LC Driver Version 1.2
Driver for active liquid crystal Devices.

LC DRIVER 1.2 Installation Guide For Windows

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I INSTALLATION

Congratulation on purchasing the ARCoptix LC Driver USB module. This illustrated guide will walk you through the installation of the device and software.

This installation manual is for windows XP, 7, 8, 8.1 & windows 10.

The setup is a 3 steps automated procedure. You mainly have to follow the instruction of the Install *ARCoptix LC Driver.exe* file.

Notice that the installer will identify if your computer has a 32 or 64 bits core and it will choose the according drivers to install.

Content:

1. Installation of the software
2. Installation of the device drivers
3. Connection of the device to the computer.

Installation Steps:

If you wish to follow the automated procedure, do not connect the device before installing the software. If you wish to install the device drivers manually, you may use the files in the drivers directory of the USB key and copy them in the windows files of your computer.

1. Run the *ARCoptix LC Driver 1.2 Installation Package.exe.* and follow the instructions and press next.

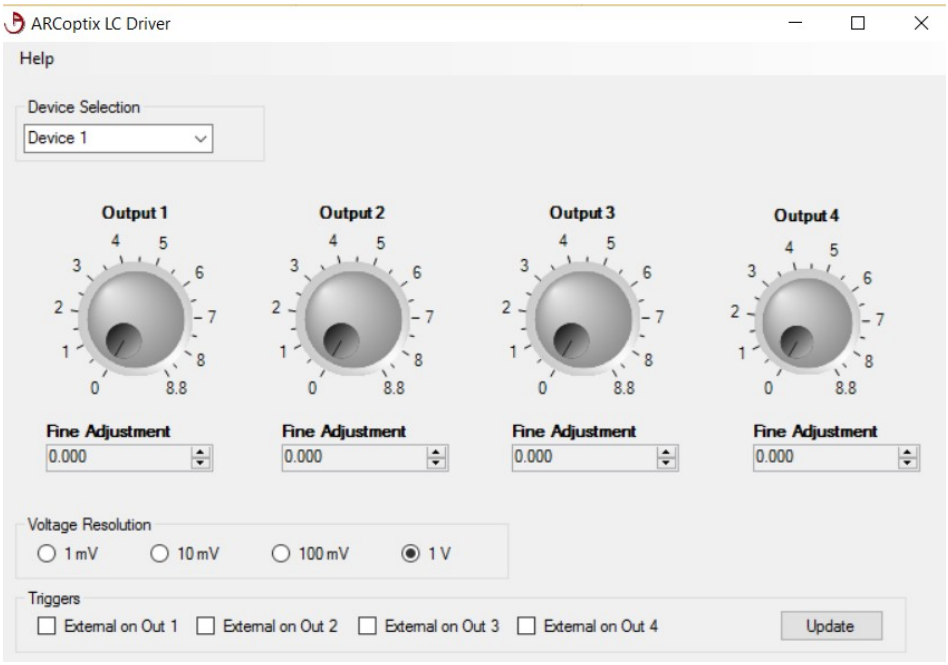
2. The device drivers' installation will start automatically after software installation

3. When the drivers are installed, press **Finish**.

4. The installation is successful. Press **Finish**.
5. Connect the LC Driver to one of the USB ports of your computer and wait for windows to inform that the device has been successfully installed and is ready to be used.

II Operation

Operating the LC Driver is very easy.
When starting the program you get the following window:



The output controls (output 1, output 2, output 3 and output 4) correspond to the two outputs on the LC Driver (canal1, canal2, canal3 and canal4).
One can control output via

- The rotation button (rough control)
- The edit window just below the rotation button.
- With up and down arrows of the keyboard
- With the scroll wheel of the mouse (if any present)

For precise scanning of the voltage (if adjusting the phase of the variable phase retarder for example) with the up and down arrows or the mouse scroll wheel, one can set the precision of a single step with the voltage resolution selection.

To select the output controlled by the arrows or the scroll wheel of the mouse: click on the corresponding rotation button.

The maximum precision of the LC Driver is 1mV. And the maximum amplitude of the square signal is about ±8.8V. The constant frequency of the output voltage is 1.5 KHz

Notice you can choose the selected device in the upper combo box if more than one LC driver is connected to the Computer

Trigger:

The external trigger mode is activated or deactivated for channel 1, 2, 3 and 4 by checking the respectively the “external on out 1,2,3 and 4” checkbox and by pressing the update button to send the new configuration to the LC driver.

If the trigger input of the driver (left connector) is set to 5V (3V-5V) then channel1 and/or channel2 and/or channel3 and/or channel 4 will be set at the value indicated by adjustment indicator. If the trigger input is set to 0V then the selected channels 1 to 4 will be set to 0V. So you can switch between 0V and a defined voltage.

Notice that the LC Driver is not sensitive to the trigger slope but to the trigger state (0V or 5V)

Termination of the program:
Terminate the program by simply pressing the red cross button in the upper right corner (as usual for windows programs).
DO NOT UNPLUG THE DRIVER BEFORE ENDING THE PROGRAM!

DLL and Labview:
For use with Labview or other control software via a dot net DLL,
Look at the example for labview 8.2 and higher on the USB key
please consult the LCDriver 1.2 API InterfaceDescription.pdf file on the installation USB Key.