AutoMax PC3000 Serial Card
Model Number 57C565

Instruction Manual J2-3100

DANGER
ONLY QUALIFIED PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS EQUIPMENT AND THE HAZARDS INVOLVED SHOULD INSTALL, ADJUST, OPERATE, AND/OR SERVICE THIS EQUIPMENT. READ AND UNDERSTAND THIS INSTRUCTION MANUAL IN ITS ENTIRETY BEFORE PROCEEDING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

CAUTION: The user is responsible for conforming with all applicable local, national, and international codes. Failure to observe this precaution could result in damage to or destruction of the equipment.

CAUTION: The printed circuit board is static-sensitive. You should wear an anti-static wrist band (user supplied) while installing the AutoMax PC3000 Serial card. Avoid touching the card's components, connectors, or leads. Hold the card only by its edges. Failure to observe this precaution could result in damage to or destruction of the equipment.

About the PC3000 Serial Card

The AutoMax PC3000 Serial card can be added to a personal computer (PC) chassis for additional serial connectivity. It is also a standard component of the AutoMax PC3000 Packaged Version (M/N 57C570). The card contains two optically-isolated serial ports and connects to the AutoMax PC3000 Processor card (M/N 57C560) via a ribbon cable.

Serial Port A is a 9-pin female D-shell connector. Configure Port A to support either the EIA RS-232 or RS-422 interface via two jumpers.

Serial Port B is a 25-pin female D-shell connector. Configure this port as an external connection for a PC running the AutoMax Programming Executive software. You can use this port as an extra RS-232 serial port if you remove jumper JP2 on the AutoMax PC3000 Processor card (M/N 57C560).
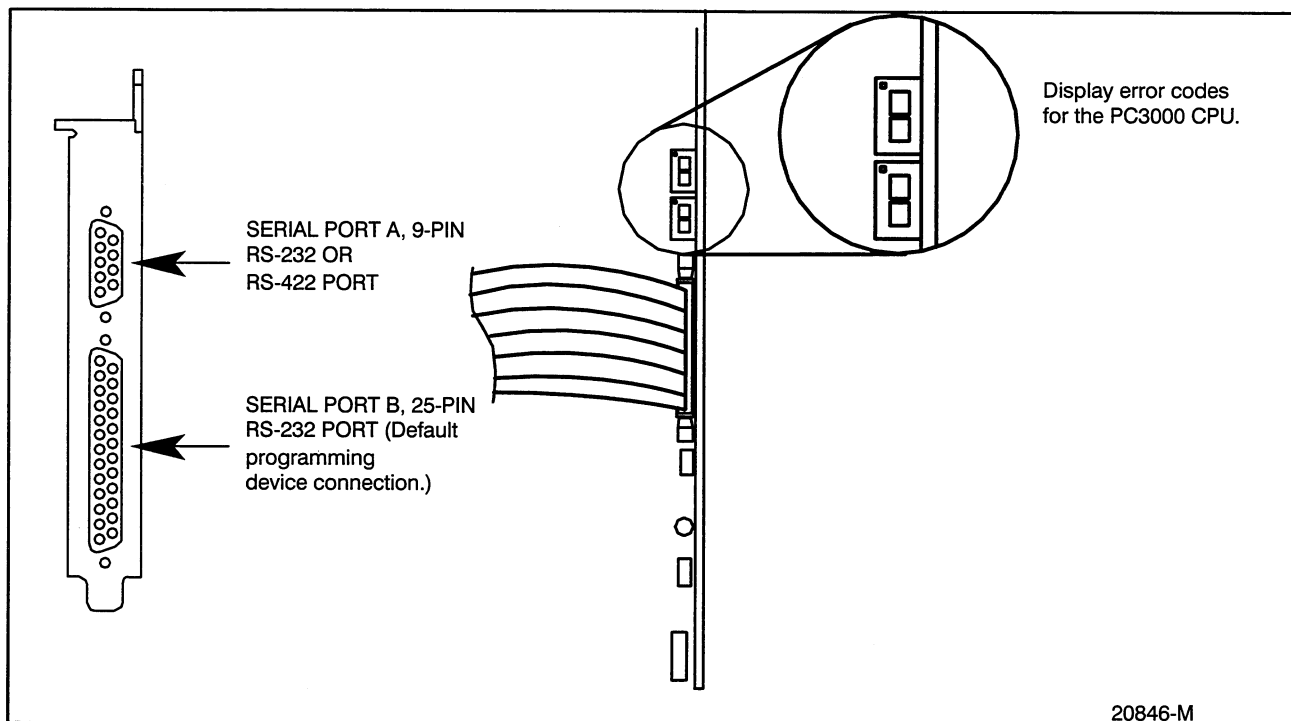
Rockwell Automation

Reliance Electric

SERIAL PORT A, 9-PIN
RS-232 OR
RS-422 PORT

SERIAL PORT B, 25-PIN
RS-232 PORT (Default
programming
device connection.)

Display error codes
for the PC3000 CPU.

20846-M

Figure 1 - The AutoMax PC3000 Serial Card

Verify Package Contents

Quantity	Description
1	AutoMax PC3000 Serial card with attached ribbon cable
1	Instruction sheet (I/M J2-3100)

Setting the Jumpers

The settings of jumpers E1 and E2 determine which communication standard (EIA RS-232 or RS-422) Port A uses. By default, jumpers E1 and E2 are positioned over pins 2 and 3 so that Port A uses the RS-232 interface. Refer to figure 2.
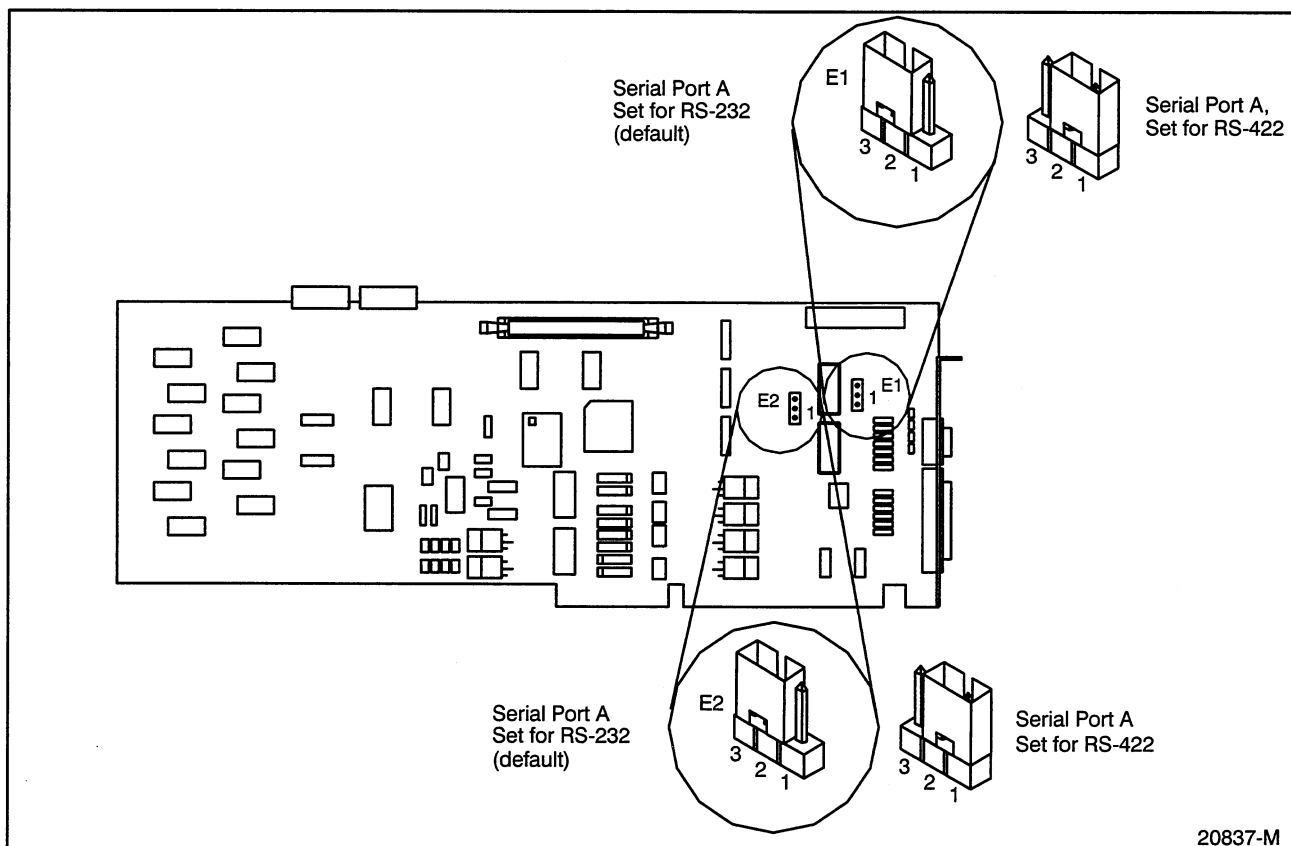

Figure 2 - Jumpers E1 and E2 Location and Settings

When installing the AutoMax PC3000 Serial card in a PC chassis, you must disable jumpers E3 and E4 on the AutoMax PC3000 Serial card. To disable the jumpers, position jumpers E3 and E4 over pins 2 and 3. Use figure 3 help you set jumpers E3 and E4. For more information, refer to the AutoMax PC3000 instruction manual.

Set jumpers as shown when you are installing the Serial card in a PC chassis.

Set jumpers as shown when you are installing the Serial card in the AutoMax PC3000 Packaged Version.

Set jumpers as shown when you are installing the Serial card in a PC chassis.

Set jumpers as shown when you are installing the Serial card in the AutoMax PC3000 Packaged Version.
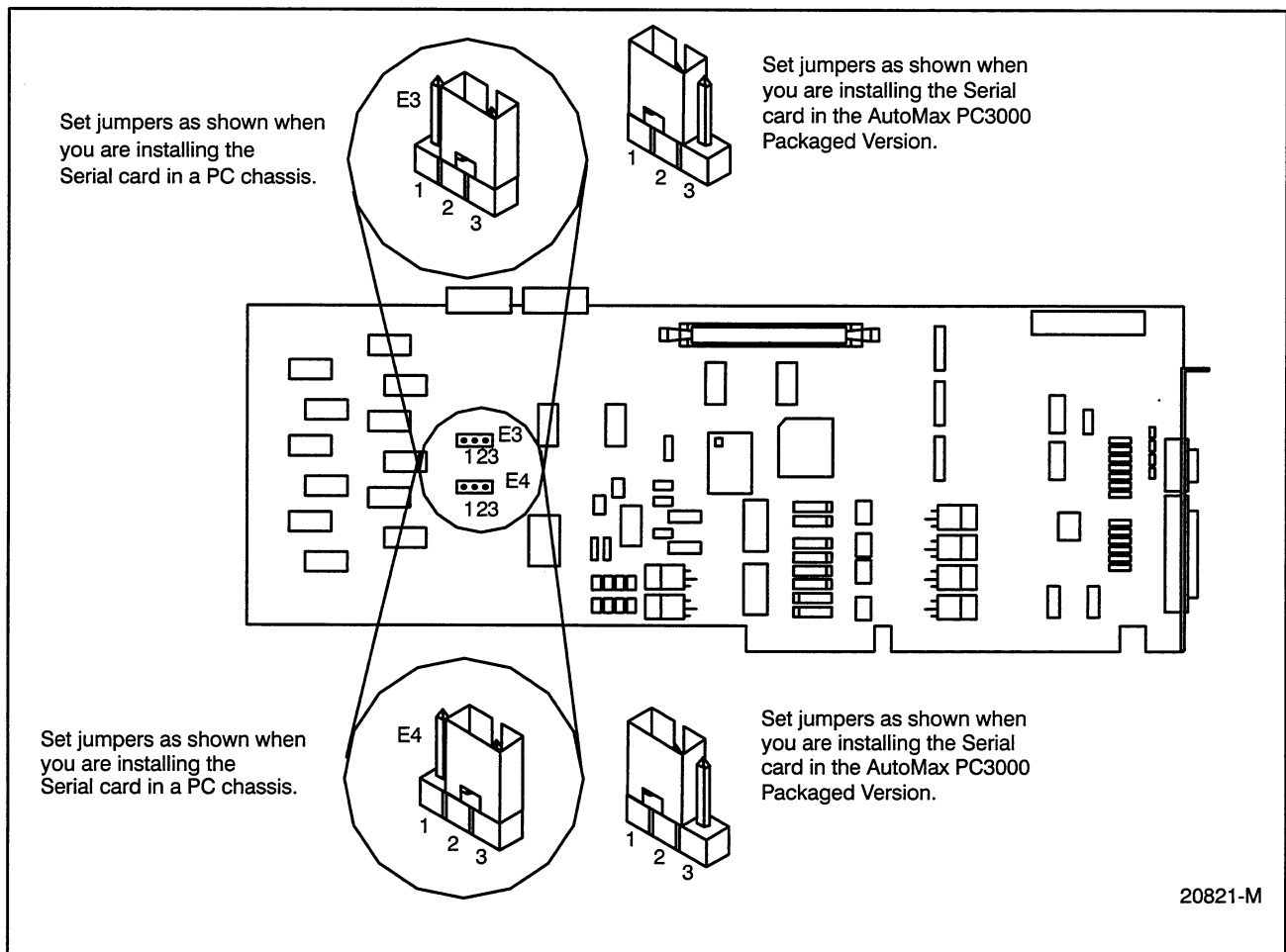
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Figure 3 - Jumpers E3 and E4 Settings

Installing the AutoMax PC3000 Serial Card

You can install the AutoMax PC3000 Serial card in any free, full-size slot. At least one empty slot must remain between the PC3000 Processor card and the PC3000 Serial card, and the two cards must be close enough to each other so that the Serial card's ribbon cable can connect easily between them.

To install the card into a PC chassis, you must:

- prepare the computer
- set any necessary jumpers
- install the card in a free, full-size expansion slot

Preparing the computer

To prepare the computer, follow these steps:

Step 1.   Make sure the computer is turned off. Disconnect the power cord.

Step 2.   Remove the computer's cover.

Step 3.   Find an available full-size expansion slot in the computer. If you do not know which slot to use, see the computer's user manual.

Step 4.   Remove the slot cover's screw by using a screwdriver, and remove the slot cover.

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Installing the AutoMax PC3000 Serial card

To install the card into a PC chassis, follow these steps:

Step 1.   Remove the card from its shipping container and from its anti-static bag. Be careful not to touch the components or the surface.

Step 2.   Make sure the jumpers are set according to your needs. Refer to figures 2 and 3 in "Setting the Jumpers" section on page 3. For more information, refer to the AutoMax PC3000 instruction manual.

Step 3.   Insert the card into the computer. While firmly pressing down on the card, use a front-to-back rocking motion to seat the card in the socket. Make sure the card's gold-striped bottom edge sits firmly in the expansion slot and that the bracket of the board is in the corresponding groove.

Step 4.   Connect the ribbon cable to the AutoMax PC3000 Processor card's ribbon-cable connector. Make sure the cable is seated firmly in the connector.

Step 5.   Secure the card with the slot cover's screw.

Step 6.   Replace the computer's cover.

Replacing the AutoMax PC3000 Serial Card

You may need to replace the AutoMax PC3000 Serial card. To do this, you must:

● remove the old card

● prepare the new card

● install the new card

Removing the Old AutoMax PC3000 Serial Card

To remove the AutoMax Serial card, follow these steps for the AutoMax PC3000 model you are using:

Removing the card from an AutoMax PC3000 Packaged Version	Removing the card from a PC chassis
Step 1. Turn off power to the AutoMax PC3000 Packaged Version. Disconnect the incoming lines. *NOTE: If the chassis is mounted, you may want to un-mount it to make replacing the card easier.*	Step 1. Turn off power to the PC chassis. Disconnect the incoming power cord.
Step 2. Open the chassis.	Step 2. Place the chassis on a flat surface.
Step 3. Using a screwdriver, remove the hold down clamp and the slot cover's screw that holds the AutoMax PC3000 Processor card in place.	Step 3. Open the PC chassis.
Step 4. Disconnect the ribbon cable from the AutoMax PC3000 Serial card.	Step 4. Using a screwdriver, remove the slot cover's screw that holds the AutoMax PC3000 Serial card in place.
Step 5. Remove the card from the slot, making sure to hold the card by its edges.	Step 5. Disconnect the ribbon cable from the AutoMax PC3000 Processor card.
	Step 6. Remove the card from the slot, making sure to hold the card by its edges.

Preparing a New AutoMax PC3000 Serial Card for Installation

To prepare a new AutoMax PC3000 Serial card for installation, follow these steps:

Step 1.   Remove the new card from its shipping container and from its anti-static bag. Be careful not to touch the components or the surface.

Step 2.   Set the jumpers E1 and E2 to match the settings on the old AutoMax PC3000 Serial card. These jumpers control whether Port A is an RS-232 or RS-422 interface. See the AutoMax PC3000 instruction manual for more information.

Step 3.   Set jumpers E3 and E4 to match the settings on the old AutoMax PC3000 Serial card. These jumpers control load resistors. See the AutoMax PC3000 instruction manual for more information.

Installing a New AutoMax PC3000 Serial Card

To install a new AutoMax PC3000 Serial card, follow the steps for the AutoMax PC3000 model you are using:

Installing the card into an AutoMax PC3000 Packaged Version	Installing the card into a PC chassis
Step 1. Insert the card into the chassis. While firmly pressing down on the card, use a front-to-back rocking motion to seat the card in the socket. Make sure the card's gold-striped bottom edge sits firmly in the expansion slot socket and that the bracket of the board is in the corresponding groove.	Step 1. Insert the card into the computer chassis. While firmly pressing down on the card, use a front-to-back rocking motion to seat the card in the socket. Make sure the card's gold-striped bottom edge sits firmly in the expansion slot socket and that the bracket of the board is in the corresponding groove.
Step 2. Using a screwdriver, secure the card with the slot cover's screw.	Step 2. Using a screwdriver, secure the card with the slot cover's screw.
Step 3. Connect the ribbon cable of the AutoMax PC3000 Serial card to the connector on the AutoMax PC3000 Processor card.	Step 3. Connect the ribbon cable of the AutoMax PC3000 Serial card to the connector on the AutoMax PC3000 Processor card.
Step 4. Using a screwdriver, replace the hold down clamp.	Step 4. Replace the computer chassis' cover.
Step 5. Close the chassis door, and remount the chassis if needed.	Step 5. Plug in the power cord, and turn on the computer.
Step 6. Reconnect incoming power, and turn on the AutoMax PC3000 Packaged Version.	

Environmental Conditions

Operating Requirements

Temperature	+5 °C to +55 °C (+41 °F to +131 °F)
Relative Humidity	10% to 95%, non-condensing
Maximum Altitude	2,000 m (6562 ft.)
Shock and Vibration	Complies with requirements of the IEC 1131-2 standard.

Storage and Transport Requirements

Temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Relative Humidity	5% to 95%, non-condensing

Technical Specifications

Dimensions

Length	33.9 cm (13.4 in.)
Height	12.2 cm (4.8 in.)

Type

Port A	RS-232/422
Port B	RS-232

System Power

	5 V		12 V	
E3/E4 jumpered 1–2	2.75 A	13.75 W	0.04 A	0.48 W
E3/E4 jumpered 2–3	0.25 A	1.25 W	0.04 A	0.48 W