Power Line Modem with e-Meter Demonstration Platform Software Installation Guide

The PLC (Power Line Communication) Software is a Graphical User Interface (GUI) created in Matlab ® Version 6 (release 12.0).

The PLC software has been archived in a self-extracting ZIP format. To install the software, double-click the V1R2.EXE file and unzip the files to the directory C:\TI_Platform\PLC. The following files will be copied into that directory:

- Serial port libraries (*.dll)
- Matlab setup files (mglarchive.exe and UserSettings.mat)
- Control executables (PLC.bat and main.exe)

If you do not have Matlab® Version 6.0, you will need to install the Matlab® libraries by double clicking on the mglArchive.exe file. This will install two subdirectory trees call BIN and TOOLBOX and place the necessary Matlab ® library files (DLLs) in them.

Installation of USB Drivers

The platform can either be run using a serial port or through a USB port. If operation through a USB port is desired, it is necessary to install USB drivers. If the serial port is to be used, please skip this section and proceed to "Running the PLC Software."

To install the drivers, double-click one of the following files on the CD:
- If your operating system is Windows 98: TUSB3410_9x.exe
- If your operating system is Windows XP, Windows 2000, or Windows NT: TUSB3410_2K.exe

These programs will copy the proper drivers to the C:\Program Files\Texas Instruments\TI TUSB3410 Win9x Driver Installation Files Setup or C:\Program Files\Texas Instruments\TI TUSB3410 Win2K Driver Installation Files Setup directory.

Next, connect the USB cable between the computer and the Master demonstration box (the box with the SLAVE jumper not populated). Connect power to the demonstration box. Ensure that the "232" jumper on the master unit is removed to enable USB operation.

If the USB drivers have not been previously installed, the computer will display the "Found New Hardware Wizard." When prompted for a driver, point the wizard to the directory of the driver files (by selecting the option in the wizard that allows you to specify a location of the driver files and then browse to that directory). Press "OK," and all the files will load.

Note that the wizard may prompt for the file twice. Point the wizard to this same directory both times.

If you have already plugged in the device and Windows has determined it to be an "Other/Unknown" device, you must select the device in the Windows Device Manager (under the Unknown/Other Device Class), display the properties for the device (by double-clicking it), and then click the "Update Driver" button on the "Driver" properties tab. This will then bring up a wizard that you need to point to the directory of the driver files.

Running the PLC Software

Before running the PLC software, make sure to connect the PC serial port or USB port to the Master demonstration box (the box with the SLAVE jumper not populated) and connect power to the demonstration box. Ensure that the jumpers are set properly for either serial port or USB port operation. To run the PLC software, double-click on the PLC.bat file. This sets your PATH so that the control

software can find the Matlab® library files, changes the current directory to C:\TI_Platform\PLC, and runs MAIN.EXE. Troubleshooting hints can be found in the "Power Line Modem with e-Meter Platform Getting Started Guide."

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