

# THE MANHATTAN

DAC · HEADPHONE · PREAMPLIFIER



OWNER'S MANUAL

Owner's Manual Ver. 1.3

There are periodic updates to this manual.

To download the latest version, technical support, and for setup tips

please visit:

http://www.mytekdigital.com

or at:

tel. +1 (347) 384-2687

Mytek Digital 148 India St. Brooklyn, NY 11222 USA

#### Contents

#### General

1.	li li	ntroduction	2
2.	F	Package Contents	3
3.	E	Brief Description	3
4.	C	Quick Start	3
	4.1	Front Panel	4
	4.2	Rear Panel	5
	4.3	Quick Start- Immediate Playback	6
5.	Ν	Ianhattan DAC Driver and Firmware Installation	7
	5.1	USB 1.1 OSX and Windows driver installation	8
	5.2	USB 2.0 - OS X driver installation	8
	5.3	Mac OSX USB driver uninstallation	8
	5.4	Mac OS X – FireWire driver installation	10
	5.5	Windows – USB 2.0 driver installation	11
	5.6	Windows - FireWire driver installation	13
	5.7	Firmware update Windows and OS X	15
6.	Ν	lenu Operation	
	6.1	Input	16
	6.2	Upsampling	17
	6.3	Filters	17
	6.4	Volume Control	18
	6.5	Volume Trim	18
	6.6	Function 1	18
	6.7	Function 2	18
	6.8	Remote	19
		6.8.1 The Manhattan Apple Remote Setup	19
		6.8.2 The Manhattan RC 5 Remote Setup	19
		6.8.3 RC 5 Remote Overview	20
		6.8.4 RC 5 Remote Assignments	20
	6.9	Display	20
	6.10	Firmware	20
	6.11	Autoscanning	20
7.		User Adjustments	21
	7.1	Bypass of the capacitors in analog input signal path	21
	7.2	Output level and output level reduction	21
	7.3	Changing the mains voltage	21
8.	S	Specifications	22

# 1. Introduction

Thank you for choosing the new Mytek Manhattan DAC Headphone Preamplifier, the best sounding Mytek DAC to date. Pristine sonics and beatiful contemporary industrial design allows the Manhattan to easily challenge \$10,000+ products from other brands. The Manhattan has been designed as a digital and analog playback preamplifier and audio hub. It features a high fidelity, high current headphone amplifier with single ended and balanced outputs designed to drive most demanding high end headphones, analog remotely controllable volume control, a choice of analog inputs for external sources such as vinyl and options for internal phono preamplier and SACD DSD optical digital input. The DAC is capable of converting high resolution PCM audio up to 384 kHz, and DSD audio (up to 256xDSD on USB2 and FW), through high-speed USB 2.0, FireWire, AES/EBU, SPDIF, or TOSLINK. Driverless "plug and play" is provided via USB 1.1 port (for PCM audio up to 96 kHz).

# 2. Package Contents

- Manhattan DAC
- USB 2.0 Cable
- FireWire Cable
- Apple remote
- Spiked Feet
- Rubber Feet
- Power cord

# **3. Brief Description**

- Dynamic Range: 130dB (32 bit ESS Sabre chipset in 8 mono to 2 double balanced stereo config.)
- Native 32bit PCM up to 384k, DXD, DXD32, DSD, DSD128, DSD256 (11.2 MHz)
- Digital inputs: AES/EBU, S/PDIF, Toslink, SDIF DSD
- Word Clock: IN/OUT for ext clock, and to stack up more units for surround playback
- Analog inputs: XLR , RCA 1 , RCA 2
- Analog outputs: XLR , RCA
- FireWire400/800, USB 2.0, USB 1.1 computer interface
- Femto Clock Technology jitter below 1ps (1/1000 000 000 000 of a sec)
- Internal Hardware Upsampling to DSD256: Any digital signal can be upsampled to DSD256 for superior DAC chipset performance
- Internal PCM Hardware Upsampling: 16bit 44.1k etc. can be optionally upsampled





prior to conversion to 192k/24bit

- Choice of Transparent Analog or Digital stepped volume control with "Bypass" option for the purest signal path.
- Independent control of Main Outs and Headphones section
- Dual mono design, ultra low distortion headphone amp with single ended or balanced driver and dedicated headphone gain switch. Optional single ended to balanced connector is available from Mytek to accomodate specialty balanced headphones.

## 4. Quick Start

#### 4.1 Front Panel



- 1. On / Off Switch. Powers the unit on or off
- 2. "Goto Menu" button. Press this button to enter the main menu, or to come out of it
- 3. "Move in the menu" button. Pressing the knob does the same.
- 4. Function 1 Button. This button is user assignable (via the main menu.)
- 5. Function 2 Button. A second user programmable switch (also via the main menu.) Default is Mute.
- 6. Rotary Encoder Knob. This encoder is both a knob and a button. It's primary function is to control the volume level of both the main outputs and headphones. It also functions as MENU navigation for configuring playback options. Pressing the knob engages the button function of the encoder.
- 7. Headphone Output Section: High-Fidelity, high-current headphone amplifier capable of driving the most demanding heaphones. Top and bottom 1/4 inch jacks are driven independently. The top jack is in phase, while the bottom jack is out of phase (absolute signal phase can be controlled on the front panel). Single ended headphones can be just plugged in, while balanced headphones require 2 x 1/4 " to 4 pin XLR adapter which can be ordered from Mytek.
- 8. LED Display. This is the main display. Volume in dB's is shown on the left and the current sample rate on the right. It's also used to display the menu selections.

## 4.2 Rear Panel



- 1. Headphone Gain Switch. User should arbitrarily set this switch for an optimum loudness of a particular headphone type. Some headphones are louder than other, this switch will compensate for differences.
- 6-pin FireWire socket for connection to the computer, offering playback up to 192kHz and up to DSD128 (DSD 128 with Audirvana or Jriver only). Can be used with FireWire 400 > FireWire 800 cable or Firewire 400 > 800 > Thunderbolt with Mac Thunderbolt adapter (included)
- 3. USB 2.0 socket, up to 384KHz/DSD256 capable.
- 4. USB 1.1 socket for connection to the computer, 96kHz capable
- Optical Input (Toslink). Consumer digital input that accepts up to 192kHz PCM and DSD DOP standard via optical S/PDIF. This input can also be used to transmit digital audio into computer via FW connection.
- 6. S/PDIF Coaxial Input. Consumer digital input that accepts up to 192kHz sampling rate. This input can also be used to transmit digital data to computer via FW connection.
- Wordclock BNC Input and Output. Used for professional clock distribution. 192KHz and DSD reference clock.
- 8. AES/EBU Input. Professional digital input that accepts up to 192kHz. Accepts DSD DOP standard input. This input can also be used to transmit digital data to computer via FW connection.
- 9. SDIF DSD input This is Sony standard open DSD input. Can be used with some professional grade equipment.
- 10. RCA Stereo Analog Output
- 11. Balanced XLR Stereo Analog Output
- 12. RCA Stereo Analog Input
- 13. RCA Stereo Analog Input
- 14. Balanced XLR Stereo Analog Input
- 15. Expansion slot / additional options (SACD transport optical interface can be installed here)
- 16. Power switch: Linear power supply 115 and 230V AC 50/60 Hz. There is a special Japanese version of 100V/230V available through distributor in Japan.
- 17. Fuse, 20mm 2 Amp T (slow blow) can be replaced here. There is a spare inside fuse assembly
- 18. IEC Power socket. Standard 115/230V receptacle. (100V/230V for Japanese Models).

# **Quick Start – Immediate Playback:**

## AES/EBU, SPDIF and Toslink:

Connect the analog outputs to your powered speakers, power amplifier or preamplifier. Alternatively use headphones. Connect the digital source (CD player) to the DAC. Power up the player, power amplifier and the Manhattan DAC. Upon power up, the DAC will default to its default settings hand picked by our team to produces the optimal sound quality. The unit will also begin scanning active digital inputs, "SCANNING" is displayed until an active input is detected. Upon detection of active input the DAC will start accepting audio at this input. Display will show both volume and received signal sample rate and will begin playing sound which will be visible on the display audio meter.

## Computer with USB1.1:

Connect the analog outputs to your powered speakers, power amplifier or preamplifier. Alternatively use headphones. Connect the computer (audio source) to the DAC USB1.1 port with USB cable. Power up the computer, power amplifier and the Manhattan DAC. Upon power up, the DAC will default to its default settings hand picked by our team to produces the optimal sound quality. The unit will also begin scanning active digital inputs, "SCANNING" is displayed until an active input is detected. In Windows System or Mac Preferences select "Manhattan DAC" as digital audio output. Play audio in the computer software of your choice. Upon detection of active USB1.1 input DAC will start accepting audio at this input. Display will show both volume and received signal sample rate and will begin playing sound which will be visible on the display audio meter.

**"Breaking-in" the DAC for best sound quality:** This unit, similarly to other hi-fi equipment will benefit from "breaking-in", when the music is played for extended period of time (even few days), before it achieves its ultimate sound quality. "Breakin" typically reduces distortion caused by "too new" capacitors and other electronic components and will sound smooth and "velvety" afterwards.

# 5. Manhattan DAC Driver and Firmware Installation

## 5.1 USB 1.1 OSX and Windows installation

 Connect the Analog Outputs to your powered speakers / amplifier. Balanced connections (XLR) are typically for professional audio equipment while unbalanced connections (RCA) are typically for consumer audio equipment.



- 2. Connect the unit to your computer using USB 1.1 (rear panel).
- 3. Turn on both the computer and the converter, then your speakers / amplifier.
- 4. DAC comes as default set to USB1.1 input. Select Mytek as the default playback device in your operating system's sound properties. The DAC should now play all sounds generated by OS or software.

Sound	Show All	Sound
Select a playback device below to modify its settings:           Speakers           Myrek: 0A192	Sound Select a device for sound output:	I Effects Output Input
Sprekers     Sprekers     Reatite: High Definition Audio     Ready     Reatite: Kigh Definition Audio     Reatite: Kigh Definition Audio	Name Internal Speakers Line Out Digital Out Mytek DA192	Type Built-in Audio line-out port Optical digital-out port USB
Ready	Settings for the selected device: The selec	cted device has no output controls
		$(\mathbf{\hat{c}})$
Set Default  v groperties	Output volume: ┥ 🛛	w volume in menu bar

## 5.2 USB 2.0 - OS X driver installation

USB2.0 and Firewire require installation of Mytek drivers on both Win and Mac OS. (the latest driver are available at mytekdigital.com).

Important! - before installing new USB driver previous one has to be uninstalled carefully.

- Double click the driver file. (ensure you have the latest driver by visiting mytekdigital.com).
- 2. Open the Mytek-Digital\_XXX mounted drive.



3. Open Mytek-Digital Driver.pkg.



4. Click the Continue button in the lower right hand corner.

	🥪 Install Mytek-Digital Driver	í
	Welcome to the Mytek-Digital Driver Installer	
Introduction	You will be guided through the steps necessary to install this software.	
<ul> <li>Destination Select</li> </ul>		
Installation Type		
Installation		
	Go Back Continue	

5. Click the Install button in the lower right hand corner.



6. Once the installation is complete press the Restart button in the lower right hand corner.



7. Copy the Mytek-Digital Control Panel inside the Mytek-Digital\_XXX mounted drive to the Applications folder.

Mytek-Digital_2.8.0				000	Applications
Name	Date Modified	Size	Kind	< > 88 E	
Debug	Oct 27, 2014, 10:46 AM		Folder	Back	View Arrange Action Share Edit Tags
Wytek-Digital Driver.pkg	Oct 27, 2014, 10:46 AM	400 KB	Installarchive	Favorites	Name
🛛 📄 Release	Oct 27, 2014, 10:46 AM		Folder	All My Filos	Google Chrome.app
com.mytekdigital.Mytek-Digital_SVC.plist	Oct 27, 2014, 10:46 AM	339 bytes	property list	All Wy Files	iBooks.app
Mytek-Digital Control Panel.app	Oct 27, 2014, 10:46 AM	251 KB	Application	iCloud Drive	Image Capture.app
Mytek-Digital Spy.app	Oct 27, 2014, 10:46 AM	224 KB	Application	AirDrop	iMovie.app
Mytek-Digital_CUSTOM_EXT.kext	Oct 27, 2014, 10:46 AM	59 KB	Kernelension	A	iPhoto.app
Mytek-Digital_SVC	Oct 27, 2014, 10:46 AM	154 KB	Unix Ele File	/~ Applications	ITunes.app
Mytek-Digital.kext	Oct 27, 2014, 10:46 AM	673 KB	Kernelension	Desktop	T Keynote.app
Mytek-Digital.plugin	Oct 27, 2014, 10:46 AM	58 KB	Plug-in	P Documents	Launchpad.app
				0.0	Mactracker.app
				Downloads	🛸 Mail.app
				Devices	Maps.app
				MutokDigital's MacR	Media Center 20.app
				WytekDigital's Macb	Messages.app
				Macintosh HD	Mission Control.app
				Mvtek-Digital 2.8.0 ≜	Mytek-Digital Control Panel.app
					AutokDiceDer Centrel Basel con

- 8. Open the Mytek-Digital Control Panel and ensure the Volume Bypass checkbox is checked.
- 9. Reboot your computer
- 10. Plug in your Mytek device to available USB port and turn it on.
- 11. Done! now you are able to use your Manhattan DAC.



## 5.3 Mac OSX USB driver uninstallation

For removing all installed USB driver files you need to check the following folders and remove the respective files. Please follow all steps below.

1. Go to the boot disk: /Library/Audio/MIDI Drivers

delete the file: "Mytek-Digital.plugin"

2. Go to the boot disk: /System/Library/Extensions

delete the file: "Mytek\_Digital\_CUSTOM\_EXT.kext" delete the file: "Mytek-Digital.kext"

3. From Finder's "Go" menu, select "Go to folder..." That will open a window in which you have to type"/usr/local/bin"

delete the file: "Mytek-Digital\_SVC"

4. Go to the boot disk: /System/Library/LauchDaemons

delete the file: "com.mytekdigital.Mytek-Digital\_SVC.plist"

5. Go to Applications

Avtek-Digital Control Panel

delete the application: "Mytek-Digital Control Panel.app"

- 6. Reboot your computer.
- 7. Done! USB driver has been uninstalled.

## 5.4 Mac OS X – FireWire driver installation

It is recommended to install the drivers before the unit is connected to the computer. The latest drivers are available at mytekdigital.com

- 1. Download the latest FireWire driver from our website and double click it.
- 2. Next click the .pkg file to start the driver installation.



3. To begin the installation process click "Continue".



5. Upon successful installation **restart** the computer to complete Mytek FireWire Driver Installation.



Open in new window Pin to Start Extract All...

Media Center

TortoiseSVN
 7-Zip
 Open with
 Send to
 Cut
 Copy
 Create shortcu
 Delete
 Rename
 Properties

Skanuj z Malwarebytes Anti-Malware

## 5.5 Windows – USB 2.0 driver installation

It is recommended to install the drivers before the unit is connected to the computer. The latest drivers are available at mytekdigital.com

1. Locate the Mytek\_Stereo192-DSD\_DAC\_Manhattan\_....zip file



- Extract the contents of the Mytek\_Stereo192-DSD\_DAC\_Manhattan\_....zip installer by right clicking on the installers icon and selecting Extract All...
   Mytek\_Stereo192-DSD\_DAC\_Manhattan\_DAC\_USB2\_ASIO\_WASAPI\_Win\_driver\_v1.33:22:zip
- 3. Open the extracted Mytek\_Stereo192-DSD\_DAC\_ Manhattan\_.. folder.

Name	Date modified	Туре
Mytek_Stereo192-DSD_DAC_Manhattan_DAC_USB2_ASIO_WASAPI_Win_driver_v1.35.22	24/11/2014 4:35 PM	File folder
Mytek_Stereo192-DSD_DAC_Manhattan_DAC_USB2_ASIO_WASAPI_Win_driver_v1.35.22.zip	24/11/2014 4:16 PM	Compressed (zippe

4. Double click the "Setup.exe" file.

Name		Date modified	Туре	Size
🙀 usbpalspy.exe		24/11/2014 4:35 PM	Application	376 KB
🐑 setup.ini		24/11/2014 4:35 PM	Configuration sett	. 7 KB
setup.exe		24/11/2014 4:35 PM	Application	670 KB
📄 ReadMe.txt		Open		1 KB
myteksvc.exe		Pin to Start		133 KB
mytekl2.ihx	0	Run as administrator		18 KB
mytekks_x64.sys		Troubleshoot compatibility		51 KB

5. Once the Setup.exe opens press "Next"



6. Choose the location of installation. By default it will install in C:\Program Files\MytekDigital\mytek\_Driver. We recommend leaving this as is. If you wish to customize the install choose the location by selecting browse. Select Install.



< Back Next > Cancel

Completing the Mytek USB DAC Driver v1.35.22 Setup Wizard

Please disconnect and reconnect the devices you want to install and turn them on.

< Back Finish

Setup

Execute: regsvr32 /s "C:\Program Files\MytekDigital\mytek\_Driver\mytekasio\_x64.dll

Please wait while Mytek USB DAC Driver v1.35.22 is being installed

Copy to C: \Program Files\MytekDigital\mytek\_Driver\usbpalspy.exe Copy to C: \Program Files\MytekDigital\mytek\_Driver\ReadMe.bt Copy to C: \Program Files\MytekDigital\mytek\_Driver\mytek\_x54.cat

Copy to C: Program Hielly WriteUgatalimytet, Univer Imytetc, SA-6.at Copy to C: Program Filesi WriteUgatalimytet, Univer Imytetko, SA-6.at Copy to C: Program Filesi WriteUgatalimytet, Univer Imytekko\_stA-6.inf Copy to C: Program Filesi WriteUgatalimytet, Univer Imytekola.exe Copy to C: Program Filesi WriteUgatalimytet, Univer Imytekola.exe Copy to C: Program Filesi WriteUgatalimytet, Univer Imytekola.gcA-6.it Copy to C: Program Filesi WriteUgatalimytet, Univer Imytekola.gcA-6.it

Execute: regsvr32 /s "C:\Program Files\MytekDigital\mytek\_Driver\mytekasio.dl" Execute: regsvr32 /s "C:\Program Files\MytekDigital\mytek\_Driver\mytekasio\_x64.dll"

Setup

- 🗆 🛛

괾

\_ \_

- 7. Setup.exe will now install the Mytek Driver. This process may take a few minutes.
- 8. Upon completion of Setup.exe press the Next button.



- To complete installation of the Mytek\_Stereo192
   -DSD\_DAC\_ Manhattan\_....zip simply click the Finish button.
- 10. Confirm installation by launching the Manhattan DAC Control Panel.



 Installation was successful if the Manhattan DAC Control Panel shows a device and permits access to playback options. More than 1 DAC can be connected via USB to use the same driver. For example 3 Mytek DACs can be used for playback of Surround DSD SACDs using for example Jriver Player.



## 5.6 Windows - FireWire driver installation

It is recommended to install the drivers before the unit is connected to the computer. The latest drivers are available at mytekdigital.com

- Locate the Mytek\_Stereo192-DSD\_DAC\_Manhattan\_DAC\_FW\_ASIO\_WASAPI \_Win\_driver\_ver.xxx.exe file. → Computer → Local Disk (C:) → Download ✓ C Search Download Q Name Date modified Type 24/11/2014 5:33 PM Application Mytek\_Stereo192-DSD\_DAC\_Manhattan\_DAC\_FW\_ASIO\_WASAPI\_Win\_driver\_ver4.2.0.exe 2. Double click the Mytek Stereo192-DSD DAC Manhattan DAC FW ASIO WASAPI Win driver ver.xxx.exe file. Once Mytek FireWire \_ 🗆 🗙 installer begins click "Next" to begin installation. Setup - Mytek\_FireWire Setup Wizard 3. The Mytek Firewire Control Panel is by This will install Mytek FireWire 4.2.0.39752 on your computer default installed in the Program Files It is recommended that you close all other applications before continuing. directory. It is recommended to Use Click Next to continue, or Cancel to exit Setup. the Default Location. Choose Next once you have decided. - 🗆 🗙 Setup - Mytek\_FireWire \$ Select Destination Location TC TECHNOLOGIES Where should Mytek\_FireWire be installed? Next > Cancel Setup will install Mytek\_FireWire into the following folder. To continue, click Next, If you would like to select a different folder, click Browse C: \Program Files \MytekDiceDrv Browse... Setup - Mytek\_FireWire  $\mathbf{\mathbf{x}}$ Select Additional Tasks Which additional tasks should be performed? At least 1.5 MB of free disk space is required Select the additional tasks you would like Setup to perform while installing Mytek\_FireWire, then dick Next. < Back Next > Cancel Additional icons: Create a desktop icon 4. Choose to create or not create a new desktop Icon for the Mytek Firewire Control Panel by checking or unchecking the Create a desktop icon
- box.5. Begin installing the Mytek Firewire
- 5. Begin installing the Mytek Firewire Control Panel by selecting Install



6. If any "Window's Security Warnings" appears choose Install to continue installation.



Once installation has begun it may take severa minutes to complete please be patient until the task completes. Finalize the installation by selecting Restart. This will restart your compute and complete the Mytek Firewire driver installation.

	🗘 dice	Completing the Mytek_FireWire Setup Wizard
		To complete the installation of Mytek_FireWire, Setup must restart your computer. Would you like to restart now?
		Yes, restart the computer now
		○ No, I will restart the computer later
al		
ڊ		
	TC	
er		Finish

- 8. After computer reboot turn the Manhattan ON. Next double clict the icon to open the Mytek\_Firewire Control Panel. The black cube icon is located in your Start menu and on your Desktop.
- 9. Make sure the Stereo192-DSD DAC is connected and input is set to Fire. If so the Mytek Control Panel will say System Clock Locked.

			Mytek					
Global Settings								
Bus WDM	Bus WDM DPC Info							
🕐 Master:	Stere	o192DA	٢	Buffer		512	٥	
	192kHz 🗘					Normal	\$	
Sync Source: Si	tereo192DAC 💠							
		Devi	ce Settings					
General Firms	ware Loader					Devices		
Device description:					<b>\$</b>	Stereo192DA		
		Stereo192DA						

## 5.7 Firmware update Windows and OS X

Currently the DAC firmware update requires Firewire connection (cannot be performed via USB). As of Firmware v.1.6.1 a failsafe feature has been added to ensure proper operation following a firmware load failure. If firmware update is interrupted (by power cut for example), the unit will revert to its last firmware. Prior firmware versions are not failsafe and must be loaded safely by shutting down all non essential programs, disconnecting USB1 and USB2 ports and ensuring uninterrupted power to the unit. After Firmware has been loaded the DAC and Computer have to be restorted.

Inside FireWire control panel, under Device Settings is the Firmware Loader.

•••	Mytek_FireWire						
	Global Settings						
Bus System Info	]						
Driver version: 4.2.0.40417 PAL version: 4.2.0.40417	Developed for Mytek by TCAT Copyright (c) 2008–2014 TC Applied Te All rights reserved	chnologies					
	Device Settings						
General Firmware Loader		Devices					
Choose a local firmware Nickna Unique Id	Choose a local firmware application file, then click Upload. Nickname: Manhattan DAC Unique Id: 001EE80400DE8C7C						
(choose a file for upload to fla	(sh)						
Show details	upload						

Download the latest Firmware.bin file from http://www.mytekdigital.com. Browse to the new firmware file and press upload. Once the unit wakes up after the firmware update, power cycle the DAC. Once the DAC has been restarted the firmware update is complete with all setting reverting to default.

# 6. Menu Operation

Menu is accessed by pressing the left triangular button. Once in the Menu, turning the rotary encoder cycles through the options while pressing the right triangular button (or encoder which is equivalent) advances the selection. Pressing the left triangular button again backs the selection one level until you exit the menu. All settings are preserved when the unit is powered off. Default menu setting, also available after resetting the defaults in the firmware menu item, are marked in **bold**. Default values are recommended, please use other values only when required.

## 6.1 INPUT

**USB 1.1** - Driver-less, plug-n-play computer input that is limited to 96kHz.

#### INPUT SYNC

**USB 2.0** - Hi-speed computer input that is capable of 192kHz and 64x and 128xDSD playback. Use of this input requires drivers installed on the computer. USB2.0 or the Firewire inputs provide the highest quality playback.

- INT SYNC
- WORD CLOCK

**FIREWIRE** - Hi-speed computer input that is capable of 192kHz and 64x and 128xDSD playback. Use of this input requires drivers installed on the computer. USB2.0 or the Firewire inputs provide the highest quality playback.

- INT SYNC
- WORD CLOCK

**S/PDIF** - Coaxial S/PDIF input capable of receiving PCM data up to 192kHz and DSD DOP (64xDSD only). This input can also be used to transmit digital data to computer via FW connection.

- INT 48.0kHz, 88.2kHz, 96.0kHz, 176.4kHz, 192.0kHz
- INPUT SYNC
- WORD CLOCK

**TOSLINK** - Optical S/PDIF input capable of receiving PCM data up to 192kHz and DSD DOP (64xDSD only). This input can also be used to transmit digital data to computer via FW connection.

- INT 44.1kHZ, 48.0kHz, 88.2kHz, 96.0kHz, 176,4kHz, 192.0kHz
- INPUT SYNC
- WORD CLOCK

**SDIF** - Professional DSD input capable of receiving DSD64x to DSD256x formats.

SDIF RATE

- **DSD 64** - DSD 128
- DSD 120
- SDIF MODE

- **RAW** - SDIF-3

SDIF SYNC

- INT SYNC - WORD CLOCK

**Analog 1** - Unbalanced RCA analog input that can bypass the volume control or be routed through it.

**Analog 2** - Unbalanced RCA analog input that can bypass the volume control or be routed through it.

**Analog 3** - Balanced XLR analog input that can bypass the volume control or be routed through it.

Analog inputs feature internally accesible jumpers which can be used to remove coupling capacitors.

#### 6.2 UPSAMPLING

The Manhattan DAC can upsample all PCM data to 32 bit 192kHz allowing analog bandwidth of 100kHz alias free. Upsampling for PCM, will automatically turn off when DSD data is encountered.

- UPSAMP: ON
- UPSAMP: OFF

#### 6.3 FILTERS

There are several filtering options for both PCM and DSD. The filters affect how upper "out-of-audio" band frequencies are rolled off.

• FILTER PCM

- FILTER: **SLOW** - gentle cutoff with some aliasing. - FILTER: SHARP - brickwall cutoff at ½ sampling rate.

FILTER DSD

Cutoff frequency - 50, 60 or 70 Kilohertz for two pole gentle lowpass filter to reduce high frequency noise.

- FILTER 50KLPF - FILTER 60KLPF
- FILTER 70KLPF

## 6.4 VOL CONTROL - volume control

There are two methods of volume control available and an option for complete bypass.

**ANALOG** - The output level is controlled by a programmable analog fader. This also allows independent level control of the main output or headphone output.

**DIGITAL** - The output level is controlled by a digital 32 bit fader prior to conversion. It controls the main output or headphone output simultaneously.

**BYPASS** - Relay bypass of all faders for the cleanest output path possible. Only the main outputs are affected while the headphone output is still controlled by analog fader.

#### 6.5 VOL TRIM - volume trim

Vol trim allows to set of DAC headroom, in other words the loudness of its output. It can be set it from -14dB to -17dB. Default is Disabled referenced at -18dBFS (Full Scale). A -18dBFS digital sinewave will results in +4dBu or 1.228 volts RMS measured between pins 2 and 3 of XLR outs. Trim set at -14dB will result in signal 4dB lower than if it was set to -18dB. Additionally output can be further reduced by 6dB by using internal gain jumpers.

## 6.6 FUNCTION 1

Two buttons, FN1 and FN2, are user programmable switches. Each button's function is set inside the Function menu. The following options are available (\*PCM Only – not DSD):

- **INPUT** Allows the user to select 3 user "Presets," Input A, Input B, Input C; Each input can be assigned to either SPDIF, AES, Toslink/ADAT, USB1, USB2, FireWire, Analog/SDIF or none. The none allows to only switch between 2 Input presets
  - INPUT A (TOSLINK, SDIF, ANALOG 1, ANALOG 2, ANALOG 3, USB 1.1, USB 2.0, FIREWIRE, S/PDIF, AES/EBU)
  - INPUT B (TOSLINK, SDIF, ANALOG 1, ANALOG 2, ANALOG 3, USB 1.1, USB 2.0, FIREWIRE, S/PDIF, AES/EBU)
  - INPUT C (TOSLINK, SDIF, ANALOG 1, ANALOG 2, ANALOG 3, USB 1.1, USB 2.0, FIREWIRE, S/PDIF, AES/EBU)
- MUTE mutes the audio output
- **PHASE** Inverts the signals phase
- MONO Sums left and right channel to mono
- L-R\* Subtracts one channel from the other, canceling out mono information while leaving the stereo information
- **MID-SIDE\*** A combination of Mono (L+R) and L-R, the mid signal is the sum of L and R (mono) and the side signal is the stereo information from the L-R operation
- DIM VOL Instantly lowers the level by 20dB

## 6.7 FUNCTION 2

The second programmable switch. To program see description above (6.6).

## 6.8 REMOTE

The Mytek Manhattan DAC is infrared remote ready and will work with any Aluminum Apple Remote or any Universal Remote Control using the Philips RC5 standard.

- MODE (APPLE, ADR SET)
- ENABLE (ON / OFF)

#### 6.8.1 The Manhattan Apple Remote Setup

1. Press the Menu button.



- 2. Rotate the knob until Remote is selected. Press the knob to enter Remote menu.
- 3. Rotate the knob until Enable is selected. Press the knob to enter Enable menu.
- 4. Rotate the knob until On is selected. Press the Menu button to turn on Remote Control.
- 5. Rotate the knob until the Mode is selected. Press the knob to enter Mode menu.
- 6. Rotate the knob until Apple is selected. Press the knob to display Address Set. Aim the Aluminum Apple Remote at the Stereo192-DSD DAC and press the silver button at the center of the circle on the Apple Remote until display blinks momentarily.
- 7. Success the Apple Remote is Paired!

#### 6.8.2 The Manhattan RC 5 Remote Setup

- 1. Press the Menu button.
- 2. Rotate the knob until Remote is selected. Press the knob to enter Remote menu.
- 3. Rotate the knob until Enable is selected. Press the knob to enter Enable menu.
- 4. Rotate the knob until On is selected. Press the Menu button to turn on Remote Control.
- 5. Rotate the knob until Mode is selected. Press the knob to enter Mode menu.
- 6. Rotate the knob until RC 5 is selected. Press the knob to enter RC 5 menu.

- 7. Rotate the knob to select your remote's proper channel, either 00, 16 or 20. Press the Menu button to set the Address channel.
- 8. Exit all menus by pressing the Menu button until volume and sample rate are visible, this will reactivate the volume knob.

#### 6.8.3 RC 5 Remote Overview

The Mytek Stereo192-DSD DAC can operate as:

- TV address 00
- Preamp address 16
- CD address 20

In each of these options the remote's volume up and volume down buttons correspond to turning the Manhattan DAC's Main knob.

#### 6.8.4 RC 5 Remote Assignments

"vol_up" - vol knob right	(command - 16)
"vol_down" – vol knob left	(command - 17)
"1" - press "menu"	(command - 01)
"2" - press "FN1"	(command - 02)
"3"- press "FN2"	(command - 03)
"4" menu knob left	(command - 04)
"5" - press knob	(command - 05)
"6" - menu knob right	(command - 06)

#### 6.9 DISPLAY

- **BRIGHTNESS** Sets the brightness the LED display (16 levels)
- METERS Turns the signal level meters on or off. Available settings: ON / OFF
- AUTO-OFF This will turn the whole display off after selected amount of time (secs). A dim dot will stay lit to show that the unit is operational. Engaging any controls will wake up displays. Available settings: DISABLE / 5 SEC / 10 SEC / 15 SEC

#### 6.10 FIRMWARE

- Version: 1.0.7 displays the current firmware version.
- **RESTORE** restores the unit's parameters to the factory default.

## 6.11 AUTOSCANNING

Available settings: ON / OFF

It automatically detects which input is connected. If several inputs are connected there is following priority: USB 2.0, FireWire, USB 1.1, AES/EBU, SDIF, SPDIF

# 7 User Adjustments

#### 7.1 Bypasing analog input capacitors

There are jumpers inside the Manhattan which allow bypass of the capacitors in the analog input signal path. Connecting jumpers will extend the low-frequency response to 0 Hz. It will also allow DC to pass. Bypass the capacitors only if you are sure that there is no DC in your signal, as DC can be harmful. The jumpers are located behind the output XLR's.

## 7.2 Reduction the output level

Internal -6db Gain Jumpers: these 4 jumpers allow the user to lower the output level of the DAC by -6 db without affecting sound quality. All 4 jumpers must be engaged to ensure proper operation and should only be used when the DAC is clearly overloading the following amplifier stage in the chain.

## 7.3 Changing the mains voltage

There is a 115/230 voltage switch on the back of the unit. Normally this will be set to the proper voltage of the country of purchase. The the voltage switch ,

is located next to the power plug socket. The same power

module houses the 20mm 2 Amp T slow blow fuse and 1 replacement fuse.



# **Specifications**

- Conversion: 32bit PCM up to 384k, DXD, DSD-DS-DSD256 (11.2 MHz)
- CRISTED CRISTED MODIO2
- Dynamic Range: 130dB (ESS Sabre chipset in 8 mono to 2 stereo config.)
- Femtoclock Internal Clock Generator (Ips jitter.) Wordclock In and Out, or sync to incoming digital
   audio input with JET (tm) PLL. Time Domain Jitter Eliminator
- Headphone Amp: High Current, High Slew Rate ultra low distortion 1600mA Hi-Fi dual mono design, 0.25 Ohm impedance with gain selector switch
- Computer Audio Inputs and Outputs: Firewire 400/800 up to PCM 192k/DSD async, USB2.0 up to 384k/DSD256, USB 1.1 up to PCM 96k, driver-less. DSD DOP256 SDIF DSD input, optional SACD optical input \*\*\*
- Digital Audio Inputs: SPDIF, AES/EBU, Toslink all up to 192k single wire. DSD-DSD256 SDIF DSD input, optional SACD optical input \*\*\*
- Internal Hardware Upsampling to DSD256: Any digital signal can be upsampled to DSD256 for superior DAC chipset performance\*
- Internal PCM Hardware Upsampling: 16bit 44.1k etc. can be optionally upsampled prior to conversion to 192k/24bit.
- Analog Attenuator: Transparent, 1dB stepped programmable, separate for main out and headphones. Or 32 bit digital attenuator or relay bypass of the attenuator can be chosen by user
- Analog Inputs: 2 Unbalanced RCA, 1 Balanced XLR
- Linear Power Supplies, Separate: Oversized 50VA analog, 50VA digital, Worldwide
- · Firmware updates: online, user downloadable, periodic feature upgrades
- Ability of converting standard digital audio inputs into computer FW/Thunderbolt input
- Apple aluminum remote (included) and universal remote capable

## **Special hardware options**

- EMM Labs, Playback Design compatible optical SACD digital input board \*\*\*
- Ultra high preformance MM, MC phono preamplifier board \*\*\*\*
- \* DSD256 upsampling available in Q4/2014 via firmware update

\*\* 115/230V 50/60 worlwide model, or 100V/230V Japanese model (available only in Japan)

\*\*\* Available Q4/2014

\*\*\*\* Available Q1/2015



# Warranty

This Manhattan DAC is warranted by Mytek to the original purchaser against defects in workmanship and materials used in manufacture for a period of two years from the date of purchase. Faults due to customer misuse, unauthorized modifications or accidents are not covered by this warranty. No other warranty is expressed or implied.

Any faulty unit should be sent, shipping prepaid to the manufacturer service center. Prior to shipping the client must obtain an RMA# from Mytek for warranty services. Units sent without RMA# will not be accepted.

Mytek extends affordable repair service for all units manufactured to date that are not covered by this Warranty. Mytek repair centers are located at Mytek Headquarters in Brooklyn, New York, and in Warsaw, Poland (at Mytek EU Distribution Office).

## **Important Safety Information**

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this device near water.
- Clean only with dry cloth.
- 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.

## 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.