

AKTAKOM Power Manager Max

User's manual

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1 Introduction

1.1 Introduction



AKTAKOM APS-XXXX series controlled power supplies are designed to supply wireless devices with stabilized voltage or current during the debug processes, repair and laboratory research in controlled climate conditions.

AKTAKOM Power Manager 21 Light program is designed for the work with one of the following controlled power supply models:

- APS-1602L /LS DC Power Supply 60V / 2A 1 Channel
- APS-1721L /LS DC Power Supply 120V / 1A 1 Channel
- APS-3103L /LS DC Power Supply Remote Controlled 120V / 3A 1 channel programmable
- APS-3320L /LS DC Power Supply Remote Controlled 600W 30V / 20A 1 Channel programmable
- APS-3320L /LS DC Power Supply Remote Controlled 600W 30V / 20A 1 Channel programmable
- APS-7306L /LS DC Programmable Power Supply
- APS-1503L /LS DC Programmable Power Supply
- APS-3610L /LS DC Programmable Power Supply
- APS-3605L /LS DC Programmable Power Supply

1.2 License contract

1. The present license contract is made between You and the Rightholder of the exclusive right on the present program, specified in the Operations manual to the device to which, or with which, the program was purchased (hereinafter referred to as “rightholder”). The conclusion of contract does not result in the lapse of exclusive right on the program to you.

2. While installing, making a copy, uploading, carrying out an access or somehow using the program, you understand and agree with the conditions of the present license contract. If you do not agree with the conditions of the present license contract, delete all program files from your information storage devices and stop using the program.

3. You have the right to install, use, display and run only one copy of the program for only one device to which, or with which, the program was purchased, the quantity of PCs at which the program can be installed is not limited. It is restricted to use the program for

several devices.

4. You do not have the right to decompile, disassemble, create new versions, make alterations in all parts of the program.
5. You do not have the right to sell, rent, on loan or somehow pass the copy of the program, as well as to gain from the distribution of the program. You are not allowed to distribute this program together with any commercial programs and printing.
6. You are allowed to make one backup copy, and you have the right to use it only for archival purposes and for replacement of the legally acceptable purchased copy in cases, when this copy is lost, destroyed or get unsuitable to use. Herewith the copy of the program can not be used for other purposes and must be destroyed if the possession of the copy of such program is not lawful any more.
7. Lawful purchased copy of the program is a copy, which is obtained by one of the following ways:
 - a. With a set together with the device, downloadable from the manufacturers or distributor website.

The cost of the copy of the program is included in this case in the cost of the device. In case of loss of such a copy of the program it is not subject to free replacement. On the issue of the new version of the program the rightholder can provide you on your demand with the access to copy the new version of the program from the web site in Internet, additionally indicated by the rightholder. After getting the updates it is restricted to use the program, which is the base for getting updating.

Attention! Not all previously released devices and new versions of the program are compatible.

Programs, which copies are being distributed in the following way could have a demo version, which is being distributed in the same way as it is described in the subparagraph "b" of the present paragraph.

b. Separate from the device a copy is downloadable from the manufacturers or distributor website.

8. The copy of the program is distributed "AS IS".

a. THERE ARE NO GUARANTIES ENCLOSED AND PROVIDED.

b. YOU USE THE PROGRAM ON YOUR OWN ACCOUNT. THE COPY OF THE PROGRAM IS PROVIDED " IN THE WAY LIKE IT IS" WITHOUT ANY GUARANTEES, EVIDENT OR IMPLIED, INCLUDING, BUT NOT BEING LIMITED, BY IMPLIED WARRANTIES OF THE CONSUMER PROPERTIES OR OF FITNESS FOR CERTAIN PURPOSES.

c. THE RIGHTHOLDER DOES NOT GUARANTEE, THAT THE FUNCTIONS OF THE PROGRAM WOULD MEET ALL YOUR REQUIREMENTS, THAT THE PROGRAM WOULD WORK FAIL-SAFE OR THAT ERRORS WOULD BE DEBUGED. IF THE ERRORS IN THE PROGRAM WOULD CAUSE YOU DAMAGE, ALL REPAIR COSTS, MAINTENANCE AND SYSTEMS RECOVERY COSTS ARE BORNE BY YOU (BUT NOT THE RIGHTHOLDER.)

d. UNDER NO CIRCUMSTANCES THE RIGHTHOLDER IS RESPONSIBLE FOR ACCIDENTAL, DIRECT OR INDIRECT, MATERIAL OR ANY OTHER KIND OF DAMAGE (INCLUDING THE LOSS OF PROFIT, LOSS OF THE BUSINESS INFORMATION AND OTHER FINANCIAL LOSSES, REGARDLESS OF THEIR SIZE).

9. The present license contract is in effect world wide.

10. This license agreement does not require any additional fee in addition to conditions listed in paragraph 7

11. The present license contract is concluded for the term equal to the validity term of the exclusive right on the program.

12. The rightholder has the right to terminate the license contract in case of non-compliance with the terms and conditions of the contract. On termination of the contract you are obliged to destroy all copies of the program which you have.

13. The present license contract regulates the use of updates, addenda, which could be offered to you by the rightholder after your purchasing the initial copy of the program, if these updates and addenda are not accompanied by special conditions. The conditions of the present contract could be modified for other version of the program.

14. The present license contract does not give any rights in respect of any trademarks, belonging to the rightholder or third party

1.3 PC requirements

Computer used for the device work should meet the following minimal requirements:

- USB-port;
- Installed Windows 7 or higher operating systems.

1.4 Setting-up procedures

1.4.1 Hardware installation

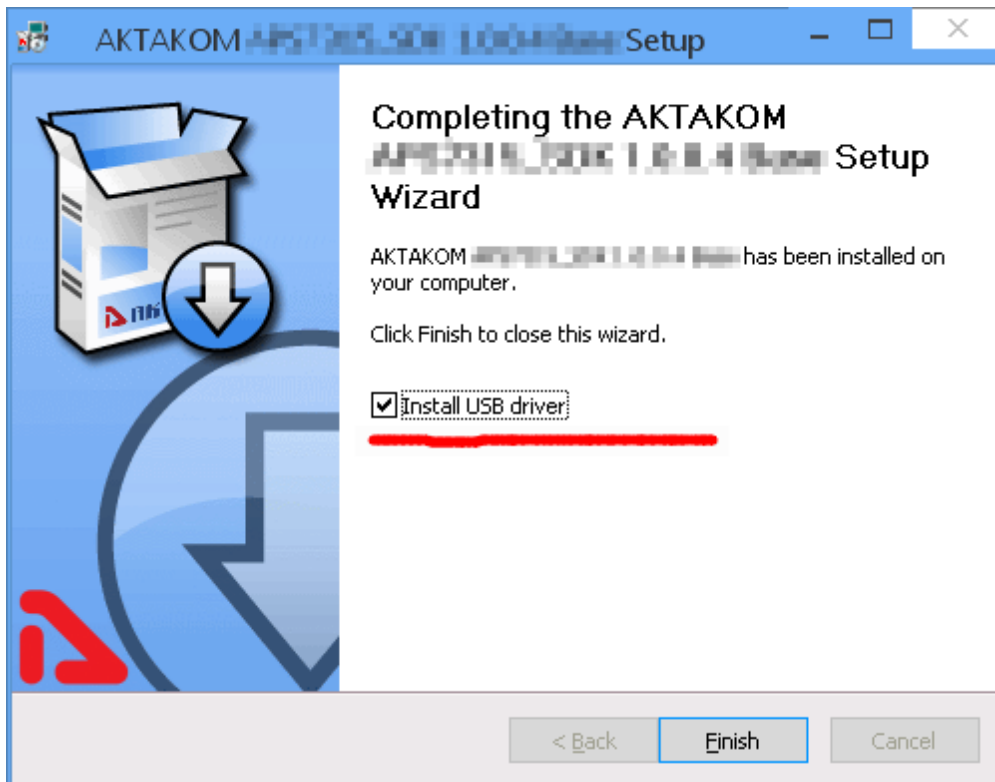
To setup the device first switch it off, connect the PC USB port to the appropriate connector of the controllable power supply with the help of A-B type USB cable.



1.4.2 Software installation

Find and run the installation program and then follow the further instruction accordingly.

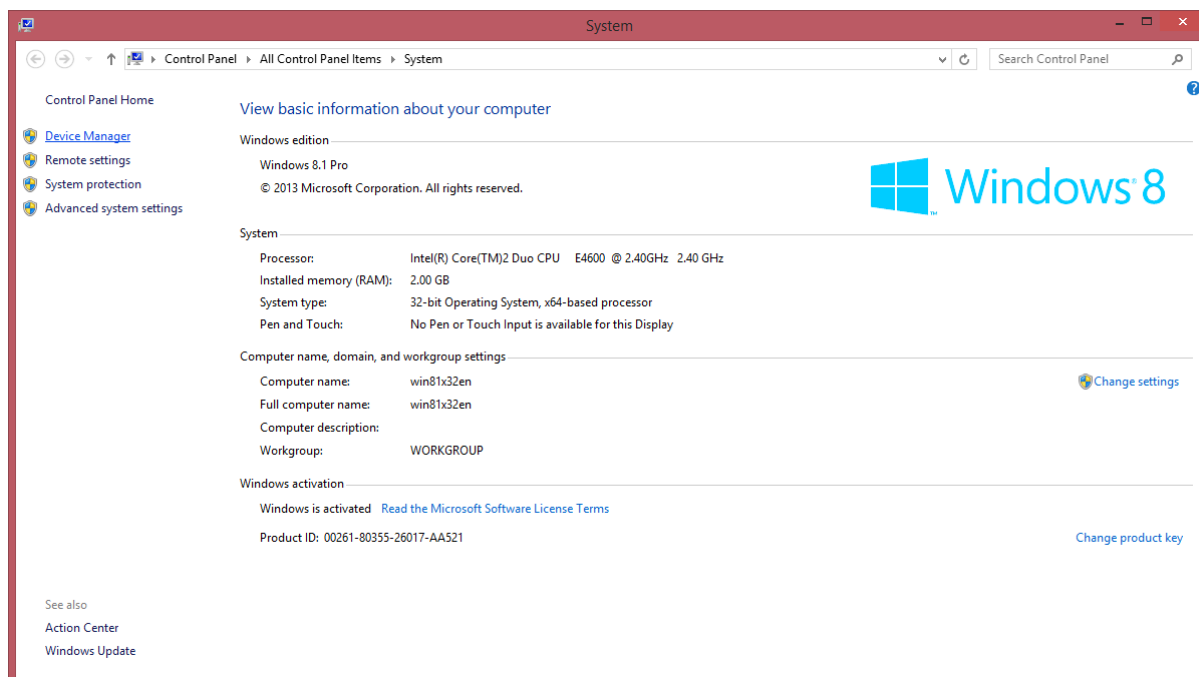
When the installation process is finished, a program group was created with the shortcuts for the device program and it's Help. You can run them with the help of "Start" menu. Before the device use you should install the USB interface driver. During the software installation all necessary files will be placed into the program working folder, into the Driver subfolder, and after that the setup program will suggest you to install the driver automatically.



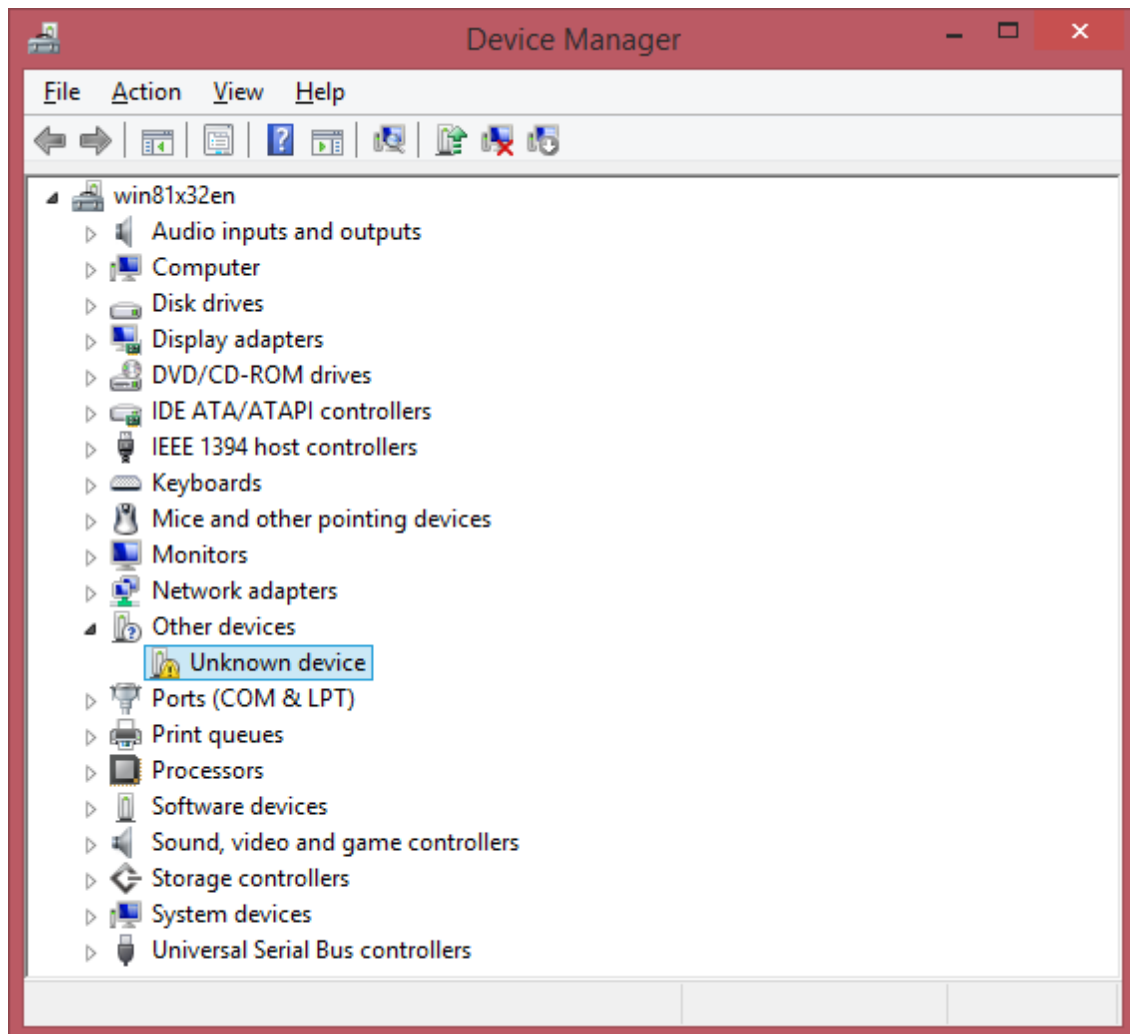
If you refused the automatic driver installation or it has failed due to some reasons you may install the driver manually later. Driver installation process is shown below.

Manual installation of USB driver (for Windows 8)

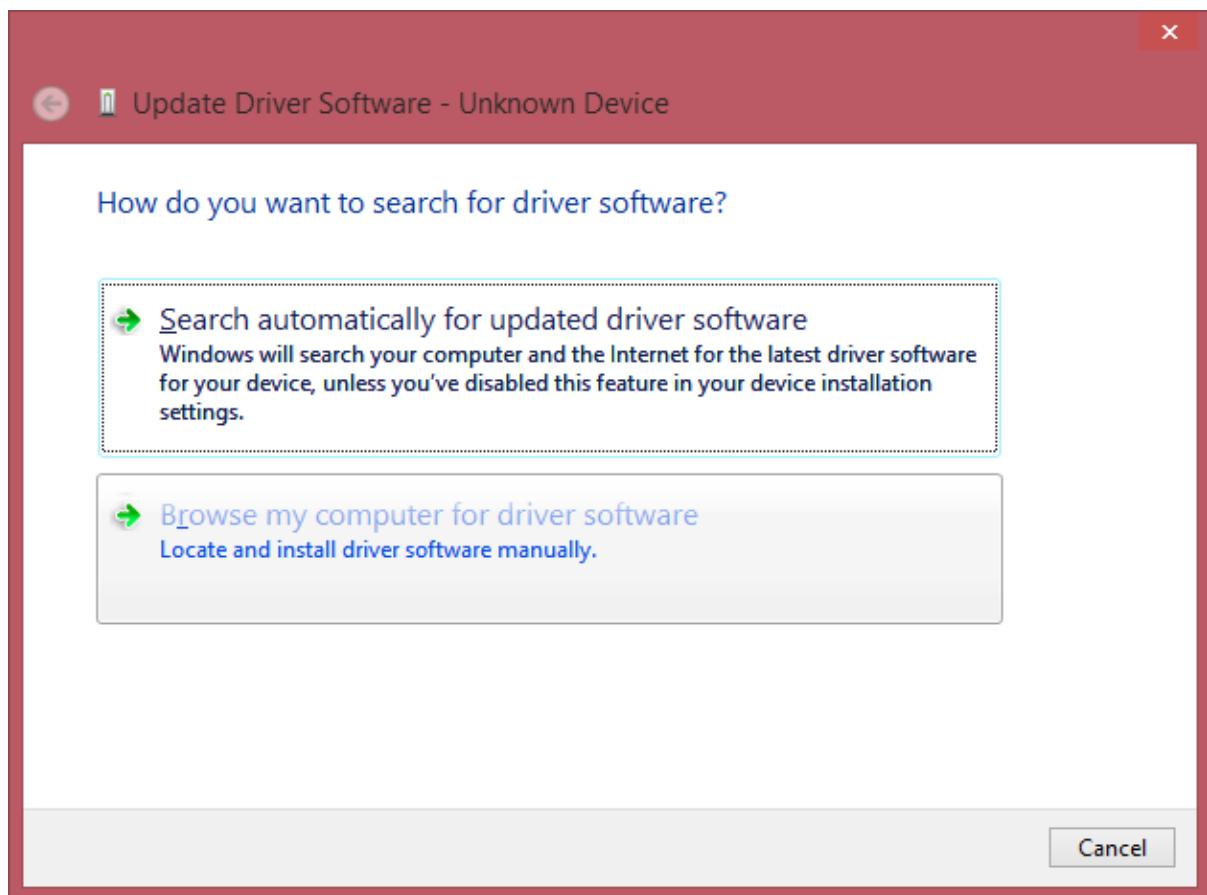
Enter Windows as an administrator, connect the device to the PC. Select Control panel from Start menu, chose System (or just press Win+Pause combination on the keyboard):



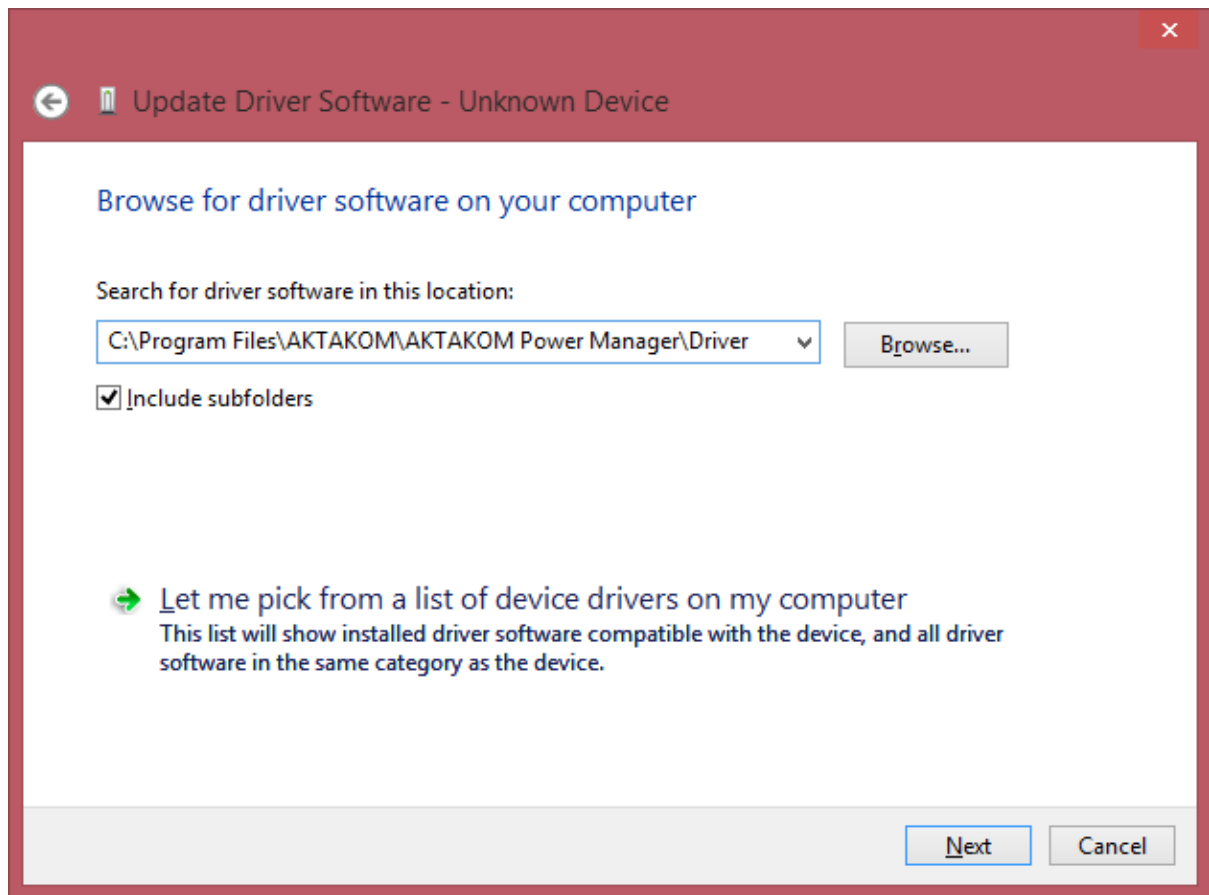
Select Device manager. Find AKTAKOM USB LAB device (it will be marked with a warning icon since the driver has not been installed for it yet):



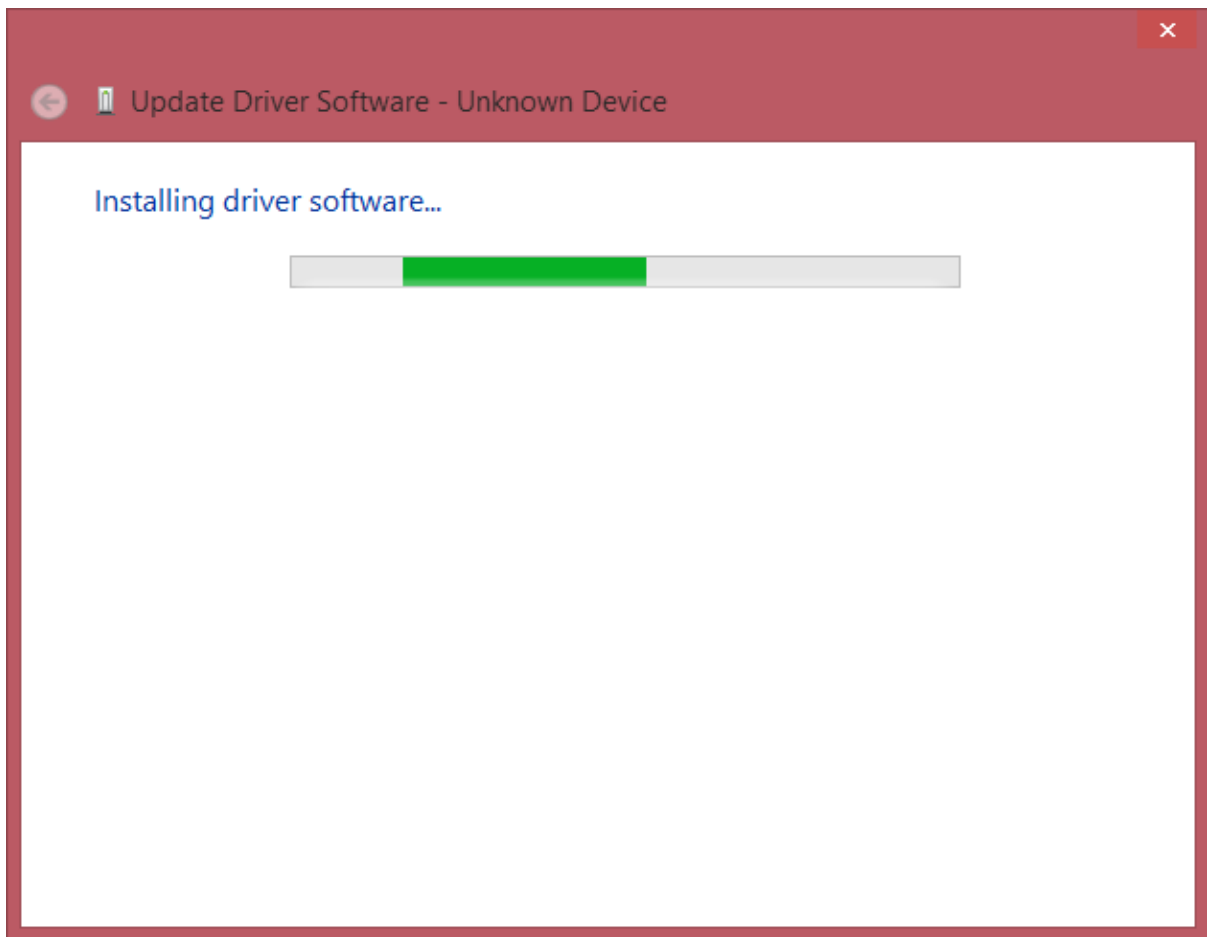
Open its properties (with double click), click Update Driver. You will see the following window:



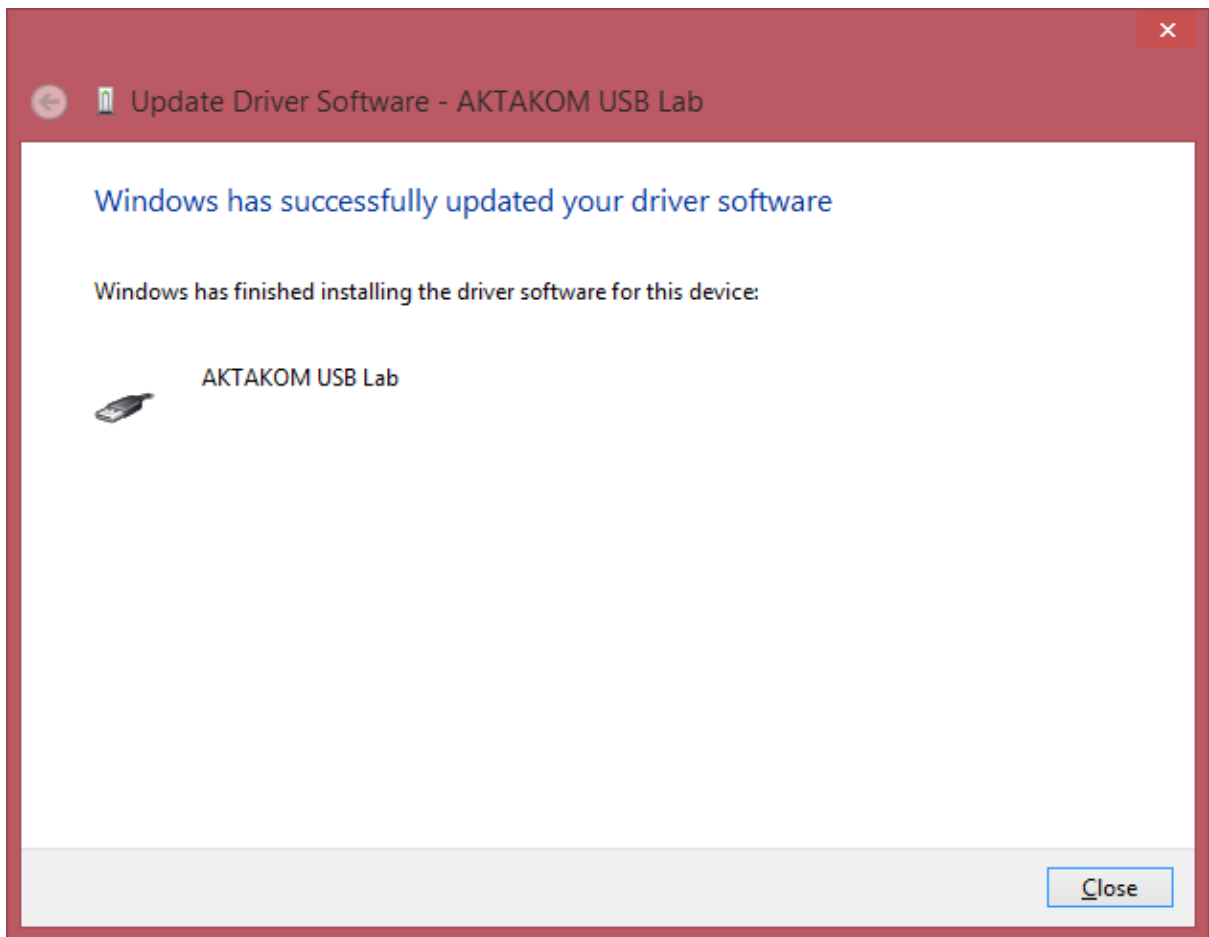
Select "Browse my computer for driver software" and afterwards specify the location of the driver folder:



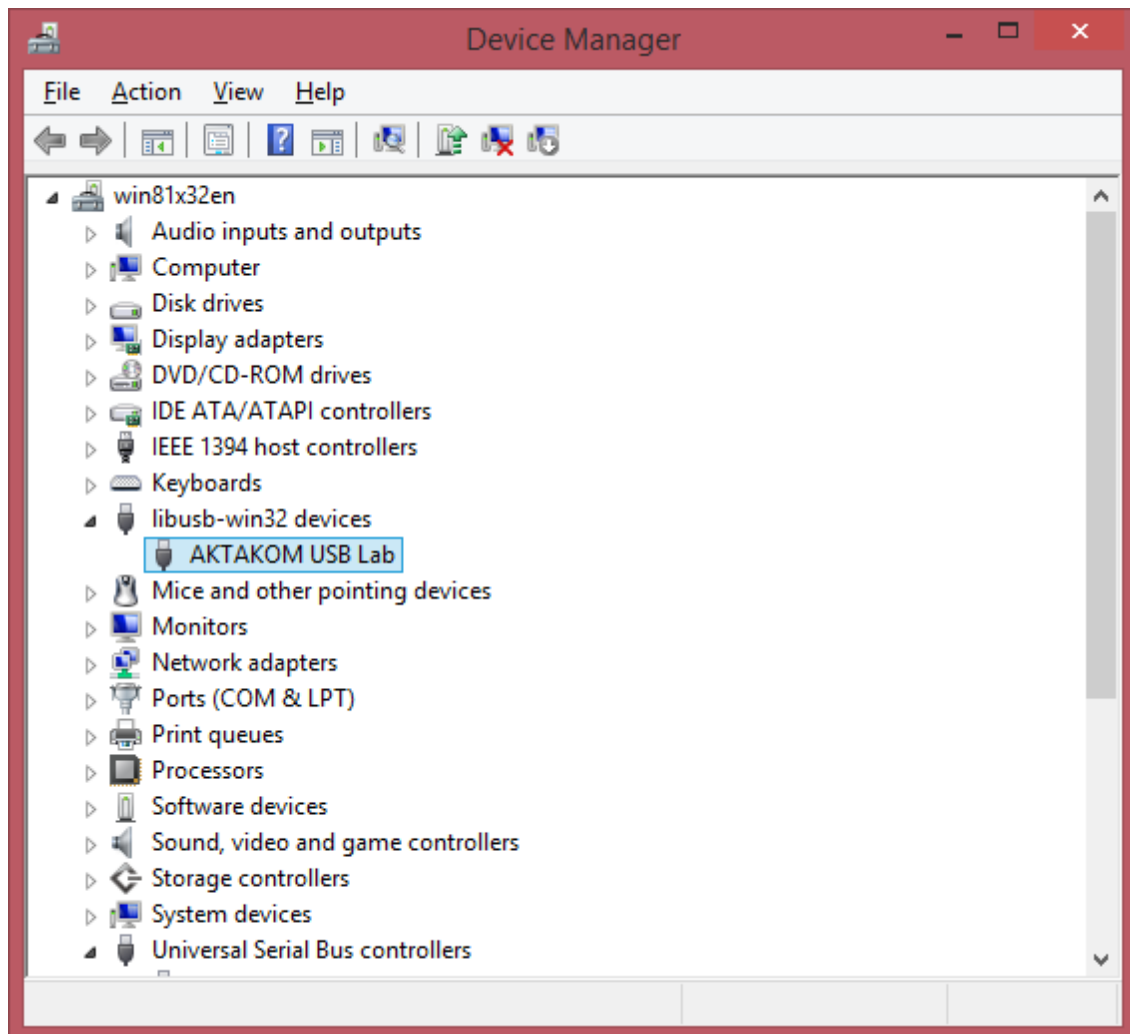
Press Next to start installation:



Wait till the installation is completed. Press Close:



As a result there should be the following images:



At this stage the driver may be considered ready for further work.

2 Application description

2.1 Application operation description

Main program window view:

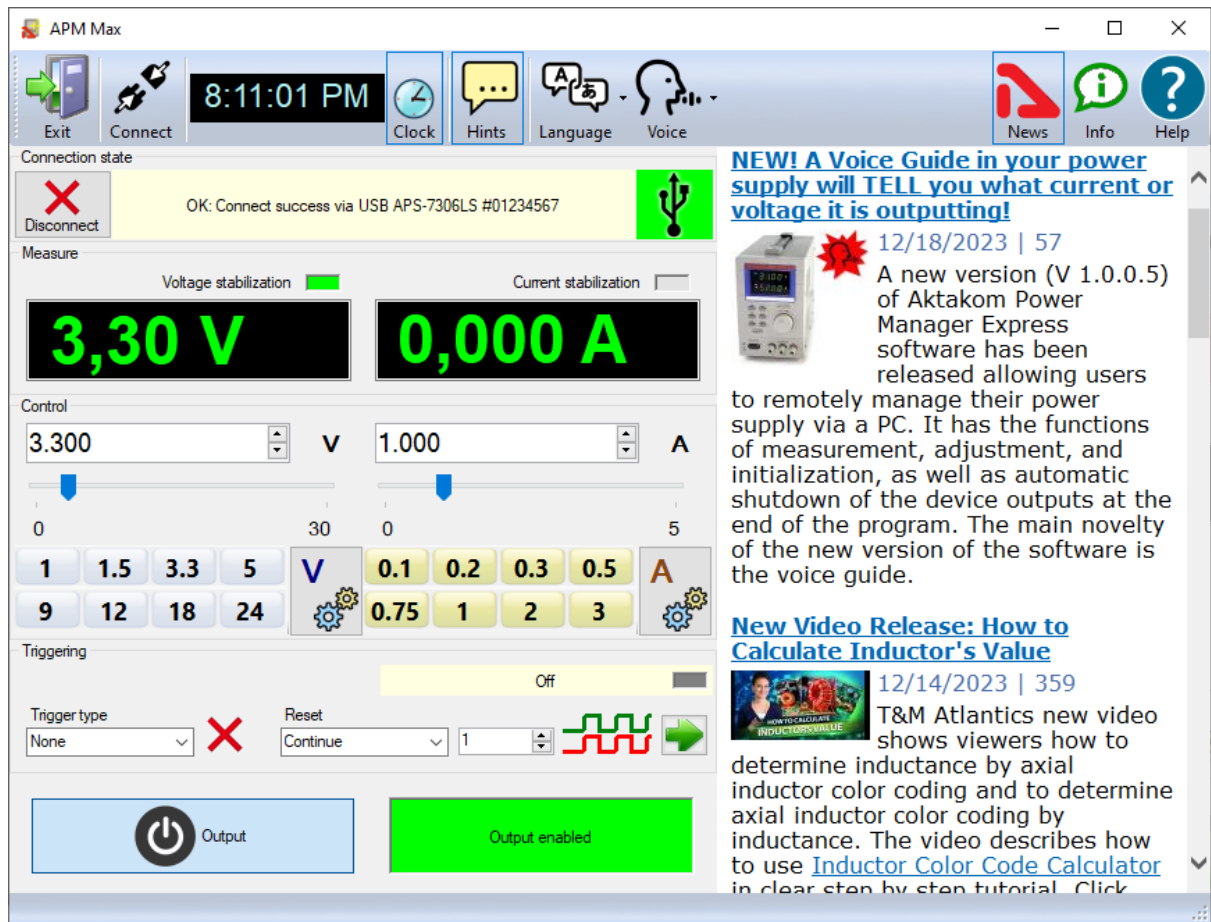


Fig. 1. Application main window

When the application is running the power supply connection window will open:

Power supply connect

Select correct options for power supply connect

Select interface type

USB LAN

Select LAN options

IP-address 192.168.0.150

Port 1024

Login AULNetLogin

Timeout (ms) 5000

Subnet mask 255.255.0.0

Gateway 192.168.50.1

Reset LAN options to default values

Write LAN options to power supply

Cancel OK

Fig. 2. Connection dialogue

Select the necessary interface type (USB or LAN), enter the settings for the network connection (IP, port, login) and press OK key to connect to the power supply.

You will see the connection state in the main program window, "**Connection state**" block.

In case of successful connection the program will remember the settings and next time it will try to use them to reconnect to the device.

To restore the connection break in the program operation click "**Connect**" button in the main window. Also use this window to record the network settings to the power supply memory. To do this open "Connection" window after the device connection via USB, enter the necessary settings in IP, port, login fields and click "Write LAN options to power supply." When recording you will need to enter a password (default password: AULNetPass).

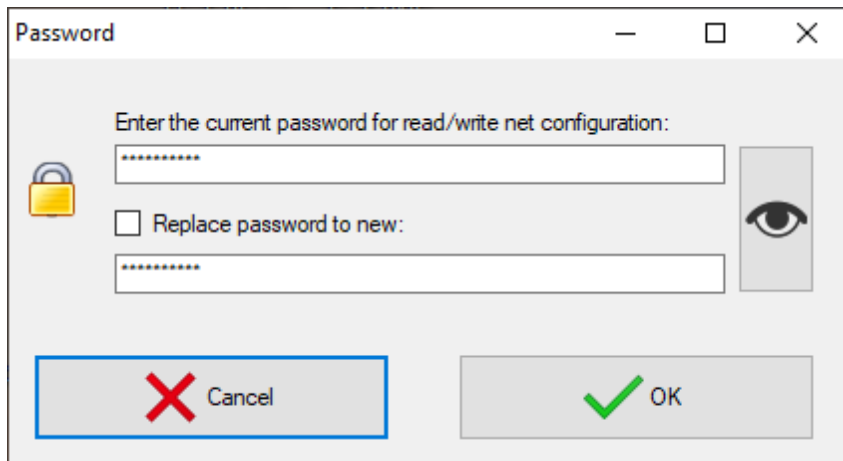


Fig. 3. Password dialogue

To change the password check box "Replace password to new".

If the USB interface is used and more than one power supply is connected to the computer, a dialog for selecting the desired device from the list will appear (Fig. 4).

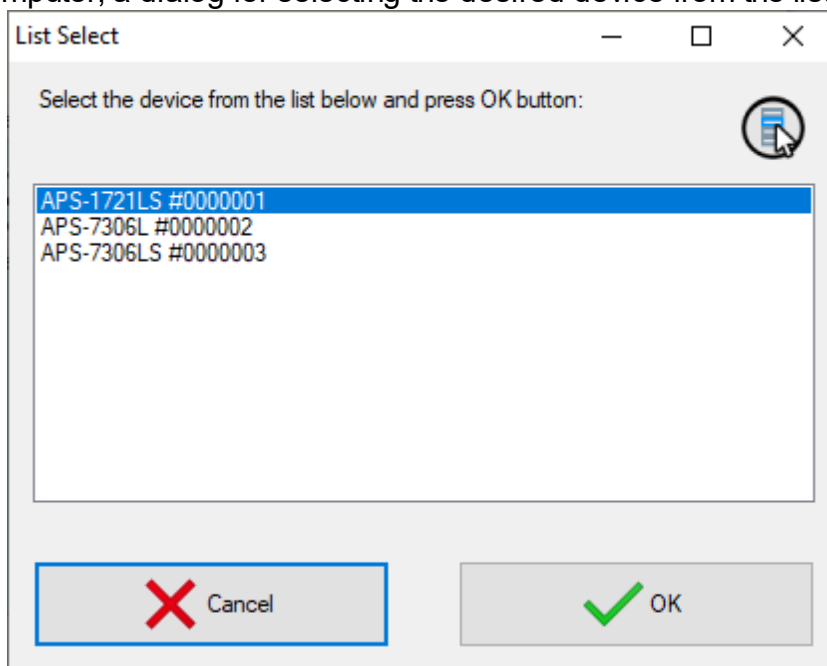


Fig. 4. Select USB device

After the device connection its current state will be displayed in Measurements block.

Constant voltage and current mode is controlled by the elements of Control block. To switch on/off the output use Exit key.

Synchronization block allows you to use the synchronization input capabilities for the device models equipped with it.

Trigger type:

- **No**. Synchronization is not used.
- **Rise**. The device outputs switch their state when there is a transition detected from the lower state of the synchronization line to the upper one.
- **Fall**. The device outputs switch their state when there is a transition detected from the upper state of the synchronization line to the lower one.
- **Any**. The device outputs switch their state when there is any transition detected on the synchronization line – from the lower state to the upper one and vice versa.
- **Set**. The device outputs turn on if the synchronization line is in the upper state and turn off if the synchronization line is in the lower state.
- **Inversion**. The device outputs turn off if the synchronization line is in the upper state, and turn on if the synchronization line is in the lower state.

Restart:

- **Continue**. Multiple mode. After processing the detected synchronization event the startup system returns to the start waiting state.
- **Single** mode. After processing the detected synchronization event the startup system stops operating. To switch it to the start waiting state press the restart key.

Counter:

- It is used in multiple mode ("Continue"). If set to zero the synchronization is restarted an unlimited number of times. If set to the number greater than zero the synchronization is restarted the specified number of times and thereafter it turns off as in a single mode.

Synchronization state indicator:

- **Grey** color. The synchronization system is off.
- **Yellow** color. The synchronization system is in the start waiting state
- **Green** color. The synchronization system has detected a start event and sent a start command.
- **Red** color. The synchronization system is stopped and requires the user's command to process the next start event.

Note

Enable/Disable outputs button has priority over the synchronization settings. When the output is allowed (the button is pressed), the synchronization will control the outputs state, but if it is disabled (the button is released, off), the outputs will be always disabled regardless of the synchronization state.

Upper panel buttons of the main window:

- "**Exit**" button terminates the program operation.
- "**Connect**" button recalls the power supply connection window.
- The button with a clock icon shows or hides the clock display on the keypad.
- "**Hints**" button shows or hides the keys caption text.
- "**News**" button shows or hides Aktakom news feed.
- "**Info**" button displays the information about the program and connected device.

"Help" button recalls this help file.

2.2 Presets list edit

The appearance of the dialog box in the picture below.

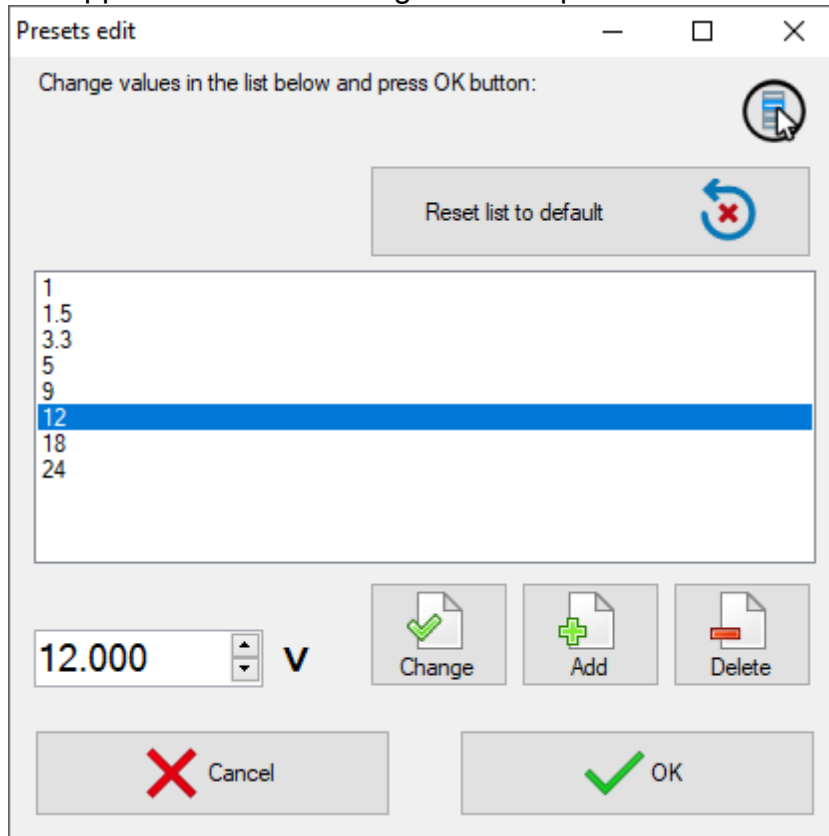


Fig.5. Presets list editor

The list of presets (shortcut buttons) is a list of Voltage or Current values, which can be set on the device "with one touch". In dialogue editing presets in addition to the list itself, the program displays the following buttons:

Reset list to default - return the contents of the list to default values.

Change - replace the selected line of the list with the entered value.

Add - add a new value to the list.

Delete - remove the current line from the list.


Cancel - close the dialog without saving changes.

OK - save changes and close the dialog.

3 Service

3.1 Updates and technical support

 To update the software and receive AKTAKOM proprietary technical support, you can visit our website on the Internet: www.tmatlantic.com

 You can also send your questions, wishes and suggestions by: it_dep@tmatlantic.com