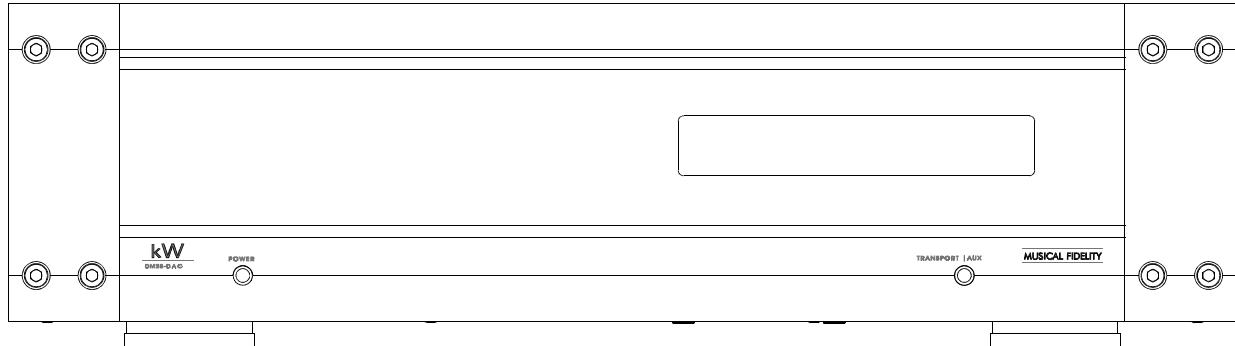




## 192kHz Dual Mono DAC



## INSTRUCTIONS FOR USE

*Thank you for purchasing the Musical Fidelity kW DM25 DAC.*

*Used properly and carefully, it should give many years of outstanding musical reproduction.*

*This model uses the latest upsampling technology and jitter reduction techniques to achieve both an excellent technical specification and unparalleled sound quality.*

*Aesthetically, the kW DM25 DAC is a perfect match for the kW DM25 Transport.*

*Together these components form one of the finest hi-fi systems available.*

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

*If you have any questions about your audio system,  
please consult your dealer who is there to help and advise.*



**MUSICAL FIDELITY**

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# 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 the 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 : 

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 kW DM25 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 kW DM25 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 DAC, for example, a flower vase or potted plants. **If water does spill inside, 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 DAC is dangerous, and may cause electric shock or fire hazard.**
- Do not place the unit near direct heat sources such as radiators, direct sunlight or other equipment.
- Do not remove any covers or try to gain access to the inside. There are no internal adjustments or fuses you can replace yourself. Refer all service work to an authorised Musical Fidelity agent.
- **Note: Unauthorised opening of the equipment will invalidate any warranty claim.**
- Dust regularly with a soft cloth 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 kW DM25 DAC please quote the serial number located on the rear panel of the unit.

# INTRODUCTION / INSTALLATION

## INTRODUCTION

Congratulations on the purchase of your new kW DM25 DAC.

It is intended that you use the DAC together with the kW DM25 Transport but may also be used with other Transports that support 96kHz MONO left and right professional balanced AES3 interface signals.

The kW DM25 DAC uses the latest technology for the reproduction of your CD collection.

In the kW DM25 Transport the digital data stream is separated into left & right mono signals and then up-sampled to 96kHz,

In the kW DM25 DAC the signals are further up sampled to 192kHz which moves noise, jitter and distortion artefacts well above the audio band. They are then passed through to separate left and right, low noise, low distortion 24-bit digital-to-analog convertors operating at 192kHz, which allows simpler filtering of the analog output. This in turn gives an improved audio response without the need for sharp filters that degrade sound quality. The result is a CD player which gives a smoother response than previously possible with none of the "hardness" of other players.

This model together with the kW DM25 DAC fully complements the kW500 Integrated amplifier, or the kW Line Pre-and Power which enables its full potential to be realised.

## NOTES ON USING COMPACT DISCS

Always hold discs by the edges and make sure they remain clean - do not touch the surface. Keep discs away from direct sunlight and heat sources, such as radiators.

Clean discs with a cloth before playing them, but do not use solvents such as benzene, thinners, or antistatic spray intended for analog records. After playing, always return the disc to its case for storage.

## CLEANING

Before cleaning the kW DM25 DAC, always turn off power at the mains switch and remove the mains plug from the wall outlet. Clean the housing and the remote control unit using a moist cloth. We do not advise the use of solvents, white spirit or thinners, as they could damage the surface finish of the unit.

## INSTALLATION

Position the KW DM25 DAC on a stable, horizontal surface where there is no risk of it being knocked, or subjected to vibration such as from loudspeakers.

## DIGITAL CONNECTION

The DAC should be connected the kW DM25 Transport with the XLR cables supplied with the kW DM25 Transport.

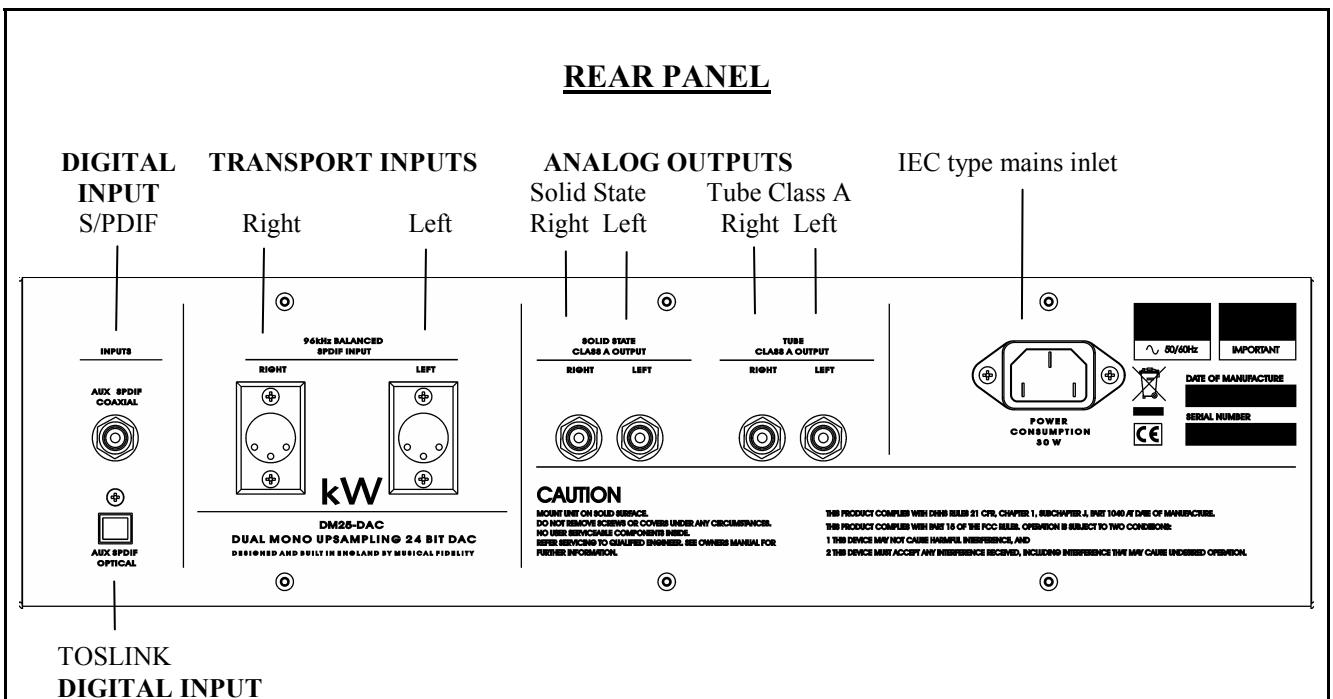
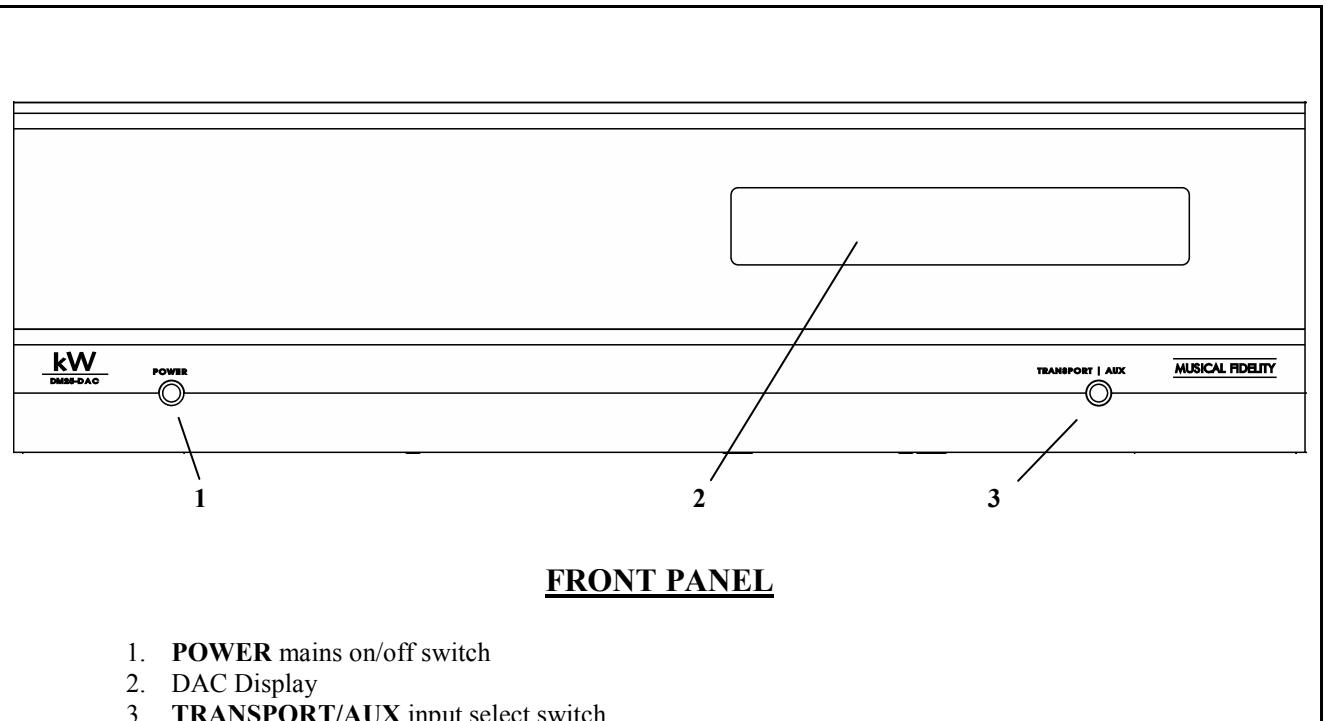
An alternative stereo digital source may be connected to either the S/PDIF\* co-axial RCA socket or the TOSLINK optical connector

## AUDIO CONNECTION

The DAC is connected to an amplifier input by audio cables with RCA/phono type plugs. There are two analog outputs available, one Solid State output and one via a Tube Buffer Amplifier. Both outputs may be used at the same time if required and have the same output level.

\* Sony/Philips Digital Interface Format

# FACILITIES AND CONNECTIONS



# BASIC OPERATION

## USING WITH THE KW DM25 TRANSPORT

Connect the KW DM25 DAC to the KW DM25 Transport as described previously and turn on both units

After about 6 seconds the display will show the following

**BAL L+R 96kHz LOCK  
DAC 24bit 192kHz**

If the KW DM25 Transport is not connected or not turned on the display will show

**BAL**

If one of the digital input leads is not connected the display will not show the frequency or lock information for that channel.

For example, if the right lead is not connected

**BAL L+- 96kHz LOCK  
DAC 24bit 192kHz**

## USING THE AUXILIARY INPUT

The auxiliary input is selected with the button on the front panel (TRANSPORT/AUX)

With a 44.1 kHz signal connected to the optical input the display will show the following

**AUX OPT 44.1kHz LOCK  
DAC 24bit 192kHz**

With a 48 kHz signal connected to the coaxial (RCA) input the display will show the following

**AUX RCA 48.0kHz LOCK  
DAC 24bit 192kHz**

If there is no signal connected to either the optical or coax input the display will be as follows.

**AUX**

The KW DM25 DAC automatically senses when a valid digital signal is present on either the optical or coaxial inputs. If both inputs are connected at the same time the input that was first valid will be selected.

# PROBLEMS ?

Basic problem-solving with a DAC similar to troubleshooting other electrical or electronic equipment. Always check the most obvious possible causes first, such as the following examples:

Problem	Probable Cause	Remedy
No power when <b>POWER</b> button is pressed	Power plug is not inserted	Plug securely into rear socket
No audio output, or too low level output	Connection to rest of stereo system is incorrect	Check connections
Sound is severely distorted, and volume control needs to be turned down very low	DAC audio lead is connected to phono input sockets of the amplifier	Re-connect lead to auxiliary sockets or other "line level" amplifier input
Hum	Audio connector plug is not fully pushed in	Insert plug securely
	Connector cable is faulty	Check that the cable outer shield (screen) connection has not become damaged or detached inside the plug
Interference noise heard from radio tuner	DAC is positioned too near the tuner	Keep a reasonable distance between DAC and tuner, or switch off DAC power

# kW DM25 DAC

## SPECIFICATIONS

### Digital to Analog Convertor

**DAC Architecture**

24 Bit 192kHz sampling, advanced segment  
dual differential current outputs  
8 x oversampling digital filter

**Input sampling frequency**

32 – 96 kHz

**Digital inputs**

2 x mono balanced (left & right)  
AES3 professional 110 ohms (XLR connector)

1 x S/PDIF           RCA 75R, S/PDIF  
1 x TOSLINK         optical

**Analog output, solid state :**

RCA connectors

Frequency response	10Hz to 20kHz ref. 1kHz	+0, -0.05 dB
Signal / noise ratio (digital mute)	>122dB "A" weighted	
Total harmonic distortion	< 0.002% at 1kHz	
Channel separation	> 98dB 10Hz to 20kHz	
Linearity error, 1kHz	0dB at -80dB 0.5dB at -90dB	
Audio output at digital 0dB level	2.2VRMS at 1kHz nominal	
Jitter	< 150pS	

**Tube class A output :**

RCA connectors

Frequency response	10Hz to 100kHz ref. 1kHz	+0, -0.4 dB
Signal / noise ratio	> 115dB "A" weighted	
Total harmonic distortion	< 0.001% at 1kHz	
Overall gain	0dB	

**Power requirements**

100 / 115 / 230V AC 50 / 60Hz (factory preset)  
30 Watts

**Dimensions (approximate)**

440mm,      17.3 inches wide  
138mm,      5.5 inches high including feet & adjusters  
390mm,      15.4 inches deep including  
                  rear terminals and front handles

**Weight**

11.9 kg,      26.2 lbs. unit only, un-boxed  
15.4 kg,      34.0 lbs. in shipping carton

**Standard accessories**

IEC mains lead (10 Amp type),



Musical Fidelity reserves the right to make improvements which  
may result in specification or feature changes without notice.

## REVISION HISTORY

RELEASE	DATE	CHANGES
Issue 1	7 July 2005	First Issue
Issue 2	23 August 2005	Display Pictures
Issue 3	13 October 2005	1 <sup>st</sup> Page “Aesthetically..”