

	REVISIONS			
	REV	DESCRIPTION	DATE	APPROVED
			Sep 05, 2011	

## Instructions for Firmware Upgrade

### VersaMax™ Nano Micro CPUs

**IC200NAL110, IC200NAL211, IC200NDD010, IC200NDD101, IC200NDR001, IC200NDR010**  
**IC200UAA003, IC200UAR014, IC200UDD104, IC200UDD112, IC200UDR001,**  
**IC200UDR002, IC200UDR003, IC200UAL004, IC200UAL005, IC200UAL006**  
**IC200UAA007, IC200UAR028, IC200UDD110, IC200UDD120, IC200UDD212,**  
**IC200UDR005, IC200UDR006, IC200UDR010, IC200UDD020, IC200UDD220, IC200UDR020, IC200UDR120**  
**IC200UDD040, IC200UDD240, IC200UDR040, IC200UDR140, IC200UDD440**  
**IC200UDD064, IC200UDD164, IC200UDR064, IC200UDR164**

### If You Need Help

Contact GE Intelligent Platforms Support online at <http://support.ge-ip.com> or by phone at 1-800-433-2682 from the Americas; +800-1-433-2682 from Europe, Middle-East, and Africa; +86-400-820-8208 from Asia Pacific; +86-21-3217-4826 from India, Indonesia, and Pakistan; or +1-780-401-7717 worldwide.

### Introduction

The VersaMax Nano Micro modules contain operating firmware stored in flash memory. New firmware and the WinLoader upgrade utility are provided in upgrade kits that are available in two different forms.

- A physical upgrade kit that contains a printed copy of this document and upgrade files on a diskette.
- A ZIP file that may be downloaded from the <http://support.ge-ip.com>, containing the upgrade files and a digital copy of this document

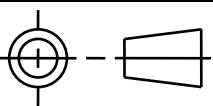
The WinLoader update utility is a Windows application that downloads the new firmware from a Windows PC to the VersaMax™ Nano Micro module.

### What You Will Need

1. This firmware upgrade kit
2. A Firmware Upgrade cable. The cable to attach to port 1 of the PLC is sold by GE Intelligent Platforms as catalog number IC200CBL500.
3. A Windows PC running Microsoft® Windows 95/98/ME/2000/XP:
  - The upgrade PC must have a 9-pin RS-232 COM port. If you have a “legacy-free” PC with no COM port, an external USB to RS-232 converter with a 9-pin COM port can be used.
  - If your upgrade kit contains a diskette, a 1.44 MB diskette (“floppy”) drive is required. If your upgrade PC has no diskette drive, you can use a different PC to copy the files from the diskette to a data CD or USB flash drive that your upgrade PC can access.
  - If your upgrade kit is a ZIP file, its contents must be extracted using Windows Explorer in Windows XP, a commercial application such as WinZip® or PKZIP® for Windows, or a freeware application such as 7-Zip or FreeZip.
4. Proficy Machine Edition Logic Developer PLC.

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	VERSION LEVEL		SCALE			SHEET 1 Cont. on. 3

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## **Step-By-Step Instructions For VersaMax™ Nano Micro modules**

1. If your upgrade kit is a ZIP file, extract the ZIP file contents to any directory on your PC. If your upgrade kit contains a diskette, copy the files from the diskette to any directory on your PC.
2. Place the PLC in Stop/Disabled Mode using either a PLC programming application on your PC or the RUN/STOP switch on the CPU module located at the left top corner of the PLC.
3. Save or backup any programs or data resident in the module before performing the update function. This can be done using Proficy Machine Edition software.
4. Clear the configuration in your PLC. This will setup the serial ports for 19200 baud, 8 bits per char, odd parity, and 1 stop bit for serial communications. If they are already set to these default values then this step may not be necessary.
5. Clear any faults in the PLC.
6. Close any PC applications (including PLC programming applications) that may be using the COM port where the firmware upgrade cable will be connected.
7. Connect the firmware upgrade cable between a 9-pin serial port on your PC or converter and Port 1 on the CPU module.
8. Start the WinLoader application using either of these methods:
  - a. Find the WinLoader application by using My Computer or Windows Explorer to view the directory where you extracted or copied the upgrade files. Then double-click the WinLoader icon.
  - b. Execute WinLoader by clicking the Windows Start button and then the Run... icon. In the Run dialog, browse to the directory where you extracted or copied the upgrade files, and click on WinLoader or WinLoader.exe. Then click OK in the Browse and Run dialogs.
9. Read the WinLoader license agreement. If you agree to the terms, click the "I agree" radio button on the License Agreement dialog box and then click the Next button. If you do not agree, you will not be able to proceed with the upgrade.
10. If the upgrade cable is not connected to the COM1 port on your upgrade PC, select the correct port in the WinLoader COM Port select box.
11. Begin upgrade of firmware by single clicking the Update button. While update is in progress, the OK and RUN LEDs on the PLC will blink in unison, and the status bar on WinLoader will show percentage complete. Note that the text you see in the Target box will depend on your module and firmware version.



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Upon completion of the update a window will "pop up" indicating the status of the update. If the update was successful, turn the PLC off and back on and indicate that another device is NOT to be updated by clicking the "No" button. If you have another device to update, repeat the steps from 7 to 13. If not successful, see the "Common Causes of Failure" section below to determine how to correct the problem.

12. When you have successfully completed all the firmware upgrades in the PLC, disconnect the upgrade cable from the CPU.
13. Verify that the module's OK LED is ON, indicating correct module operation. In the unlikely event that the OK LED is blinking, cycle the power source for the module from ON to OFF and then ON. If the blinking continues please contact the customer care.
14. Restore the programs and data that were saved in step #3.
15. Place the PLC in Run/Enabled Mode and close the switch cover door if it is open.

## **Common Causes of Failure**

### **1. PC COM Port Already In Use**

**INDICATION:** A WinLoader **Firmware Update Status** dialog box will report that the "Firmware Update Failed" and that the selected COM port is either busy or does not exist.

**REMEDY:** If you selected a port that is not present on your PC, select a different one that is present. If the port actually exists, look for other applications (including PLC programming applications) that may be using the port and close them. Verify that the serial cable is connected to correct COM port on the PC, click the **Cancel Upgrade** button on the **Firmware Update Status** dialog box, click **OK** on the **Firmware Upgrade Summary** box, select a different COM port if necessary, and start the upgrade again from step 7.

### **2. Wrong PC COM Port Selected or CPU Powered Off**

**INDICATION:** A WinLoader **Firmware Update Status** dialog box will report that the "Firmware Update Failed" and that WinLoader cannot connect to the target device.

**REMEDY:** Verify that you selected the COM port where the upgrade cable is connected. Then follow the instructions in the WinLoader dialog. Then click the **Cancel Upgrade** button on the **Firmware Update Status** dialog box, click **OK** on the **Firmware Upgrade Summary** box, select a different COM port if necessary, and start the upgrade again from step 7.

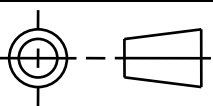
### **3. PLC in Run Mode**

**INDICATION:** A WinLoader **Error** dialog box will report that there is a "CPU STATE MISMATCH".

**REMEDY:** WinLoader will ask whether to place the PLC in STOP/NOIO mode. Click **Yes** and proceed.

## **Restarting an Interrupted Firmware Upgrade**

If the upgrade process is interrupted for any reason (for example, a power failure or accidental cable disconnection), you can restart it by powering the module's rack off and on, and then starting the upgrade process again from step 13.

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