A3²4

Multistandard 96-192kHz 24 Bit Digital-to-Analog Convertor

INSTRUCTIONS FOR USE

MUSICAL FIDELITY

Issue 4: March 2003
SAFETY INFORMATION

IMPORTANT! (U.K. only)

This unit is supplied in the U.K. with a mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off this plug, please remove the fuse holder and dispose of the plug safely, out of reach of children. **It must not be plugged into a mains outlet.**

The wires in the mains lead supplied with this appliance are coloured in accordance with the following code:

- Green and yellow..............Earth
- Blue...............................Neutral
- Brown.............................Live

**WARNING - This appliance must be earthed**

As the colours of the wires of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or coloured green or green-and-yellow, or by the earth symbol:

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The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

If connecting to a BS1363 plug, a 13 amp fuse must be used.

**WARNING:**

Any modifications to this product not expressly approved by Musical Fidelity who is the party responsible for standards compliance could void the user’s authority to operate this equipment.
GENERAL ADVICE

INSTALLATION PRECAUTIONS and USER INFORMATION

Your new A3 DAC is designed and built to provide trouble-free performance, but as with all electronic devices it is necessary to observe a few precautions:

Heed all warnings shown on the back of the product.

Only connect the A3 DAC to a mains outlet having the same voltage as marked at the back of the unit.

Always ensure that when disconnecting and reconnecting your audio equipment the mains supply is switched off.

Position the mains lead and signal interconnects where they are not likely to be walked on or trapped by items placed on them.

Do not use near water, or place water-filled containers on the product, for example, flower vases or potted plants. If water does spill into the A3 DAC, immediately pull out the mains plug from the wall socket and inform your dealer, who should then check the unit before further use. Entry of liquid into the equipment is dangerous, and may cause electric shock or fire hazard.

Do not place the unit near heat sources such as radiators, direct sunlight or other equipment.

Do not remove covers or try to gain access to the inside. There are no internal user adjustments. Refer all service work to an authorised Musical Fidelity agent.

NOTE: Unauthorised opening of the equipment will invalidate any warranty claims.

There are fuses inside the A3 DAC. In the unlikely event that one blows, refer the unit to your authorised dealer. Do NOT try to replace the fuse yourself as this will invalidate the warranty.

Dust regularly with a soft duster or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.

The electronics in modern hi-fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of your audio system during electrical storms, remove the mains plugs and disconnect any aerial lead.

If after-sales service is required, to help your dealer identify the A3 DAC please quote the serial number located on the rear panel of the unit.

RADIO FREQUENCY INTERFERENCE (R.F.I)

This product has been tested to ensure that its operation is not adversely affected by normal background levels of R.F.I., and that it does not itself generate excessive amounts of interference. However, if a problem persists, please contact your Musical Fidelity agent.
CONNECTIONS AND FACILITIES

MUSICAL FIDELITY A3 192K UPSAMPLING DAC

1. Power on indicator LED
2. Power on/off switch
3. 96kHz indicator light
4. 192kHz indicator light
5. Co-axial input indicator light
6. Optical input indicator light
7. Data locked indicator light
8. Analog output - right
9. Analog output - left
10. Digital input - optical
11. 96 / 192kHz selector switch
12. Digital input - co-axial
13. Digital output - co-axial
14. IEC mains inlet
CONNECTIONS AND OPERATION

All input, output and power connections should be made with the mains power switched OFF.

**INPUT CONNECTIONS**

The A3²⁴ DAC will convert digital data from any CD, SACD or DVD-audio source to analog audio, but not data from AC3, Minidisc, or MP3 formats.

However, the digital output socket will loop any selected digital source for external processing if required.

Connect the digital output from your CD or DVD player (or other digital source) to one of the A3²⁴ DAC’s inputs.

The A3²⁴ DAC has two inputs, one an optical “Toslink” and the other an S/PDIF coaxial RCA socket. Either one is automatically selected by the presence of a digital signal, but if both are accidentally connected at the same time, priority is given to the first of the two inputs presented.

**OUTPUT CONNECTIONS**

Using good quality co-axial audio leads, connect left and right audio outputs from the analogue output sockets on the back panel of your A3²⁴ DAC to any line level input in your amplifier system, for example the CD or auxiliary sockets.

The co-axial RCA digital output can also be connected to suitable external digital equipment if required.

**BEFORE SWITCHING ON**

Plug the accessory IEC mains lead into the rear panel socket, then the other end into a wall outlet.

Turn the volume control on your audio system to minimum, and switch on its power.

**OPERATION**

Press the **POWER** button on the A3²⁴ DAC - the power indicator LED on the front panel will light confirming that the unit is now ready for use.

Start the required digital source playing.

The **LOCKED** data indicator LED on the front panel will light to show that the A3²⁴ DAC has successfully locked on to the incoming data stream, and either the **COAXIAL** or **OPTICAL** LED shows which input has been selected.

The appropriate **96kHz** or **192kHz** light will also indicate which sample rate is in use, but this can be changed by pressing the **SELECTOR** push-switch at the rear of the unit as required.

Now adjust the volume control on the audio system to obtain the preferred sound level.
## SPECIFICATIONS:

### A3\textsuperscript{24}

**Multistandard 96-192kHz 24 bit Digital-to-Analog Convertor**

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<tr>
<th>Specification</th>
<th>Description</th>
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<tbody>
<tr>
<td>DAC architecture</td>
<td>24-bit Delta-Sigma (Bitstream) Dual differential 8 times oversampling, 96/192kHz switchable</td>
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<tr>
<td>Sampling frequencies</td>
<td>8 to 108kHz</td>
</tr>
<tr>
<td>Data types</td>
<td>16, 20, 24 bit word lengths</td>
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<tr>
<td>Inputs:</td>
<td>RCA 75(\Omega), TOSLINK optical</td>
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<tr>
<td>Outputs</td>
<td>RCA left and right analog audio, RCA digital loop out</td>
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<tr>
<td>Output impedance</td>
<td>50 Ohms</td>
</tr>
<tr>
<td>Frequency response</td>
<td>10Hz to 22kHz ± 0.0dB</td>
</tr>
<tr>
<td>Signal/noise ratio</td>
<td>113dB “A”- weighted</td>
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<tr>
<td>Total harmonic distortion</td>
<td>&lt; 0.005% 10Hz to 22kHz</td>
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<tr>
<td>Total correlated jitter</td>
<td>&lt; 155pS</td>
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<tr>
<td>Channel separation</td>
<td>&gt; 100dB 20Hz to 20kHz</td>
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<tr>
<td>Linearity</td>
<td>&lt; 0.2dB down to -100dB</td>
</tr>
<tr>
<td>Audio output at digital 0dB level</td>
<td>2.17 Volts RMS at 1kHz nominal</td>
</tr>
<tr>
<td>Power requirements</td>
<td>100 / 115 / 230V AC 50 / 60Hz (Voltage factory pre-set for country) 10 Watts</td>
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<tr>
<td>Dimensions</td>
<td>440mm, 17.3 inches wide 90mm, 3.54 inches high (including feet) 375mm, 14.8 inches deep (including terminals)</td>
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<tr>
<td>Weight</td>
<td>10kg, 22lbs unit only, unboxed 12kg, 26lbs in shipping carton</td>
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<tr>
<td>Standard accessories</td>
<td>IEC type mains lead</td>
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*Musical Fidelity reserves the right to make improvements which may result in specification or feature changes without notice.*