USB2 CLASS2 EXTENSION CARD

MYTEK
Owner's Manual

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For news, driver updates, technical support, tips and further product information please visit our website:

mytekdigital.com

Technical support issues are handled via our online support ticketing system. Please enter details of the ticket in the support/download section on Mytek website.

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Contents

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1. Introduction

The Mytek USB2 CLASS2 Card is an optional card that is installed into the rear expansion slots of the Mytek 8X192 ADDA converter. With this card installed the Mytek 8X192 ADDA can be directly connected to a MAC OS, Linux or Windows computer via USB. The card may be installed by the user as described further in the manual.

All the best,
The Mytek Digital Team

2. Package Content

- The USB2 CLASS2 expansion card

- EEPROM chip for 8x192 mainboard
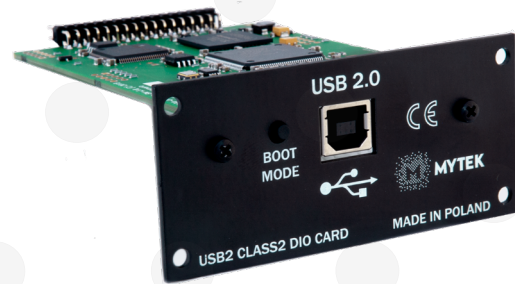
3. Features

The extension card offers option of connecting 8x192 ADDA via the USB interface and using this converter as the audio interface for Windows, Linux and Mac OS.

4. Before You Begin

Before connecting the USB2 CLASS2 card please check if the most current firmware (version 6.3 or later) is installed in the 8X192 converter. To verify the version, locate the firmware chip (8 pin DIP chip in a socket near the aluminum heat sink) on the main converter board or contact Mytek if you require assistance.

In the support section of the Mytek website at: www.mytekdigital.com/download_library you will find current detailed information about firmware versions and most current firmware and driver update instructions. If necessary contact Mytek and request appropriate firmware.

5. Quick Start

Remember to turn off and disconnect power and to disconnect signal cables while working with the top cover removed.

1. Installation of USB2 CLASS2 card
   Remove the top cover from the converter, unscrew the DIOCARD1 or DIOCARD2 slot plate and install the USB card using the existing screws in either slot. If there is a Protools DIO card installed it will work in slot 1 only. All other DIO cards including USB will work in either slot. The card must be installed with the components facing up. Double check that all connector pins match up with the pins of the connector on the main converter board properly. Pin mismatch may damage the card or converter. Follow detailed installation instructions further below.

2. Driver Installation
   Drivers should be installed before the first connection of the converter to the computer. Most current drivers are available in the download library at www.mytekdigital.com.

3. Connecting the card to the computer
   Turn off the ADDA 8x192 converter before plugging in the USB cable. The computer can be left turned on. After making the connections, the converter can be powered on.

4. Configuration
   On first power up of the converters, each converter should be recognized by the computer and have the driver installed automatically. Further configuration of inputs and outputs is done in your DAW software.

6. Card Instalation

The DIO USB2 CLASS2 card can be installed in either the DIOCARD1 or DIOCARD2 slot. The card can be installed together with any other card available for the 8x192 converter. If Protools DIO card is installed it will work in slot 1 only. All other DIO cards including USB2 CLASS2 will work in either slot.

Before installing the card, check if the converter's firmware supports DIO USB2 CLASS2 card (version 6.3 or later). If not, contact Mytek and request current version.
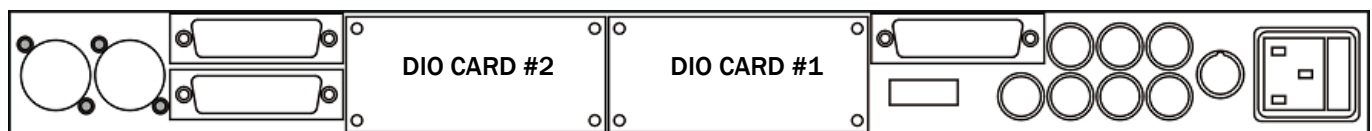
**8x192 ADDA converter rear panel**

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WARNING!

Remember to follow basic safety rules on electronic device handling while opening the converter:

- **Keep your hands dry,**

- **If floor is carpeted ground spray surroundings with water mist and ground your wrist to the chassis before unpacking and handling the DIO card.**

- **Turn off power and detach power and signal cables while working with the top cover removed.**
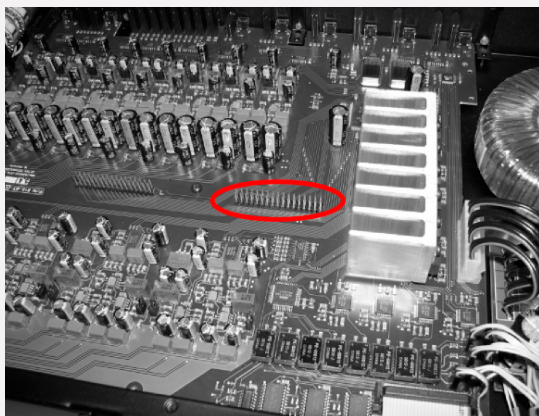
To install the USB card:

1. Check if the power cord and all signal and clock lines are disconnected.
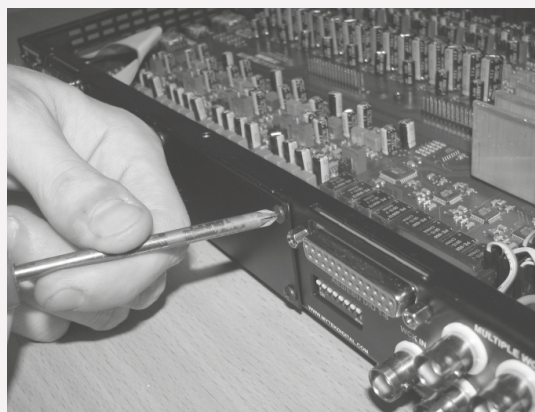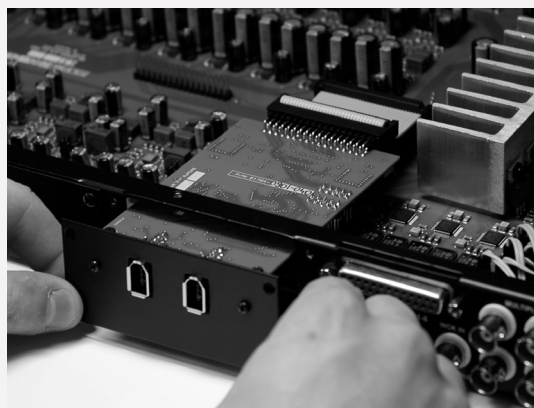
2. Remove the top cover.
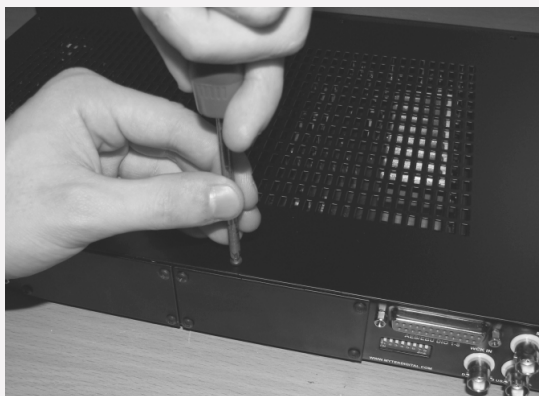
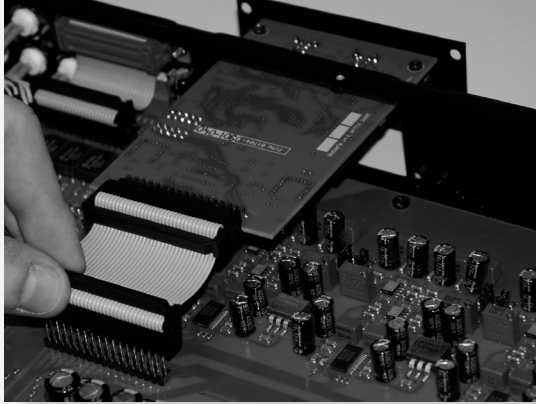3. Locate the DIOCARD1 or DIOCARD2 expansion slot on the mainboard.

4. Unscrew the cover plate of the selected slot on the rear panel.

5. Partially insert the card from the back of converter.

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6. Connect the card ribbon cable to the elected slot connector on the mainboard. Double check all pin alignment.

7.Gently push the card inside and secure it with four screws

8.Attach converter top cover.
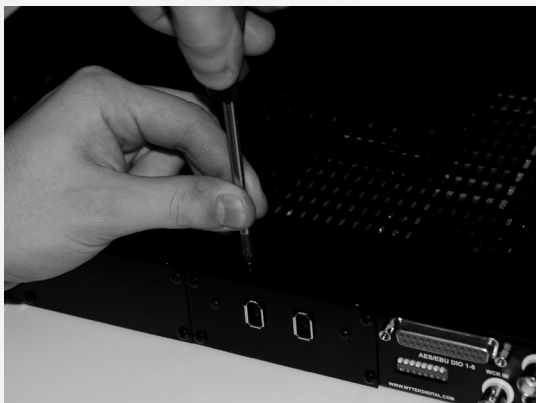
9.Connect power and signal lines.

10.Turn the converter on.

After boot up (which takes approx 20 sec) the converter will switch to regular mode, and USB Card (DIOCARD1 or DIOCARD2) can now be selected as signal source for DAC. Typically "analog" would be selected as ADC source (see converter manual).

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7. Connecting Clock Signal Line

7.1 Single Converter

If a single converter is used in the system, using it's internal clock will provide the best performance (regardless of what a clock dealer will tell you.) If external clock is used for systemic reasons SAMPLE RATE must be set to EXT. by pressing and holding EXT CLOCK SOURCE switch.

> **Attention! In a system with multiple units, double check that the configuration of clock signal lines, synchronization sources and sampling frequencies of all converters in the system are correct.**

8. Master 8x192 ADDA converter front panel

Check if the selected sampling frequency of the converter (FS) matches the sampling frequency in Control Panel

Correct clock configuration is necessary for the proper operation of the converters and for the best sound quality. Make the 1st Mytek in the chain the clock master for the whole studio. There is no benefit of using a dedicated clock. Clocking off the Mytek's internal clock generator produces superior results because the clock and the clock line current drivers are the best in the industry.

Changing external synchronization source while the program is running may result in improper operation of converters and loud cracks in the analog section.

9. Input Connection

There s one USB port on USB card which should be used for computer connection.

10. Signal Routing

ADDA8x192 converter provides the system with 8 input and 8 output channels. If more than two channels are used, audio software which understands multichannel I/O must be used.
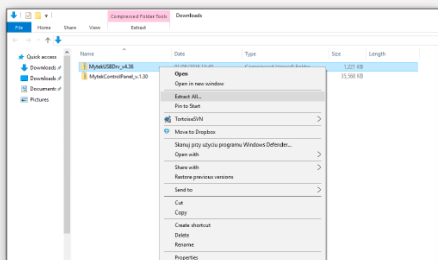
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11. Windows installation and configuration

Note that for proper operation it is necessary to install the USB2 driver (Windows only) and Mytek Control application. Both these have separate installers.

11.1 Windows – USB 2.0 driver installation

To simplify installation it is recommended to first install the drivers before the unit is connected to the computer. The latest drivers are available at mytekdigital.com
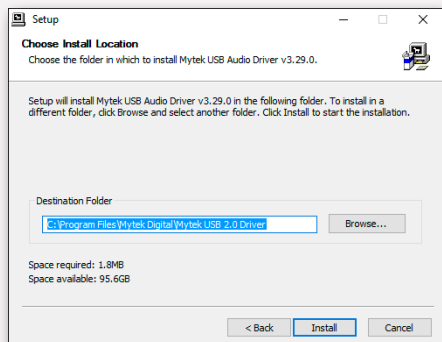
1. Locate the MytekUSB2Drv.v4.xx.x.zip file and extract the contents of the archive by right clicking on the zip archive icon and selecting „Extract Here".

2. Installation works automatically by a double-click on MytekUSB2Drv.v4.xx.x.exe file.

3. Once the Setup.exe opens click „Next".
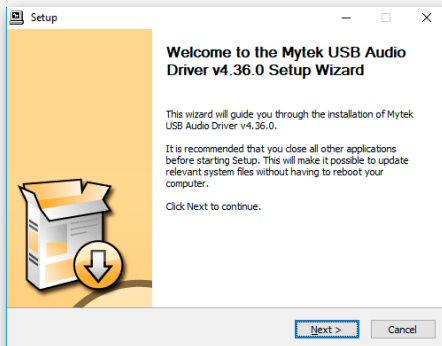
4. Choose the location of installation.Default location is „C:\Program Files\Mytek Digital\Mytek USB 2.0 Driver".We recommend leaving this as it is.If you wish to customize the install choosethe location by selecting browse. Click „Install".
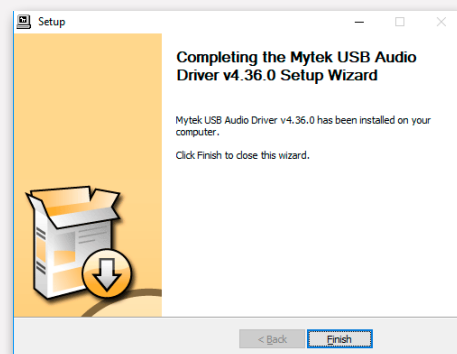

5. Setup.exe will now install the Mytek Driver.This process may take a few minutes.

6. Upon completion of „Setup.exe" press the „Next" button.
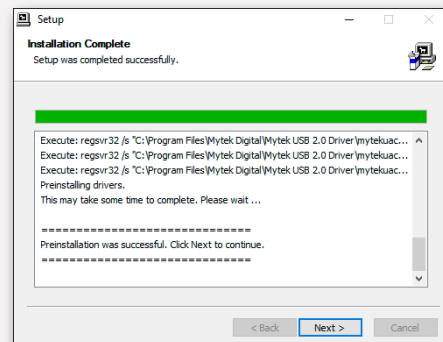
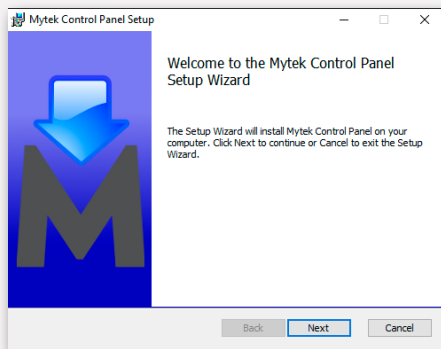7. To complete installation of the driver simply click the „Finish" button.

8. Connect the 8x192 ADDA to USB 2.0 port in your computer.

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## 11.2 Windows – Mytek Control Panel installation process

1. Locate the MytekControl.zip file and extract the content by right clicking on the zip archive icon and selecting "Extract Here".
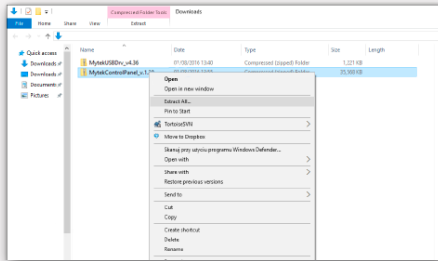
2. To install The Mytek Control double click the extracted Windows Installer Package file. When MytekControl Setup Wizard appears click „Next" then accept license and click „Next" again.

3. All options should be choosen in „Custom Setup" menu. To confirm the installation of each option select „Will be installed on local hard drive" then click „Next" and „Install" to begin the installation.
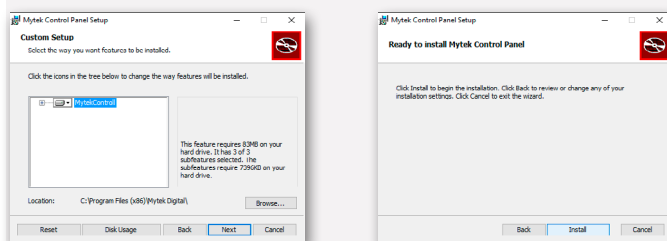
4. To complete installation of the driver simply click the „Finish" button.
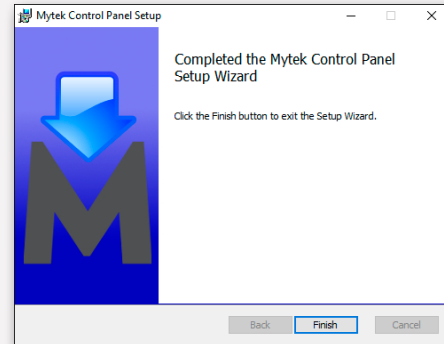
5. Confirm installation by launching the MytekControl application. Installation was successful if the MytekControl application shows the USB2 CLASS2 DIO CARD with serial number and permits access to all options.

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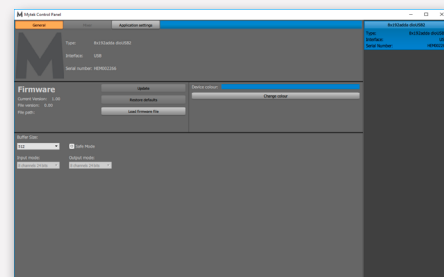
11.3 Windows – setting the USB2 CLASS2 DIO CARD as playback device.

1. To set the USB2 CLASS2 DIO CARD as your default Windows playback device find the speaker icon (Sound Settings) in the notification area (lower right corner of your screen) and right-click. Choose "Playback devices" from the context menu.

2. Right-click „Speakers USB2 CLASS2 DIO CARD" and choose „Set as Default Device".

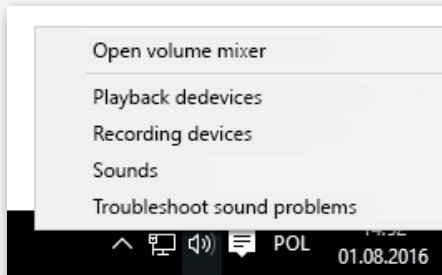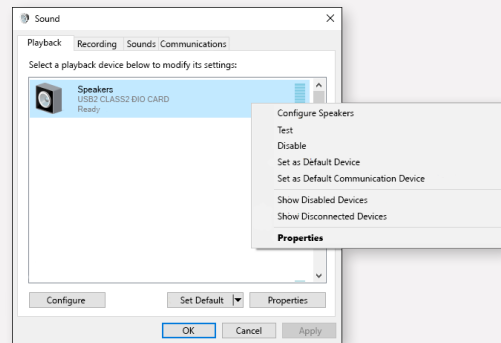**Note! – pro audio (DAW) applications (Cubase, Samplitude, Reaper etc.) or proffesional media players (Jriver etc.) use ASIO drivers and need to be configured different way. Please check our „Software Setup Guide" shown on our web site:**

mytekdigital.com

12. USB2 CLASS2 DIO CARD OSX installation

12.1 OSX – USB 2.0 driver installation

The USB2 CLASS2 DIO CARD custom designed USB2 controller supports **driverless** operation on MAC. It means that no extra drivers are required. Driverless operation basically means **„plug and play"**. The USB2 CLASS2 DIO CARD will automatically show up in your computer's list of supported audio devices as „USB2 CLASS2 DIO CARD". Simply choose that as your default audio playback device and the system will work.

12.2 OSX – Mytek Control Panel installation.

To install the Mytek Control Panel simply drag and drop Mytek application file (located in Mytek_ControlPanel_v.1.xx.dmg file) to „Applications" system folder. Follow the link to downlad the latest varsiion of the Mytek Control Panel application.
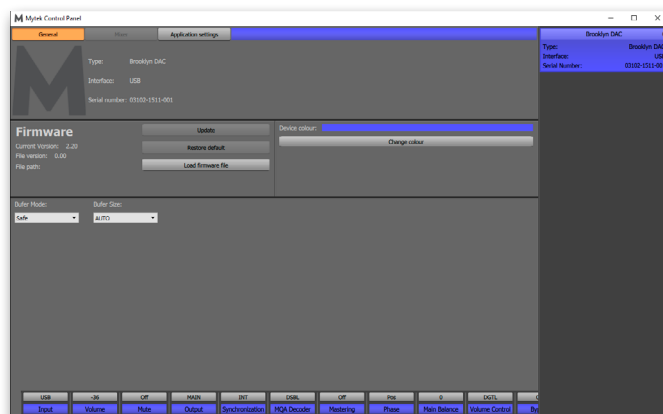
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13. Firmware update Windows and OS X

The current revision of the USB2 CARD2 DIO CARD firmware is shown in the MytekControl „General" tab.

- The firmware can be updated by using USB2 port and Mytek Control Panel application. It requires already installed USB2 driver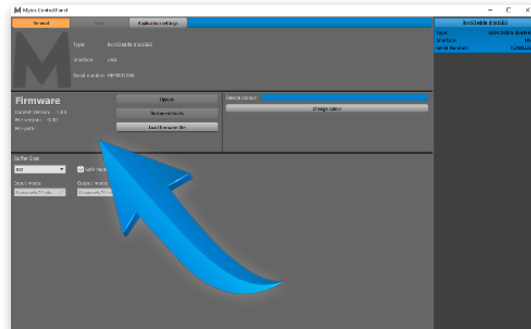 (PC only) and Mytek Control Panel application. To download the current firmware as well as drivers please visit mytekdigital.com

- It is recommended to turn off any powered speakers / power amps connected to the USB2 CLASS2 DIO CARD before proceeding with the firmware update.

Follow the steps below to update the firmware:

1. Download the latest firmware (*.mfb) file from mytekdigital.com
2. Click „Load firmware file" button and browse to the new firmware file then click „Open".
3. Press the „Update" button to confirm uploading the firmware file to device's memory.
4. Confirm your choice by clicking „Yes" when warning dialog appears. A progress bar will indicate when the flash process is finished.
5. When the update is finished the the CARD will reset and start in sleep mode. To switch it on press the knob once. Once the CARD has been restarted the firmware update is complete. A reboot of the computer is not necessary.

When the update fails:

1. Disconnect power cord.
2. Press and hold the BOOT MODE button and connect the power cord again.
3. The CARD runs in Bootloader mode. The 8x192 will not detect USB DIO Card
4. The update process should then be tried again.
5. To restore to standard mode turn the device off and on again.

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14. Mainboard firmware update

This update might be necessary to bring the converter's main board up to date to allow its operation with the firewire card.

Generally installed main board firmware should be of rev. 6.3 or greater. Contact Mytek via email to obtain current firmware chip.

Remember to follow basic safety rules about handling of electronic device while opening the converter: keep your hands dry,remember to turn off power and disconnect power and signal cables while working with the top cover removed

To perform firmware update of 8X192 ADDA converter:

1. Check if the power cord and signal and clock lines are disconnected.

2. Remove the top cover.
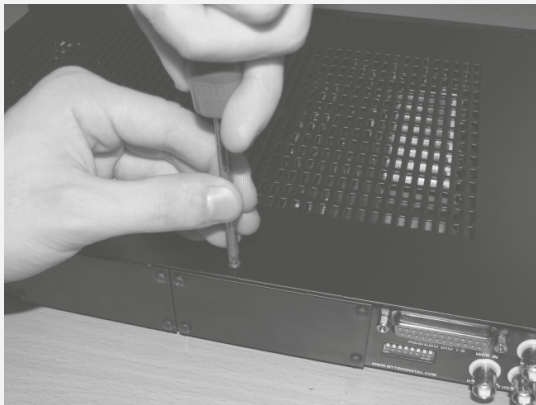
3. Locate the memory socket on the converter main board.
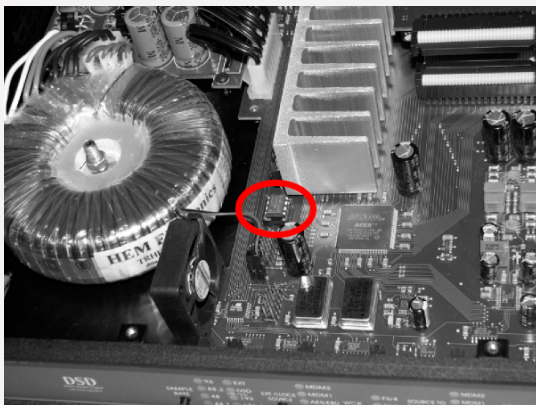
4. Gently remove old memory chip. To avoid damaging memory pins, remove the chip vertically. Retain old memory chip.
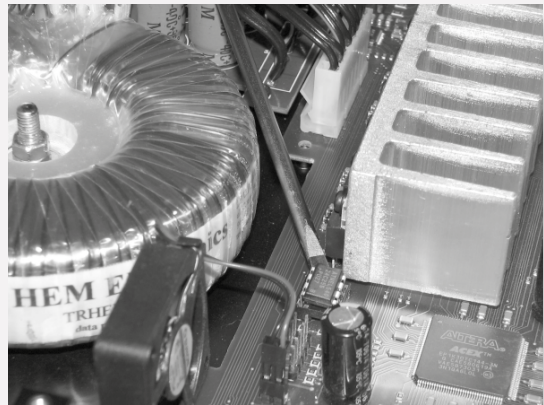
5. Carefully insert new memory chip in the socket. The chip slot (pin1) should be matching the socket slot ie must be facing back of the unit. If necessary gently manually bend pins inward, to match the holes in the slot. During installation check correct chip orientation.
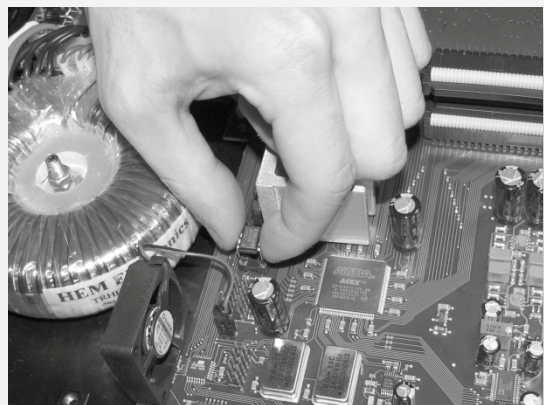
6. Mount the top cover back.
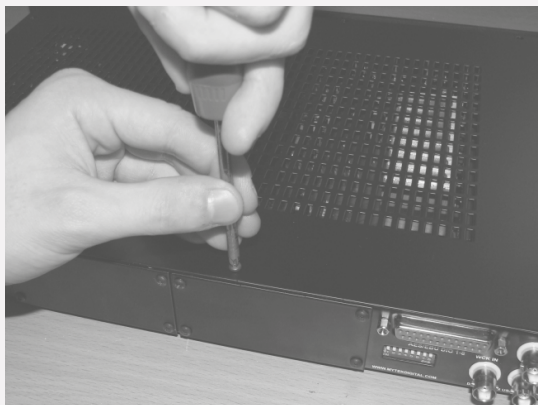
7.Attach power cord and other cabling.

8.Turn on the converter.

For about 2 seconds no LED should be lit on the converter's front panel, as new software is copied from memory to the main board chips. Then, all LEDs should turn on momentarily for about 10-20sec, and subsequently the unit should begin normal operation.

Check Mytek webpage for information on the latest firmware versions.

www.mytekdigital.com

15. Specifications

Technical Specification

DIGITAL
- Computer Audio I/O: USB 2.0, Audio Class 2, data stream up to 480Mb/s; 8 channels in x 8 channels out, PCM up to 192kHz.

GENERAL
- Firmware: upgradable via Mytek Control Panel, updates available online.

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Important Safety Information

- Read, keep and follow these instructions.

- Connect all your devices before powering the unit.

- Do not expose this device to moisture, rain and liquid of any kind.

- Clean only with dry cloth.

- If any form of liquid or a forin object enter the device switch it off and unplug it from the power source. Do not operate device until the foreign object is removed or the liquid has completly dried. If doubt please contact Mytek Digital.

- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- Only use attachments/accessories specified by the manufacturer.

- When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- Unplug this apparatus during lightning storms or when unused for long periods of time.

- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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Warning

Excessive sound pressure from speakers and headphones can cause hearing loss. In order to use this product safely, avoid prolonged listening at excessive sound pressure levels.

For the customers in the U.S.A.

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.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

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.

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community. Compliance with this directive implies conformity to the following European standards:

- EN55103-1 : Electromagnetic Interference (Emission)
- EN55103-2 : Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environments: E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors), E4 (controlled EMC environment, ex. TV studio).

Information on Disposal for Users of Waste Electrical & Electronic Equipment(private households).

The Wheelie Bin symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment.

To properly dispose harmful substances and recycle the product, the user is obliged to return it at the point of collection of electrical and electronic equipment waste. For more information please contact your local authorities, waste disposal units or retailer.

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