High Quality 24-bit USB Audio Adapter with 6 separate output channels

User's Guide

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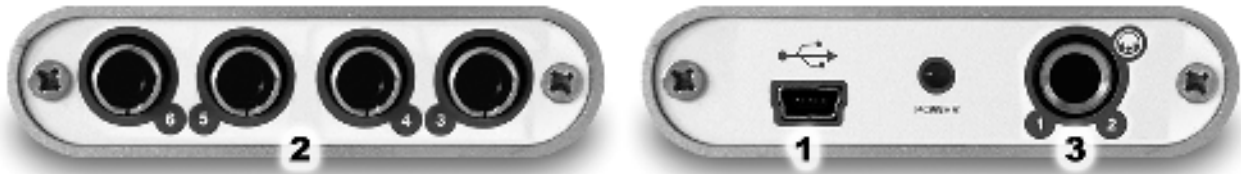Revision 3, May 2014

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1. Introduction

Congratulations on your purchase of the ESI UDJ6.

UDJ6 is a compact stylish USB audio interface, that provides 6 analog output channels including a high quality stereo headphone output. It is very easy to use, small and powerful. With our excellent driver support UDJ6 works perfect with all current DJ, recording and sequencer applications. The USB connection makes installation extremly simple.

Just plug it in and it works!

1.1 Features

The UDJ6 hardware has these main features:

1. USB connection port (connects to your computer).

2. 4 analog outputs with RCA connectors for output channels 3 to 6.

3. 1/4" TRS headphone output for output channel 1 and 2.

The cool compact design allows you to take UDJ6 with you, wherever you go. As companion to a notebook computer, you can take your DJ setup with you. UDJ6 is simple to install and even easier to use. Working with samples, as a DJ or with software synthesizers has never been easier, with the help from UDJ6. You can playback any signal through channel 1 / 2 (the headphone output) and at the same time send out separate tracks and mixes through channels 3 / 4 and 5 / 6. The hardware works perfectly with important ASIO compatible DJ and mixing applications.

2. Installation

2.1 System Recommendation

UDJ6 is not simply a standard digital audio interface card, but a high-resolution device capable of advanced processing of audio content. Even though UDJ6 is built to have low-CPU resource dependability, system specifications play a key part in the UDJ6s performance. Systems with more advanced components are generally recommended.

Minimum System Requirements

PC

- Intel Pentium II 300MHz CPU or comparable AMD CPU (or equivalent) – we recommend at least a Pentium III CPU with 600 MHz

- Windows XP or Windows Vista / 7 / 8 (32- and 64-bit) operating system

- 1 available USB port

- at least 64MB RAM

- high quality audio software with ASIO support recommended

Mac

- Power Macintosh G3 or higher

- 1 available USB port

- at least 64MB RAM

- Mac OS X 10.4 or higher

2.2 Hardware Installation

UDJ6 is simply connected to an available USB port of your computer. A separate power supply is not required, as UDJ6 is a USB powered device. Simply install the hardware by plugging it into your computer with the supplied cable.

USB port of a computer

2.3 Driver Installation

After the connection of UDJ6, the operating system automatically detects it as a new hardware device. Modern operating systems like Windows XP, Windows Vista / 7 or Mac OS X usually detect the hardware directly and are installing the correct USB audio drivers automatically.
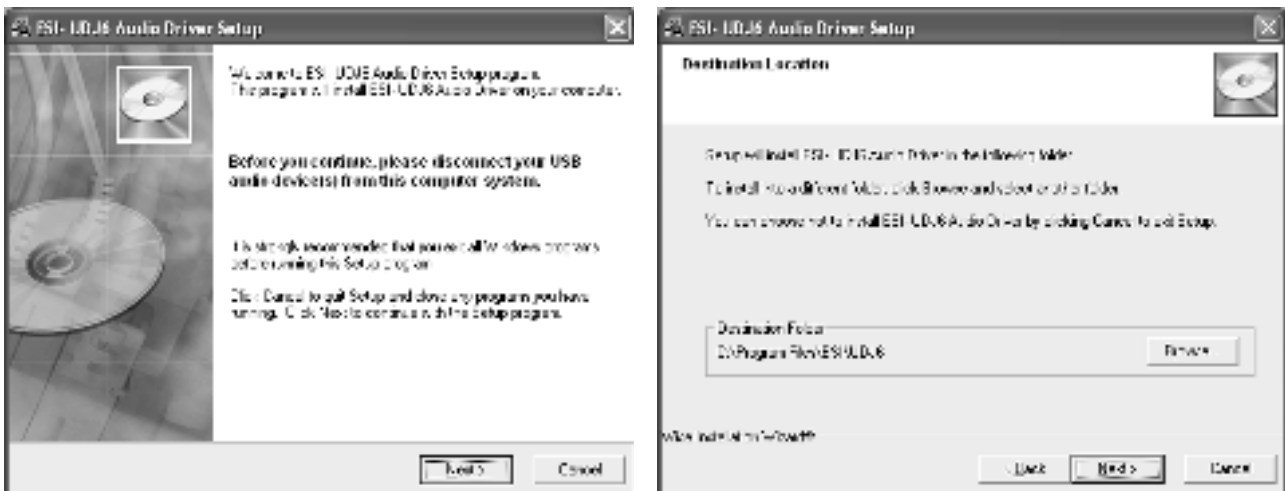
You can use UDJ6 already now in typical consumer audio applications that do not need special professional ASIO driver support. Under Windows XP this could be for example programs used for

DVD playback or more simple DJ applications that don't require ASIO. Under Mac OS X this could be applications like Garageband. Please note that our special driver is also required if you are using higher sample rates than 44.1kHz.

Installation under Windows XP

Unplug the device before you start the installer if it is already connected. Then launch *setup.exe* from the **_UDJ6/Windows_** folder of the included driver CD or from a download of a recent driver from our website.

You will now see a dialog as shown on the left picture below. Click *Next*. You can define the target directory for the installation now. Confirm it with *Next*.
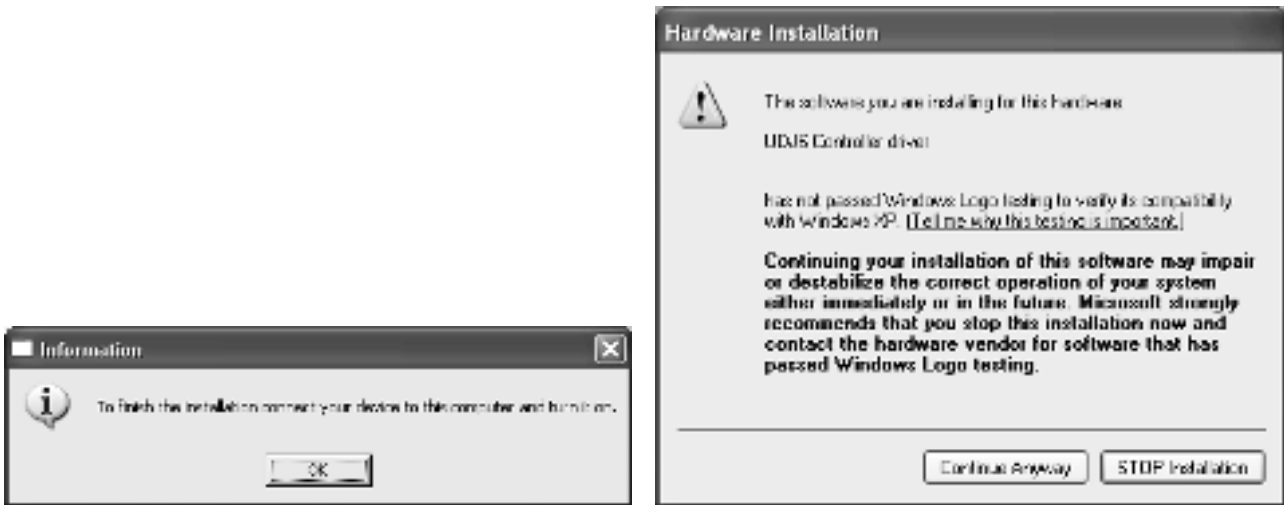

The installer now informs you that the driver installation will start as shown on the left picture below. Confirm this with *Next*. During the following process you will see a dialog box once or several times that informs you that the driver software has not passed Windows Logo testing. Please be assured that our drivers have been tested in various different ways and are OK to be used. Confirm any such dialog with *Continue Anyway*.

You will now be prompted to connect the hardware on the next dialog that is shown below on the left. Plug in UDJ6. Do <u>not</u> click *Next* yet. During the driver installation, Windows might again

prompt you to confirm the Windows Logo testing dialog once or several times with *Continue Anway* before the driver installation is finalized.

You can now finally click *Next* on the *ESI UDJ6 Audio Driver Setup* dialog. The installation is now finished. To confirm this, please check if the ESI icon is displayed in the taskbar notification area as shown below. Sometimes a reboot is required.
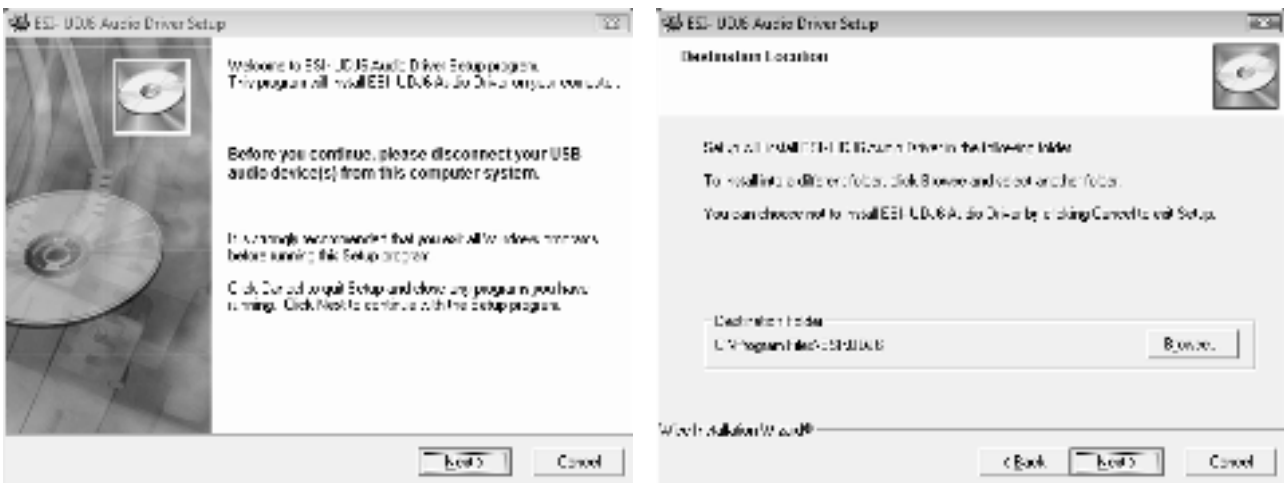

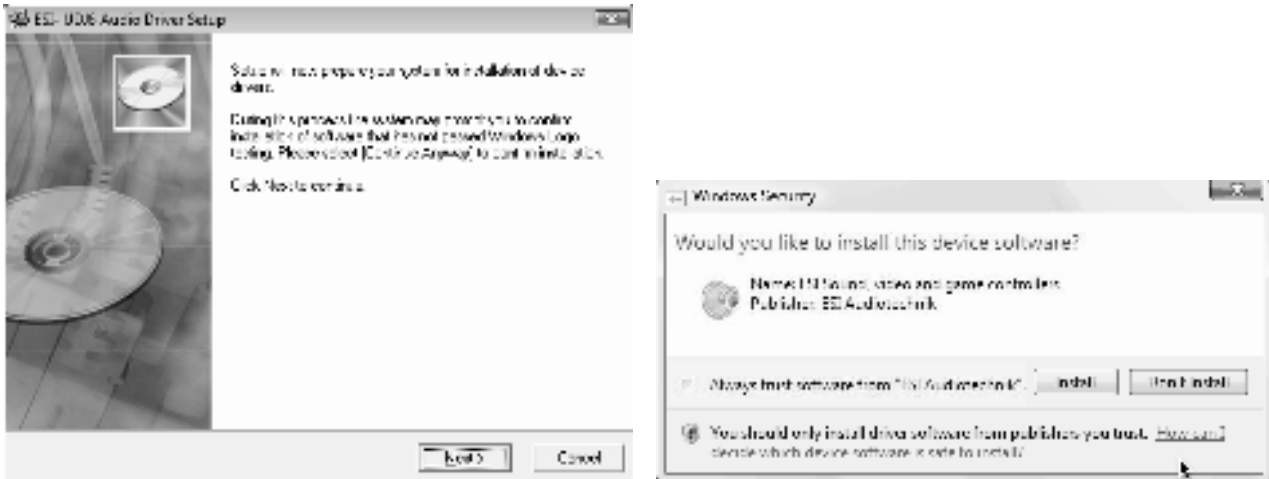If yes, the driver installation has been completed successfully.

Installation under Windows Vista / 7 / 8

Unplug the device before you start the installer if it is already connected. Then launch *setup.exe* from the **_UDJ6/Windows_** folder of the included driver CD or from a download of a recent driver from our website.

When launching the installation, Windows Vista / 7 /8 might prompt a security message. Make sure to allow the installation. You will then see a dialog as shown on the left picture below. Click *Next*. You can define the target directory for the installation now. Confirm it with *Next*.

The installer now informs you that the driver installation will start as shown on the left picture below. Confirm this with *Next*. During the following process you might see a *Windows Security* dialog box once or several times that asks you for confirmation to install the driver software. Confirm any such dialog with *Install*.

You will now be prompted to connect the hardware on the next dialog that is shown below on the left. Plug in UDJ6. Do <u>not</u> click *Next* yet. Instead, wait a few seconds for the automatic device driver installation. You can monitor this in the task notification area where Windows Vista / 7 / 8 informs that the driver is installed via a bubble message box.

You can now finally click *Next* on the *ESI UDJ6 Audio Driver Setup* dialog. The installation is now finished. To confirm this, please check if the ESI icon is displayed in the taskbar notification area as shown below. Sometimes a reboot is required.

If yes, the driver installation has been completed successfully.

3. Control Panel

This chapter describes the UDJ6 Control Panel under Windows. Under Mac OS X no special Control Panel is required.

To open the control panel double click on the ESI icon in the task notification area. The following dialog will appear:

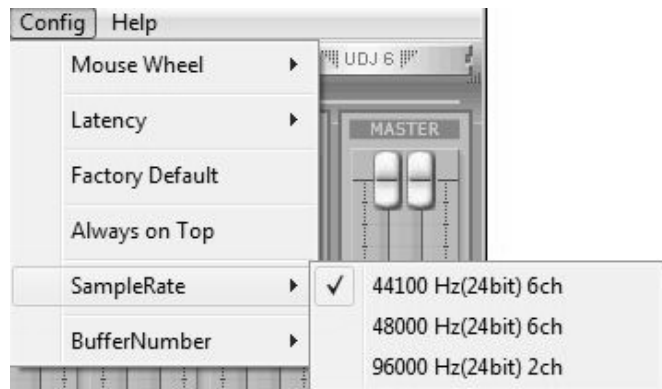The *Output* section controls the playback volume of each playback signal from your audio applications.

There are 6 individual faders for each playback channel, divided into the *1/2*, *3/4* and *5/6* sections. The *M* button under each channel pair allows you to mute playback for that specific channel pair. A colored *M* button indicates that the mute function is enabled. When disabled, the button is gray.

The *Master* section allows you to control the playback volume of the main master signal.
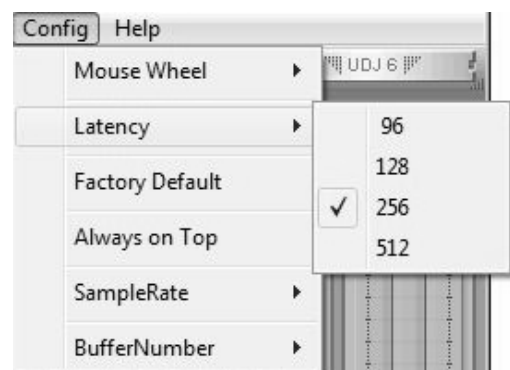
SampleRate mode selection

Under *Config > SampleRate*, you can select the playback mode and sample rate. By default, playback with up to 6 channels and 44.1kHz is selected. You can change this to 48 kHz and you can select 96kHz playback with maximum 2 simultaneous channels.

Please note that you must change these settings before launching any audio application accessing UDJ6. You cannot change these settings while any software accesses the hardware, so you need to set up your requirements before you launch your software.

Latency setting

With the *Latency* menu entry under *Config*, you can change the latency of the driver of UDJ6. Depending on the typical application (e.g. for playback of software synthesizers) a smaller latency is an advantage. At the same time, the best latency setting indirectly depends on the performance of your system. For most default applications, a typical latency buffer size between 128 and 256 is standard. On a slow system, 512 is an option.

Please note that the latency has to be setup before launching any audio application.

4. Setting in Applications

This chapter contains basic configuration examples for some popular software applications. Please also refer to the manual of the audio software you use for detailed information.

4.1 Windows Multimedia setup

The Windows Multimedia setup is required if you want to use your UDJ6 as the main sound device for Windows multimedia applications. Go to *My Computer-> Control Panel -> Sounds and Audio Device Properties -> Audio*. Select the *UDJ6* entry as your playback device to make sure that all standard signals are played via the UDJ6 hardware.

4.2 Deckadance v2 LE

UDJ6 comes with a license of Deckadance v2 LE from Image-Line Software. The unique 20 digit serial number is listed on a separate postcard. The software itself must be downloaded from the Image-Line website. This ensures you receive the latest version. Keep the serial number postcard in a safe & confidential place.

To download the software installer you need access to a computer with an internet connection You do not need internet access to install or run the program, you can download the program on one computer and install it on another without internet access.

To download the software installer, please register using the unique 20-digit serial number at: http://esi.ms/DDLE2 - note: if you should have an Image-Line online account already, please login first at http://login.image-line.com

Please enter all information carefully. Fields marked with a red asterisk must be completed. Pay attention to enter the correct email address, as your login information will be sent to this email address. We suggest writing the email address you used on the postcard paper for safekeeping along with the serial number. Once completed an email with login information will be sent to your email address. After successful registration you can click the login link.

Once logged-in at your on-line Image-Line account, your product will be listed in the *My Licenses* section down the left-hand side of your Account page http://support.image-line.com/member/profile.php - click on the product title to see the specific product download & installation instructions. Don't forget you need to register your serial number before the product will be shown.

If you experience problems registering please create a support ticket at http://ticketing.image-line.com

5. Specifications

1. **Interface**
   - USB spec version 1.1
   - USB audio class spec version 1.0
   - fully compatible to USB 2.0 host controllers

2. **Output Type**
   - in total analog 6 channel output
   - headphone output (1/4" TRS) for channel 1 / 2
   - 4 line level outputs for channels 3, 4, 5 and 6

3. **Analog Output Level**
   - -10dBV unbalanced (line outputs)
   - +0.5dBV maximum

4. **Analog Output Impedance**
   - 100 Ohm

5. **Sampling Rates / Resolution**
   - 6 channel playback at 44.1 kHz and at 48 kHz (24-bit resolution)
   - 2 channel playback at up to 96 kHz (24-bit resolution)

6. **D/A Converter**
   1) dynamic range:
      112 dB A-weighted (typical)
   2) frequency response:
      20 ~ 22 kHz (@ fs=48 kHz)
   3) resolution:
      24 bit
   4) THD+N:
      -94dB

7. **Headphone Amplifier**
   1) Output Power:
      60mW maximum
   2) Signal to Noise Ratio:
      110dB (typical)
   3) (THD+N)/S:
      -70dB, 0.03% (typical)

8. **Power**
   - USB bus powered
   - 250mA maximum

9. **Compatibility**
   - supports Windows XP and Windows Vista / 7 / 8 with ASIO 2.0, GSIF, MME, WDM and DirectSound
   - supports Mac OS X (10.4 and above) via the native CoreAudio USB audio driver from Apple (no driver installation required)
   - works with all major industry standard DJ playback applications

11. **Software**
   - includes Deckadance v2 LE (from Image-Line Software) license for PC & Mac
   - internet connection required to use software

6. General Information

Trademarks

ESI, UDJ and UDJ6 are trademarks of ESI Audiotechnik GmbH. Windows is a trademark of Microsoft Corporation. Other product and brand names are trademarks or registered trademarks of their respective companies.

The FCC and CE Regulation Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Caution : Any changes or modifications in construction of this device with are not expressly approved by the party responsible for compliance, could void the user's authority to operate equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. If necessary, consult an experienced radio/television technician for additional suggestions.

Correspondence

For technical support inquiries, contact your nearest dealer, local distributor or ESI support online at www.esi-audio.com. Please also check our extensive Knowledge Base with Frequently Asked Questions, installation videos and technical details about our products in the support section of our website.

Disclaimer

All features and specifications subject to change without notice.

Parts of this manual are continually being updated. Please check our web site www.esi-audio.com occasionally for the most recent update information.