

## 3.0 NOTES ON INSTALLATION

This section describes what you need to know before installing the Programming Executive software. Refer to instruction manual J2-3103 for the installation procedure.

### WARNING

**QUALIFIED PERSONNEL MUST READ AND UNDERSTAND THE APPLICABLE AutoMax AND DCS 5000 INSTRUCTION MANUALS IN THEIR ENTIRETY PRIOR TO INSTALLING, ADJUSTING, OPERATING, AND SERVICING THE AutoMax SYSTEM AND THE MACHINERY THAT IT OPERATES. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY OR DAMAGE TO EQUIPMENT.**

Requirements for installing the Programming Executive:

1. Your computer must be an IBM-compatible 80486-based (or higher) system with at least 16MB RAM, a 80MB hard drive, and a mouse.
2. A serial port must be available for communication with the AutoMax Processor. If you want to use a serial mouse while your computer is connected to the Processor, you will need a second serial port.
3. Your computer must have Microsoft Windows 95 (or later) software installed.

### 3.1 Installing and Running the Programming Executive Software on the Personal Computer

Before you load the Programming Executive software onto the personal computer, read carefully both the instruction manual describing the operation of the personal computer you will be using and the manual describing the Windows 95 operating system. Note that you cannot install the Programming Executive software if Windows 95 is not already installed on your personal computer.

You will need to refer to the installation instructions in J2-3103, found in binder J2-3104, for the specific steps required to install the software. Read the instructions carefully and follow all the steps in the order given to install the software properly.

#### **For Personal Computers with Other AutoMax Executives Installed**

You can install and run version 4.x of the AutoMax Executive software on the same personal computer with any other version of the Executive if you have configured Windows 95 to multiboot to DOS and have Windows 3.1 installed separately. To run AutoMax V4.x, you must boot up in Windows 95; to run any of the version 3 Executives, you must boot up in DOS and then run Windows 3.1. Note that you cannot run different versions of the Executive simultaneously.

## **Running the Programming Executive**

Once you have installed the Executive, you can run it by clicking the AMX icon on the desktop. From Windows 95, click on start and choose:

Programs>AutoMax V4>AutoMax Programming Executive

When you run the AutoMax Executive, the first screen displayed after the name and copyright information is the System Configurator. Choose the Setup menu and then select AutoMax to run the AutoMax configuration procedure. This will allow you to make changes to the AutoMax Executive configuration. See section 5.5.2 for detailed instructions.

## **3.2 Installing a Mouse**

In addition to the AutoMax Executive and Windows software, you must also install a mouse and the software required to support it. A list of compatible mice is included with the Windows software package.

A mouse is used to move the cursor or pointer on your screen to make selections or specify areas for data entry. There are two different types of mice, a bus mouse and a serial mouse. Each type has its own installation procedure.

Refer to the documentation provided with your mouse for the proper installation procedure.

## **3.3 Connecting the Personal Computer to an AutoMax Processor**

For all online operations, such as running or monitoring application tasks and loading operating systems, the personal computer must be connected with a serial cable to an AutoMax Processor module (M/N 57C431 or 57C435) in the rack or via the AutoMax Network using an AutoMax PC Link Interface module. Section 3.3.1 describes serial connection; section 3.3.2 describes the PC Link module.

### **3.3.1 Serial Connection**

The cable connection is usually made between the COM1 port on the personal computer and the upper port, labeled "Programmer/Port B", on the Processor module in the rack. If you want to access the Processor through COM2 or via modem, you can select the "Com 2" parameter on the Communications Setup screen. See 5.5.3 for more information. See Appendix F in the AutoMax Processor module instruction manual (J-3650) for information on using a modem with an AutoMax system. If there are multiple AutoMax Processor modules in the rack, you must connect your personal computer to the upper port of the leftmost Processor module. Through the single connection at the leftmost Processor, the personal computer can communicate with any Processor in the rack, with all I/O modules located in this rack, and with all remote I/O modules connected through a Remote Communication module (M/N 57C416) to this rack. Refer to Appendix A in this instruction manual for a description of the pins on the Programmer/Port B port when it is used to communicate with the personal computer.

### Baud Rate

The default baud rate for communication between the personal computer and the Processor is 9600 (19200 for M/N 57C435 Processor). The operating system for the Processor module(s), as well as application tasks that are loaded using the /ALL option, will be loaded at 9600 baud if there are no tasks currently running in the rack.

You can change the baud rate by editing the Baud Rate parameter on the Communication Setup screen. See section 5.5.3 for more information. The allowable baud rates are 1200, 2400, 4800, 9600 and 19200 baud. You can override the baud rate settings at any time through the BAUD RATE option available when you are online with the Processor(s) (see 12.1).

### Cable Connection

You will need to purchase cable M/N 61C127 or manufacture a serial cable with a 9-pin connector on one end for the personal computer and a 25-pin connector on the other end for the Processor module. Use the cable to connect the serial port on the personal computer to the upper connection, labeled "PROGRAMMER/PORT B", on the leftmost Processor module in the rack. See Appendix A for a description of the pins and directions for making your own cable.

## 3.3.2 Using a PC Link Module

The AutoMax Programming Executive software supports the use of the AutoMax PC Link Interface module (M/N 57C445) to communicate with a rack over the AutoMax Network. The PC Link module is functionally equivalent to a Network Communications module, and allows the personal computer in which it is installed to function as a drop on the AutoMax Network. By using AutoMax PC Link modules, up to four PC workstations can communicate with a single AutoMax rack.

Use the procedures described in the AutoMax PC Link Interface Module instruction manual (J2-3011) to configure and install the PC Link module in the personal computer, and to load the PC Link software onto the personal computer's hard disk. **Note that the PC Link software (included with the PC Link module) must be loaded in the same directory as the AutoMax Programming Executive software.** This will ensure that the PC Link module is recognized by the Programming Executive.

Section 5.5.3 of this manual describes how to configure the Programming Executive to use the PC Link module for online communication.

## 3.4 Connecting the Personal Computer to an AutoMax PC3000

Depending on the configuration of the AutoMax PC3000, you can connect the personal computer:

- directly to the PC3000 via the ISA bus
- directly to port B of the PC3000 Serial card
- remotely to the PC3000 via the DCS-NET network
- remotely to the PC3000 via modems

Refer to the AutoMax PC3000 User's Manual for step-by-step descriptions of connecting the personal computer to an AutoMax PC3000.

## 3.5 User Ports

All AutoMax Processor ports in the rack, other than the port used to connect the Processor to the personal computer, are available for use by the application programs running on the respective AutoMax Processor modules. See 10.6 for more information on user ports.

The ports are accessed using the OPEN statement (OPEN "PORTA" or OPEN "PORTB") in BASIC tasks. Refer to J-3675, the Enhanced BASIC Language Instruction Manual, for more information on the OPEN statement. Refer to the AutoMax Processor module data sheet (J-3729), which accompanied the Processor module, or the AutoMax Processor Instruction Manual (J-3650) for a description of the pins on user ports.