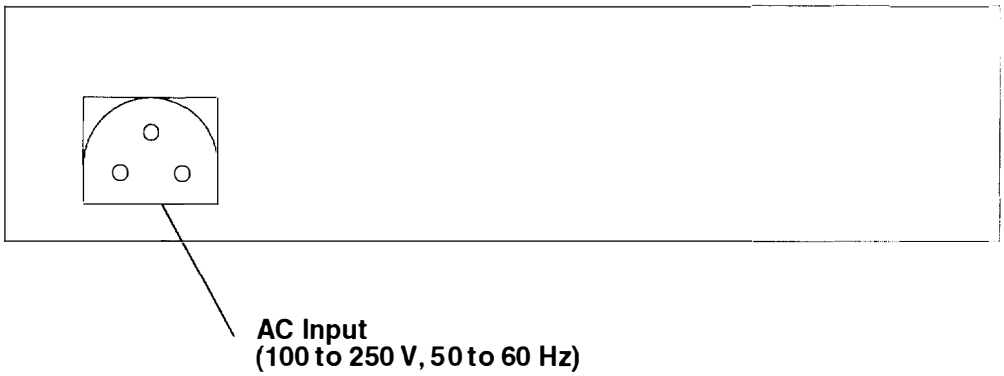
Connectors of the Cluster Power Control

The following illustration shows the connectors on the cluster power control. The table following indicates the destination connector to which each CPC connector is connected.

Front View of Cluster Power Control



Rear View of Cluster Power Control

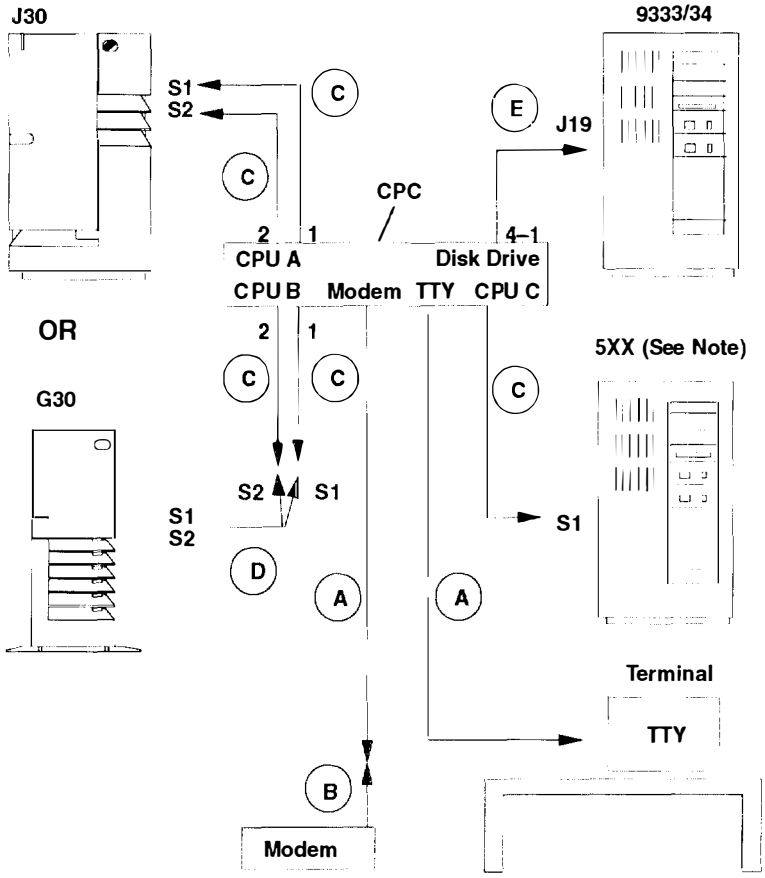


CPC Connector	Destination Connector
TTY	Connects to ASCII terminal (type 3151)
MOD	Connects to modem
R-1	Connects to L-1 on the CPC in adjacent rack
L-1	Connects to R-1 of the CPC in second adjacent rack.
A-1 CPU	Connects to serial port S1 of CPU
A-2 CPU	Connects to serial port S2 of CPU (except 7012 Model G30)
6-1	RS485 connects to expansion units of 7013 Model J30
4-1	PCI connects to the 9333/34 disk drive drawers or to the 7015 Models R10, R20, R21 or R24 power control jacks
Amber LED	Error indicator
Green LED	Ready indicator

CPC With One System Unit and a Disk Drive Unit

For information about cable types (labeled A, B, C, D, E, in the illustration), refer to the table on this page.

Note: When the Model 5xx is connected to the CPC, the remote power on is not available for the Model 5xx system unit.



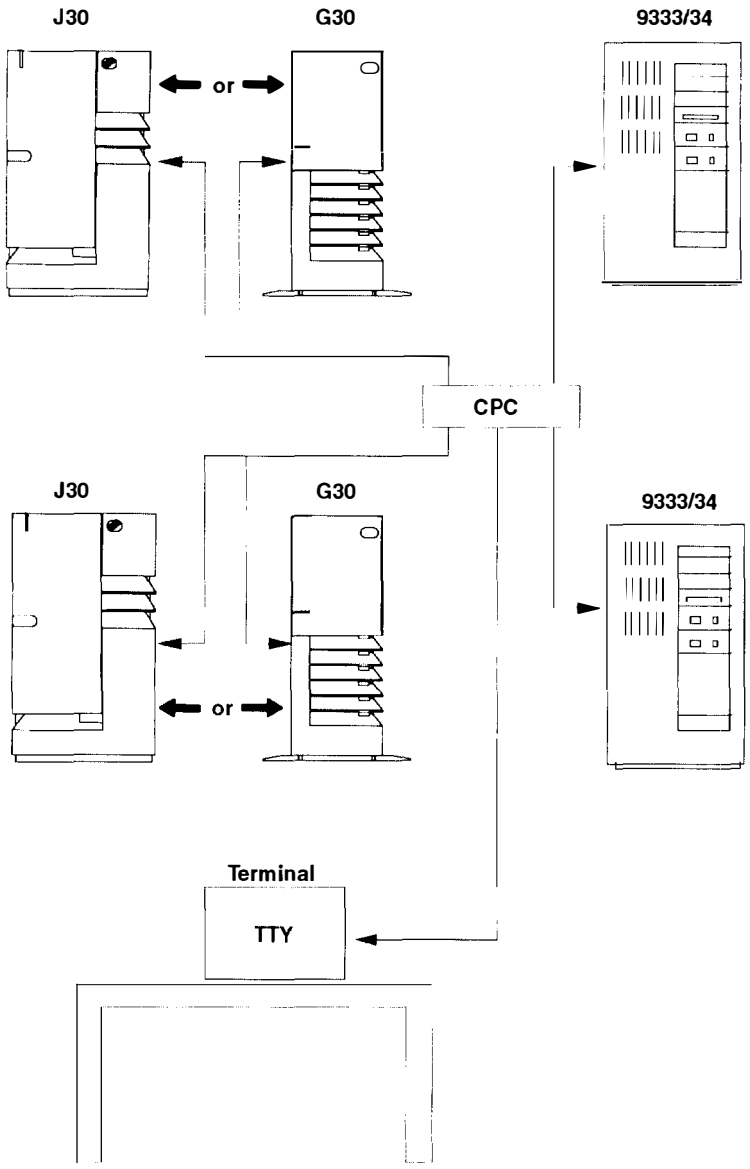
CPC Cables

Note: For part numbers, refer to Chapter 5, "Parts Information."

Cable/ Connector	Part Number	Description
A	68X3874	Null modem cable, CPC (9 pin jack) to TTY 25 pin plug), 10 feet
B	58F2861	Null modem adapter or printer interposer (25 pin jack to 25 pin plug)
C	11H7337	Serial port cable, null modem, CPC (9 pin jack) to system (25 pin jack), 10 feet
D (see note)	11H3834	Y-cable, Model G30 S1/S2 port (25 pin jack) to S1 and S2 (25 pin plug), 12 inches
E	42F6839	Power control interface cable, CPC (4 pin plug) to Model 933x (4 pin plug), 10 feet
Note: Used with C to connect the serial ports of G30.		

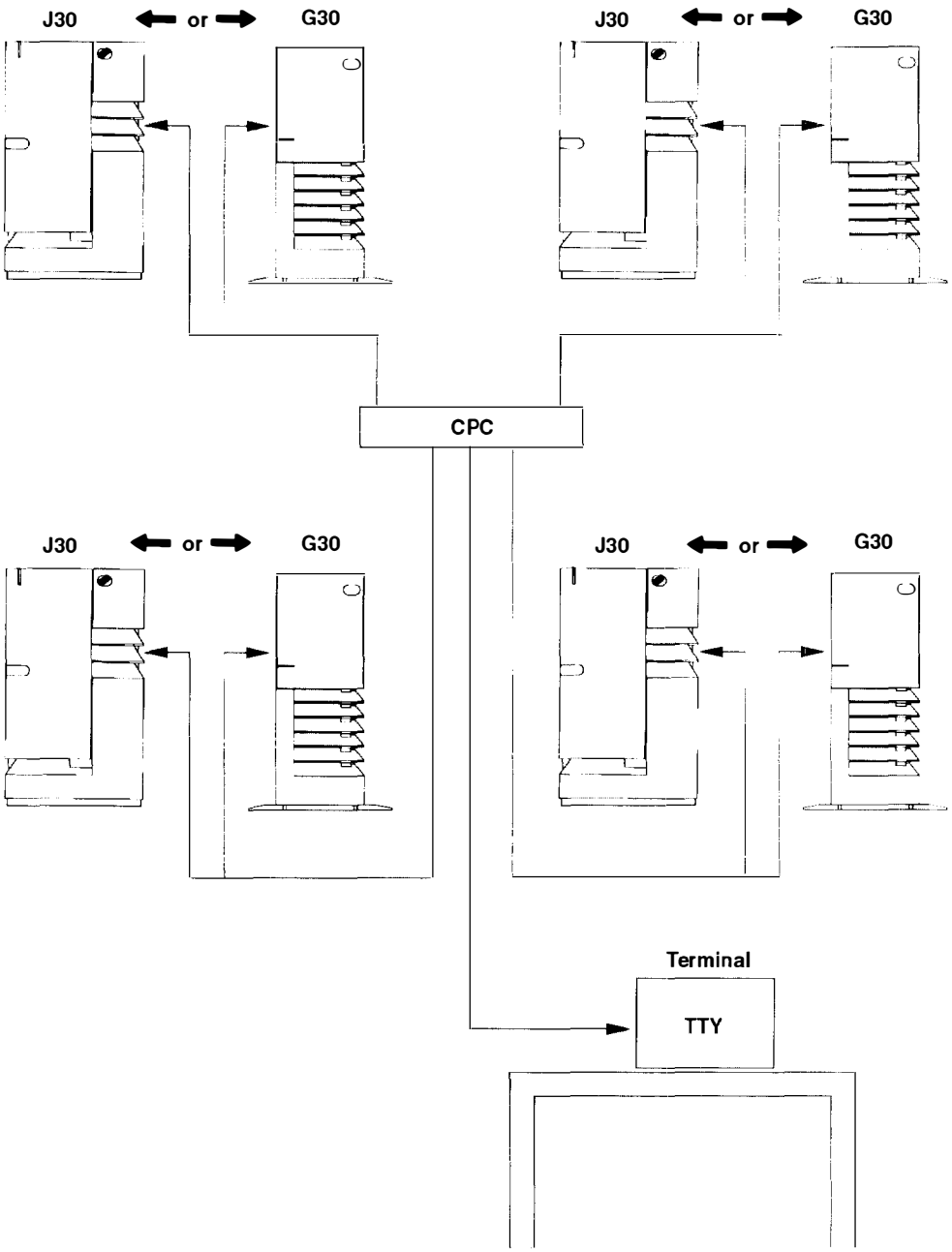
CPC With Two System Units and Two Disk Drive Units

For more information about cables, refer to the table on page 1-3.

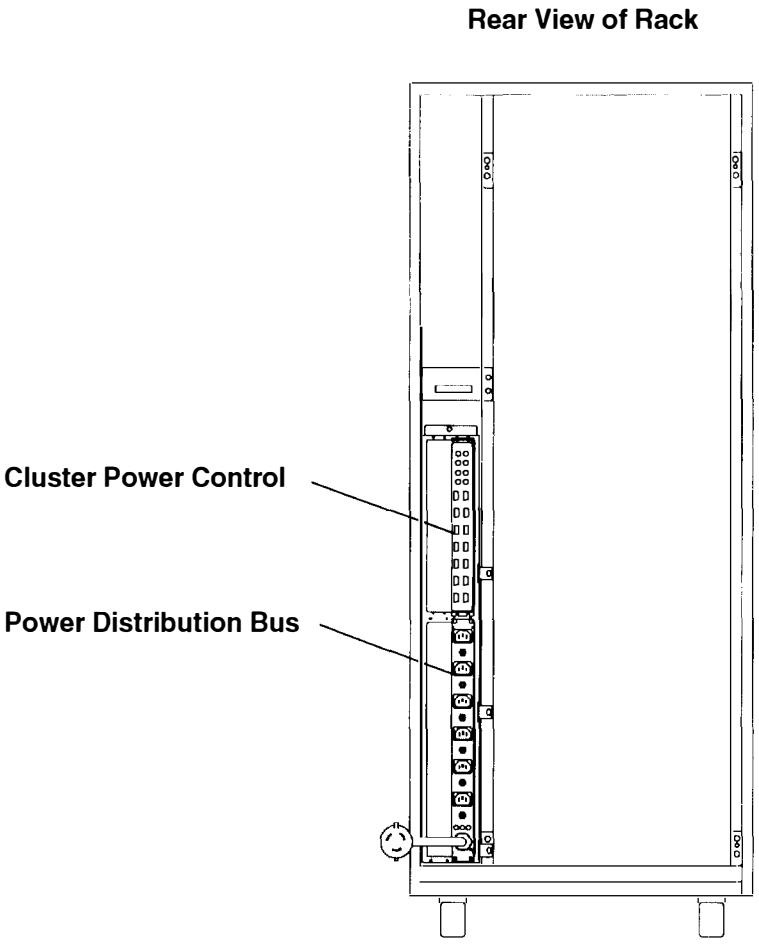


CPC With Four System Units and Four Disk Drive Units

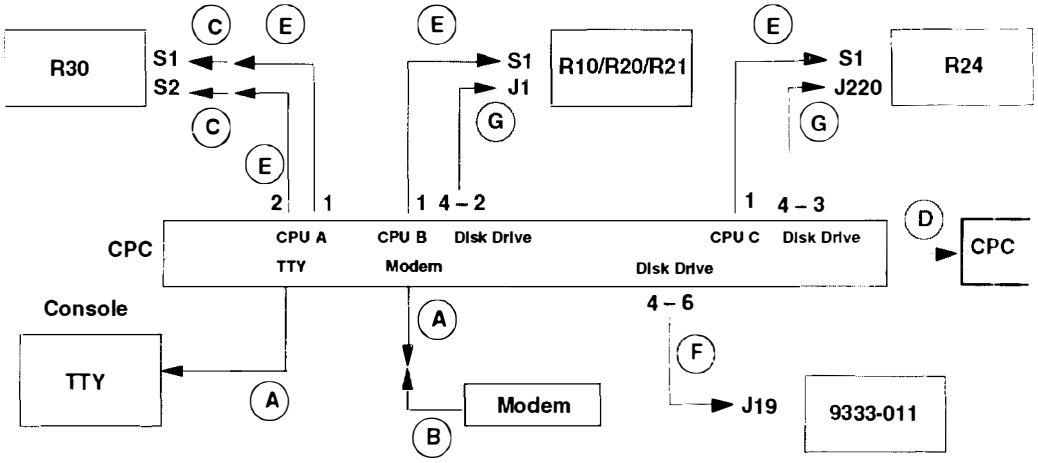
For more information about cables, refer to the table on page 1-3.

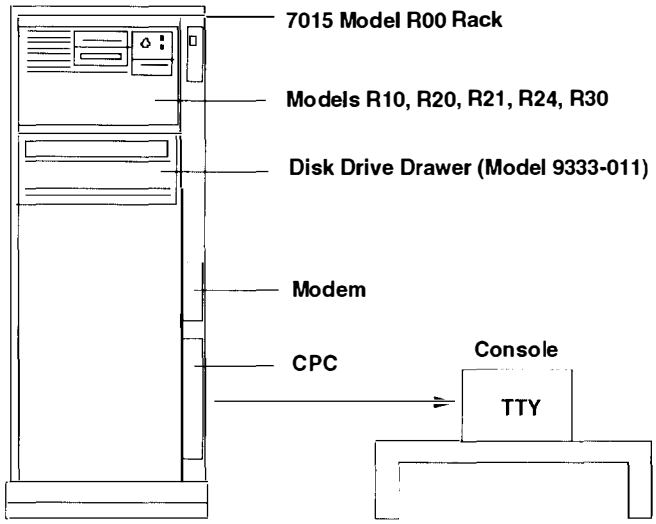


Rack Containing a Cluster Power Control



CPC in a Rack with One CPU and One Disk Drive Drawer



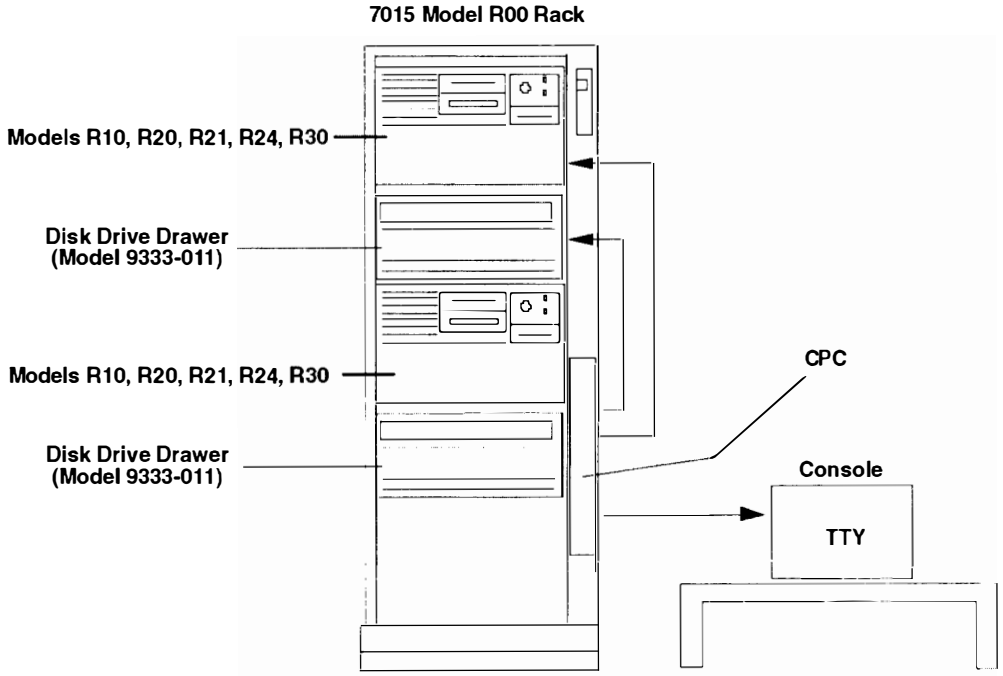


CPC Cables

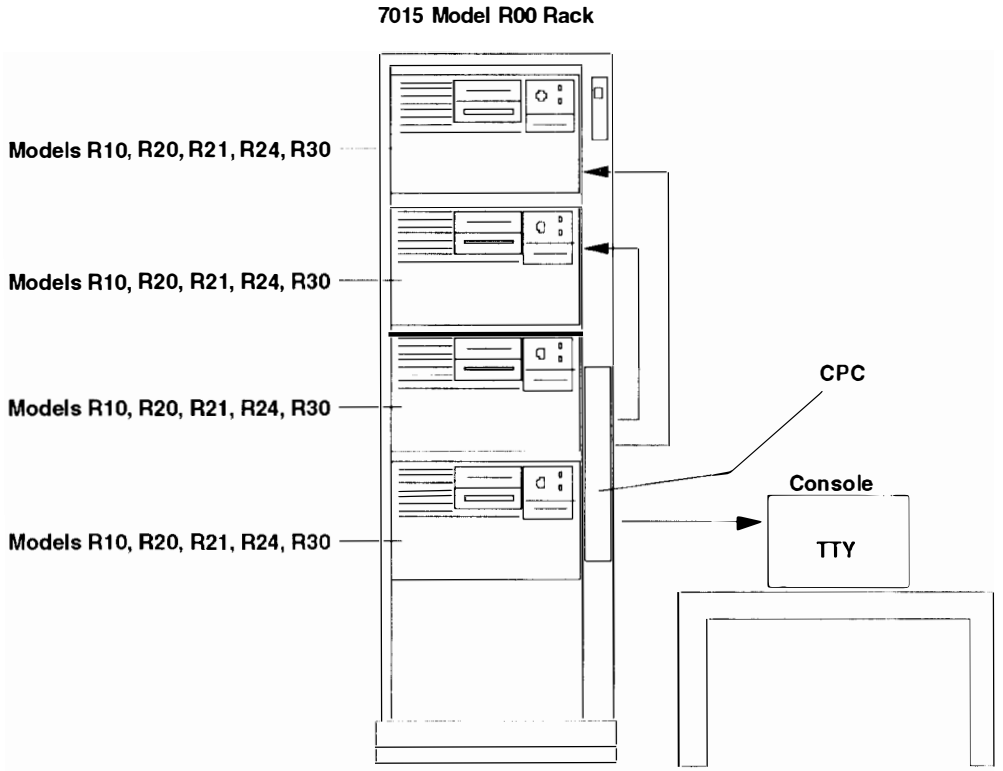
Note: For part numbers, refer to Chapter 5, "Parts Information."

Cable/ Connector	Part Number	Description
A	68X3874	Null modem cable, CPC (9 pin jack) to TTY 25 pin plug), 10 feet
B	58F2861	Null modem adapter or printer interposer (25 pin jack to 25 pin plug)
C (See Note)	6450242	Serial adapter connector cable, R30 (9 pin jack) to CPC (25 pin plug), 10 inches
D	11H7336	Null modem cable, CPC (9 pin jack) to CPC (9 pin jack), CPC to CPC interconnect cable, 25 feet
E	11H7337	Serial port cable, null modem, CPC (9 pin jack) to system (25 pin jack), 10 feet
F	42F6839	Power control interface cable, CPC (4 pin plug) to Model 933x (4 pin plug), 10 feet
G	12H1605	Power control interface cable, CPC (4 pin plug) to Model R10, R2x (5 pin plug), 10 feet
Note: Used with E to connect the serial ports of R30.		

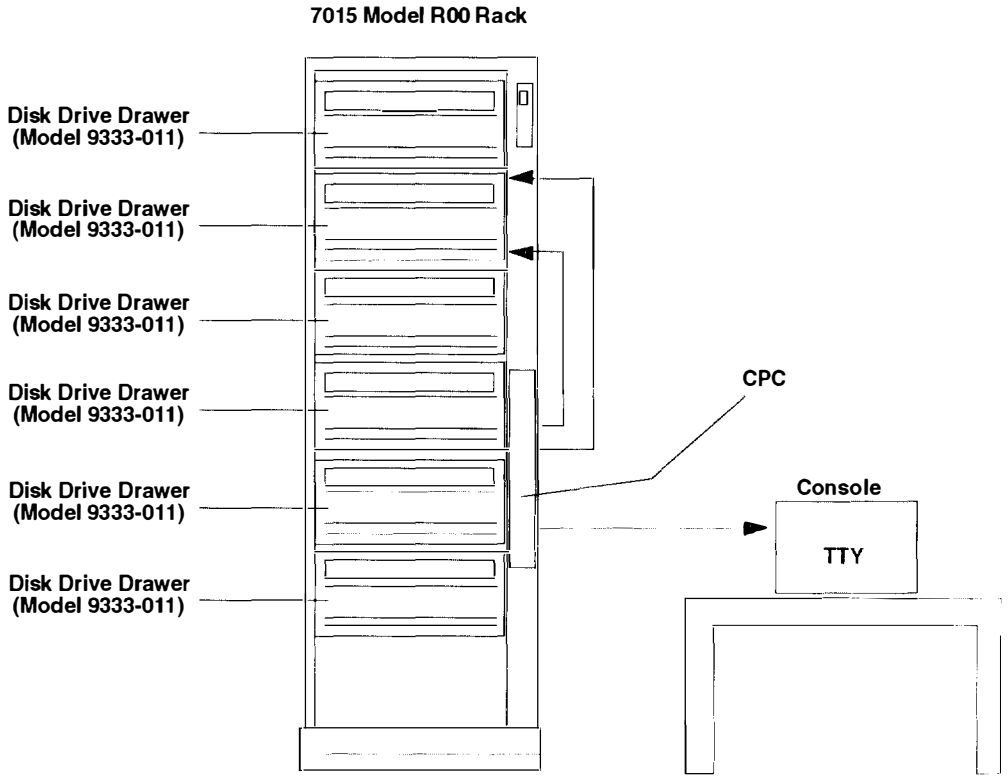
CPC in a Rack with Two CPUs and Two Disk Drive Drawers



CPC in a Rack with Four CPUs



CPC in a Rack with Six Disk Drive Drawers



One Rack with Two CPCs and Disk Drive Drawers and One Rack with One CPC and Four CPUs

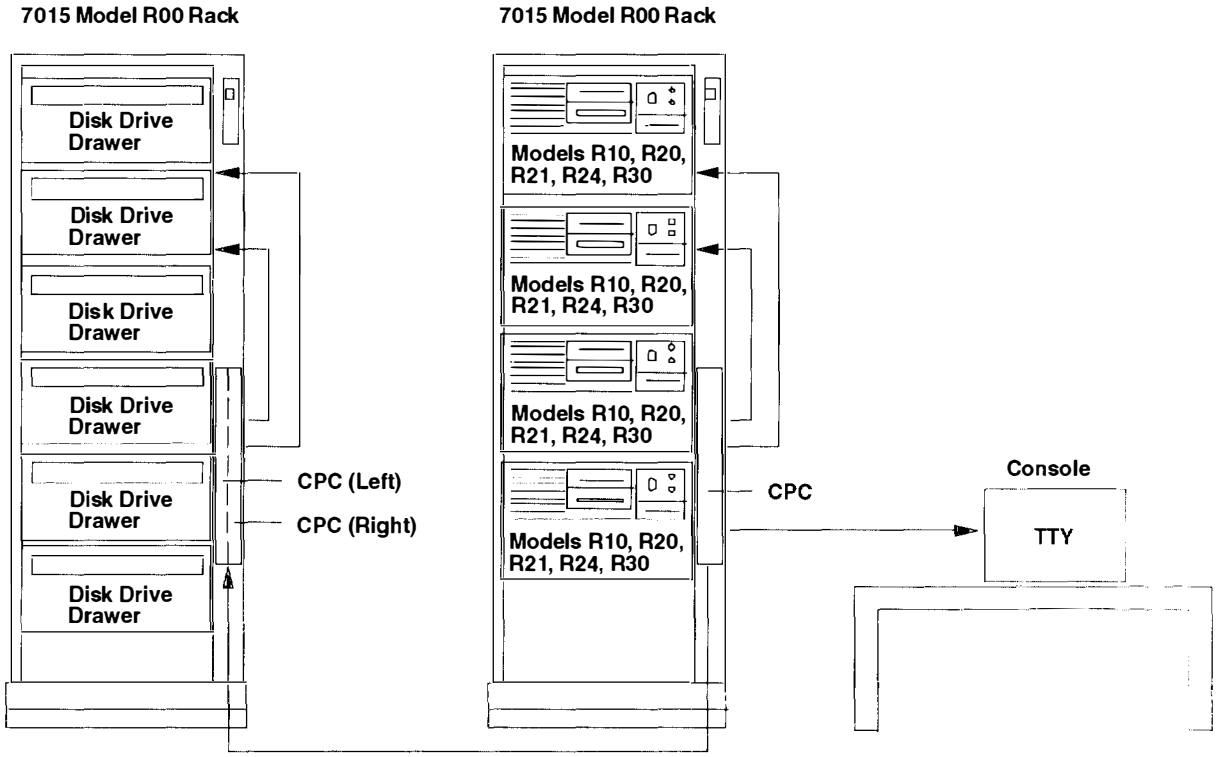
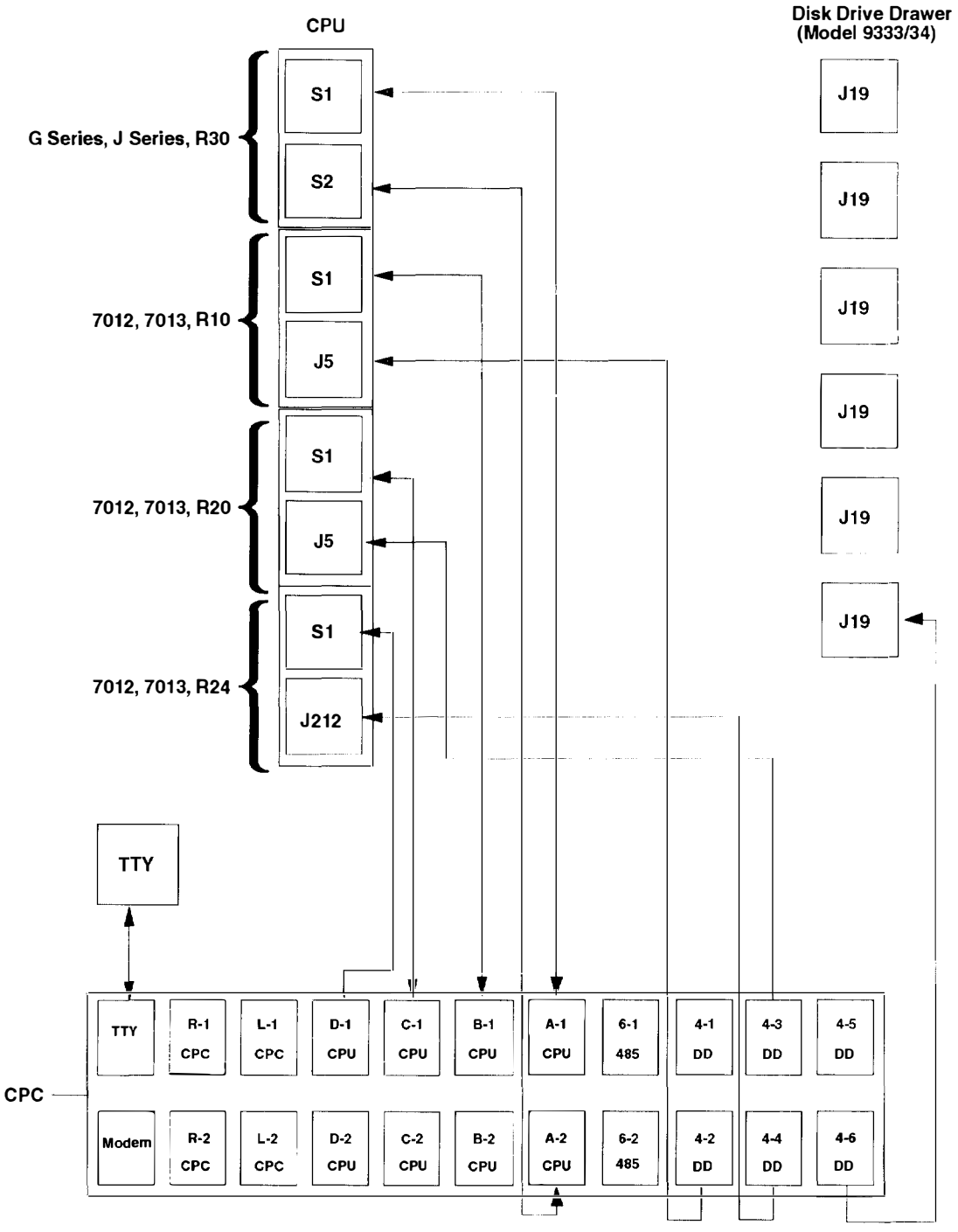
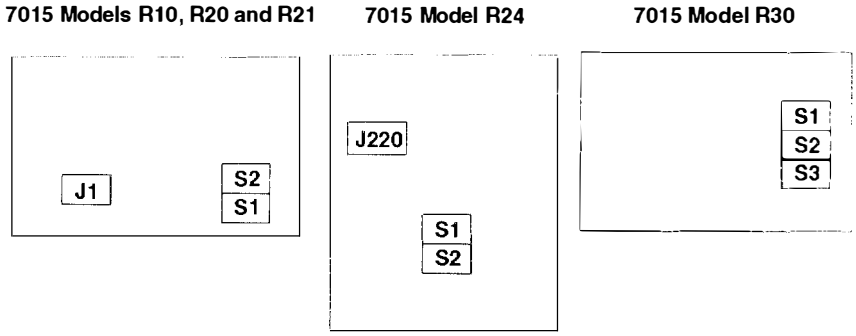


Diagram of a CPC in a Rack

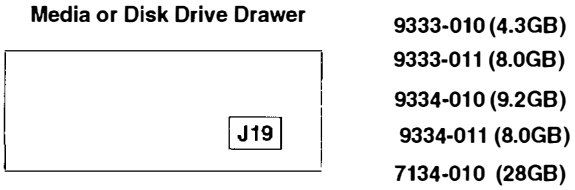


Port Locations on Various Systems

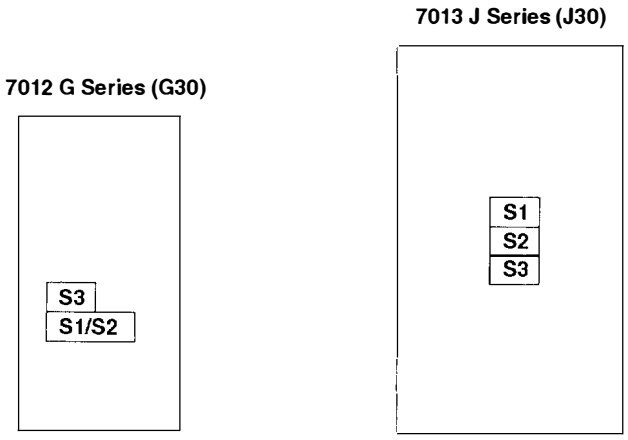
Rack CPUs



Media and Disk Drive Drawers



Deskside Systems



Specifications

Dimensions

Height: 44 mm (1.7 inches)

Depth: 245 mm (9.6 inches)

Width: 327 mm (12.8 inches)

AC Frequency

50 to 60 Hz

Heat Output

33 W (112 BTU per hour) typical

Operating Environment

Class C: 10° to 40°C (50° to 104°F)

Wet bulb temperature: 27°C (80°F)

Altitude: 0 to 2134 meters (0 to 7001.3 feet) above sea level

Operating Voltage

90 to 250 V ac (for only AC system unit)

Power

.13 kVA

Power Supply

34 W DC

Weight

2.27 kg (5.0 pounds) with rack mounting brackets attached

External AC Power Cables

To avoid electrical shock, the manufacturer provides a power cable with a grounded attachment plug. Use only properly grounded outlets.

Power cables used in the United States and Canada are listed by Underwriter's Laboratories (UL) and certified by the Canadian Standards Association (CSA). These power cords consist of the following:

- Electrical cables, type ST
- Attachment plugs complying with National Electrical Manufacturers Association (NEMA) L6-30P
- Appliance couplers complying with International Electrotechnical Commission (IEC) Standard 320, Sheets C13 and C14.

Power cables used in other countries consist of the following:

- Electrical cables, type HD21 or HD22
- Attachment plugs approved by the appropriate testing organization for the specific countries where they are used
- Appliance couplers complying with International Electrotechnical Commission (IEC) Standard 320, Sheet C13 and C14.

Refer to Chapter 5 in this book to find the power cables that are available for the CPC

Chapter 2. Maintenance Analysis Procedures (MAPs)

MAP 1560: Cluster Power Control – Power MAP

Note: This MAP is not a start of call MAP. Use this power MAP only if you are directed here from a MAP step in the *POWERstation and POWERserver Common Diagnostics Information Manual*.

This procedure is used to locate power problems in the cluster power control (CPC) If a problem is detected, this procedure will help you to isolate the problem to the failing field replaceable unit (FRU).

Observe the following safety notices during service procedures.

Note: For a translation of these notices, see the *System Unit Safety Information* manual.

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

Before installing or removing signal cables, ensure that the power cables for the system unit and all attached devices are unplugged.

When adding or removing any additional devices to or from the system, ensure that the power cables for those devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

Use one hand, when possible, to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.

During an electrical storm, do not connect cables for display stations, printers, telephones, or station protectors for communications lines.

CAUTION:
This product is equipped with a 3-wire power cable and plug for the user's safety. Use this power cable in conjunction with a properly grounded electrical outlet to avoid electrical shock.

Step 1

Check the LEDs located on the cluster power control (CPC).

Are either of the LEDs on the CPC on?

NO Go to Step 2.

YES Go to Step 4.

Step 2

(from Step 1)

1. Check the power cord for continuity from the power distribution bus (PDB) to the CPC, and check that the power cord is plugged in correctly.

Did you find the problem?

NO Go to Step 3.

YES Correct the problem, and then go to "MAP 0410: Repair Checkout" in the *POWERstation and POWERserver Common Diagnostics Information Manual*.

Step 3

(from Step 2)

Check the outlet on the PDB for the correct voltage.

Is the voltage correct?

NO Go to "MAP 1550: Power Distribution Bus – Power MAP" in the *7015 Model R00 Rack Installation and Service Guide* (Order Number SA23-2744).

YES Exchange the CPC, and then go to "MAP 0410: Repair Checkout" in the *POWERstation and POWERserver Common Diagnostics Information Manual*

Step 4

(from Step 1)

Is the amber LED (on the CPC) on?

NO Go to Step 5.

YES Exchange the CPC, and then go to "MAP 0410: Repair Checkout" in the *POWERstation and POWERserver Common Diagnostics Information Manual*

Step 5

(from Step 4)

Is there a terminal attached to the CPC?

NO The CPC is managed from a remote site. Go to Step 9.

YES Go to Step 6.

Step 6

(from Step 5)

Is the `MAIN MENU - Console CPC` menu on the display screen?

NO Go to Step 7

YES Using the menus, connect the CPU to the TTY, and then go to Step 7. Refer to Chapter 4, "Menu Access Procedure" for information about using the menus.

Step 7

(from Step 6)

Is the login prompt on the console?

NO Exchange the following FRUs in the order listed below:

- Serial cable between the TTY port on the CPC and the terminal.
- Serial cable between connector CPU A-1 on the CPC and S1 on the CPU enclosure.
- CPC

If the symptom did not change and all of the FRUs are exchanged, call your service support representative for assistance.

If the symptom has changed, check for loose cards, cables, and obvious problems. If you do not find a problem, return to Step 1 in this MAP and follow the instructions for the new symptom.

YES Go to Step 8.

Step 8

(from Step 7)

Can you login now?

NO Exchange the following FRUs in the order listed below:

- Serial cable between the TTY port on the CPC and the terminal.
- Serial cable between connector CPU A-1 on the CPC and S1 on the CPU enclosure.
- CPC

If the symptom did not change and all of the FRUs are exchanged, call your service support representative for assistance.

If the symptom has changed, check for loose cards, cables, and obvious problems. If you do not find a problem, return to Step 1 in this MAP and follow the instructions for the new symptom.

YES Go to Step 13.

Step 9

(from Step 5)

Is the problem with the remote power-on function of the CPC?

NO Go to Step 13.

YES Unplug the modem from the CPC modem port, and then plug a console (async) into the modem port. Go to Step 10.

Step 10

(from Step 9)

Is the `MAIN MENU - Console CPC` menu on the screen?

NO Exchange the following FRUs in the order listed below:

- Serial cable between the modem port on the CPC and the console.
- CPC

If the symptom did not change and all of the FRUs are exchanged, call your service support representative for assistance.

If the symptom has changed, check for loose cards, cables, and obvious problems. If you do not find a problem, return to Step 1 in this MAP and follow the instructions for the new symptom.

YES Using menus, connect the CPU serial port 1 to the TTY. Go to Step 11 Refer to Chapter 4, "Menu Access Procedure" for information about using the menus.

Step 11

(from Step 10)

Is the login prompt on the screen?

NO Exchange the following FRUs in the order listed below:

- Serial cable between connector CPU A-2 on the CPC and S2 on the CPU enclosure.
- CPC

If the symptom did not change and all of the FRUs are exchanged, call your service support representative for assistance.

If the symptom has changed, check for loose cards, cables, and obvious problems. If you do not find a problem, return to Step 1 in this MAP and follow the instructions for the new symptom.

YES Go to Step 12.

Step 12

(from Step 11)

Can you log in now?

NO Exchange the following FRUs in the order listed below:

- Serial cable between connector CPU A-2 on the CPC and S2 on the CPU enclosure.
- CPC

If the symptom did not change and all of the FRUs are exchanged, call your service support representative for assistance.

If the symptom has changed, check for loose cards, cables, and obvious problems. If you do not find a problem, return to Step 1 in this MAP and follow the instructions for the new symptom.

YES The problem is with the modem or remote terminal. Refer to the problem determination procedures for those devices.

Step 13

(from Steps 8 and 9)

Is there a problem with the power control to the media drawers?

NO Go to "MAP 0410: Repair Checkout" in the *POWERstation and POWERserver Common Diagnostics Information Manual*.

YES Go to Step 14.

Step 14

(from Steps 13)

From the `MAIN MENU - Console CPC` menu, select the disk drive drawer connections. Refer to Chapter 4, "Menu Access Procedure" for information about using the menus.

Do all of the disk drive drawers with PCI cables have power control connections?

NO Go to Step 15.

YES Go to "MAP 0410: Repair Checkout" in the *POWERstation and POWERserver Common Diagnostics Information Manual*.

Step 15

(from Step 14)

Follow the instructions on the `MAIN MENU - Console CPC` menu to connect the disk drive drawers to the CPC.

Were you able to connect the disk drive drawers?

NO Exchange the following FRUs in the order listed below:

- PCI cable between the CPC and the failing disk drive drawer.
- CPC

If the symptom did not change and all of the FRUs are exchanged, go to the problem determination procedure for the disk drive drawer installed in your rack.

If the symptom has changed, check for loose cards, cables, and obvious problems. If you do not find a problem, return to Step 1 in this MAP and follow the instructions for the new symptom.

YES Go to "MAP 0410: Repair Checkout" in the *POWERstation and POWERserver Common Diagnostics Information Manual*.

Chapter 3. Removal and Replacement Procedures

This chapter shows how to remove the cluster power control.

Cluster Power Control in a Rack

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

Before installing or removing signal cables, ensure that the unit main switch is set to off or the power cable is unplugged for the system unit and all attached devices are unplugged.

When adding or removing any additional external devices to or from the system, ensure that the power cables for those devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

Use one hand, when possible, to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.

During an electrical storm, do not connect cables for display stations, printers, telephones, or station protectors for communication lines.

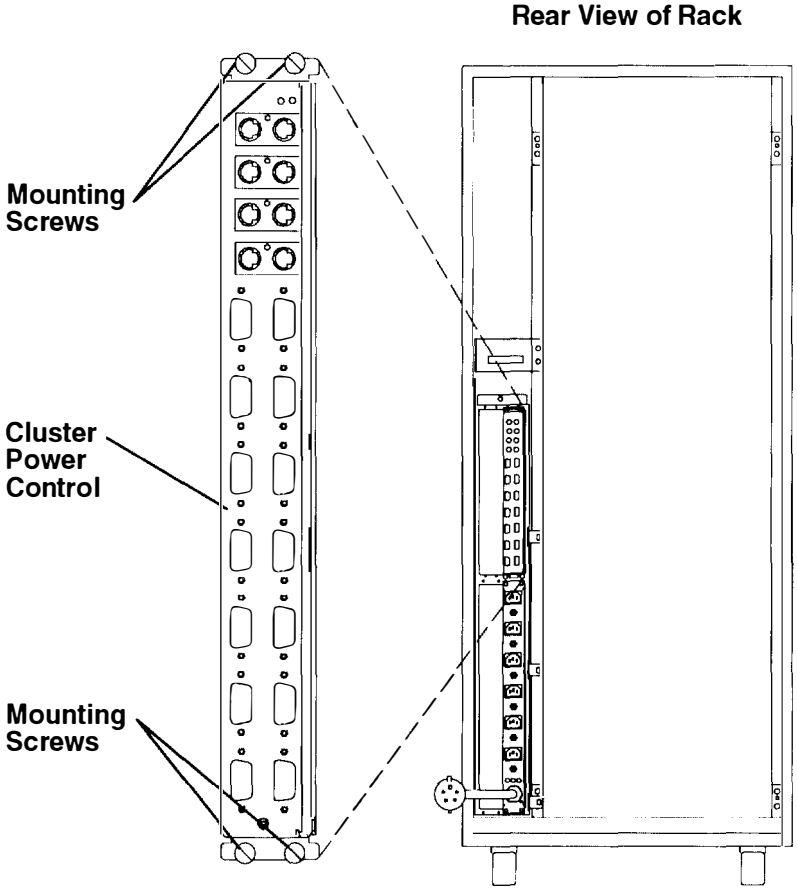
CAUTION:
This product is equipped with a 3-wire power cable and plug for the user's safety. Use this power cable in conjunction with a properly grounded electrical outlet to avoid electrical shock.

Removal

1. Do the "Powering Off and Powering On the Systems Using the Menus" procedure on page 4-1.

Note: The cluster power control (CPC) does not contain a power switch. After making the necessary preparations, powering off the CPC is controlled by unplugging the CPC power cord from the CPC or an electrical outlet.

2. Do the "Powering Off the Cluster Power Control Using the Power Cord" procedure on page 4-4. To access the electrical outlet on the CPC when the CPC is installed in a rack, remove the four mounting screws, and then slide the CPC out of the rack until you can unplug the power cord.
3. Record the location of all cables attached to the CPC, and then disconnect all of the cables from the CPC.
4. Remove the CPC.



Replacement

Replace in the reverse order, and then do the following power on procedures:

1. "Powering Off and Powering On the Systems Using the Menus" procedure on page 4-1
2. "Powering On the Cluster Power Control Using the Power Cord" procedure on page 4-6.

Chapter 4. Using the Cluster Power Control

Powering Off and Powering On the Cluster Power Control

Before performing "Powering Off the Cluster Power Control Using the Power Cord," power off all units or drawers connected to the CPC by performing "Powering Off and Powering On the Systems Using Menus"

Powering Off and Powering On the Systems Using Menus

The same menus are used to turn the power off or turn the power on the systems. units, or drawers that are connected to the CPC. To turn the power off or turn the power on the systems, units, or drawers using the menus, perform the following steps.

Menu Access Procedure

Warning: All changes made to the CPC communication configuration must correspond to the communication equipment being used. The baud rate selections for the CPC must match the baud rate of your communication equipment.

To change or display your current configuration, perform the following procedure. All menu selections are a single keystroke and are not case sensitive.

1.. The main menu can be accessed only if the CPC is on and a TTY or ASCII terminal is connected to the TTY port on the CPC. Verify these connections.

2.. Connect the cable (refer to cable A in the diagram on page 1-3) to the TTY serial port on the CPC and to either a display with a serial port or to an open serial port on a computer running terminal emulation software.

3.. Set the terminal to match the baud rate of your CPC (usually 9600 baud, 8 bits, no parity, 1 stop bit). Refer to your terminal or terminal emulation software documentation for details about configuring your terminal.

4.. At the MAIN MENU, type 0 (for TTY), and then press Enter.

5.. Type **password** to access the MAIN MENU. A password is not set at the factory. You must set the password from the "Set Parameters" option to prevent unauthorized access to the systems.

The following is the first menu.

```
CPC Microcode - Version 1.0 (01/18/95

                MAIN MENU - Console CPC:

                        (0)  TTY
                        (1)  Modem

                        Select an Option:
```

Then, the following menu is displayed:

Select (2) Power On/Off. Selecting a 2 enables you to control power (on or off) to connected units.

The following is the second menu.

```
CPC Microcode - Version 1.0 (01/18/95

                MAIN MENU - Console CPC:

                        (0)  Connect CPU
                        (1)  Connect CPC
                        (2)  Power On/Off
                        (3)  Set Configuration
                        (4)  Set Parameters


                        Select an Option (x to logoff):
```

Then, the following menu is displayed:

Select (1) Unit Power ON/OFF. Selecting a 1 enables you to control power (on or off) to connected units.

The following is the third menu.

```
                        Power On/Off

                (0)  System Power ON/OFF
                (1)  Unit Power ON/OFF
                (2)  Scheduled Power ON/OFF

                Select an Option (x to logoff):
```

Then, the following menu is displayed:

Select the option by typing the number for the selection described in the menu, and then press Enter. If you are removing the CPC, turn the power off all units or drawers that are connected to the CPC you are removing.

- Typing a 0, and then pressing Enter enables you to control power to only CPU A.
- Typing a 1, and then pressing Enter enables you to control power to only CPU B.
- Typing a 2, and then pressing Enter enables you to control power to only CPU C.
- Typing a 3, and then pressing Enter enables you to control power to only CPU D.
- Typing a 4, and then pressing Enter enables you to control power to only an attached drawer (if available).
- Typing a 5, and then pressing Enter enables you to control power to only an attached drawer (if available).
- Typing a 6, and then pressing Enter enables you to control power to only an attached drawer (if available).
- Typing a 7, and then pressing Enter enables you to control power to only an attached drawer (if available).
- Typing a 8, and then pressing Enter enables you to control power to only an attached drawer (if available).
- Typing a 9, and then pressing Enter enables you to control power to only an attached drawer (if available).
- Typing an x, and then pressing Enter enables you to exit or return to the previous menu.

The following is the fourth menu.

```
UNIT POWER ON/OFF

    Conn    Unit Name   Type Description   PwrStat   Sys   System Name
(0) CPU A                   empty            off      0
(1) CPU B                   empty            off      0
(2) CPU C                   empty            off      0
(3) CPU D                   empty            off      0
(4) 4 - 1                   empty            off      0
(5) 4 - 2                   empty            off      0
(6) 4 - 3                   empty            off      0
(7) 4 - 4                   empty            off      0
(8) 4 - 5                   empty            off      0
(9) 4 - 6                   empty            off      0

System power (n = ON, f = OFF, x to exit):
```

Powering Off the Cluster Power Control Using the Power Cord

Note: For a translation of these notices, see *System Unit Safety Information* manual.

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

Before installing or removing signal cables, ensure that the power cables for the system unit and all attached devices are unplugged.

When adding or removing any additional devices to or from the system, ensure that the power cables for those devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

Use one hand, when possible, to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.

During an electrical storm, do not connect cables for display stations, printers, telephones, or station protectors for communications lines.

CAUTION:
This product is equipped with a 3-wire power cable and plug for the user's safety. Use this power cable in conjunction with a properly grounded electrical outlet to avoid electrical shock.

The cluster power control (CPC) does not contain a power switch. After making the necessary preparations, turning off the CPC is controlled by unplugging the CPC power cord from the CPC or an electrical outlet.

Notes:

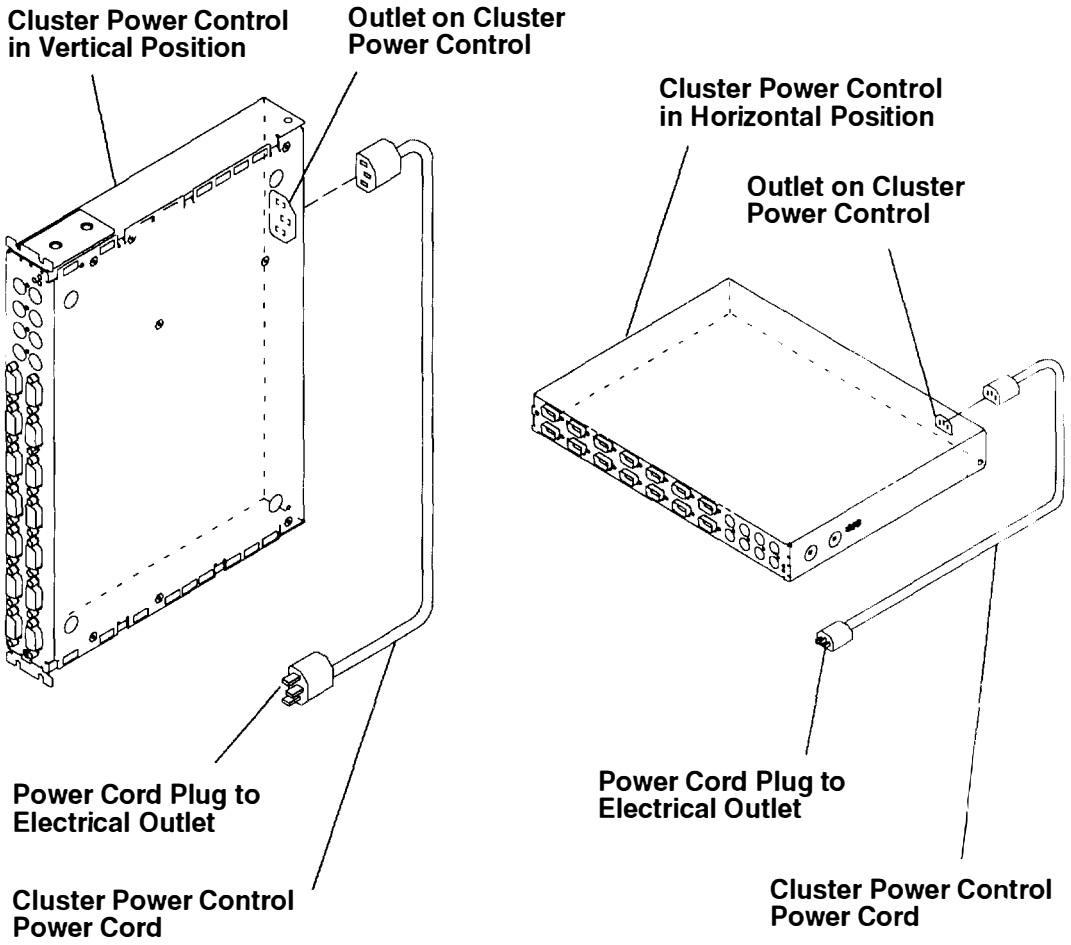
1.. Before powering off the CPC, notify the customer that removing power to the CPC will remove power to drawers that are connected to the CPC.

2.. Before powering off the CPC, perform the correct shutdown command.

3.. To remove power completely, you must unplug the CPC power cord from either the CPC outlet or an electrical outlet.

To power off the CPC, perform the following steps:

- Either unplug the CPC power cord from the electrical outlet on CPC (Perform the "Cluster Power Control" removal procedure on page 3-1 to access the power cord outlet on the CPC.)
- Or, uplug the CPC power cord from the electrical outlet that supplies power to the CPC.



Powering On the Cluster Power Control Using the Power Cord

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

Before installing or removing signal cables, ensure that the power cables for the system unit and all attached devices are unplugged.

When adding or removing any additional devices to or from the system, ensure that the power cables for those devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

Use one hand, when possible, to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.

During an electrical storm, do not connect cables for display stations, printers, telephones, or station protectors for communications lines.

CAUTION:
This product is equipped with a 3-wire power cable and plug for the user's safety. Use this power cable in conjunction with a properly grounded electrical outlet to avoid electrical shock.

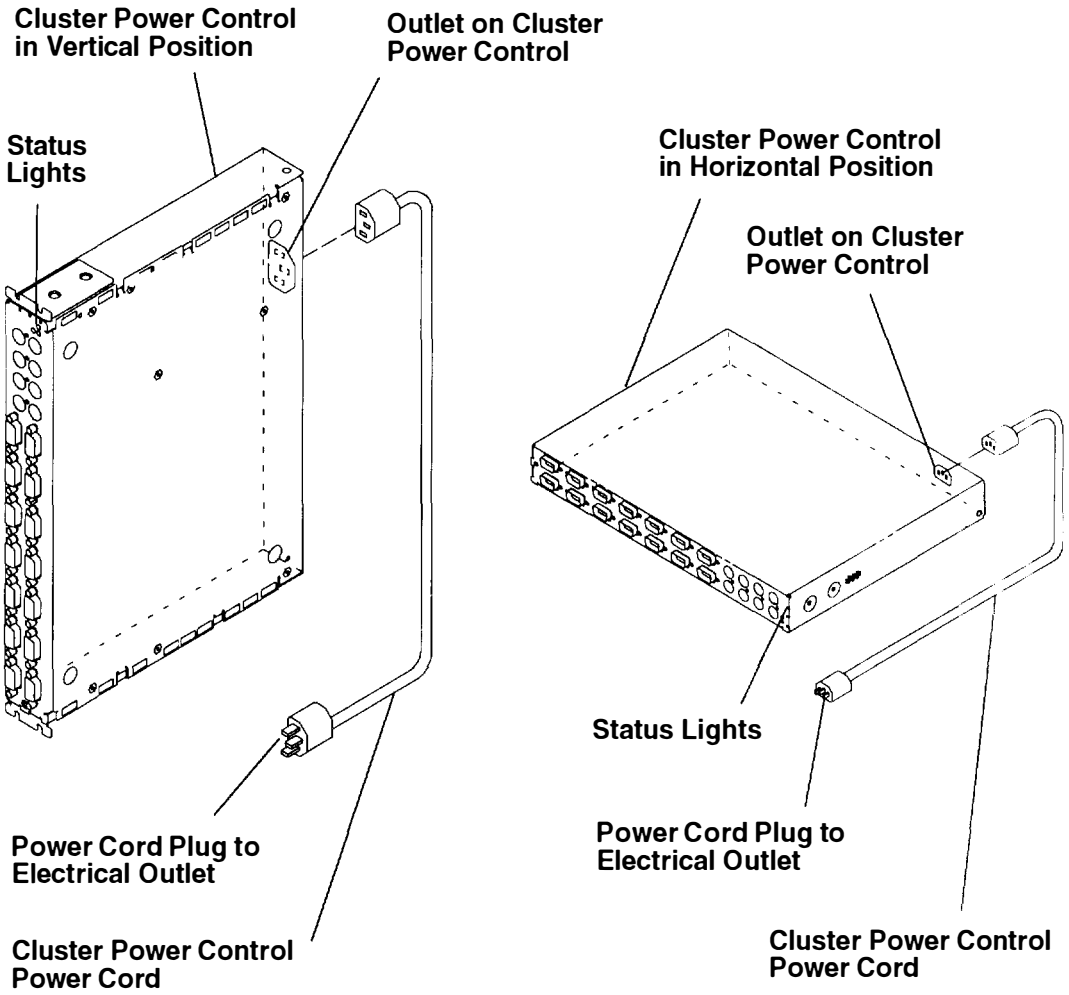
The cluster power control (CPC) does not contain a power switch. After making the necessary preparations, powering off the CPC is controlled by unplugging the CPC power cord from the CPC or an electrical outlet.

The cluster power control (CPC) does not contain a power switch. After making the necessary preparations, powering on the CPC is controlled by plugging the CPC power cord into the CPC outlet and into an electrical outlet.

To power on the CPC, perform the following steps:

- Ensure that the CPC power cord is plugged into the outlet on the CPC.
- Plug the CPC power cord into an electrical outlet.

The status lights on the CPC indicate the condition and status of the CPC.



Powering On the Cluster Power Control Using the Menus

After performing "Powering On the Cluster Power Control Using the Power Cord," refer to "Powering Off and Powering On the Cluster Power Control Using the Menus" on page 4-1 to complete the power on procedure for the CPC.

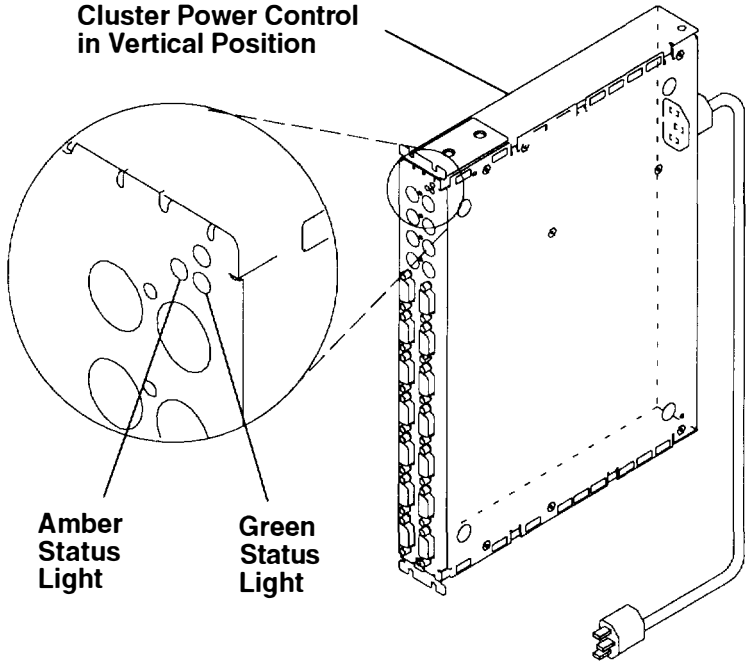
Status Lights for the Cluster Power Control

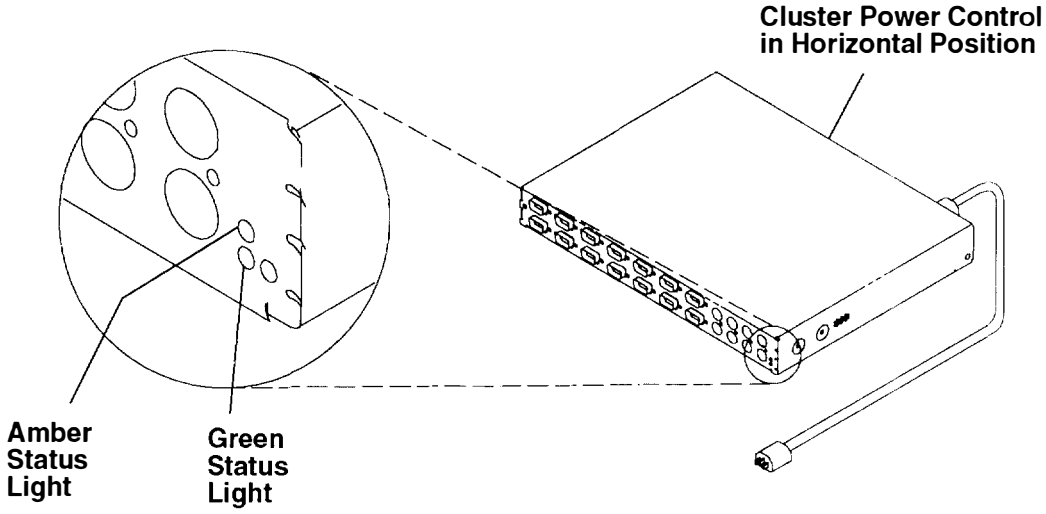
The following table shows the status lights states and the corresponding conditions when the CPC is plugged into an AC electrical outlet.

For the first 10 seconds, the POST is running and the status lights are off.

For the next 10 to 20 seconds, one of the following conditions will exist:

Status Light Color	Status Light State	Status Description
Green	Solid light – not blinking	Code is running and "MAIN MENU - Console CPC" appears on the console.
Amber	Solid light – not blinking	Code is not running. Replace the CPC.
Green and amber	Solid lights – not blinking	CPC is a secondary CPC in a series of multiple connected CPCs.
Green and amber	Both lights blinking	The cable connection from the TTY port to the terminal has failed. Reinstall or replace the cable.





Cluster Power Control Menus

Entering Cluster Power Control Menus

This section describes how to access and use the cluster power control (CPC) main menu to view or select communication modes.

Menu Access Procedure

Warning: All changes made to the CPC communication configuration must correspond to the communications equipment being used. The baud rate selections for the CPC must match the baud rate of your communications equipment.

To change or display your current configuration, perform the following procedure. All menu selections are a single keystroke and are not case sensitive.

1.. The main menu can be accessed only if the CPC power is on and a TTY or ASCII terminal is connected to the TTY port on the CPC. Verify these connections.

2.. Connect the cable (refer to cable A in the diagram on page 1-3) to the TTY serial port on the CPC and to either a display with a serial port or to an open serial port on a computer running terminal emulation software.

3.. Set the terminal to match the baud rate of your CPC (usually 9600 baud, 8 bits, no parity, 1 stop bit). Refer to your terminal or terminal emulation software documentation for details about configuring your terminal.

4.. At the MAIN MENU, type `0` (for TTY), and then press Enter.

5.. Type **password** to access the MAIN MENU. A password is not set at the factory. You must set the password from the "Set Parameters" option to prevent unauthorized access to the systems.

6.. Select a menu option by typing either a `0` or `1`:

- Selecting a `0` provides access to the TTY menu screens.
- Selecting a `1` provides access to the modem menu screens.

The following is the first menu screen (without password protection).

```
CPC Microcode - Version 1.0 (01/18/95

                MAIN MENU - Console CPC:

                        (0)  TTY
                        (1)  Modem

                        Select an Option:
```

Exiting Cluster Power Control Menus

This section describes how to exit and secure the CPC console.

Menu Access Procedure

Perform the following procedure to exit the CPC console:

1.. If you have not set the password for the CPC, select the password by selecting the "Set Parameters" option.

2.. Return to the MAIN MENU screen.

3.. Type **x**, and then press Enter. You are logged off and the console is secure.

- Selecting an **x** enables you to log off.

To choose the TTY or Modem menu, you must enter the password to log in

The following is the first menu screen (with password protection).

```
CPC Microcode - Version 1.0 (01/18/95

                MAIN MENU - Console CPC:

                        (0)  TTY
                        (1)  Modem

                Select an Option (x to logoff):
```

TTY Menu

Select the option by typing the number for the action described in the menu, and then press Enter:

- Typing a `0` enables you to connect to four CPUs at the same time.
- Typing a `1` enables you to access the next CPC that is connected to either the primary CPC or the secondary CPC.
- Typing a `2` enables you to control power (on or off) to connected units.
- Typing a `3` enables you to set unit configuration and to customize systems.
- Typing a `4` enables you to set miscellaneous parameters on CPC.
- Typing an `x` enables you to exit or return to the previous menu.

The following menu is displayed:

The following is the second menu screen.

```
CPC Microcode - Version 1.0 (01/18/95

                    TTY MENU - Console CPC:

                         (0)  Connect CPU
                         (1)  Connect CPC
                         (2)  Power On/Off
                         (3)  Set Configuration
                         (4)  Set Parameters


                         Select an Option (x to logoff):
```

CONNECT TO CPU Menu

This menu enables you to select the CPU to which you want to connect.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a 0 enables you to connect to CPU A.
- Typing a 1 enables you to connect to CPU B.
- Typing a 2 enables you to connect to CPU C.
- Typing a 3 enables you to connect to CPU D.
- Typing an x enables you to exit or return to the previous menu.

As soon as the selection is made, the CPC will make the following connections:

- The CPU S1 port to the ASCII terminal at the CPC TTY port
- The CPU S2 port to the CPC modem port or the remote service terminal of the SMP system.

To return to the CONNECT TO CPU menu, type Ctrl-T.

The following is the third menu screen.

```
                    CONNECT TO CPU

                      (0)  CPU A
                      (1)  CPU B
                      (2)  CPU C
                      (3)  CPU D

                Select an Option (x to logoff):
```

CONNECT TO ANOTHER CPC Menu

This menu enables the system user to connect the next CPC, which is connected to left CPC ports 1 and 2.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a 0 enables you to connect to the next CPC that is connected to the left S1 and S2 ports.
- Typing an x enables you to exit or return to the previous menu.

As soon as the selection is made, the CPC will connect the TTY/modem ports to the next CPC in the series enabling access to CPUs controlled by the next CPC. The recommended maximum amount of CPCs connected in series is nine.

The following is the third menu screen.

```
CONNECT TO ANOTHER CPC

(0)  NEXT CPC

Select an Option (x to logoff):
```

Power On/Off Menu

This menu enables you to control power to the system or a drawer.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a `0` enables you to access system power control.
- Typing a `1` enables you to access unit power control.
- Typing a `2` enables you to access scheduled power control.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the third menu screen.

```
                    Power On/Off

              (0)  System Power ON/OFF
              (1)  Unit Power ON/OFF
              (2)  Scheduled Power ON/OFF

              Select an Option (x to logoff):
```

SYSTEM POWER ON/OFF Menu

This menu enables you to turn the power on the system.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a `0` enables you to access system 1 power control.
- Typing a `1` enables you to access system 2 power control.
- Typing a `2` enables you to access system 3 power control.
- Typing a `3` enables you to access system 4 power control.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the fourth menu screen.

```
                    SYSTEM POWER ON/OFF

                       (0)  SYSTEM 1
                       (1)  SYSTEM 2
                       (2)  SYSTEM 3
                       (3)  SYSTEM 4

                Select a System number (x to logoff):
```

SYSTEM POWER ON/OFF – SELECTED SYSTEM Menu

This menu enables you to turn the power on the system.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a `n` enables you to turn the power on all units grouped as System 2.
- Typing a `f` enables you to turn the power off all units grouped as System 2.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the fifth menu screen.

```
                SYSTEM POWER ON/OFF - SELECTED SYSTEM

              System 2 (name: System Name) consists of:

Connector      Unit Name      Type Description      Pwr

CPU B          System 2       PowerPC-SMP           off
4 - 5          DASD Name      Peripheral            off


System power (n = ON, f = OFF, x to exit):
```

UNIT POWER ON/OFF Menu

This menu enables you to turn the power on or turn the power off one unit (drawer) at a time.

Note: The CPC will check the status of the drawer to determine if the drawer is configured and connected before running the menu selection.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a 0 enables you to control power to only CPU A.
- Typing a 1 enables you to control power to only CPU B.
- Typing a 2 enables you to control power to only CPU C.
- Typing a 3 enables you to control power to only CPU D.
- Typing a 4 enables you to control power to only an attached drawer (if available).
- Typing a 5 enables you to control power to only an attached drawer (if available).
- Typing a 6 enables you to control power to only an attached drawer (if available).
- Typing a 7 enables you to control power to only an attached drawer (if available).
- Typing a 8 enables you to control power to only an attached drawer (if available).
- Typing a 9 enables you to control power to only an attached drawer (if available).
- Typing an x enables you to exit or return to the previous menu.

The following is the fourth menu screen.

```
UNIT POWER ON/OFF

    Conn    Unit Name   Type Description   PwrStat   Sys   System Name

(0) CPU A               empty              off      0
(1) CPU B               empty              off      0
(2) CPU C               empty              off      0
(3) CPU D               empty              •ff      0
(4) 4 - 1               empty              off      0
(5) 4 - 2               empty              •ff      0
(6) 4 - 3               empty              off      0
(7) 4 - 4               empty              off      0
(8) 4 - 5               empty              off      0
(9) 4 - 6               empty              •ff      0

System power (n = ON, f = OFF, x to exit):
```

SCHEDULED POWER ON/OFF Menu

This menu enables you to schedule a daily or weekly turn the power on or turn the power off for systems.

The CPC sends the command to each unit connected to the CPC.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a 0 enables you to change the scheduled power control time and date.

Note: You cannot use the menus if you select option 1. Selecting option 1 prevents a scheduled power off that may interrupt any CPU connection that is being accessed by the system user.

- Typing a 1 enables you to select the scheduled power control mode. This will display the clock and the time of the next scheduled event.
- Typing an x enables you to exit or return to the previous menu.

The following is the fourth menu screen.

```
SCHEDULED POWER ON/OFF

(0)  Change Scheduled Power Times/Dates
(1)  Enter Scheduled Mode (exit menus)


                    Select an Option (x to exit):
```

SCHEDULED POWER – SELECTED SYSTEM Menu

This menu enables you to change or modify schedules on the selected system.

Select the option by typing the number for the selection described in the menu, and then press Enter:

Note: To implement the selection, you must return to the previous menu and enter Scheduled Power Mode.

- Typing a `1` enables you to change or schedule power control time and date on system 1.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the fifth menu screen.

```
SCHEDULED POWER - SELECTED SYSTEM

(1)  System 1 - (ENABLED)  (name:        )


Select a System number (x to exit):
```

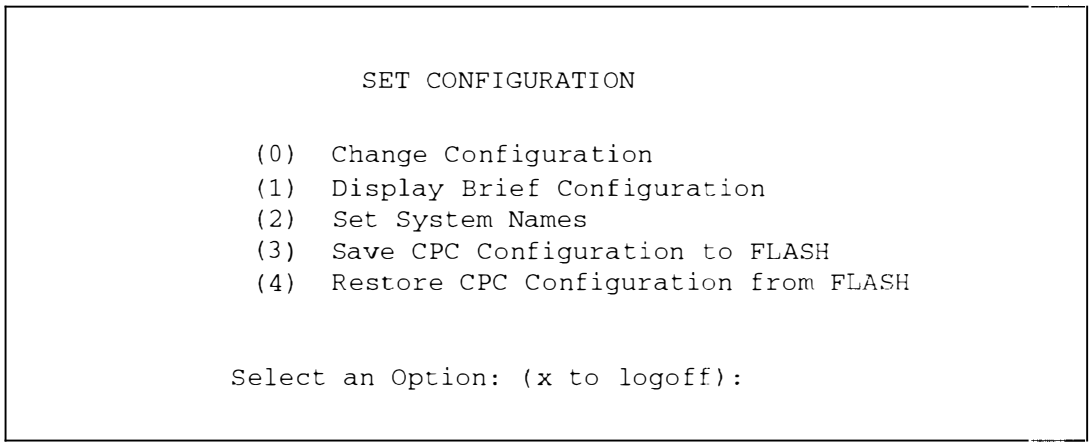
SET CONFIGURATION Menu

This menu enables you to set the configuration of the system and CPC parameters.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a `0` starts and displays the unit configuration.
- Typing a `1` displays the configuration of controlled devices on this CPC.
- Typing a `2` enables you to define system names with system numbers.
- Typing a `3` saves the CPC configuration to flash.
- Typing a `4` restores the CPC configuration from flash.
- Typing an `x` and pressing Enter enables you to exit or return to the previous menu.

The following is the third menu screen.



CHANGE CONFIGURATION – SELECT UNIT Menu

This menu enables you to set or change the configuration of the units that are connected to the CPC ports.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a 0 enables you to configure only CPU A.
- Typing a 1 enables you to configure only CPU B.
- Typing a 2 enables you to configure only CPU C.
- Typing a 3 enables you to configure only CPU D.
- Typing a 4 enables you to configure only an attached drawer (if available).
- Typing a 5 enables you to configure only an attached drawer (if available).
- Typing a 6 enables you to configure only an attached drawer (if available).
- Typing a 7 enables you to configure only an attached drawer (if available).
- Typing a 8 enables you to configure only an attached drawer (if available).
- Typing a 9 enables you to configure only an attached drawer (if available).
- Typing an x enables you to exit or return to the previous menu.

Note: When configured, a CPU uniprocessor requires the 4 – x ports to turn the power on. To prevent a CPU from being selected as an attached drawer (disk drive, etc.), the CPC code blocks access with the * symbol.

- The * symbol indicates that the attached drawer is being used by a CPU

The following is the fourth menu screen.

```
UNIT POWER ON/OFF

    Conn    Unit Name   Type Description   PwrStat   Sys  System Name

(0) CPU A                   empty            off      0
(1) CPU B                   empty            off      0
(2) CPU C                   empty            off      0
(3) CPU D                   empty            off      0
(4) 4 - 1                   empty            off      0
(5) 4 - 2                   empty            off      0
(6) 4 - 3                   empty            off      0
(7) 4 - 4                   empty            off      0
(8) 4 - 5                   empty            off      0
(9) 4 - 6                   empty            off      0

Select an Option (x to exit):
```

CHANGE UNIT CONFIGURATION Menu

This menu enables you to change the configuration of the unit.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a `0` sets one of the following choices:
  - CPU A to CPU D (RISC or SMP system)
  - 4 – 1 to 4 – 6; It is either a peripheral or disk drive drawer.
  - 4 – 1 to 4 – 6; It is a power control for RISC systems.
- Typing a `1` displays the unit name given by the customer or system.
- Typing a `2` sets the number to a system group.
- Typing a `3` displays the system name given by the customer.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the fifth menu screen.

```
CHANGE UNIT CONFIGURATION

CPU A:
(0) Type:           PowerPC - SMP
(1) Unit Name:                        (optional)
(2) System:         1
(3) System Name:                      (optional)


Select an Option (x to exit):
```

DISPLAY BRIEF CONFIGURATION Menu

This menu enables you to view the configuration of the CPC.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing an x enables you to exit or return to the previous menu.

The following is the fourth menu screen.

```
CPC CONFIGURATION
```

Unit / CPC	CPU				POWER CONTROL					
	A	B	C	D	1	2	3	4	5	6

```
P = PowerPC, R = RS/6000, d = peripheral, . = empty,
* = powered ON


Enter 'x' to exit:
```

SET PARAMETERS Menu

This menu enables you to set the CPC parameters.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a 0 changes the password access to the MAIN MENU.
- Typing a 1 enables you to set the CPC name.
- Typing a 2 enables you to set the clock on the CPC. Always check the clock setting before enabling the scheduled power on/off.
- Typing a 3 enables you to set the keystroke for returning from the CPU connections The default is Ctrl-T.
- Typing a 4 enables you to set the Power Command names. These are identical to the names given in the SMP flags. The default is "power" for power on.
- Typing a 5 enables you to update the CPC microcode. This is required only when a new version is installed.
- Typing a 6 enables you to change the baud rate.
- Typing a 7 enables you to set the TTY re–boot.
- Typing an x enables you to exit or return to the previous menu.

The following is the third menu screen.

```
            SET PARAMETERS

        (0)  Change Password
        (1)  Set CPC Name
        (2)  Set Clock
        (3)  Set Hot-key
        (4)  Set Power Command Names
        (5)  Update CPC Microcode
        (6)  Change Baud Rate
        (7)  Enable/Disable TTY Re-boot (Currently: ENABLED)


      Select an Option: (x to logoff):
```

Update CPC Microcode Menu

This menu enables you to update the CPC microcode.

Select the option by typing the number for the selection described in the menu, and then press Enter:

- Typing a `0` sets the source for downloading the new microcode.
- Typing a `1` connects to the download source.
- Typing a `2` receives the code.
- Typing a `3` enables you to update the FLASH.
- Typing a `4` enables you to reboot the CPC to start the program.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the fourth menu screen.

```
Update CPC Microcode

(0)  Set Download Source (currently set to TTY)
(1)  Connect to Download Source
(2)  Start Download (receive) of New Microcode
(3)  Update FLASH with Downloaded Microcode Image
(4)  Reboot CPC

                    Select a System Number: (x to exit):
```

MODEM MENU – Console CPC Menu

At the `MAIN MENU - Console CPC` on your console, type `1` (for the Modem selection).

The following menu is displayed.

Select the option by typing the number for the action described in the menu, and then press Enter:

- Typing a `0` enables you to set the miscellaneous parameters.
- Typing an `x` enables you to exit or return to the previous menu.

The following is the second menu screen.

```
CPC Microcode - Version 1.0 (01/18/95

                MODEM MENU - Console CPC:

                        (0)  Miscellaneous Parameters


                   Select an Option: (x to exit):
```

Miscellaneous Parameters Menu

Select the option by typing the number for the action described in the menu, and then press Enter:

- Typing a 0 enables you to set the modem connection.
- Typing a 1 enables you to set the modem init string.
- Typing a 2 sets the dial-out flag and enables you enter the multiple-CPU dial-out mode.
- Typing an x enables you to exit or return to the previous menu.

The following menu is displayed:

The following is the third menu screen.

```
CPC Microcode - Version 1.0 (01/18/95)

Miscellaneous Parameters:

   (0)  Enable/Disable Modem Connection (currently: ENABLED)
   (1)  Change Modem Init String (currently: AT&F1E0V0Q1S0=1
   (2)  Enter Multiple-CPU Dial-Out Mode

Select an Option: (x to exit):
```

CPC Port Connectors

The following table shows the possible connections between CPUs, disk drive drawers. or other peripherals. The availability of 4-x ports for connecting the disk drive drawers depends on the number of RISC CPUs installed on the CPC.

A	Available or open connection
B	Power control for RSS (excluding 5xx) or disk drive
K	Serial port cables
SMP	Models G30, J30, or R30 CPUs
RSS	Models 57x – 59x, R10, or R2x (RISC) CPUs
933x	Models 9333 or 9334 disk drive drawers or peripherals

Connections from CPC Ports to Various Devices															
Qty	**Type**	**CPC A1**	**CPC A2**	**CPC B1**	**CPC B2**	**CPC C1**	**CPC C2**	**CPC D1**	**CPC D2**	**4-1**	**4-2**	**4-3**	**4-4**	**4-5**	**4-6**
1	SMP	K	K	A	A	A	A	A	A	A	A	A	A	A	A
2	SMP	K	K	K	K	A	A	A	A	A	A	A	A	A	A
3	SMP	K	K	K	K	K	K	A	A	A	A	A	A	A	A
4	SMP	K	K	K	K	K	K	K	K	A	A	A	A	A	A
1	RSS	K	K	A	A	A	A	A	A	B	A	A	A	A	A
2	RSS	K	K	K	K	A	A	A	A	B	B	A	A	A	A
3	RSS	K	K	K	K	K	K	A	A	B	B	B	A	A	A
4	RSS	K	K	K	K	K	K	K	K	B	B	B	B	A	A
6	933x	A	A	A	A	A	A	A	A	B	B	B	B	B	B

Examples of CPU Systems

The following is a list of examples of various combinations of CPUs, disk drive drawers, and peripherals.

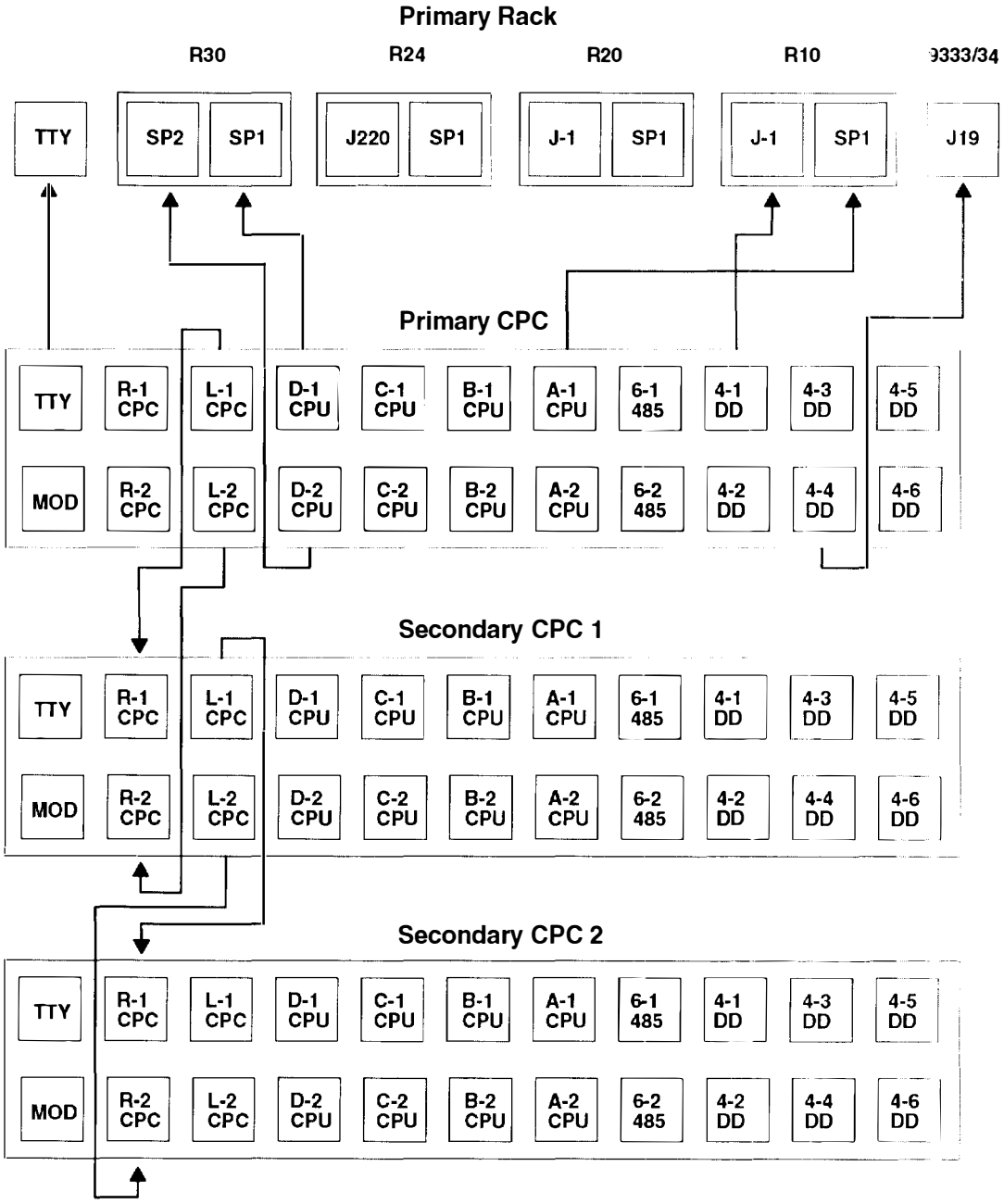
- One SMP CPU and six 9333 disk drive drawers
- Four SMP CPUs and six 9333 disk drive drawers
- One RISC CPU and five 9333 disk drive drawers ((1) 4-x port used for CPU power on control)
- Four RISC CPUs and two 9333 disk drive drawers
- Six 9333 disk drive drawers (as in a Model R00 rack)
- One SMP CPU connected to shared disk drive drawers
- One RISC CPU connected to shared disk drive drawers

Note: To avoid accidentally turning the power off when one or more disk drive drawers are connected to more than one CPU, do not include the disk drive drawers in the CPU system grouping.

- Multiple CPUs and one 9333 disk drive drawer (shared systems)
- Multiple CPUs and two 9333 disk drive drawers (shared systems)

Multiple CPCs in Series

The following diagram shows the connections between multiple CPCs.



Notes:

1.. If a modem is connected, CPC left port (L-1 CPC) of the primary CPC is connected to CPC right port (R-1 CPC) of the secondary CPC 1.

2.. When the TTY and modem ports of the primary CPC are used, the TTY ports and modem ports (MOD) of the secondary CPC 1 and secondary CPC 2 must remain open.

3.. If the secondary CPC 2 is the last CPC installed, the CPC left port (L-1 CPC and L-2 CPC) must remain open.

Configuration of CPC, CPU, System Unit, or Peripheral

General Information for Configurations

The following information is provided for configuring the CPC, CPUs, system units, or peripherals.

1. Both the customer and the service representative should participate in determining the configuration parameters.
2. For remote power on capability, the system unit must be in the Normal mode.
3. Refer to "Cluster Power Control Menus" on page 4-9 for information about CPC menus.
4. Refer to Chapter 1 for information about connecting cables to the CPC ports.
5. The CPC must be named in the configuration menus before configuring the CPUs or peripherals.
6. When RISC CPUs and SMP CPUs are connected to the same CPC, you must configure the RISC CPUs before the SMP CPUs.
7. Peripherals must be configured last, unless the peripheral is an expansion rack.

Configuring the CPC

To configure the CPC for the TTY, perform the following steps:

1. Go to the MAIN MENU – Console CPC menu. If this menu is not showing, power the CPC off and then on by unplugging the CPC power cord and then reinserting the CPC power cord into an electrical outlet.
2. From the menu screen, select `TTY` and then press Enter.
3. From the menu screen, select `Set parameters`, and then press Enter.
4. From the menu screen, select `Set CPC Name`, and then press Enter. Enter "GROUP-01," or the name given by the customer to identify the group of systems that will be controlled by the CPC.

Note: The CPC is shipped with the password set to NULL. Enter a new password to avoid unauthorized access to the CPC configurations.

5. From the menu screen, select `Change Password`, and then press Enter.
6. From the menu display screen, select `Set Clock`, and then press Enter.
7. From the menu screen, select `Set Time`, and then press Enter.
8. From the menu screen, select `Set Date`, and then press Enter.
9. To return to the `TTY MENU - Console CPC` menu, type x and then press Enter.

To configure the CPC for the Modem, perform the following steps:

1. Go to the MAIN MENU – Console CPC menu. If this menu is not showing, power the CPC off and then on by unplugging the CPC power cord and then reinserting the CPC power cord into an electrical outlet.
2. When the MAIN MENU is displayed, type 0 to select the `Modem` menu and press Enter
3. When the Modem menu is displayed, type 0 to select the `Miscellaneous Parameters` menu and press Enter.

4. When the `Miscellaneous Parameters` menu is displayed, type 0 to `Enable Modem Connection`.

This completes the CPC configuration.

Configuring the CPU

To configure the CPU, perform the following steps:

1. Go to the MAIN MENU – Console CPC menu. If this menu is not showing, power the CPC off and then on by unplugging the CPC power cord and then reinserting the CPC power cord into an electrical outlet
2. When the MAIN MENU is displayed, type 0 to select `TTY` and press Enter.
3. When the TTY menu is displayed, type 3 to select the `Set Configuration` menu
4. When the Set Configuration menu is displayed, type 0 to select the `Change Configuration`.
5. When the Change Configuration – Select Unit menu is displayed, select the CPU that you wish to configure.
6. When the Change Unit Configuration menu is displayed, type 0 to select `Type`.

Notes:

All RISC CPUs require a power control cable connection from 4-X port to enable a remote power on by the CPC code.

CPU A uses 4-1, CPU B USES 4-2, CPU C uses 4-3, CPU D uses 4-4. Refer to "Connections from CPC Ports to Various Devices" on page 4–28 for correct cable connections from 4-X ports to peripherals.

7. If you have a RISC system, type r (for RISC), and then press Enter. If you have an SMP system, go to the next step.
8. If you have an SMP system, type p and then press Enter. If you do not have an SMP system, go to the next step.
9. For deselecting or removing the CPU from the configuration, type a . (period), and then press Enter.

Note: Specifying a Unit Name is optional.

10. From the menu screen, select `Unit Name` (not more than 16 characters), and then press Enter. An example is SN1234567 CPU-A where SNx...x is the CPU serial number and CPU-A is the name of the CPU given by the customer.

Note: Specifying the System Number is optional. The System Number is used to group system units and disk drawers to control power operations.

11. When the Change Unit Configuration menu is displayed, type 2 to select `System`, and then press Enter.
12. From the menu screen, select N (N is the system number; acceptable values for N are 1 through 39.), and then press Enter. The SN is the rack serial number and SYS-01 is the name given to the system by the customer.

Note: Specifying the System Name is optional. The System Name is used to identify the system group. The System Name option will only appear if the System Number is set.

13. From the menu screen, select `System Name` (not more than 16 characters), and then press Enter.

14. To exit, type x, and then press Enter.
15. Repeat the steps 5 through 14 to configure other CPUs before continuing to the next step.
16. If peripherals are related to this system, go to "Configuring Peripherals" on page 4-32.
17. To save the configuration and exit, type x, and then press Enter.

This completes the CPU configuration.

Configuring Peripherals

To configure a peripheral in a system, perform the following steps:

1. Go to the MAIN MENU – Console CPC menu. If this menu is not showing, power the CPC off and then on by unplugging the CPC power cord and then reinserting the CPC power cord into an electrical outlet.
2. When the MAIN MENU is displayed, type 0 to select TTY and press Enter.
3. When the TTY menu is displayed, type 3 to select the Set Configuration menu then press Enter.
4. When the Set Configuration menu is displayed, type 0 to select the Change Configuration menu, then press Enter.
5. When the Change Configuration – Select Unit menu appears, select the first available power control interface (PCI) port.

Note: An asterisk in place of a port option number indicates the port is reserved for power control for a system unit.

6. When the Change Unit Configuration menu appears, type 0 to select Type.
7. Type d (for a peripheral), and then press Enter. If you do not have an peripheral, go to the next step.
8. For deselecting or removing the peripheral from the configuration, type a . (period), and then press Enter.

Note: Specifying a Unit Name is optional.

9. From the same menu screen, select Unit Name (not more than 16 characters), and then press Enter. An example is SN1234567 DD-01 where SNx...x is the peripheral serial number and DD-01 is the name of the peripheral given by the customer.

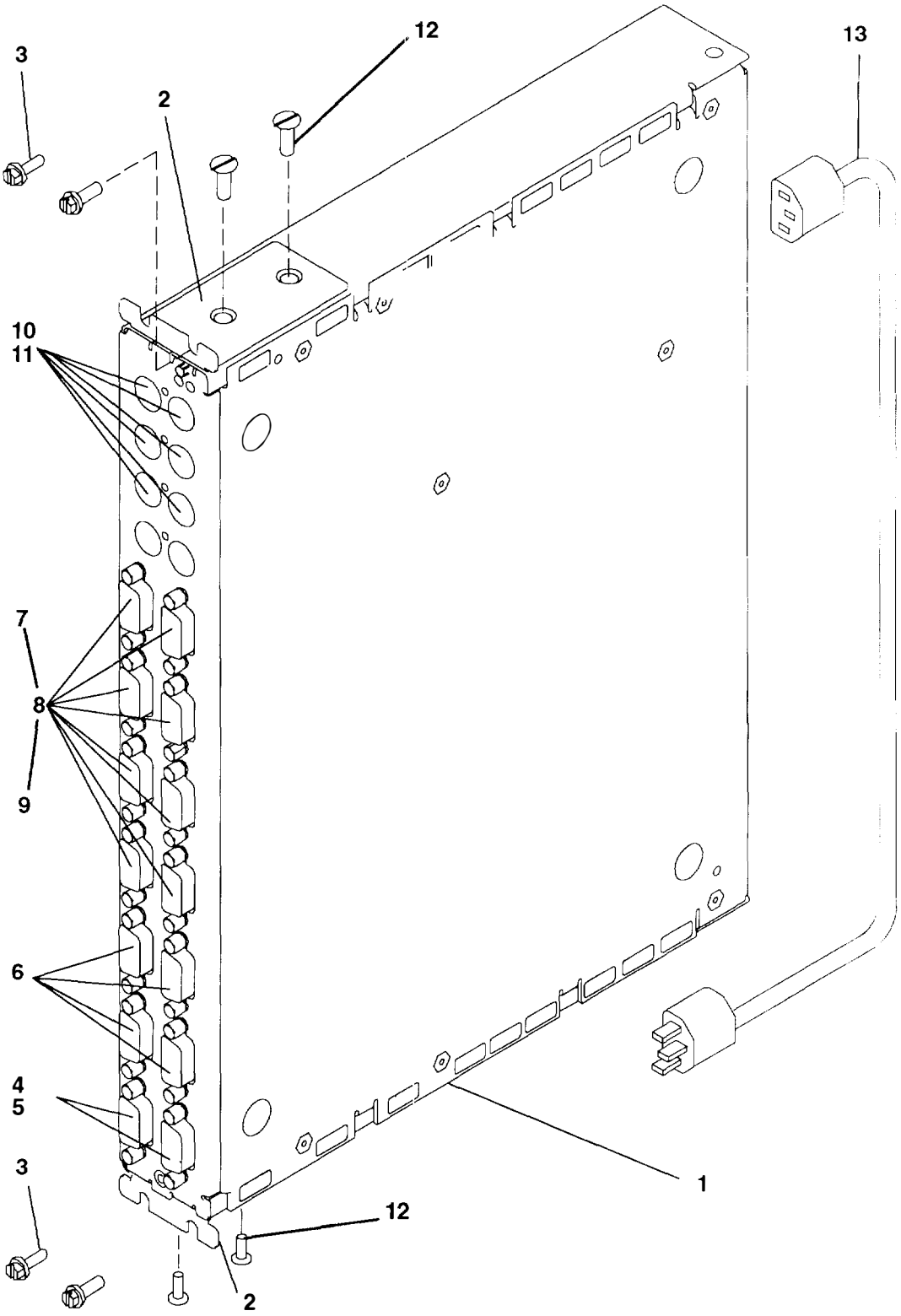
Note: Specifying the System Number is optional. The System Number is used to group system units and disk drawers to control power operations.

10. From the same menu, select System, and then press Enter.
11. From the menu screen, select N (N is the system number, 1 through 39), and then press Enter.
12. From the menu screen, select System Name (not more than 16 characters), and then press Enter.
13. To exit, type x, and then press Enter.
14. Repeat the steps 5 through 13 to configure other peripherals before continuing to the next step.
15. To save the configuration and exit, type x, and then press Enter.

This completes the peripheral configuration. If all of the devices are configured, then the system customization is completed.

Chapter 5. Parts Information

Detail 1. Cluster Power Control

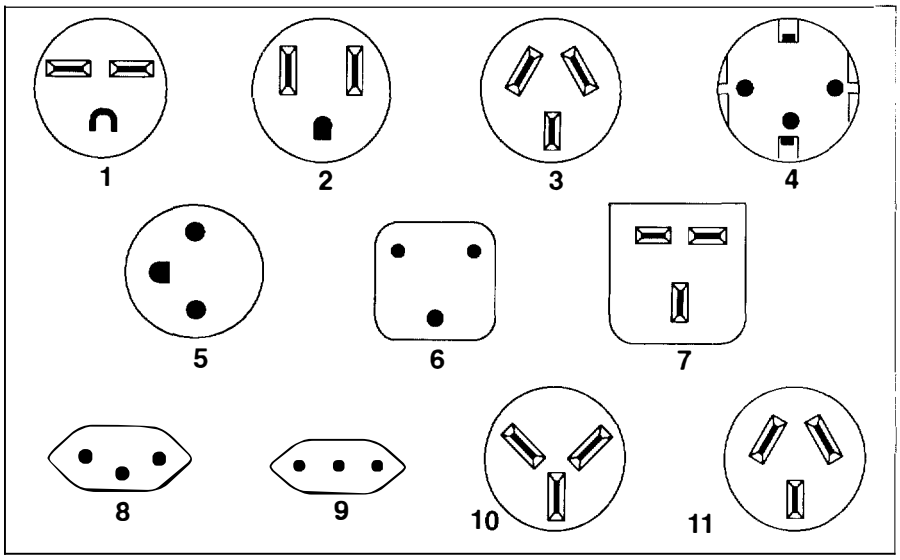


Index Number	Part Number	Units Per Asm	Description
1	39H8268	1	Cluster power control
2	11H2642	2	Bracket, mounting
3	00G1268	4	Screw, slotted hex head, M4x7
4	68X3874	1	Null modem cable (cable A in table on page 1-7), CPC (9 pin jack) to TTY (25 pin plug), 10 feet
5	58F2861	1	Null modem adapter or printer interposer (cable B in table on page 1-7) (25 pin jack to 25 pin plug)
6	11H7336	1	Null modem cable (cable D in table on page 1-7), CPC (9 pin jack) to CPC (9 pin jack), CPC to CPC interconnect cable, 25 feet
7	6450242	1	Serial adapter connector cable (cable C in table on page 1-7), R30 (9 pin jack) to CPC (25 pin plug), 10 inches (see note)
8	11H7337	1	Serial port cable (cable E in table on page 1-7), null modem, CPC (9 pin jack) to system (25 pin jack), 10 feet
9	11H3834	1	Y-cable (cable D in table on page 1-3), Model G30 S1/S2 port (25 pin jack) to S1 and S2 (25 pin plug), 12 inches (see note)
10	12H1605	1	Power control interface cable (cable G in table on page 1-7), CPC (4 pin) to R10, R2x (5 pin), 10 feet
11	42F6839	1	Power control interface cable (cable F in table on page 1-7), CPC (4 pin plug) to Model 933x (4 pin plug), 10 feet
12	1621307	4	Screw, flat head, M4x6
13	34G0252	1	Power cord, cluster power control (also see table on page 5-4)

Note: This cable is connected to the system unit and the serial port cable; this cable is not attached directly to the CPC.

Power Cables

Note: If you should need a different power cable, use this figure and the following table to assist you when ordering.



Index	Part Number	Country
1	1838574	Bahamas, Barbados, Bolivia, Brazil, Canada, Costa Rica, Dominican Republic, El Salvador, Ecuador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Japan, Netherlands Antilles, Panama, Peru, Philippines, Taiwan, Thailand, Trinidad, Tobago, U.S.A. (except Chicago), Venezuela
2	6952300	Bahamas, Barbados, Bermuda, Bolivia, Brazil, Canada, Cayman Islands, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Japan, Korea (South), Mexico, Netherlands Antilles, Nicaragua, Panama, Peru, Philippines, Puerto Rico, Saudi Arabia, Suriname, Trinidad, Taiwan, U.S.A. (except Chicago), Venezuela
2	62X1045	Chicago, U.S.A.
3	6952311	Argentina, Australia, New Zealand
4	13F9979	Abu Dhabi, Austria, Belgium, Bulgaria, Botswana, Egypt, Finland, France, Germany, Greece, Iceland, Indonesia, Korea (South), Lebanon, Luxembourg, Macau, Netherlands, Norway, Portugal, Saudi Arabia, Spain, Sudan, Sweden, Turkey, Yugoslavia
5	13F9997	Denmark
6	14F0015	Bangladesh, Burma, Pakistan, South Africa, Sri Lanka
7	14F0033	Bahrain, Bermuda, Brunei, Channel Islands, Cyprus, Ghana, Hong Kong, India, Iraq, Ireland, Jordan, Kenya, Kuwait, Malawi, Malaysia, Nigeria, Oman, People's Republic of China, Qatar, Sierra Leone, Singapore, Tanzania, Uganda, United Arab Emirates (Dubai), United Kingdom, Zambia
8	14F0051	Liechtenstein, Switzerland
9	14F0069	Chile, Ethiopia, Italy
10	14F0087	Israel
11	6952291	Paraguay, Colombia, Uruguay

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