# INSTRUCTION SHEET

**KEPCO** An ISO 9001 Company.

# Firmware
# Upgrade

## FIRMWARE UPGRADE UTILITY

## I — INTRODUCTION

**SCOPE OF MANUAL.** This Instruction Sheet covers the installation and use of Kepco's Firmware Upgrade Utility.

**DESCRIPTION.** The Kepco Firmware Upgrade Utility allows selected Kepco products to be upgraded to the latest firmware without replacing any parts. The Firmware Upgrade Utility is available from the Kepco web site at

www.kepcopower.com/utility/util-upgrade.htm

**NOTE:** **Check the web page referenced above to verify that your Kepco product and/or Firmware version is 1) eligible to use this method to upgrade the firmware and 2) note any requirements for the port used to perform the upgrade.**

## II — INSTALLATION

1. Download and open the zip file from

    www.kepcopower.com/utilities/util.htm

2. Run the file called setup and follow the instructions to install the program on your PC. The upgrade utility is self-contained and does not require VISA to be installed on your PC.

3. Installing the Firmware Upgrade utility accomplishes:

    • Start Menu updated with KEPCO folder and UTLITIES subfolder.

    • Program Files Folder updated with KEPCO subfolder and UTILITIES sub-subfolder containing all files required for upgrade, including a runtime executable for CVI that performs the upgrade without affecting prior installations of CVI.

4. Verify communication between the power supply and PC using either the RS 232, GPIB (IEEE 488) or LAN bus.

## III — OPERATION

After the Firmware Upgrade Utility has been installed, proceed as follows:

1. At your PC go to Start - Programs - Kepco - Utilities - Firmware_Upgrade to run the Firmware Upgrade Utility.

2. At the top menu bar, click **Bus Selection** (see Figure 1) and choose RS 232, IEEE 488 (GPIB) or LAN as the interface bus to use during the upgrade process.

3. Depending on the bus selected, enter the following

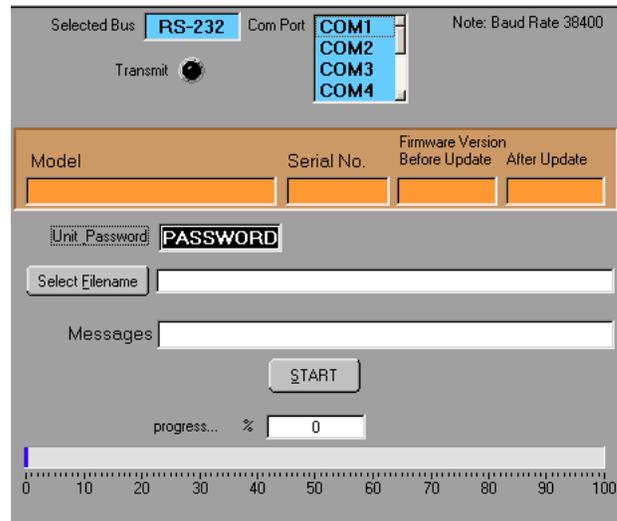    a. RS 232: Select applicable **COM Port**. NOTE: Only 38400 baud is supported. (see Figure 1).



**FIGURE 1.   OPENING SCREEN, RS 232 SELECTED**

b. IEEE 488: Select applicable **GPIB board** and **GPIB address** of the power supply (Figure 2).



**FIGURE 2.  GPIB (IEEE 488) SELECTED**

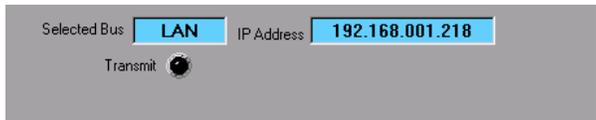c. LAN: Enter applicable **IP Address** of the power supply (see Figure 3).



**FIGURE 3.  LAN SELECTED**

4. Enter the power supply calibration password (see power supply User Manual) in the **Unit Password** field.

5. Click **Select Filename** to locate and select the firmware code file (e.g., klpupgrade V9_00.hex).

6. Click **Start**. The **Model**, **Serial No**. and **Firmware Version Before Update** are displayed. The **Messages** box displays *Erasing* to indicate the upgrade has started. If an error message is displayed (e.g., wrong password, device not found, etc.) correct the problem and click **Start** again. If unable to correct the problem, contact Kepco.

7. As the upgrade progresses, the **Transmit** indicator lights periodically when data is being transmitted from the PC to the power supply, and **% progress** is indicated both numerically and graphically. During this time the power supply status display shows PROG.

NOTE:  If communication between the computer and power supply is interrupted for any reason, the upgrade process stops but the power supply remains in PROG mode until source power is cycled, at which point the firmware is reset to the primary version and the upgrade process can be started again.

8. When the upload is complete (**% Progress** = 100), the upgraded unit is reset, first repeating the normal start-up sequence (or abbreviated sequence if Quick Boot is enabled), then briefly entering digital remote mode to verify the installed firmware configuration.

9. When **Firmware Version After Update** shows the new version and the **Messages** box displays *OK TEST*, the update is complete.
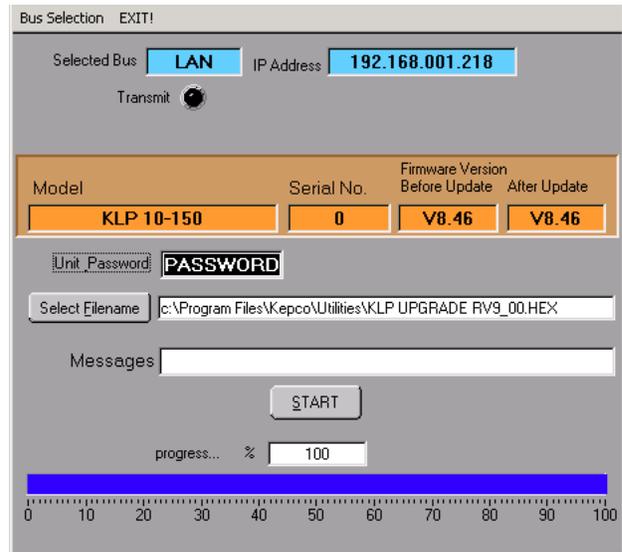


**FIGURE 4.  UPGRADE COMPLETE**

10. Click **EXIT!** at the top menu bar to exit the upgrade utility.

11. Download documentation applicable to the new firmware revision from the Kepco website at www.kepcopower.com/support/opmanls.htm.

## IV — UNINSTALL

To uninstall the upgrade and restore the factory default firmware, perform the Installation procedure of section II, however after clicking **Start** at step 6 of section II, simply exit the utility program or turn off power to the power supply. The firmware will be restored to the factory default.