

UMC800 Controller Firmware Upgrade Instruction

Document Number

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Overview

These instructions apply to the following upgrade kits.

Firmware Upgrade Kit (for Controller Rev. 3.03 through 3.13) - 51309954-509

Firmware Upgrade Kit (for Controller Rev. 3.21 through 3.23) - 51309954-510

Summary



Enclosed are upgrade disks to upgrade your UMC800 Controller. Use these instructions to upgrade your controller firmware.

This procedure involves downloading firmware from a PC using the User Utility program to upgrade your controller—this procedure is used if your existing system release number is 3.1 or higher and no features are being added to the controller.

Preliminary steps

1. Determine your system release number. See Table 1. To find out your system level, find each component's revision number and match it to the system release number.
2. Once you know the release number, verify you have the proper upgrade kit.

Table 1 Determine system release number

	System level release number:							
	1.10	1.11	2.0	3.0	3.1	3.2	4.0	
Controller software version:	1.01	1.02	2.02	3.01 3.02	3.03	3.10	3.20 3.21 3.22	To check, press  to access the main menu, Unit Setup, Controller Status, Rev Level.
Operator Interface software version:	6.2	6.4	7.0	7.1	7.2	7.2	7.3 8.3	To check, press  to access the main menu, Log Off. Or, turn power off then on and view the number on the startup screen (first screen that appears).
LeaderLine Control Builder (LCB) software version: Or User Utility software version:	1.0 NA	1.0 NA	2.0 1.0	3.01 3.01	3.01 3.01	3.01 3.01	3.1 3.1	To learn the version number of either item, select Help, then About....

Pre-upgrade procedure

Before doing the CPU upgrade procedure, upload and save your controller configuration.

Procedure (for 3.0 or later systems)

Overview

This procedure has two or three main steps. First, install User Utilities. Second, use User Utilities to download the upgrade files from your PC to the controller. These steps are discussed in detail later.

Background

Code download provides a mechanism to upgrade the firmware in your UMC800 controller to a newer version without the need to replace the CPU card. This can be useful if you wish to upgrade your controller to take advantage of new features and functions as they are introduced, or in the event that a software bug requires field repair.

The download you are about to perform changes the zero offset entry capability of the analog output.

Three separate downloads will be required to complete the process. The first enables download of the new startup sequence. The second performs the startup sequence upgrade. The third restores the remainder of the controller code to its normal state, included the changes listed above, and disables the startup sequence download.

Getting Started

Before you begin the download there are a few things you need to be aware of.

- a) The code download function is only available through the UMC800 User Utility program connected to the controller via the CONFIGURATION port on the UMC800 CPU card.
- b) The controller will not allow the code download to begin if the battery is bad.

- c) Code download will destroy the configuration database in the controller. Therefore, before code download is started, either upload the configuration file via the operator interface and save on floppy, or upload and save to your PC via the User Utilities.
- d) The entire process, start to finish, will take approximately 45 minutes.
- e) **CAUTION!** Loss of controller power during the second download of this procedure will cause the code download to fail. It will not be possible to recover from this failure should the controller lose power during the new startup sequence download; the only remedy is to replace the cpu card with a new one which has been pre-programmed by Honeywell. The startup sequence download takes approximately 25 seconds to complete. Therefore, it is highly recommended that you do not start the code download procedure at a time when the likelihood of power failure is increased, such as during thunderstorms.

Extract files to be downloaded

The files needed to complete this download are distributed as a self-extracting ZIP file named "UMC800 V3_xx to V3_yy Upgrade.exe" where yy is the latest version. It contains compressed versions of four (4) files:

1st.s19 -- program which enables new startup sequence download

2nd.s19 -- new startup sequence program

3rd.s19 -- normal controller program

Readme.txt -- this procedure. This file also provides detailed instructions on how to perform this upgrade procedure.

Prior to performing the download procedure, you must extract the three program files to your computer's hard disk according to the following instructions.

- 1) Save the file UMC800 V3_xx to V3_yy Upgrade.exe to a temporary location on your computer (your desktop would be a good choice or you could use your "temp" directory.)
- 2) After saving the file, run it by either double clicking your left mouse button on the icon on the desktop, or by clicking "Start", "Run", then enter the complete path and file name where you saved the file.
- 3) A dialog box will ask where you want to Unzip the files to. The default entry is your system temporary folder. Either accept this choice or enter or "Browse" to another folder name and click the "Unzip" button.
- 4) A dialog pop-up will indicate successful completion. Click "OK" and then "Close".

Download procedure

Step	Action
1	Backup the controller configuration either by uploading to floppy disk on the operator interface, or uploading and saving via the User Utilities.
2	Connect the serial port of your PC to the CONFIGURATION port connector on the controller CPU card using the appropriate null-modem cable.
3	Starting with disk 1, install UMC800 User Utilities Program.
4	Start User Utilities. From the Communication menu select "Setup" to verify the configuration is set to the correct port for your computer and the to 9600 Baud. Make any needed corrections and click on "OK".
5	From the Maintenance menu select "Download Controller Code...".
6	Use the "Look in:" drop down list in the "Open" dialog box to select the drive and folder you un-zipped the files to. Three files will appear in the file list box.
7	Select and open the file "1st.s19" displayed in the file list box.
8	Click on the "Start" button in the "Code Download" dialog box. The download will start, and progress is displayed. At this time, all four (4) LEDs on the CPU will be lit, and the operator interface will display "NO COMM". The download itself will take approximately 20 to 25 minutes, depending on the speed of the PC. Note: A 66 MHz 486 is the minimum supported PC.

Kit Instruction, continued

Step	Action
9	When the download is complete, the controller will be restarted. An "INVALID CONFIGURATION" diagnostic will be indicated. Close the "Code Download" progress dialog. The controller is now prepared to accept the new startup sequence.
10	From the Maintenance menu select "Download Controller Code...".
11	Use the "Look in:" drop down list in the "Open" dialog box to select the drive and folder you un-zipped the files to. Three files will appear in the file list box.
12	Select and open the file "2nd.s19" displayed in the file list box.
13	Click on the "Start" button in the "Code Download" dialog box. The download will start, and progress is displayed. At this time, the status of all four LEDs on the CPU is not defined, but the operator interface will display "NO COMM". The download itself will take approximately 20 to 25 seconds. During this time, a loss of controller power will cause a fatal failure of the download, and you will have to contact Honeywell for a replacement CPU.
14	A "Download succeeded" status will be displayed in the "Code Download" dialog box, but the controller will not restart. Close the "Code Download" dialog box. At this point, the new startup sequence has been downloaded into the controller and restoration of the normal controller code can proceed.
15	From the Maintenance menu select "Download Controller Code...".
16	Use the "Look in:" drop down list in the "Open" dialog box to select the drive and folder you un-zipped the files to. Three files will appear in the file list box.
17	Select and open the file "3rd.s19" displayed in the file list box.
18	Click on the "Start" button in the "Code Download" dialog box. The download will start, and progress is displayed. At this time, all four (4) LEDs on the CPU will be lit, and the operator interface will display "NO COMM". The download itself will take approximately 20 to 25 minutes, depending on the speed of the PC.
19	When the download is complete, the controller will be restarted. An "INVALID CONFIGURATION" diagnostic will be indicated. Close the "Code Download" progress dialog.
20	Restore the configuration from the backup copy you previously made.
21	Close the UMC800 User Utility.

CONGRATULATIONS! You have successfully upgraded your UMC800 controller to version 3.yy.

Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose**. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Honeywell

Sensing and Control

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