Zmini-Series
Z20 Digital-to-Analogue Converter
Owner's manual

| 96 | 176.4 | 192 | | USB | COAX | OPT | |

Z20

MYRYAD

www.myryad.co.uk

CONTENTS

INTRODUCTION

The Myryad Z20 Digital-to-Analogue Converter (DAC) has been designed to offer a combination of high quality sound reproduction and elegant styling. The Z20 can accept three different digital input sources: USB, Coaxial (S/PDIF) and Optical (Toslink). The USB input allows the Z20 to deliver true hi-fidelity sound from music files on your PC or Mac - up to 24bit/192kHz. The asynchronous USB receiver isolates the Z20's DAC from computer clock jitter, resulting in clean precise sound and all inputs are asynchronously up-sampled to 192kHz/24bit. There are two line outputs, one to feed your amplifier/hi-fi system and second to drive any other device (e.g. recorder).

When used with a Myryad Z-Series or MX-Series system the Z20's Smart My-Link® input/output offers improved functionality.

• When linked to a Myryad Integrated Amplifier or Preamplifier, the Z20 will automatically be switched on or off whenever the Amp is switched on or off (from its front panel or remote).
• When linked via the Smart My-Link® to other Z-Series products or other compatible Myryad products, a number of extra features become available which make the system as a whole easier and quicker to operate.

INSTALLATION AND SAFETY

The Z20 generates a modest amount of heat and requires ventilation. Do not place it on a rug or other soft surface into which it could sink, obstructing the air inlets in its underside. The Z20 should not be installed in a built-in situation such as a bookcase or rack unless proper ventilation is provided.
CAUTION: THIS APPARATUS MUST NOT BE EXPOSED TO DRIPPING OR SPLASHING. OBJECTS FILLED WITH LIQUIDS SUCH AS VASES MUST NOT BE PLACED ON THE APPARATUS.

THE POWER CORD MUST BE DISCONNECTED FROM THE REAR OF THE APPARATUS, OR THE WALL SOCKET, TO PROVIDE ISOLATION. ONE OR OTHER OF THESE CONNECTIONS MUST BE READILY ACCESSIBLE WHEN THE APPARATUS IS IN USE.
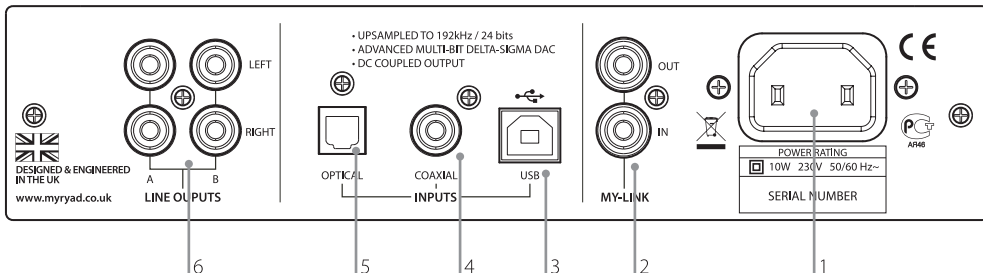
Do not remove the cover, or attempt to modify or repair any item yourself. Refer all servicing to a qualified technician.

ACCESSORIES

Your Z20 is supplied with the following accessories.

• Separate mains power cord to suit country of sale.
• My-Link interconnect (0.5m RCA-RCA).
• USB A-B cable (0.6m).
• CD containing USB drivers

INSTALLING YOUR Z20

• UPSAMPLED TO 192kHz / 24 bits
• ADVANCED MULTI-BIT DELTA-SIGMA DAC
• DC COUPLED OUTPUT

DESIGNED & ENGINEERED IN THE UK
www.myryad.co.uk

LEFT
RIGHT

A   B
LINE OUTPUTS

OPTICAL   COAXIAL   USB
INPUTS

OUT
IN
MY-LINK

POWER RATING
10W 230V 50/60 Hz~
SERIAL NUMBER

6   5   4   3   2   1

REAR PANEL CONNECTIONS

1. Power inlet
Before making any connection, check that the mains voltage setting printed on the rear panel is the same as your local mains supply. Plug the female (socket) end of the power cord into the power inlet on the rear of the amplifier. Plug the male (plug) end of the cord into a "live" wall socket or a suitable extension cable.

2. My-Link input/output
When the Z20 is used in a system with other Z-Series products (or Myryad MX-Series), all may be joined together via the My-Link. My-Link is a communications bus that allows all the linked components to operate together as a system and distributes the remote commands received by any one to each of the others.

The simplest function provided by the My-Link bus is that all linked units will switch into or out of standby mode when the amplifier's front panel or remote control standby key is pressed.

When other Myryad products equipped with Smart My-Link® are connected via the My-Link many more powerful system features are available (see page 5).

Use a short RCA-to-RCA (phono-to-phono) interconnect cable to connect from the MYLINK IN socket on the Z20 to the MY-LINK OUT socket on the amplifier. A second cable may then be run from the MY-LINK OUT socket on the Z20 to the MY-LINK IN socket on another Myryad product (e.g. CD player) – "daisy-chain" fashion. Further Myryad Z-Series or MX-Series products can be linked in the same way, running from the MY-LINK OUT socket on the CD player. Inexpensive interconnects may be used as the Smart My-Link bus carries only control signals, not audio, so these cables have no effect on sound quality.

3. USB input
This is a USB "Type B" input and should be connected via a USB A-B lead to your PC or Mac. The Z20's operation is independent of your computer's

soundcard - it will operate whether your computer has a soundcard or not. See "USB operation" section on page 6.

Note: Always use a certified cable for USB Audio. For USB Audio 2.0 the cable should be "Hi-Speed USB" certified. USB cables longer than 3m may result in inconsistent audio performance.

4. COAXIAL input
This coaxial S/PDIF digital input may be connected to the coaxial digital output of any suitable source – such as a CD player. Use a high quality 75 ohm digital RCA interconnect cable, not one designed for normal audio use.

5. OPTICAL input
The optical Toslink input may be connected to the Toslink output of any suitable source – such as a CD player. Use a high-quality Toslink fibre-optic digital cable designed specifically for audio use. Optical cable quality is particularly critical if using a high sample rate source (96kHz or above).
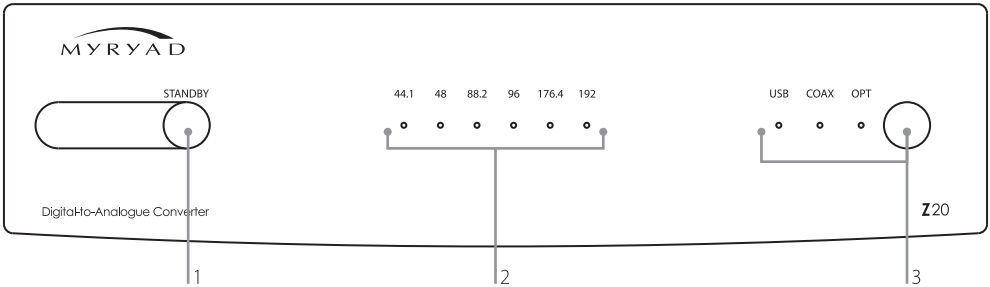
Note: The Z20 accepts two-channel LPCM digital audio (e.g. Dolby Digital 2.0). You cannot connect a Dolby Digital 5.1 or a DTS signal as it will not be recognised. If you wish to connect to a DVD player or similar device, please ensure that the sound output of your player is set to two-channel PCM.

6. LINE outputs
The Z20 is provided with two pairs of LINE outputs which both carry exactly the same signal. One will normally be connected to a line input on your integrated amplifier or preamplifier - named "CD" or AUX" for example. In a Myryad system we recommend using the CD input (see Smart My-Link section on page 6).

The second output may be fed to any other suitable device e.g. a recorder.

OPERATING YOUR Z20

MYRYAD

STANDBY   44.1   48   88.2   96   176.4   192   USB   COAX   OPT

DigitaHo-Analogue Converter   **Z**20

1   2   3

FRONT PANEL CONTROLS

1. Standby
When Z20 is plugged into a live wall socket it will power up in "standby" mode and the LED (Light Emitting Diode) by the STANDBY button will glow red. In this mode the internal circuitry is powered up, but disabled so that it consumes very little power (less than 0.5W).

When the STANDBY button is pressed the circuitry is activated and, after a few seconds delay, the audio outputs will be enabled. During this delay period while the internal circuitry is settling the STANDBY LED will flash white. When the outputs are de-muted it will glow white continuously. When the STANDBY button is pressed again the amplifier will be returned to standby mode, the STANDBY LED will glow red again and all other LEDs and displays will be extinguished.

When the Z20 is switched out of standby, the last used input is automatically selected and, after a few seconds settling delay, the line outputs will be connected. When first switched out of standby after POWER ON, the OPT input will be selected by default.

CAUTION: WHEN IN STANDBY MODE THE INTERNAL CIRCUITRY IS STILL LIVE, SO ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.

2. Incoming Sample Rate Display
The sample rate of the selected digital audio source will be indicated by a white LED – from 44.1kHz up to 192kHz. When there is no digital source connected to the selected input no sample rate LED will be lit.

3. Source select button and LEDs (USB, COAX and OPT inputs)
The SOURCE select button is used to choose which signal source you want to listen to. The chosen source is indicated by one of the white LEDs to the left of the source select button. When the button is pressed the next source is chosen, moving left to right (USB > COAX > OPT). If the button is pressed with OPT selected the USB input is selected next.

The selected source will be converted into analogue audio and sent both line outputs.

AUTO SWITCH-OFF

When the Z20 is used in a system without a My-Link input/output connection (e.g. a non-Myryad system, or a Myryad system where My-Link is not being used), the Auto Switch-Off function will operate. If no audio signal is received by the selected input (no sound) for 20 minutes, the Z20 will automatically switch to standby to save energy.

When the Z20 is My-Linked in a system with a Myryad amplifier the Auto Switch-Off function will be disabled *when the Z20 is switched on via the My-Link* (but not if it is switched on independently via its own front panel standby button). In a My-Linked system the Auto Switch-Off function is replaced by Myryad's Power Save Mode – see "System Operation with Smart My-Link on page 5".

SYSTEM OPERATION WITH SMART MY-LINK®

When used as a linked system (which must include a Smart My-Link® equipped Integrated Amplifier like the Z240, or a Preamplifier) the Z20 has a number of extra features that make the system as a whole easier and quicker to use than a normal hi-fi. These include:

Start-on-Play (CD)
Press play on the CD player (or the remote control) and the CD player, the Z20 and amplifier will switch out of standby (if necessary) and play the CD. The amplifier will automatically select the CD source.

Start-on-Open (CD)
Press open/close on the CD player (or the remote control) and the CD player, the Z20 and amplifier will switch out of standby (if necessary) and the CD drawer will open. The amplifier will automatically select the CD source.

Intelligent Input Selection (Amplifier)
Press the CD source select button on the remote control and the system will awaken only the amplifier, the CD player and the Z20.
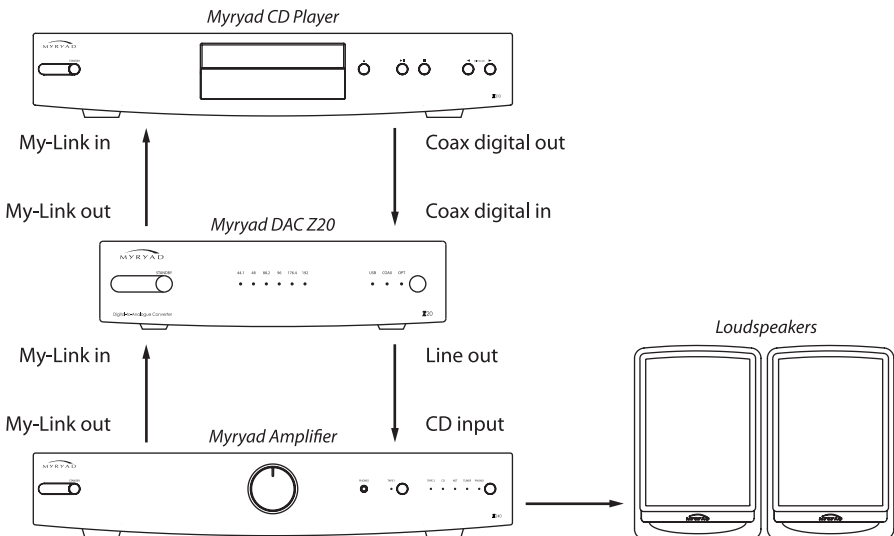
Power-Saving Mode (Amplifier/CD)
The amplifier will switch the CD Player and Z20 into standby if the amplifier's CD input remains unselected for more than ten minutes.

Automatic Switch-On (CD)
If the standby button on the CD Player is pressed, the amplifier and Z20 will also awaken and the amplifier will select the CD input.

The remote control referred to above is the Myryad System Remote supplied with your Myryad Amplifier, CD Player or Tuner.

When the Z20 is My-Linked in a system with a Myryad amplifier and CD player, the system should be connected as shown below in order for the Smart My-Link functions to operate correctly.

Myryad CD Player

My-Link in   Coax digital out

My-Link out   Coax digital in

Myryad DAC Z20

My-Link in   Line out

My-Link out   CD input

Myryad Amplifier

Loudspeakers

USB OPERATION

Insert the supplied driver CD and run the setup program on the disc to install the USB audio driver. Follow the on-screen instructions.

With the driver correctly installed the Z20 supports USB Audio Class 2.0 and high-speed mode on Windows® XP, Vista, and Windows® 7 and Mac OS X 10.5.7 (or later).

The Z20's USB input is designed for the connection of a desktop or laptop computer running one of the above operating systems. The USB input is not designed to accept:
• USB hard drives
• USB flash drives
• Tablet computers

For further help please visit Myryad website at www.myryad.co.uk

TROUBLE-SHOOTING GUIDE

Possible solutions to some of the most common problems.

No sound:
• Power turned off or system in standby mode. Check that the blue STANDBY LED in the amplifier is illuminated and that the relevant source component is also active.
• An inoperative input has been selected (e.g. USB input with no USB source streaming).
• An input has been selected with no source connected.
• UK version only: The fuse in the mains plug has failed. Check and replace if necessary.

Sound in one channel only:
• Interconnect cable pulled loose or making poor contact. Check and, if necessary, un-plug and re-plug all relevant cables.

Loud buzz or hum:
• Interconnect cable pulled partially out of its socket.
• Defective interconnect cable.

For further help please visit Myryad website at www.myryad.co.uk

SPECIFICATIONS

Digital input sources	USB (2.0), S/PDIF coaxial, S/PDIF optical
Digital input word lengths supported	16 - 24 bits
Digital input sampling frequencies supported	44.1, 48, 88.2, 96, 176.4, 192kHz
Digital upsampling	24bit 192kHz
D/A Converter	Cirrus CS4398 24bit DAC
Analogue filter	Low noise 3-pole dual differential
Frequency response (20Hz – 20kHz)	±0.2dB
THD @ 1kHz 0dBFs	<0.001% 24bit
Signal-to-Noise ratio (A weighted)	>112dB
Output level	2.4 Vrms
Output impedance	240 ohms
Dimensions (w x h x d)	215 x 56 x 228mm
Weight (net)	2.36kg
Supply voltage (set by internal wiring)	120 or 230V
Finish	Natural Silver fascia with Silver Grey casing or Satin Black fascia with Black Casing.

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STANDBY   44.1   48   88.2

○   ○   ○

Digital-to-Analogue Converter
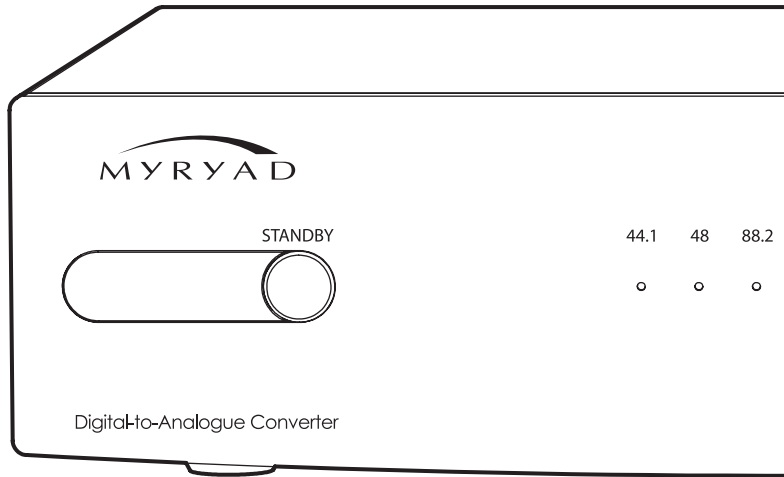
Our policy is one of continuous product improvement, we reserve the right to change the designs and specications without notice.

All information is given in good faith. The manufacturer accepts no responsibility for errors, omissions or incorrect assumptions.

This symbol means do not dispose of as municpal waste. Re-use or recycle wherever possible. Electrical/Electronic Equipment may contain substances harmful to the environment. For environmentally sound methods of disposal, please contact your local government agency.

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