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. This manual covers Uploader Version 2.00 and higher which supports Windows 7 and 10, but does not support Windows XP.

For Windows XP support go
    www.kepcopower.com/drivers/drivers-dl3.htm
to download the zip file labeled "for Windows XP).

OVERVIEW. KLP/KLR can have two versions of the firmware installed: (1) the factory default code is not modifiable by the user and is physically protected from damage, and (2) code is uploadable via the upgrade utility and the factory default code will transfer execution to the uploaded code after validation during the KLP/KLR power up cycle.

During this power up cycle, if the update code space is corrupted, it is automatically erased by the factory default code and factory defaults are restored.

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. Navigate to the downloaded location of the zip file and extract it. In the extracted folder, open the Firmware Upgrade Utility: kepco_klp_uploader.exe.

3. When prompted for **Connection Type**, enter the following depending on the bus in use**:**

  a. For RS 232: leave the dialog box blank and click **OK**.

  b. For LAN enter **1** and click **OK**.

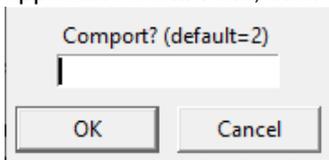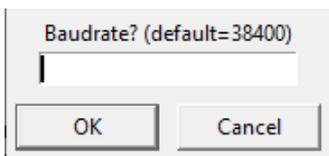 c. For IEEE 488 (GPIB) enter **2**. and click **OK**.

4. Depending on the bus selected, proceed as follows:
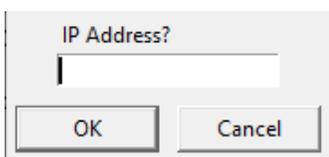
   a. RS 232:

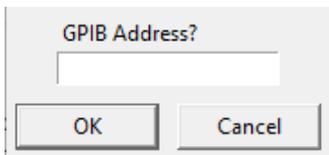   • Enter applicable **COM Port**, then click **OK**.

     • Enter **Baud Rate,** then click **OK**.

   b. LAN: Enter applicable **IP Address** then click **OK**.

   c. GPIB: Enter applicable **GPIB Address** then click **OK**.

5. The program window that opens shows the unit model and firmware version to indicate a successful connection.

```
Type any SCPI cmnd OR :
'revert' to restore firmware
'update' to update  firmware
'cls'    to clear screen
'quit'   to quit  program

KEPCO,KLR 10-150 LAN MM-DD-YYYY,0,v10.07
```

NOTE: If connection is unsuccessful, verify data was entered correctly. Return to step 2 and ensure that the applicable information (COM port, baud rate, IP address or GPIB address) is correctly entered.

6. Type `update` and press **Enter** key.

7. When prompted, enter the power supply calibration password (see power supply User Manual).

8. A File Explorer window opens. Locate the firmware code (.hex) file (e.g., klpupgrade V9_00.hex). Highlight and doubleclick the file to run the upgrade.

9. As the upgrade progresses, **% progress** is indicated both numerically and graphically.

10. When the update has completed, the message FIRMWARE UPDATE COMPLETE will be visible in the program window.

```
> update
KEPCO,KLR 10-150 LAN MM-DD-YYYY,0,v10.07

enter password 1111
Preparing to update firmware
READY⌐
Updating Firmware with
C:/Users/kepco klp uploader/UNIT UPLOAD 10 07.HEX_302270_  _
please wait...
.........................................~~ about 12% done ~~
.........................................~~ about 25% done ~~
.........................................~~ about 37% done ~~
.........................................~~ about 50% done ~~
.........................................~~ about 62% done ~~
.........................................~~ about 75% done ~~
.........................................~~ about 87% done ~~
.........................................~~ about 99% done ~~
...............0K TEST⌐


KEPCO,KLR 10-150 LAN MM-DD-YYYY,0,v10.07

FIRMWARE UPDATE COMPLETE
>
```

11. Close the program window to exit the upgrade utility.

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

III — OPERATION

For a brief list of differences between the old firmware and the upgraded firmware, refer to the readme.txt file included with the Firmware Upgrade utility.

IV — UNINSTALL

To uninstall the upgrade and restore the factory default firmware, perform the Installation procedure of section II, however at step 6 of section II, type `revert` instead of `update`. The firmware will be restored to the factory default.