

Intuity™ Messaging Solutions

Getting Connected



Lucent Technologies
Bell Labs Innovations



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Comcode 108344839
Issue 1
June 1999

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Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

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Part 15: Class A Statement. 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.

Part 68: Network Registration Number. This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by an FCC registration number.

Part 68: Answer-Supervision Signaling. Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 Rules. This equipment returns answer-supervision signals to the public switched network when:

- Answered by the called station
- Answered by the attendant
- Routed to a recorded announcement that can be administered by the CPE user

This equipment returns answer-supervision signals on all DID calls forwarded back to the public switched telephone network. Permissible exceptions are:

- A call is unanswered
- A busy tone is received
- A reorder tone is received

Canadian Department of Communications (DOC)

Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications.

Le Présent Appareil Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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Lucent Technologies Business Communications Systems declares that the equipment specified in this document conforms to the referenced European Union (EU) Directives and Harmonized Standards listed below:

EMC Directive 89/336/EEC

Low-Voltage Directive 73/23/EEC



The “CE” mark affixed to the equipment means that it conforms to the above directives.

Comments

To comment on this document:

- Email us at octeltechpubs@lucent.com
- Send us a fax at 303 538-9625.

Please be sure to include the name of this book, *Intuity Messaging Solutions Getting Connected*, 585-313-703.

Acknowledgment

This document was prepared by Product Documentation, Lucent Technologies, Columbus, OH.

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Overview

Intuity Messaging Solutions Release 5 Getting Connected, 585-313-703, provides illustrations to help you make connections from the Lucent Intuity system to the following:

- Switches, including DEFINITY, MERLIN LEGEND, System 25, System 75, System 85, digital station interface, inband, and serial switches
- Networks
- Terminals and distant modems

See the Intuity Messaging Solutions Release 5 documentation CD-ROM for more information on cable connectivity, circuit cards, and networking. The documentation CD-ROM also includes cable ordering numbers and cable lengths.

Connecting Cables from the Platform to the Switch

To begin switch connections from the platform, you must connect to the DCIU circuit card or the digital station interface circuit card. Verify the slot position of the circuit card.

Using an IDI or MPDM for Switch Connections

Connections on the platform to the switch must be made through either an isolating data interface (IDI) or a modular processor data module (MPDM). Direct connections to the switch are not supported.

An IDI functions as a ground device (RS-449). The cable is RS-232 on one end for connection to the DCIU circuit card and RS-449 on the other end for connection to the IDI.

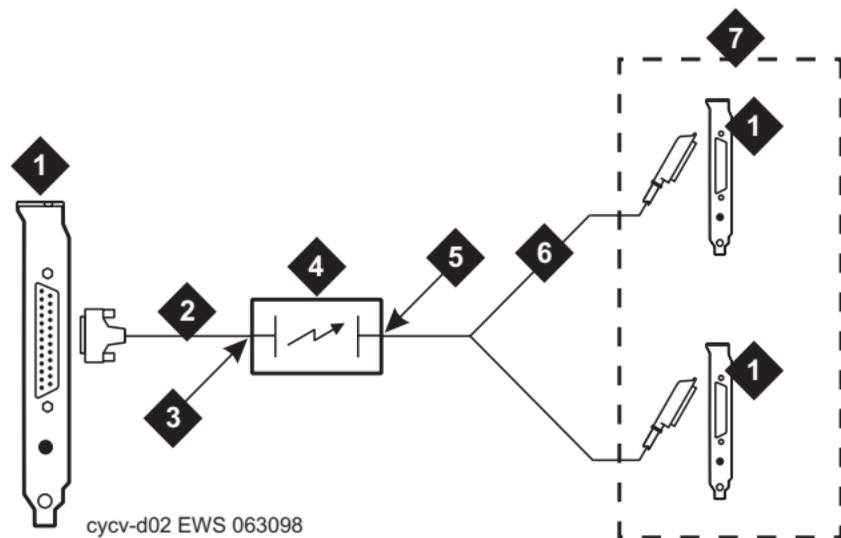
The MPDM provides a digital port connection to the switch from the DCIU circuit card. You must use an MPDM in the following situations:

- The distance of the connection from the platform to the switch is greater than 400 feet (122 meters).
- The switch to which you are connecting has duplicated common control.
- The switch has DC power.

The last two items *do not* apply to DEFINITY G3r or G2 and System 85 R2V4.

Connecting Lucent Intuity to G2 and System 85 R2V4 Using Duplicated Common Control Through an IDI

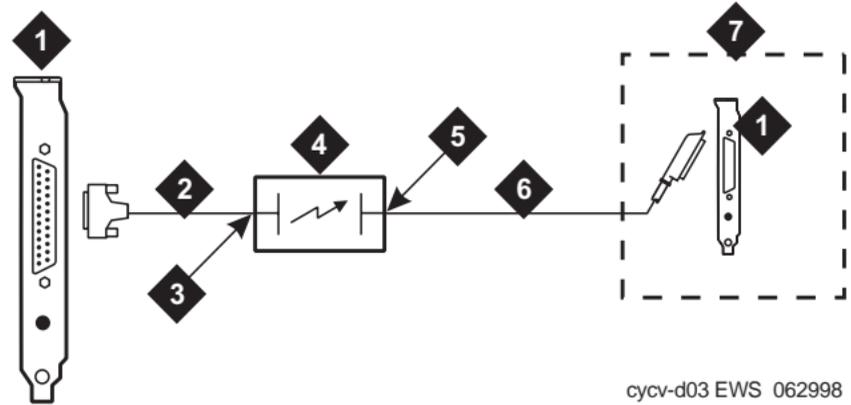
- 1 DCIU circuit card
- 2 ED1E43411 – Grp 175 cable
- 3 *Adjunct* RS-449 connector
- 4 IDI
- 5 *Switch* RS-449 connector
- 6 ED1E43411 – Grp 342 cable
- 7 G2 and System 85



You must also attach a Grp 304 cable to the Grp 342 cable if the connection is more than 7 feet (2.1 meters) away. This is not shown in the figure. The Grp 304 cable is 400 feet (122 meters) in length.

Connecting Lucent Intuity to G2 and System 85 R2V4 Through an IDI

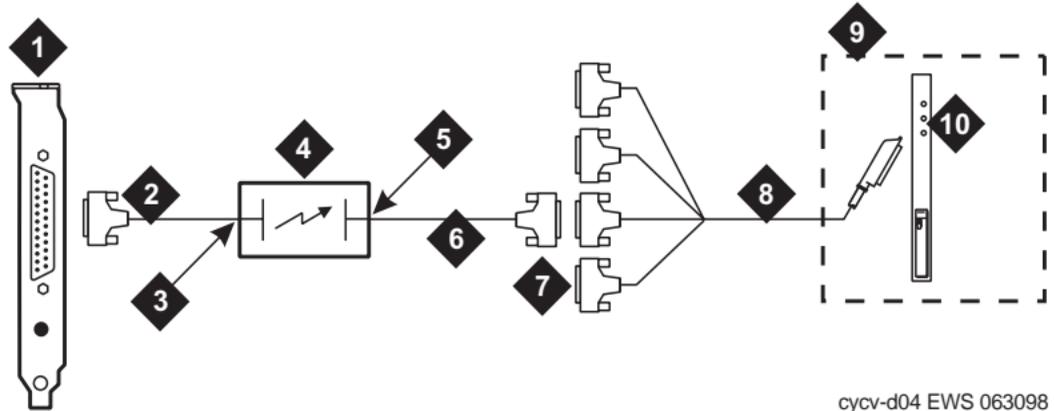
- 1 DCIU circuit card
- 2 ED1E43411 – Grp 175 cable
- 3 *Adjunct* RS-449 connector
- 4 IDI
- 5 *Switch* RS-449 connector
- 6 ED1E43411 – Grp 304 cable
- 7 G2 and System 85



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Connecting the Lucent Intuity to G3r Through an IDI

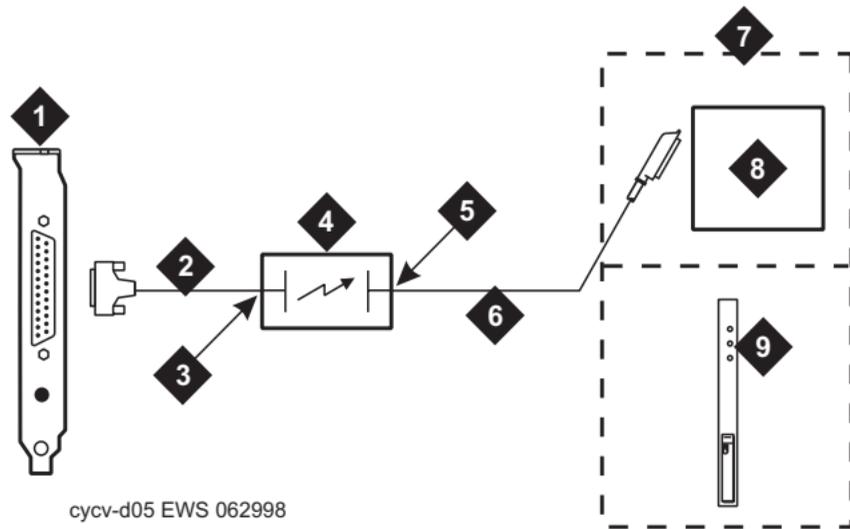
- 1 DCIU circuit card
- 2 ED1E43411 – Grp 175 cable
- 3 *Adjunct* RS-449 connector
- 4 IDI
- 5 *Switch* RS-449 connector
- 6 H600-210 – Grp n cable
- 7 RS-232 connector
- 8 H600-347 cable
- 9 G3r
- 10 TN577 packet gateway



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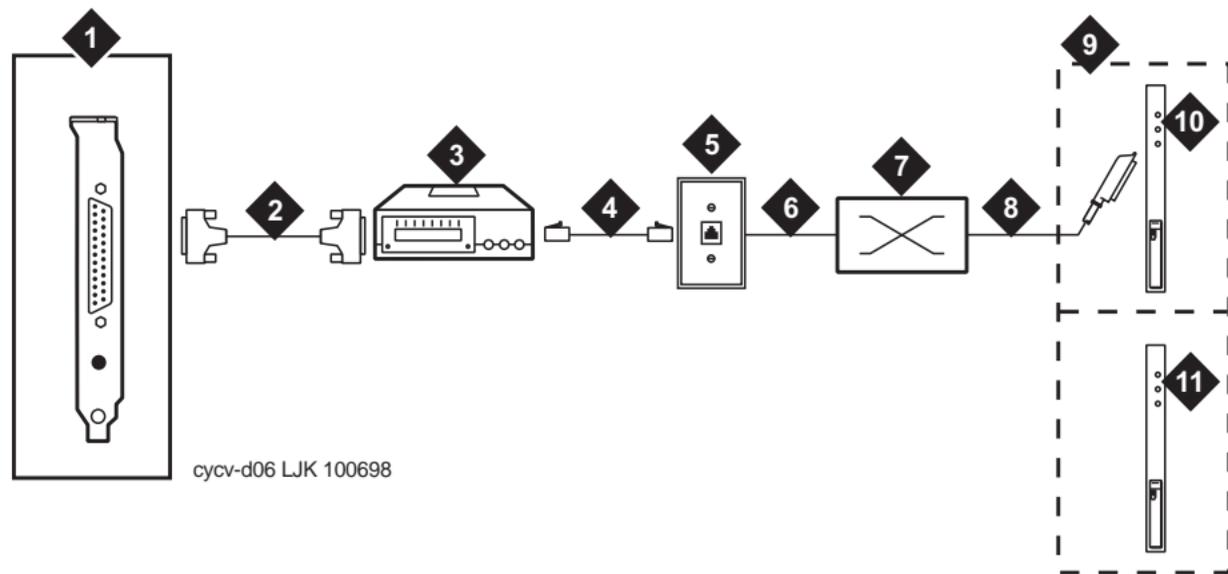
Connecting the Lucent Intuity to Most Switches Through an IDI – G3r, G2, and System 85 Excluded

- 1 DCIU circuit card
- 2 ED1E43411 – Grp 175 cable
- 3 *Adjunct* RS-449 connector
- 4 IDI
- 5 *Switch* RS-449 connector
- 6 H600-210 – Grp *n* cable
- 7 Most switches except G3r, G2, and System 85
- 8 EIA connector on the processor interface
- 9 TN765 processor interface



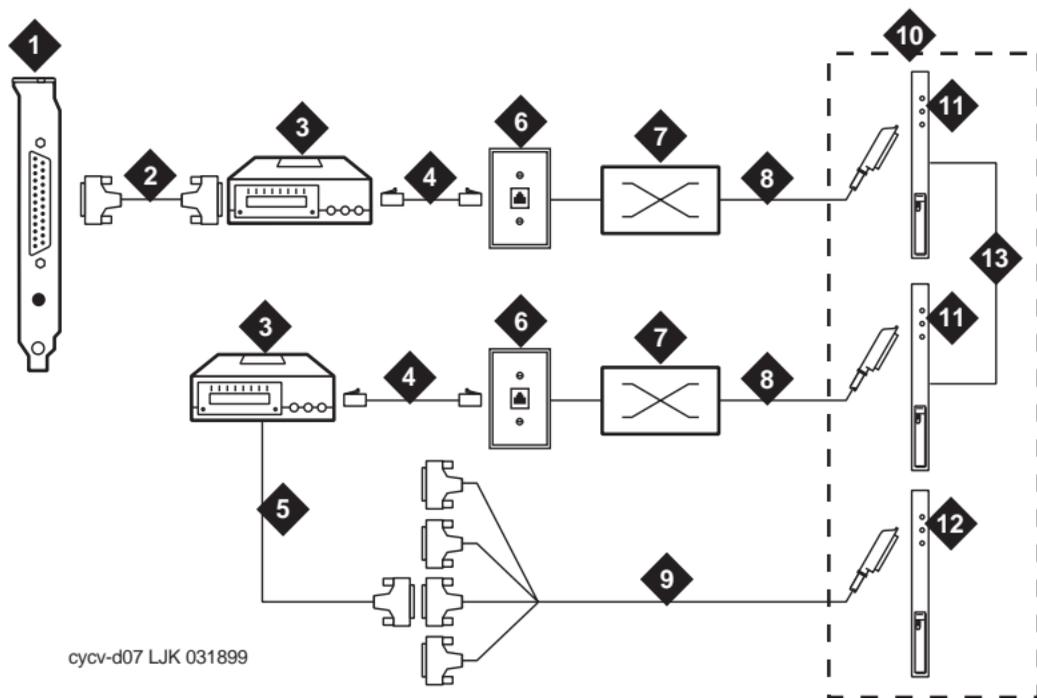
Connecting the Lucent Intuity to Most Lucent Switches Through an MPDM — G3r, G2, and System 85 Excluded

- 1 DCIU circuit card
- 2 RS-232 cable
- 3 MPDM
- 4 D8W-87 (4-pair) modular cord
- 5 House wiring
- 6 3-pair cord
- 7 Cross connect field
- 8 25-pair I/O cable
- 9 Most switches except G3r, G2, and System 85
- 10 TN754 digital line interface
- 11 TN765 processor interface



Connecting the Lucent Intuity to the G3r Through MPDMs

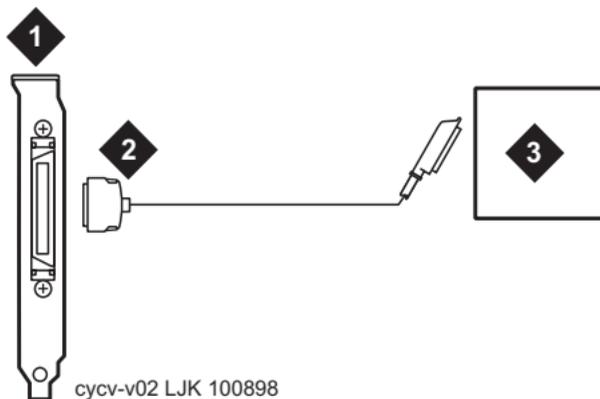
- 1 DCIU circuit card
- 2 RS-232 cable
- 3 MPDM
- 4 D8W-87 modular cord
- 5 Group 110 cable
- 6 103A adapter
- 7 Cross-connect field
- 8 25-pair I/O cable
- 9 H600-347 – Grp 1 cable
- 10 G3r only
- 11 TN754 digital line interface
- 12 TN577 packet gateway
- 13 Administered connection



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Making a Direct Connection from the Digital Station Interface Circuit Card to Customer Premise Equipment

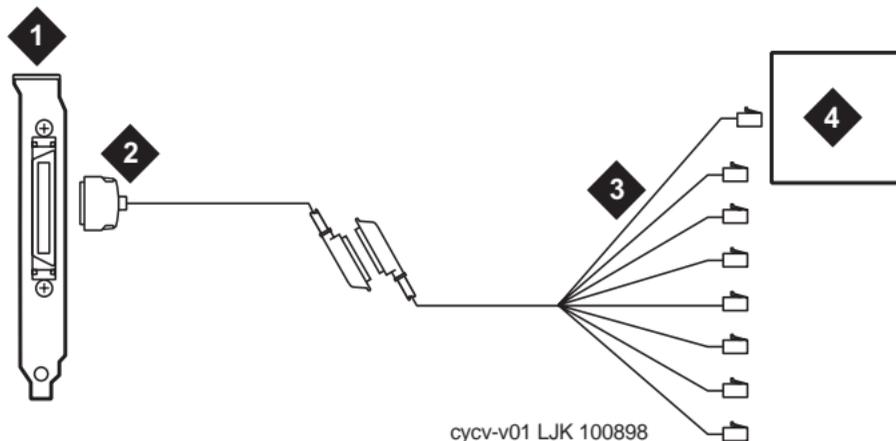
- 1 Digital station interface circuit card
- 2 50-pin connector
- 3 Customer premise equipment



If customers use ROLM or Northern Telecom equipment, their station jacks are RJ-11, not RJ-45. You must use in-line adapters to convert the RJ-11 to RJ-45 to connect their equipment.

Connecting the Digital Station Interface Circuit Card to Customer Premise Equipment

- 1 Digital station interface circuit card
- 2 50-pin connector
- 3 Octopus cable 3-feet (1-meter)
- 4 Customer premise equipment



If you do not need to use the octopus cable, connect the end of the connector cable directly to the customer premise equipment. See “Making a Direct Connection from the Digital Interface Circuit Card to Customer Premise Equipment” for a figure of a direct connection.

If customers use ROLM or Northern Telecom equipment, their station jacks are RJ-11, not RJ-45. You must use in-line adapters to convert the RJ-11 to RJ-45 to connect their equipment.

Connecting the Lucent Intuity System to the Network

The ACCX circuit card is used on the platform for connections to the network. Each circuit card supports four networking channels through digital and/or analog remote connections using DCP and/or RS-232 lines, respectively.

Each ACCX circuit card terminates four data channels in one of the following combinations:

- Two DCP lines, each providing two I-channels. Depending on the version of the switch you are connecting to, you may only be able to use one of the two I-channels of each DCP circuit.
 - System 75 R1V3, DEFINITY G1 R1V4, and DEFINITY G3i, G3s, or G3vs Version 1 only support one I-channel.

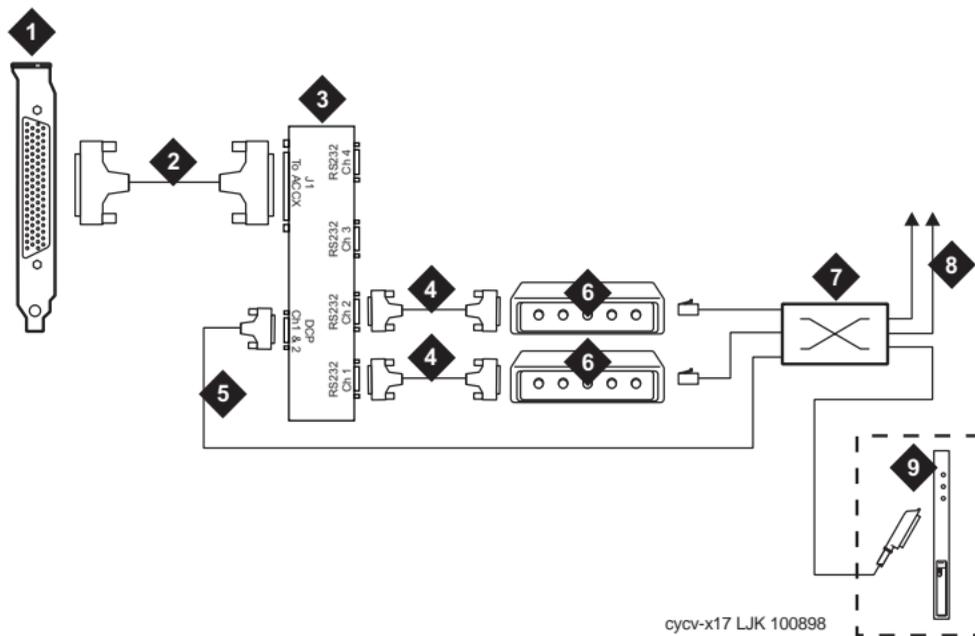
- DEFINITY G2, G3, G3i, G3s, G3vs Version 2, and System 85 can use both I-channels. The option must be purchased, installed, and administered on the switch before Lucent Intuity system administration is performed.
- Four RS-232 ports
- One DCP line (two I-channels) and two RS-232 ports

Each ACCX circuit card includes a 10-foot (3-meter) cable and a breakout box for RS-232 or DCP connections. The ACCX circuit card is located in varying places depending on the platform. Verify the location of the ACCX circuit card.

See the Intuity Messaging Solutions Release 5 documentation CD-ROM for more information on RS-232 and DCP cable pinouts, breakout boxes, and how to install the ACCX circuit card.

Connecting the Lucent Intuity to the Network Through Two RS-232 Lines and One DCP Line

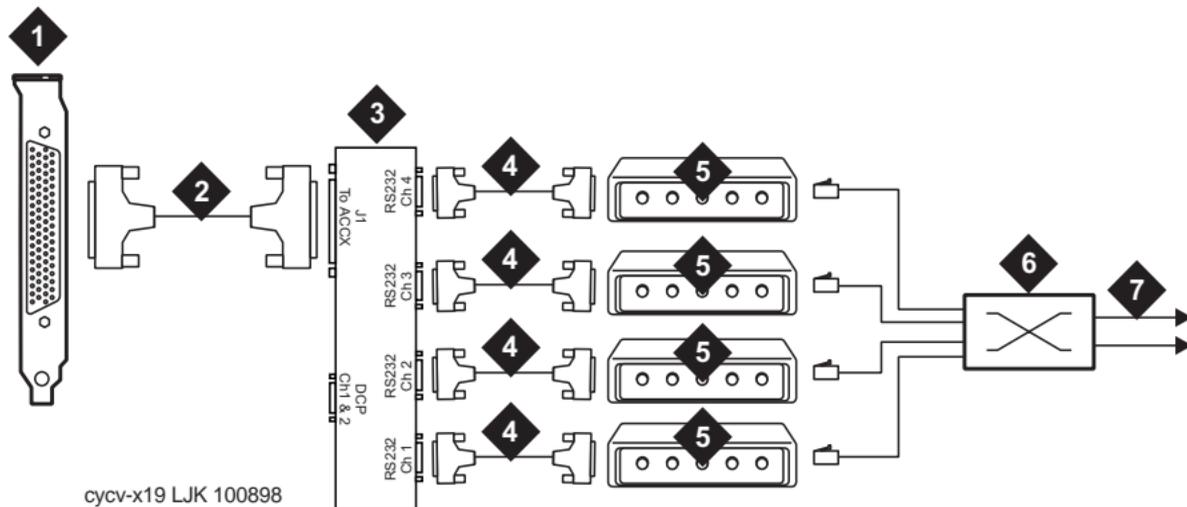
- 1 ACCX circuit card
- 2 78-pin cable
- 3 124A breakout box
- 4 RS-232 cable
- 5 ED5P208 – Grp 30 cable
- 6 Modem
- 7 Cross-connect field
- 8 Analog lines
- 9 TN754 or SN270B interface



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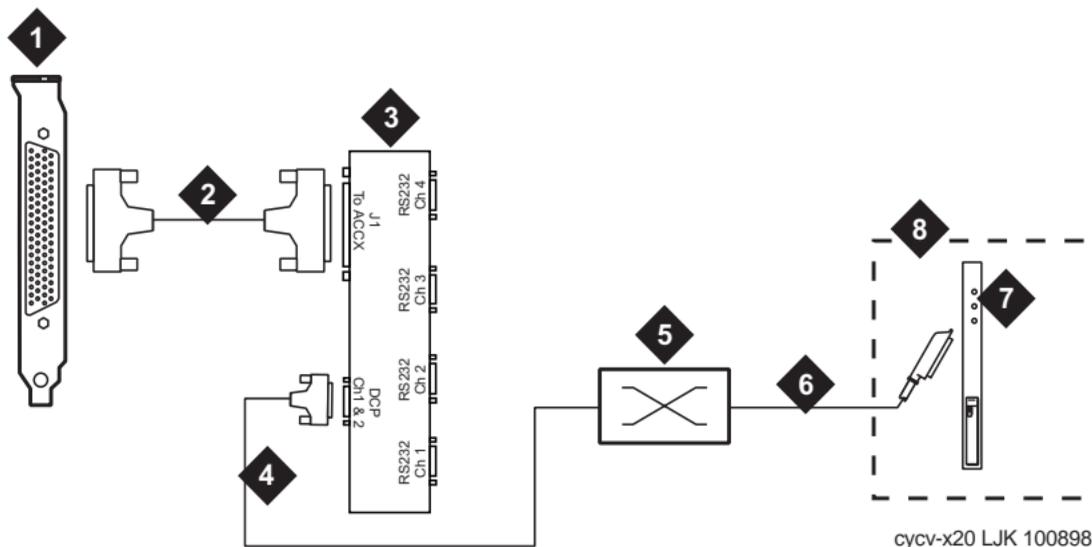
Connecting the Lucent Intuity to the Network Through Four RS-232 Cables

- 1 ACCX circuit card
- 2 78-pin cable
- 3 124A breakout box
- 4 RS-232 cable
- 5 Modem
- 6 Cross-connect field
- 7 Analog lines



Connecting the Lucent Intuity to the Network Through Two DCP Lines

- 1 ACCX circuit card
- 2 78-pin cable
- 3 124A breakout box
- 4 ED5P208 – Grp 30 cable
- 5 Cross-connect field
- 6 25-pair I/O cable
- 7 Digital line interface (TN754 or SN270B)
- 8 DEFINITY switch



Connecting the Lucent Intuity to Terminals and Distant Modems

Serial port connections from the Lucent Intuity system to terminals, distant modems, or other customer premise equipment can be made either from COM1 (serial port 1) on the back of the platform or from the serial interface circuit card.

If there is only one serial connection to make, use COM1 (serial port 1). Use the serial interface circuit card for the first eight connections and then use COM1, if necessary.

For MERLIN LEGEND integrations without automatic Alarm Origination, COM2 is available. COM1 is reserved for the System Programming and Maintenance Utility (SPM), a utility that allows you to administer the MERLIN LEGEND from the Lucent Intuity system.

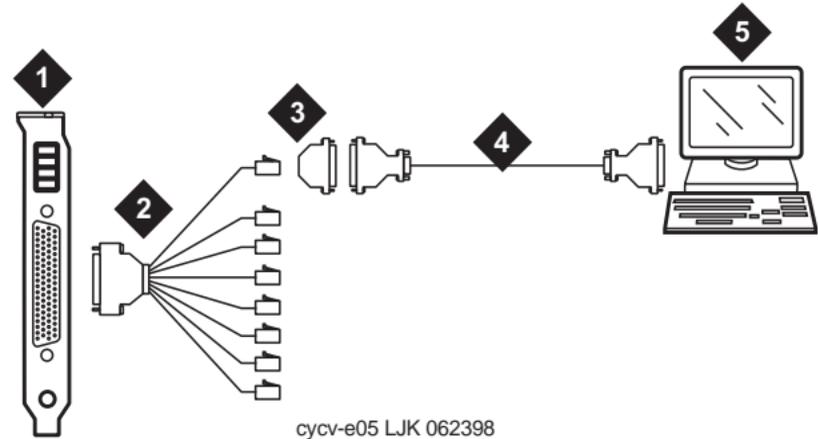
For the System 25 integrations, COM1 is reserved for the Call Accounting System (CAS), if CAS is installed. System 25 Administration (AAS) and the remote maintenance modem share COM2 through a switch box. Use a serial interface circuit card for additional devices on the System 25.

COM2 is reserved for remote support on systems using alarm origination. COM 2 may not be used for the Property Management System (PMS) link.

See the Intuity Messaging Solutions Release 5 documentation CD-ROM for more information on serial interface circuit card connections.

Making a Direct Connection from the Serial Interface Circuit Card to a 615 Terminal or Other DTE Devices

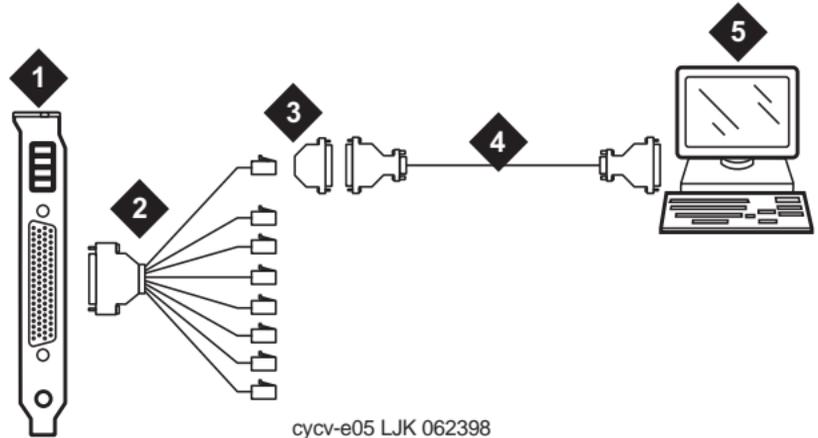
- 1 Serial interface circuit card
- 2 Octopus cable
- 3 DTE adapter
- 4 Null modem cable
- 5 615 terminal or other DTE device



A null modem cable must be available on site. If you need a null modem cable, you can purchase one from Lucent Technologies.

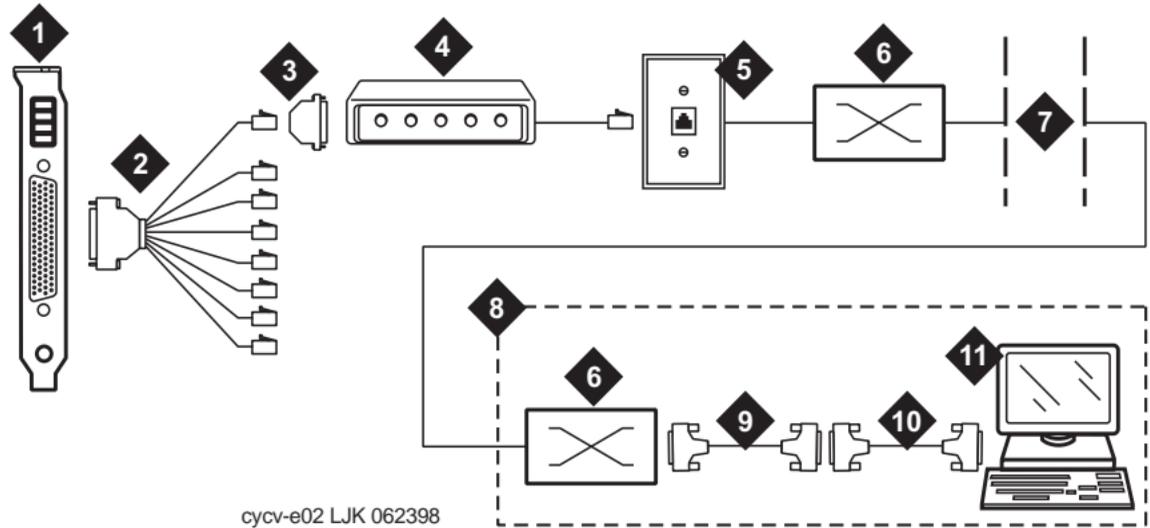
Making a Direct Connection from the Serial Interface Circuit Card to a 715 Terminal or Other DCE Devices

- 1 Serial interface circuit card
- 2 Octopus cable
- 3 DCE adapter
- 4 RS-232 cable
- 5 715 terminal or other DCE device



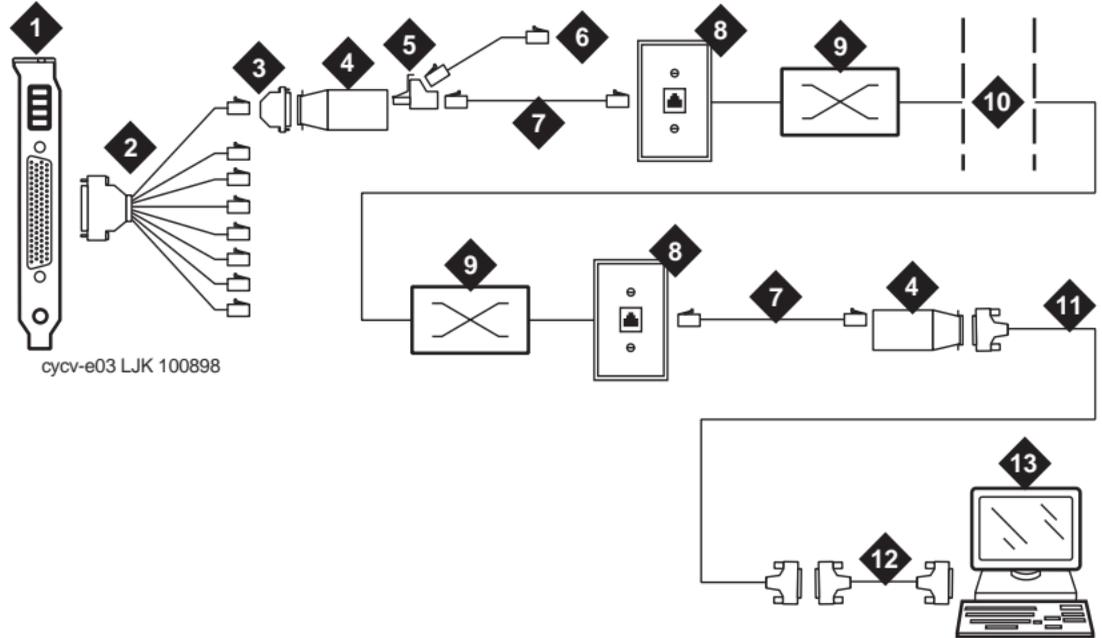
Connecting the Serial Interface Circuit Card to Customer Premise Equipment Through a Modem

- 1 Serial interface circuit card
- 2 Octopus cable
- 3 25-pin modular adapter
- 4 Modem
- 5 House wiring
- 6 Cross-connect field
- 7 Public switched network
- 8 Remote location
- 9 M8AJ-87 cable
- 10 DB-95 to DB-25P adapter
- 11 Customer premise equipment



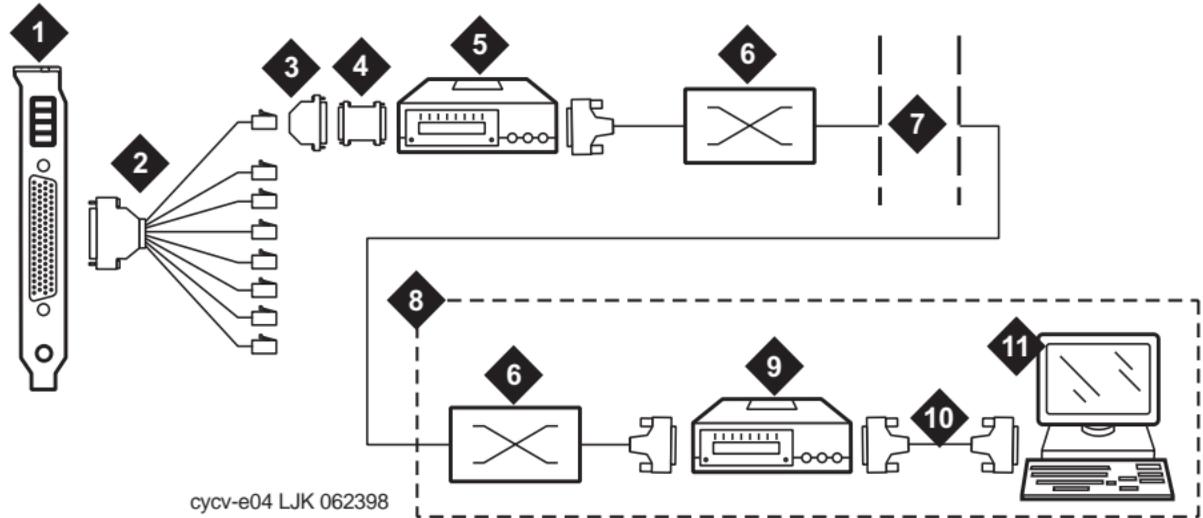
Connecting the Serial Interface Circuit Card to a 715 Terminal Through an ADU

- 1 Serial interface circuit card
- 2 Octopus cable
- 3 25-pin modular adapter
- 4 ADU
- 5 400B2 adapter
- 6 To power source
- 7 Modular cord
- 8 House wiring
- 9 Cross-connect field
- 10 Public switched telephone network
- 11 M8AJ-87 cable
- 12 DB-95 to DB-25P adapter
- 13 715 terminal or other DCE device



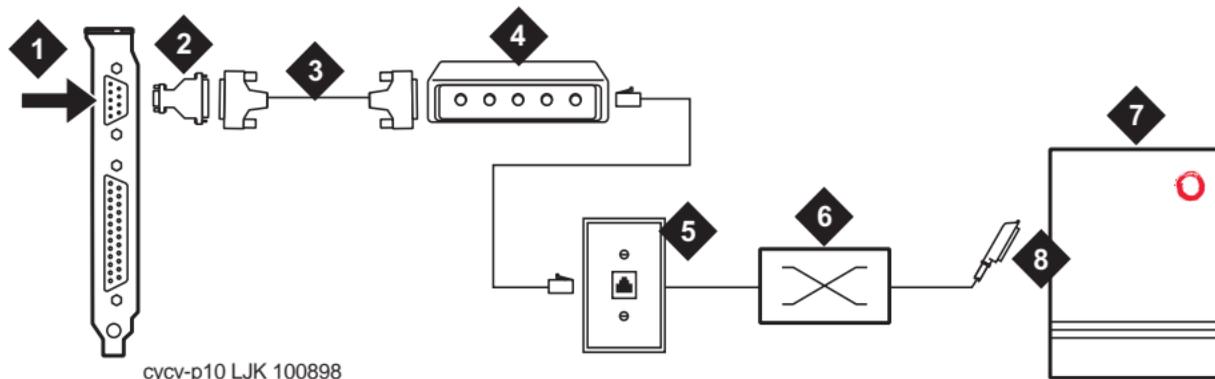
Connecting the Serial Interface Circuit Card to a Distant Data Module Through a 7400A Data Module

- 1 Serial interface circuit card
- 2 Octopus cable
- 3 25-pin modular adapter
- 4 DTE adapter
- 5 7400A data module
- 6 Cross-connect field
- 7 Public switched network
- 8 Remote location
- 9 7400B distant data module
- 10 Null modem
- 11 Terminal



Connecting COM1 to Customer Premise Equipment Through a Modem

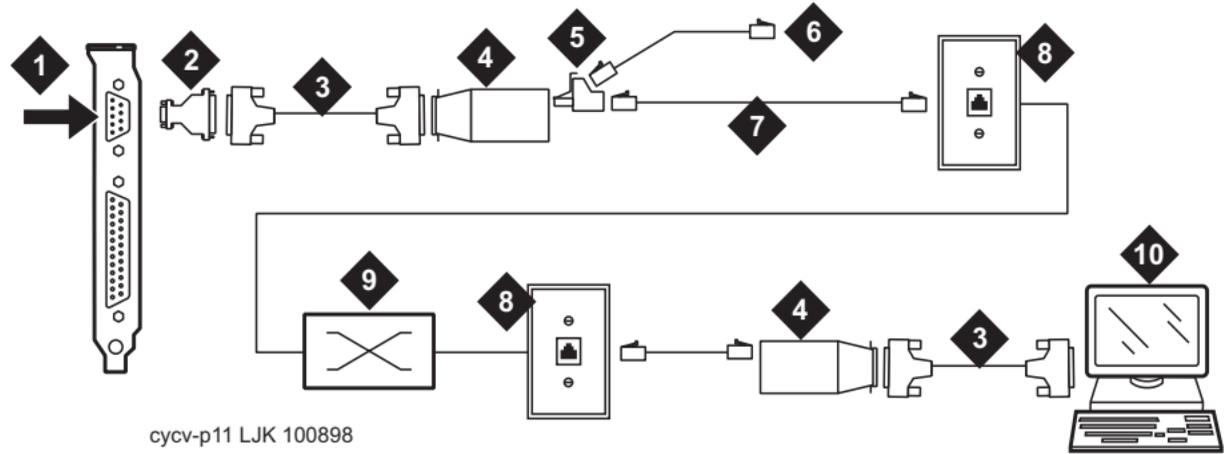
- 1 COM1 (either on CPU or back of platform)
- 2 9-pin to 25-pin adapter
- 3 RS-232 cable
- 4 Modem
- 5 House wiring
- 6 Cross-connect field
- 7 Switch
- 8 25-pair cable



This figure shows COM1 on the CPU circuit card. This configuration applies to MAP/40P and MAP/100P systems only. On MAP/5P systems, COM1 is on the back of the chassis, not on the CPU circuit card.

Connecting COM1 to a 715 Terminal Through ADUs

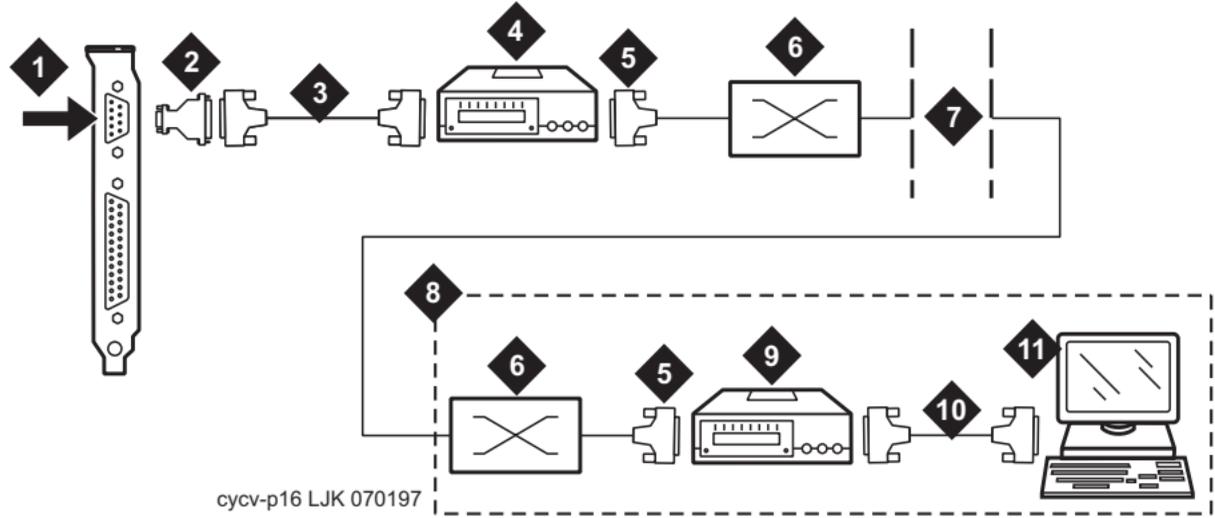
- 1 COM1 (either on CPU or back of platform)
- 2 9-pin to 25-pin adapter
- 3 RS-232 cable
- 4 ADU
- 5 400B2 adapter
- 6 To adjunct power 1151A
- 7 DW8 cable
- 8 House wiring
- 9 Cross-connect field
- 10 715 terminal or other DCE device



This figure shows COM1 on the CPU circuit card. This configuration applies to MAP/40P and MAP/100P systems only. On MAP/5P systems, COM1 is on the back of the chassis, not on the CPU circuit card.

Connecting COM1 to a Distant Data Module Through a 7400A Data Module

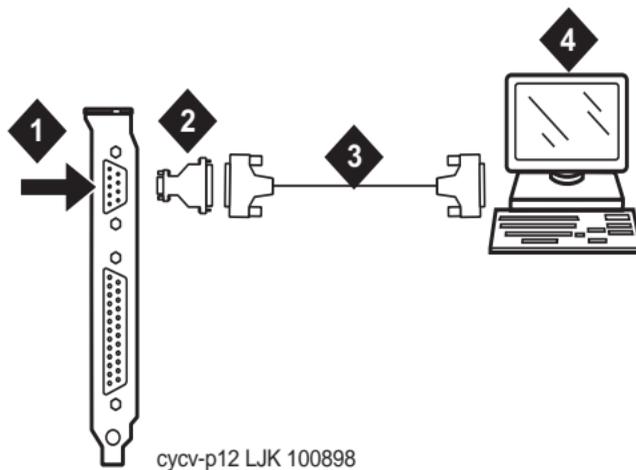
- 1 COM1 (either on CPU or back of platform)
- 2 9-pin to 25-pin adapter
- 3 RS-232 cable
- 4 7400A data module
- 5 25-pin cable
- 6 Customer wall field
- 7 Public switched telephone network
- 8 Remote location
- 9 7400B distant data module
- 10 RS-232 cable
- 11 Computer terminal



This figure shows COM1 on the CPU circuit card. This configuration applies to MAP/40P and MAP/100P systems only. On MAP/5P systems, COM1 is on the back of the chassis, not on the CPU circuit card.

Connecting COM1 to a 615 Terminal or Other DTE Device Through a Null Modem

- 1 COM1 (either on CPU or back of platform)
- 2 9-pin to 25-pin adapter
- 3 Null modem cable
- 4 615 terminal or other DTE device

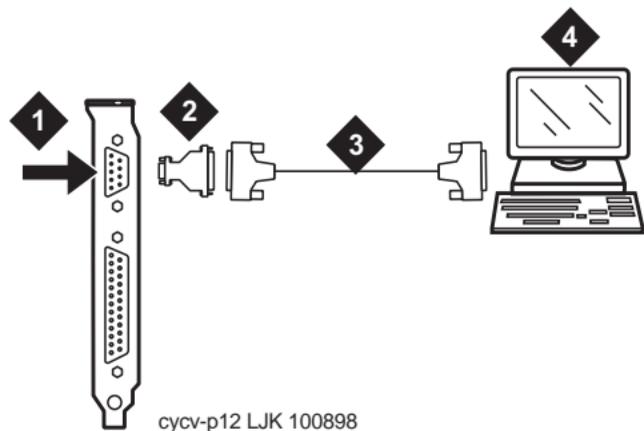


This figure shows COM1 on the CPU circuit card. This configuration applies to MAP/40P and MAP/100P systems only. On MAP/5P systems, COM1 is on the back of the chassis, not on the CPU circuit card.

A null modem must be available on site. If needed, it can be purchased from Lucent Technologies.

Connecting COM1 to a 715 Terminal or Other DCE Device

- 1 COM1 (either on CPU or back of platform)
- 2 9-pin to 25-pin adapter
- 3 RS-232 cable
- 4 715 terminal or other DCE device



This figure shows COM1 on the CPU circuit card. This configuration applies to MAP/40P and MAP/100P systems only. On MAP/5P systems, COM1 is on the back of the chassis, not on the CPU circuit card.

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