Upgrading the Control Unit's firmware

These instructions explain how to upgrade the Control Unit's firmware, which is its internal operating code. Normally, a firmware upgrade is only required if it has been recommended by Electroline's technical support staff.

> **Warning:**
>
> The Control Unit's current setup will be overwritten with default values as soon as the upgrade process begins. It is therefore important to note the unit's parameters before upgrading the firmware.

Once you have finished the firmware upgrade, you will have to set up the Control Unit's parameters. Your Control Unit was shipped with a printed sheet showing the parameters that were programmed in the factory. If you would like the Control Unit to have the same settings after the firmware upgrade, you may use this sheet to guide you in the setup procedure. You can also display the Control Unit's setup with the `info` command and then print the screen.

Before beginning the upgrade, make sure you have the following:

- upgrade software for the Control Unit IV (*EAS Control Unit IV Upgrade*), installed on a PC (visit the Electroline Web site or contact the technical support department for the most recent version)
- current version of the firmware file and the checksum file (visit the Electroline Web site or contact the technical support department)
- communication software such as HyperTerminal
- a printout of the Control Unit's current parameters

Installing the upgrade program

1. Insert the CD with the Electroline Control Unit upgrade program (CU4UP) in your computer's CD-ROM drive. The CU4UP startup program menu automatically appears once the CD is loaded. Note that the upgrade software can also be downloaded from the Electroline Web site if the CD-ROM is not available.

2. Click on the CU4UP icon in this menu. This starts the installation wizard, which guides you through the process of copying the program onto your computer. Follow the steps on screen to complete the installation.
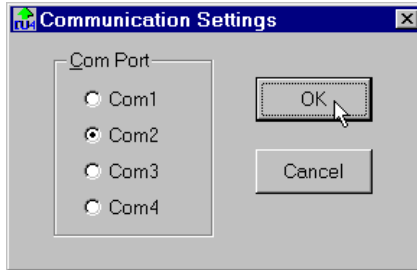
Running the upgrade program

1. Connect the PC with the upgrade program installed to the COM 3 port on the Control Unit.
2. On the PC, start the upgrade software (CU4UP) from the programs list in the Windows start menu.
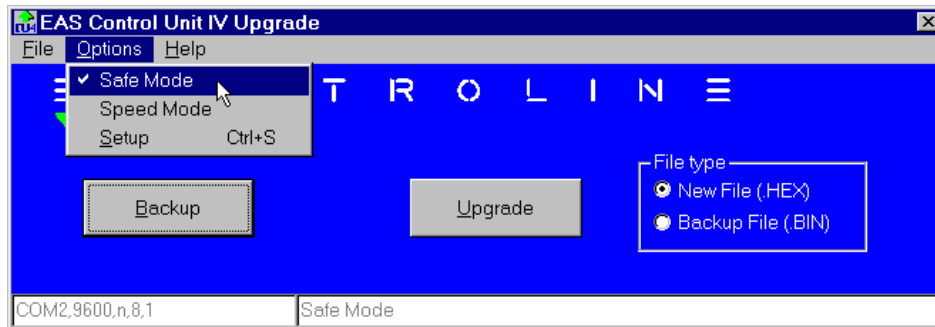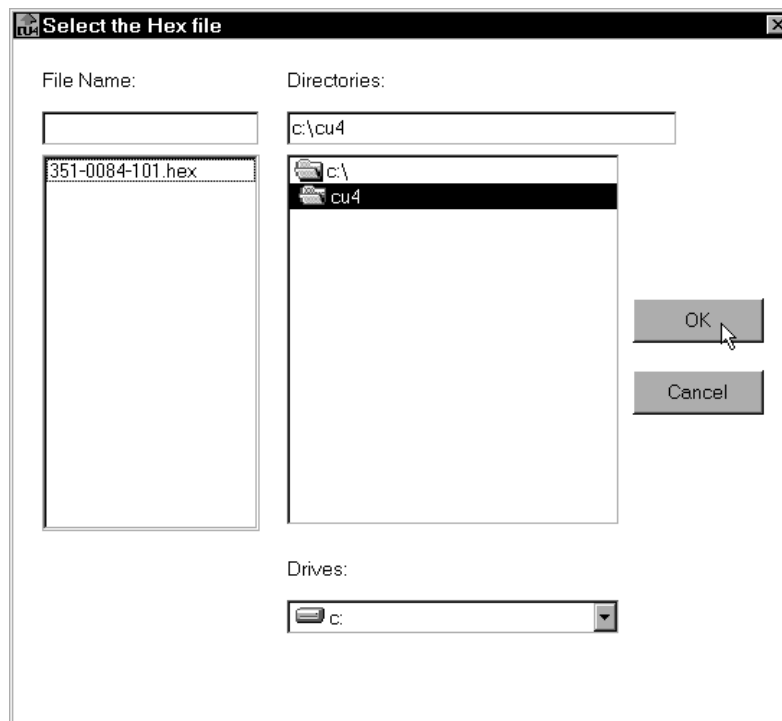
   The following window appears:

3. In the **Options** menu, select **Setup** to display the communication settings window. Click one of the radio buttons to select the PC's communication port where the cable between the PC and COM 3 of the Control Unit is connected, and then click OK.

4. The main window reappears. In the **Options** menu, select **Safe Mode**. A checkmark will appear next to this option when you are in safe mode.

5. In the **File type** box, click the radio button for the **New File (.HEX)** option. This file contains the firmware.

6. Click the UPGRADE button. This opens the window for selecting the .HEX file.

7. Locate and select the file 351-0084-<VER>.HEX (the firmware version may vary). To obtain the latest version of the Control Unit firmware, visit the Electroline Web site or contact the technical support department. Once you have located the file, click OK.

> **Warning:**
>
> The Control Unit's current setup will be overwritten with default values as soon as the upgrade process begins. It is therefore important to note the unit's parameters before upgrading the firmware (`info` command). If you have not done so already, cancel the upgrade and print out the Control Unit's current setup now.

8. When the screen appears asking if you would like to perform a backup of the Control Unit program, click NO. The **Initialization** and **Reading 351-00xx-x.xx.hex** progress bars will appear. Note that while you are upgrading the firmware (reprogramming mode) the Control Unit, the STATUS LED will flash regularly; the RX/TX3 LED will flash at each data transfer. Following the initialization and reading, the new program is sent to the Control Unit.

9. At the end of the upgrade operation, a checksum appears. Make sure that this value corresponds to the value indicated in the file CHECKSUM.TXT that accompanies the current version of the .HEX upgrade file. Visit the Electroline Web site or contact technical support to obtain the checksum file.

10. Exit the Control Unit upgrade software and start HyperTerminal or another communications software so that you can log on to the Control Unit.

11. Verify the checksum generated by the Control Unit by using the `prog?` command.

12. Since the firmware upgrade resets the Control Unit's setup to the default values, you must restore the Control Unit's setup by defining the following operating parameters.
    - date
    - time
    - password
    - COM ports
    - RF watchdog
    - Control Unit ID
    - redundancy failure notification setting
    - carrier tag (Control Units with a single FSK frequency agile modulator only)

You may use the information obtained from the `info` command or use the printed sheet that was shipped with your Control Unit as a guide during the setup procedure.