

JULY 1998 PC394A-R3 PC394AE-R3 PC394C PC395C PC395C PC396C PC397C

# 5494 Remote Controller Installation Guide

plus Twinax Expansion, Token Ring, and Ethernet Add-In Cards



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## FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

#### **INSTRUCCIONES DE SEGURIDAD (Normas Oficiales Mexicanas Electrical Safety Statement)**

- 1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
- 2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
- 3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
- 4. Todas las instrucciones de operación y uso deben ser seguidas.
- 5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
- 6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
- 7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
- 8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
- 9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
- 10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
- 11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
- 12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
- 13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
- 14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
- 15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.
- 16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
- 17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.
- 18. Servicio por personal calificado deberá ser provisto cuando:
  - A: El cable de poder o el contacto ha sido dañado; u
  - B: Objectos han caído o líquido ha sido derramado dentro del aparato; o
  - C: El aparato ha sido expuesto a la lluvia; o
  - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
  - E: El aparato ha sido tirado o su cubierta ha sido dañada

#### TRADEMARKS USED IN THIS MANUAL

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#### **Unpacking the Box**

Place the packing box containing your Remote Controller in an area with ample room for unpacking. Open the box and remove the contents. Use the checklist below to make sure you have all the items in the box. Keep the box and packing materials in case you need to move or ship the equipment later.

The box should include:

- The Installation Guide (this manual)
- The Quick Setup and User's Guide
- Power cord
- Twinax "V" cable (included with the PC394C and PC397C only)
- Remote Controller software (two 3.5" diskettes)
- Remote Controller unit with a MPIC communications interface installed.

#### The Remote Controller

The front of the Remote Controller has POWER ON and TEST switches, status indicators, and a diskette drive. The back panel has cable and power connections, card installation slots, and status indicators. It also has two cards or boards installed in its basic configuration: a communications card and one twinax card. You should be familiar with these features, as you will use them when installing the Controller.



Figure 1. Front of the Controller.

## **INSTALLATION GUIDE**



Figure 2. Back of the Controller.

## Choose a Site

Place the Remote Controller on a desk or table top where you will be using it. Make sure the Remote Controller has at least six inches of clearance (air space) on the top, sides, and back for cooling. You should also remember that you will need access to the Remote Controller to add devices, cards, and cabling, or to load software. The guidelines below will help you choose the proper site.

- Place the Remote Controller away from electromagnetic sources such as electric motors, transformers, and high-voltage power lines.
- Do not place the Remote Controller next to other electronic devices (their power supplies may cause interference).
- Protect the Remote Controller from high humidity, dust, and water.

## **Installing Additional Cards**

The basic Remote Controller comes with an installed MPIC interface for host SNA/SDLC communications. If you ordered any additional equipment, it may be shipped separately.

Like most circuit boards, the optional cards can be damaged by static electricity discharged from your hands to the card (similar to walking across a carpeted floor and touching a doorknob). If you have one, wear an approved wrist strap connected to a grounded surface during installation of the cards.

To install a card in the Remote Controller:

- 1. Turn off the power to the Remote Controller.
- 2. Remove the single screw at the top center of the back cover.
- 3. Remove the cover.
- 4. Locate the next available slot in the Remote Controller (if installing additional twinax cards), and remove the slot cover. Save the screw.

The twinax cards should be installed in slots 1 through 6 in order, starting with slot #1, then #2, then #3, and so on. The Ethernet or Token Ring card should be installed in slot #7.

5. Insert the card in the slot, making sure you align it in the card brackets at the front and back of the Remote Controller. Firmly seat the card until the slot bracket on the card is flush against the controller chassis and the holes align. Fasten it with the screw you removed in the previous step.



Figure 3. Installing Cards.

## Set the DIP Switches

You must set the DIP switches on each additional twinax card you install to correspond to the slot number in which the card is installed.

- 1. Read the label on the back of the Remote Controller, above the slots, to determine the slot number.
- 2. Set the DIP switch on the twinax card (located at the top of the card in the middle of the card's length) to match that slot number according to the table below.

Slot	Switch Number							
Number	1	2	3	4	5	6	7	8
Slot 1	Off	On	Off	On	On	Off	Off	Off
Slot 2	Off	On	Off	On	Off	Off	Off	Off
Slot 3	Off	Off	On	On	On	Off	Off	Off
Slot 4	Off	Off	On	On	Off	Off	Off	Off
Slot 5	Off	Off	On	Off	On	Off	Off	Off
Slot 6	Off	Off	On	Off	Off	Off	Off	Off





Figure 4. The DIP Switches.

#### Setting Up for Local Attachment

The Remote Controller is shipped from the factory set for remote communications. You can also attach the controller locally. If you use your Remote Controller for local communications, you must use one of the communications cables listed below.

#### Part Number Description

EHN063-0020	X.21 modem-eliminator cable
EHN064-0020	RS-232 modem-eliminator cable
EHN065-0020	V.35 modem-eliminator cable

## **Connect the Cables**

Connect the power cable, communications cable, and twinax cable as follows:

- 1. Plug the power cord into the receptacle at the back of the Remote Controller.
- 2. Attach the communications cable from the host or modem to the connector on the MPIC interface for SNA/SDLC communications.
- 3. Attach the cable to the Ethernet or Token Ring card (if applicable).
- 4. Fasten the twinax connectors to the ports on the twinax cards.
- 5. Plug the power cord into the AC outlet.



Figure 5. Plug in the Cables.

#### Attach the Devices

Take the following steps to attach twinax devices to your Remote Controller.

- 1. Attach a twinax cable to each twinax device you will be connecting to the Remote Controller.
- 2. Make a note of the cable and cable address on the installation checklist on the next page.
- 3. Connect the other end of the twinax cables to the twinax connectors on the twinax cards. There are two ports on the twinax card. The top one is port 1, the bottom one is port 0.

Make sure you use only IBM<sup>®</sup> approved connectors, cables, and cabling methods. For example, make only 11 connections per line, do not use PC Support devices on port 0, address 0 of a twinax card, and so on. This will ensure a proper and trouble-free installation.



Figure 6. Attaching Devices.

## Installation Checklist

Unpack and choose a site for the Remote Controller.
Install twinax cards.
Install Ethernet/Token Ring card (if applicable).
Set switches on twinax cards for proper slot number.
Set up for local attachment (if applicable).
Connect all cables.
Attach devices.
Line Configuration:
multipointpoint-to-point switchedpoint-to-point nonswitchedlocally attached
NRZI value (host and Remote Controller must match):NRZI = 0NRZI = 1
Communications Protocol:SNA/SDLCEthernetToken Ring
Interface:EIA 232D/V.24V.35X.21
Modem type/model:
Baud Rate (0 if attached to modem; 1200 to 128,000 if locally attached):

Twinax	SNA/SDLC
Card	PU Address
#1	
#2	
#3	
#4	
#5	
#6	

# INSTALLATION GUIDE

_		Device	Default Printer			Device	<b>Default Printer</b>
Card #1	Cable Address	Description	(displays only)	Card #2	Cable Address	Description	(displays only)
Display				Display			
Stations:				Stations:			
				-			
Drintara				Driptorou			
Printers:				Printers:			
				4			
Other:				Other:			
				]			

Card #3	Cable Address	Device Description	Default Printer (displays only)	Card #4	Cable Address	Device Description	Default Printer (displays only)
Display				Display			
Stations:				Stations:			
				-			
Printers:				Printers:			
				]			
Other:				Other:			
				]			

Card #5	Cable Address	Device Description	Default Printer (displays only)	Card #6	Cable Address	Device Description	Default Printer (displays only)
Display				Display			
Stations:				Stations:			
				_			
				-			
				-			
Printers:				Printers:			
Other:				Other:			



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