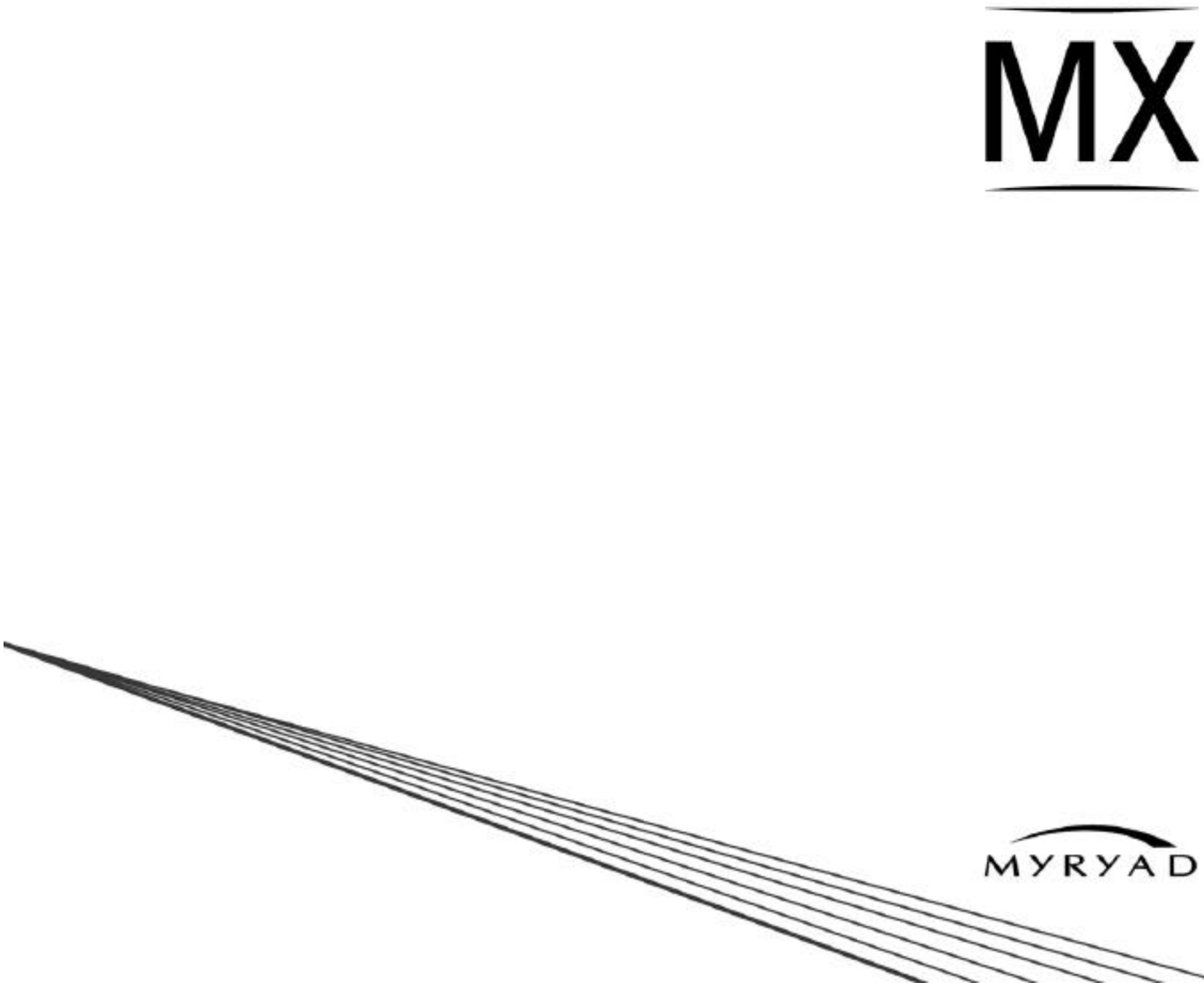
MXD6000

Digital Preamplifier Processor

Owner’s Manual



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INTRODUCTION

The Myryad MXD6000 Digital Preamplifier-Processor has been designed to offer a combination of high quality audio and video performance with simple yet elegant styling. The MXD6000 forms the heart of a high-end home cinema and audio system and should be used with high quality power amplifiers such as the Myryad MXA 2150, MXA 3150, MXA5150 and MXA 7150 two, three, five and seven channel power amplifiers.

The MXD6000 can decode a wide variety of discrete surround material including Dolby Digital[1], Dolby Digital Surround EX[1], DTS[2], DTS-ES Matrix and Discrete[2], DTS Neo:6 [2] and a proprietary mode “Surround 6.1” – together with the ability to down-mix any source to mono or stereo. It also functions as a high quality stereo preamplifier and any stereo analogue source can be sampled at 48kHz for further digital processing, or at 96kHz for the best sound quality without any further processing. The 7.1 channel input is equipped with comprehensive volume control facilities and ensures that the MXD6000 will remain compatible with new multi-channel formats as they appear – as well as providing a “pure analogue” bypass input for audiophile analogue sources such as DVD-Audio and SACD.

The MXD6000 also has several music modes that may be used to enhance a normal two channel stereo signal. These modes include Dolby Pro Logic[1], Dolby Pro Logic II [1], DTS Neo:6 [2], and two “music” modes: Natural, and Party.

The MXD6000 can accept up to six digital input sources, eight line-level input sources, plus a tape loop and two additional record outputs. It has six composite and S-Video inputs, composite and S-Video monitor outputs, composite and S-video record outputs and an S-Video monitor output without OSD (On Screen Display) for highest quality video performance. In addition there are Zone B stereo analogue audio and composite video outputs which can convey a separately selected programme to a second room.

The MXD6000 automatically senses the type of the incoming digital audio signal and selects the best mode for that signal. The user can also bypass the digital section of the MXD6000 and connect, for example, a high quality stereo source to the Left and Right channels of the 7.1 channel input.

The MXD6000 is supplied with a comprehensive learning remote control handset which is pre-programmed to control the MXD6000 and other Myryad products. In addition to the MXD6000 it can also control up to 7 other products using a combination of the pre-programmed Myryad codes and either recalling one of its internally stored code sets, or learning the codes from a product’s own remote.

Options for system integration are provided by Smart My-Link input/output connectors to interface with other Myryad products, by the three 12VDC trigger outputs to control external equipment and by communication with a PC or home automation system via the RS 232 interface.

INSTALLATION AND SAFETY NOTES

This preamplifier generates a modest amount of heat and thus requires ventilation. Do not place it on a rug or other soft surface into which it could sink. Do not allow papers or cloth to obstruct the ventilation grille in the top cover. The MXD6000 should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.

CAUTION: TO PREVENT A FIRE OR SHOCK HAZARD, DO NOT PERMIT THIS PRODUCT TO BECOME WET. IF LIQUID IS ACCIDENTALLY SPILLED ON IT, IMMEDIATELY SHUT OFF ITS POWER AT THE WALL SOCKET AND UNPLUG THE AC POWER CORD. ALLOW SUFFICIENT TIME FOR COMPLETE EVAPORATION TO OCCUR BEFORE OPERATING THE UNIT AGAIN. IF THE LIQUID IS ANYTHING BUT WATER AND/OR ALCOHOL, A QUALIFIED SERVICE TECHNICIAN SHOULD EXAMINE THE UNIT BEFORE IT IS USED AGAIN

Do not remove the cover, or attempt to modify or repair the preamplifier yourself. Refer all servicing to a qualified technician.

ACCESSORIES

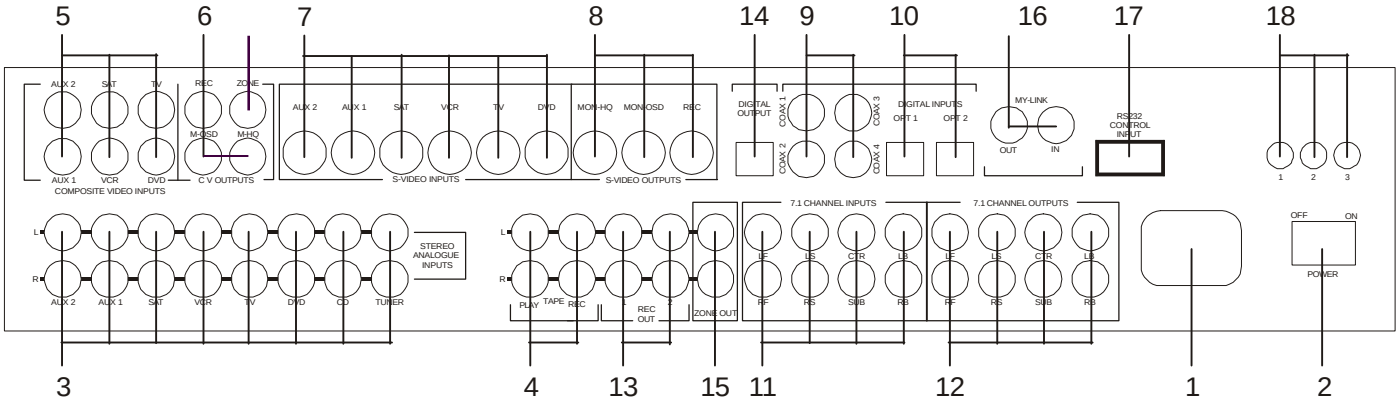
Your MXD6000 is supplied complete with the following accessories:

- Separate mains power cord to suit country of purchase.
- Myryad Audio-Video Learning Remote Control handset.
- Four AAA batteries for handset
- Home Theater Master SL-9000 Operating Manual

1. Manufactured under license from Dolby Laboratories. Dolby", "Pro Logic", "Surround EX", and the double-D symbol are trademarks of Dolby Laboratories.

2. “DTS”, “DTS-ES Extended Surround”, and “Neo:6” are trademarks of Digital Theater Systems, Inc.

SETTING UP YOUR SYSTEM



REAR PANEL CONNECTIONS

CAUTION:
BEFORE MAKING ANY CONNECTIONS TO YOUR MXD6000 MAKE SURE THAT IT IS SWITCHED OFF AT THE REAR AND THAT ITS POWER CORD IS DISCONNECTED (EITHER AT THE WALL SOCKET OR AT THE REAR OF THE MXD6000). ALL EQUIPMENT BEING CONNECTED TO THE MXD6000, EITHER DIRECTLY OR INDIRECTLY, MUST ALSO BE SWITCHED OFF BEFORE ANY CONNECTIONS ARE MADE.

Failure to follow these precautions may result in excessive ground currents flowing briefly into the MXD6000 which can permanently damage internal connections and will invalidate your Warranty.

1. Power inlet

Before making any connection, check that the mains voltage or range of voltages printed on the rear panel includes your local mains supply voltage.

Plug the female (socket) end of the power cord into the power inlet on the rear of the preamplifier. Plug the male (plug) end of the cord into a "live" wall socket or a suitable heavy duty extension cable. Connect the MXD6000 only to a grounded wall socket.

UK version only:
The mains plug is supplied fitted with a fuse. It should only be replaced with a fuse of the same rating which complies with BS1362.

2. Power switch

Press one side of this rocker switch (the side nearer the edge of the rear panel) to switch the preamplifier ON and the other (towards the audio connectors) to switch it OFF. When the POWER switch is in the OFF position all power is disconnected from the preamplifier. In this condition the MXD6000 cannot be powered up from the front panel or the remote control.

When the POWER switch is in the ON position (and the power cord correctly inserted and plugged into a live wall socket) the MXD6000 will power up in standby mode (see FRONT PANEL CONTROLS, STANDBY on page 5).

It is recommended that the POWER switch is turned OFF if the MXD6000 is not going to be used for an extended period of time.

CAUTION: ALWAYS SWITCH THE MXD6000 TO STANDBY BEFORE SWITCHING THE POWER OFF, TO AVOID LOUD NOISES THROUGH THE LOUDSPEAKERS.

3. Analogue stereo inputs

Connect the analogue audio output cables of the appropriate devices to these sockets. Always connect these inputs, even though you may intend to listen only via the digital inputs (for example in the case of a CD or DVD player). This ensures that a signal will always be present at the record outputs.

The signal from ANALOGUE stereo inputs is fed to an A-D converter that converts the signal to digital format. The signal can then be processed using Dolby Pro Logic, Pro Logic II, DTS Neo:6 or other modes. The signal is then fed to D-A converters and thence to the 7.1 channel line outputs. The selected signal is also fed to the three ANALOGUE record outputs.
[A-D = Analogue to Digital; D-A = Digital to Analogue]

4. Tape input/output

These connectors are suited to any type of tape recorder, including high-quality "3-head" types which allow you to monitor the signal off the tape whilst it is being recorded. Connect a stereo cable from the TAPE REC output sockets of the preamp to the LINE IN or RECORD IN sockets on your tape deck. Connect a second stereo cable from the TAPE PLAY input sockets of the preamp to the LINE OUT or PLAY OUT sockets on your tape deck.
The TAPE loop allows you to monitor the quality of an Analogue recording whilst the recording is taking place. It can also be used for connecting devices such as equalizers into the analogue signal path. Note: if an equalizer is used it must be bypassed when listening to Pro Logic sources to ensure correct decoding.

Any ANALOGUE stereo source selected for listening on the MXD6000 will automatically be fed to the TAPE REC output sockets for recording. Recordings cannot be made from a source connected to the digital inputs or the 7.1-channel input

5. Composite video inputs

Connect the composite video output cables from your video sources to these inputs. Be careful to use inputs with the same name for the composite video, S-Video and analogue audio cables from a single source (e.g. cables from a VCR should go to the VCR S-VIDEO, VCR COMPOSITE VIDEO and VCR ANALOGUE inputs).

The composite video signal is selected from these sources, and the signal is fed out from the COMPOSITE VIDEO record (REC) and monitor (MON) outputs. On Screen Display information is added to the monitor (MON) output.

6. Composite video record and monitor outputs

Connect the composite video input of your VCR to the COMPOSITE VIDEO “REC” output. Connect the composite video input of your display device (TV) to the COMPOSITE VIDEO “M-OSD” monitor output. The On Screen Display (OSD) information is present on this output only. You can also use the
“M-OSD” output even if no composite video source is connected. The selected S-Video signal is down-mixed to this output and so can be used for monitoring. The OSD can be switched off on the “M-OSD” output using the Display setup menu.
Alternatively you can connect your display device to the “M-HQ” high-quality output. This by-passes the OSD circuitry so you cannot view the OSD – and
it will not give any down-mixed output from S-Video sources – but it will deliver slightly better video quality.

7. S-Video inputs

Connect the S-Video output cables from your video sources to these inputs. Be careful to use inputs with the same name for the composite video, S-Video and analogue audio cables from a single source.

S-Video signals are of higher quality than composite video signals. Therefore if your source devices have S-Video outputs it is recommended that you use them, together with the S-Video inputs on your display. S-Video inputs are also automatically down-mixed to feed the composite video M-OSD output for displays which do not have S-Video inputs.

8. S-Video record, monitor and high quality monitor outputs

Connect the S-Video input of your VCR to the S-VIDEO REC output. Connect the S-Video input of your display device (TV) to the S-VIDEO MON output. The On Screen Display information is displayed in this output, but may be switched off using the Display setup menu. The MON HQ output displays the selected source without routing it through the On Screen Display circuit thus giving the best possible video quality. If a composite video source is selected, the S-Video outputs will carry only a black-and-white video signal.

9. Coaxial digital audio inputs

Connect the coaxial digital output cables of your source devices to these inputs. The digital inputs can be freely assigned to any analogue audio or audio-video sources (see Source setup menu for further reference), but the MXD6000 is supplied set up as follows:

Digital audio input	Assigned to input	Re-assigned to input
COAX 1	AUX 1	
COAX 2	AUX 2	
COAX 3	SAT	
COAX 4	TUNER	
OPTICAL 1	CD	
OPTICAL 2	DVD	

If you re-assign any of the digital inputs to different analogue inputs, record this in the blank column provided. You may assign a digital input to more than one analogue input if desired.

Note: The “SPDIF” digital interface is very sensitive to the quality of connection when using 96kHz sample rate sources. Always use a high quality digital coax interconnect if 24bit/96kHz operation is desired.

10. Optical digital audio inputs

Connect the Optical Digital audio cables to these inputs. These inputs can also be freely assigned to any analogue audio or audio-video sources, but the MXD6000 is supplied set up as shown in the table above.

Note: The “SPDIF” digital interface is very sensitive to the quality of connection when using 96kHz sample rate sources. Always use a high quality optical interconnect if 24bit/96kHz operation is desired.

11. 7.1 Channel inputs (Left Front, Centre, Right Front, Left Surround, Right Surround, Left Back, Right Back and Subwoofer)

Connect the audio line outputs from any multi-channel analogue source such as a DVD-Audio player or Super Audio CD (SACD) player to these inputs using up to eight interconnect cables (or four stereo cables) as necessary. The Left Back and Right Back channels are provided for future surround formats. The 7.1 CHANNEL inputs may be used with any mono, stereo, 5.1 channel or 7.1 channel source.

You may use these inputs as an “Analogue Direct” input if you want to bypass the digital section of the MXD6000 (use Left Front and Right Front for a stereo source). The record outputs are not active when the 7.1 channel input is selected.

12 7.1 Channel outputs (Left Front, Centre, Right Front, Left Surround, Right Surround, Left Back, Right Back and Subwoofer)

Connect these outputs to the line inputs of your power amplifier(s), such as the Myryad MXA 2150, MXA 3150, MXA 5150 and MXA7150 two, three, five and seven channel power amplifiers. The SUB output will normally be fed to the low-level Line Input of an active subwoofer. Alternatively it may feed a separate power amplifier and passive subwoofer.

If the setup has only one rear speaker, its amplifier should be connected to the Left Back output.

13. Record 1 & 2 outputs

The REC outputs carry the signal from whichever ANALOGUE stereo source device is currently selected (except the source connected to the TAPE PLAY input or the 7.1 CHANNEL input). These outputs may be connected to the inputs of any recording device, or the signal may be used in a multi-room set-up to feed power amplifiers in other rooms.

14. Digital output

Connect the optical input of your digital recording device to the DIGITAL output. The selected digital source is fed to this output in optical digital format.

15. Zone B audio and composite video outputs

These connectors carry the stereo analogue audio and composite video signals selected for Zone B. The MXD6000 allows you to feed separate audio or audio-video programmes to two different areas, or zones, in your home. To feed video and audio to a second zone (Zone B), connect a composite video cable (with RCA plugs) to the “ZONE” composite video output and a pair of audio cables to the “ZONE OUT” audio connectors. The “ZONE” audio output is always stereo (unless you are playing a monophonic source). See “Zone B operation” section on page 13 for full details of how the second Zone operates.

16. Smart My-Link® input/output

When the MXD6000 is used in a system with other Myryad M-Series products, all may be joined together via the Smart My-Link®
The output of the MXD6000 should be connected to the Smart My-Link® input of the next product and its Smart My-Link® output connected to the Smart My-Link® input of the next and so on in “daisy-chain” fashion. This inter-linking provides three main benefits.

Firstly, when the MXD6000 is switched out of (or into) STANDBY, either using the front panel ellipse or the remote control, all the other linked Myryad products will switch out of (or into) STANDBY at the same time. Note: there is a short processing delay (about 1.5 seconds) between the MXD6000 switching into STANDBY and the Smart My-Link® control pulse switching the other linked units into STANDBY.

Secondly, only one linked product with its own Infra Red receiver (e.g. a Myryad CD player, but *not* a Power Amplifier) needs to be “in line of sight” of the remote handset. The Smart My-Link® will carry the remote command from any IR receiver to all the other products that are linked together.

Finally, the Smart My-Link® may be used to interface with various proprietary multi-room control systems. Contact your Myryad dealer or Myryad Systems Ltd. for details or visit the Myryad website at www.myryad.co.uk.

17. RS 232 control interface

You can connect the MXD6000 to a home automation system through this interface. Contact your Myryad dealer or Myryad Systems Ltd. for details or visit the Myryad website at www.myryad.co.uk.

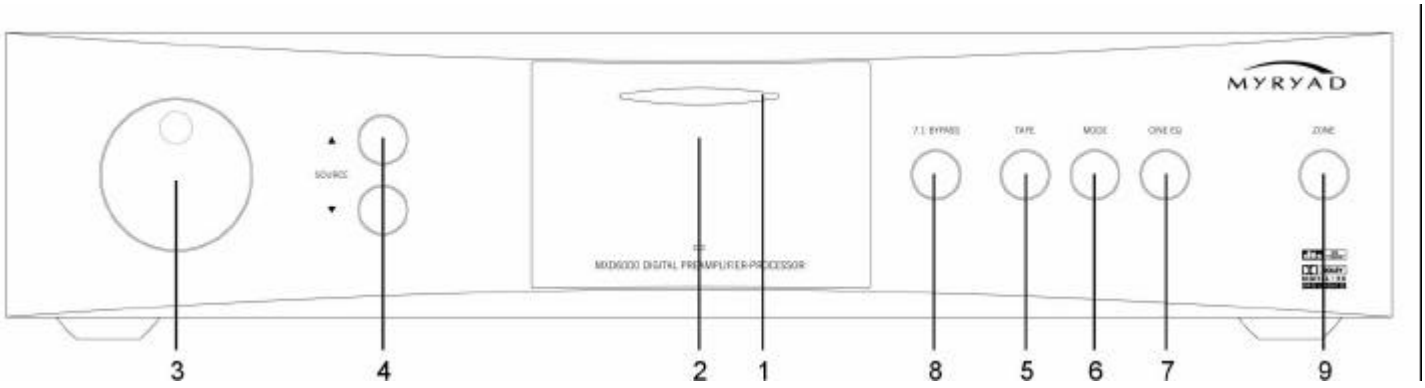
18. Remote trigger outputs – 1, 2 and 3

You can connect the DC trigger inputs of any audio or other equipment to these TRIGGER outputs. The TRIGGER outputs may be activated when the MXD6000 is switched out of STANDBY and turned off again immediately when the MXD6000 is switched into STANDBY again. The TRIGGER outputs may be programmed to be activated under other conditions (see Trigger setup menu section, page 11).

The TRIGGER outputs deliver +12V DC with a maximum current of about 40mA from each of the three trigger outputs.

CAUTION: THE TRIGGERS SHOULD ONLY BE CONNECTED OR DISCONNECTED WHEN THE POWER SWITCH IS OFF, OR THE UNIT IS DISCONNECTED FROM MAINS POWER.

OPERATING YOUR SYSTEM



FRONT PANEL CONTROLS

1. Standby
When the preamplifier is plugged into a live wall socket and the POWER switch is turned ON, the display will read “Myryad MXD6000 Initialising” after about 3 seconds. This display will remain for around 5 seconds before the display goes blank and the LED (Light Emitting Diode) in the display will glow red. The MXD6000 is now in standby mode, with its internal circuitry powered up but inactive.

When the STANDBY ellipse is touched the preamplifier circuitry will be activated and the last used INPUT and last used MODE automatically selected. The LED in the STANDBY button will change to blue, the display will briefly read “Myryad MXD6000 Initialising” and the LINE outputs will be muted for a few seconds. During this delay period the blue LED in the display will flash to indicate this mute condition.

When the STANDBY button is touched again the preamplifier will be returned to standby mode, the display will briefly read “Myryad MXD6000 Shutting down” and the LED in the display will glow red again.

CAUTION: always switch the MXD6000 to STANDBY before switching the POWER off at the rear to avoid loud noises through the loudspeakers.

CAUTION: **WHEN IN STANDBY MODE THE INTERNAL CIRCUITRY OF THE MXD6000 IS STILL LIVE, SO ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.**

2. Display

Located behind this window is a high quality blue Vacuum Fluorescent Display (VFD) which indicates the operating condition of the MXD6000 – including the selected input, operating mode and volume setting. Also behind this window (and located to the left of the standby ellipse) is the Infra-Red detector which receives the commands sent to the MXD6000 from the remote handset.

3. Volume control

The volume control adjusts the sound level of the signal fed to the 7.1 CHANNEL line outputs. It does not affect the signals fed to the TAPE REC sockets so it can safely be adjusted whilst making a recording.

The volume setting is indicated in the bottom right of the VF display, for example “**vol: -35**”. The display indicates the preamplifier gain in dB (decibels) referenced to THX standard gain (-2.5dB). When first switched on the volume is set automatically to –20, which is a typical listening level. If the volume is set below –20 this will be remembered when the MXD6000 is switched into STANDBY and re-instated when it is switched on again. If the unit is switched to STANDBY with a volume setting higher than –20, it will be reset to –20 when switched on again to protect against excessive sound levels.

The volume control range is from -90dB to +15dB when all channel level adjustments (e.g. in the Speaker level or Audio setup menus) are set to zero or negative values. If any of the trims is set to a positive figure, the maximum volume setting is reduced by the same amount to prevent inadvertent digital overload.

When the volume level is being changed (using the front panel control or the remote), there may be small “ticking” sounds at each volume step. These will be more noticeable at higher volume settings. These noises are quite normal and have no effect upon the sound quality once the volume control has been set.

4. Source select ▲ and ▼

These buttons scroll up or down through the inputs to select the source (audio or audio-video) that is fed to the main outputs for listening and viewing. The same signal will also be fed to the TAPE REC and REC 1 & 2 output sockets for recording. The display shows which input has been selected.

The SOURCE buttons scroll through all the inputs except TAPE. TAPE and 7.1 CH inputs are selected by the TAPE MONITOR and 7.1 CHANNEL buttons – see below.

When an input is selected, the MXD6000 will automatically switch to the operating MODE last used with that input, or to the correct digital decoding if an active digital source is assigned to the input.

5. Tape Monitor

When you press the TAPE MONITOR button you can hear the output signal from a recording device connected to the TAPE PLAY sockets on the rear panel. This is a "toggle" function switch: you press it once to engage and press again to disengage. The TAPE MONITOR input also disengages if a new source is selected either from the remote or front panel. Pressing the TAPE button has no effect on the other source select buttons.

The signal source selected by the SOURCE ▲ and ▼ buttons will be fed to the TAPE REC output sockets, irrespective of whether the TAPE button is engaged or not. Thus, if you have a "three-head" tape deck that permits off-tape monitoring you can use the TAPE button to switch back and forth between the source signal and the off-tape signal, to check its quality, whilst the recording is in progress.

Pressing the TAPE button does not affect the operating mode of the MXD6000, which continues to be the mode applying to the input source currently selected.

NOTE: If the TAPE button is engaged with no signal source connected to the TAPE PLAY, or with no tape running, then you will
hear only silence.

6. Mode button

The MODE button is used to cycle through the available processing modes for analogue stereo and digital sources (no processing is possible for the 7.1 channel analogue
input). Not all modes are possible for all types of signal source. The table below lists the possible options, in the order in which they are selected by the MODE button.

SIGNAL TYPE	ALLOWED MODES
Dolby Digital 3/2.1	**Direct, Dolby Digital EX, Surround 6.1, Mono, Stereo**
Dolby Digital Surround EX	**Direct, Dolby Digital EX, Surround 6.1, Mono, Stereo**
DTS 3/2.1	**Direct, DTS Neo:6, Surround 6.1, Mono, Stereo**
DTS-ES Matrix	**Direct, DTS-ES Matrix, Mono, Stereo**
DTS-ES Discrete	**Direct, Mono, Stereo**
Dolby Digital 2/0	**Direct, Dolby Pro Logic, Dolby Pro Logic II Movie, Dolby Pro Logic II Music, DTS Neo:6 Cinema, DTS Neo:6 Music, Natural, Party, Mono**
PCM (up to 48kHz sampling)	**Stereo, Dolby Pro Logic, Dolby Pro Logic II Movie, Dolby Pro Logic II Music, DTS Neo:6 Cinema, DTS Neo:6 Music, Natural, Party, Mono**
PCM (96kHz sampling)	**Stereo, Mono**
Analogue stereo	**Stereo, Stereo96, Dolby Pro Logic, Dolby Pro Logic II Movie, Dolby Pro Logic II Music, DTS Neo:6 Cinema, DTS Neo:6 Music, Natural, Party, Mono**

When the “Direct” MODE is chosen, the signal source is decoded in the expected way – for example DTS 3/2.1 material will be processed using DTS 3/2.1 decoding. The MXD6000 will automatically choose “Direct” for a new source except that, in a 6.1 or 7.1 speaker system, the processing for DTS 3/2.1 and DTS-ES Matrix signals will default to Neo:6 or Matrix respectively (this is a requirement of Digital Theater Systems Inc.)

With DTS-ES Matrix sources, in “Direct” mode the MXD6000 will output 5.1 channels (no back speakers). “Matrix” mode will output 6.1 or 7.1 channels as desired. In a similar way, with Dolby Digital Surround EX sources, in “Direct” mode the MXD6000 will output 5.1 channels (no back speakers). “DD EX” mode will output 6.1 or 7.1 channels as desired.
The loudspeaker channels which are active in the various modes are listed in the table below. The subwoofer is not included in this table since it is active if selected in the speaker setup and if any of the active speakers are set to “small” (and of course any loudspeaker set to “No” will not be active).

DECODING/PROCESSING	ACTIVE LOUDSPEAKER CHANNELS
Dolby Digital 3/2.1	**L / R / C / LS / RS**
DTS 3/2.1	**L / R / C / LS / RS**
Dolby Digital EX	**L / R / C / LS / RS / LB / RB**
DTS-ES Matrix or Discrete	**L / R / C / LS / RS / LB / RB**
DTS Neo:6 / Cinema / Music	**L / R / C / LS / RS / LB / RB**
Surround 6.1	**L / R / C / LS / RS / LB / RB**
Mono	**C**
Stereo / Stereo96	**L / R**
Dolby Pro Logic	**L / R / C / LS / RS**
Dolby Pro Logic II Movie/Music	**L / R / C / LS / RS**
Natural / Party	**L / R / C / LS / RS**

More details of the various decoding and processing modes are given in the Appendix on page 14. Details of how to make adjustments to the processing parameters in Dolby Pro Logic II Music mode can be found in the Audio setup menu section on page 9.

Notes regarding operation in “Stereo 96” mode and with 96kHz/24bit digital sources (including DTS96/24).

- There is no digital processing of 96kHz sample rate signals so there is no subwoofer output possible in Stereo96 mode or with 96kHz/24bit digital PCM sources.
- The MXD6000 can accept ”DTS96/24” sources. The data is processed at 48kHz and all channel outputs (including subwoofer) are available. The front panel display will indicate the same as with normal (48kHz) DTS sources.
- When using a 96kHz sample rate digital PCM source, always use a high quality interconnect, coaxial or optical as desired. 96kHz operation is very
- sensitive to the quality of interconnection.
- When using a 96kHz sample rate digital source the display (both front panel and OSD) still reads “Digital PCM”.To confirm that the source is 96kHz, press the MODE button repeatedly. With a 96kHz digital source, only Mono and Stereo modes will be accessible, no other processing.

7. Cine EQ button

When the CINE EQ button is pressed Cinema Equalisation will be switched on and the text CEQ will appear in the front panel display and the On Screen Display status screen. Press again to switch CINE EQ off.

The sound tracks on movies can sometimes sound rather bright because they have been balanced to take into account the acoustics of typical cinemas (movie theatres). Myryad’s Cinema Equalisation has been carefully designed to compensate for this brightness without impairing treble sound quality.

8. 7.1 Channel input button

The 7.1 CHANNEL INPUT in the MXD6000 provides compatibility with future multi-channel formats. Pressing this button provides instant access to select the 7.1 CHANNEL INPUT. It may be deselected by changing the source using the SOURCE SELECT buttons, or by pressing the 7.1 CHANNEL INPUT button again. In the latter case the MXD6000 will return to the input previously selected before the 7.1 CHANNEL button was pressed.

9. Zone button

When in normal operation mode (setup menu not active), pressing the ZONE button will enter Zone B control mode. If Zone B is switched off, the display will indicate “Zone B Off”. If Zone B is switched on, the display will indicate the selected

Zone B source and volume setting. The MXD6000 will automatically drop out of Zone B controlmode after 5 seconds if no Zone B command is received. Zone B may be switched on or off by pressing standby (front panel or remote) whilst in Zone B control mode. See “Zone B operation” section on page 13 for full details of how the second Zone operates.

REMOTE CONTROL HANDSET OPERATION

The MXD6000 is supplied with the Myryad Audio-Video Learning Remote Control handset. It will control not only your MXD6000, but also Myryad CD players, DVD players and tuners.

The Myryad Audio-Video Learning Remote Control handset is a very powerful and flexible remote. Apart from controlling the Myryad products mentioned above, it can also control up to 5 further products (e.g. VCR, TV, Set-Top box etc.) – either by calling up pre-programmed code sets which are already stored in the handset, or by “teaching” the Myryad handset from your existing remote.

The Myryad Audio-Video Learning Remote Control handset is custom-made for Myryad by Universal Remote Control Inc.. Fully detailed instructions for the programming and operation of the remote are in the “Home Theater Master SL-9000 Operating Manual” supplied with the MXD6000.

To control Myryad products the handset must be set to AUDIO, CD or DVD mode by pressing the AUD, CD or DVD key at the top of the handset. AUDIO mode is used for operating the MXD6000 (or Myryad integrated amplifiers or preamplifiers) and Myryad FM tuners. CD mode is used for operating Myryad CD players and DVD mode for Myryad DVD players. (Note, some Myryad DVD players use different remote codes, so you may need to re-program the DVD page of the handset. See your Myryad DVD player Owner’s Manual for details.)

REMOTE OPERATION OF THE MXD6000 AND MYRYAD AMPLIFIERS AND TUNERS (AUDIO MODE)

The remote control keys are listed in order, from left to right and from the top of the handset down. The top eight keys (AUD, CD, DVD, AUX, SAT, TV, VCR, CBL) set the operating mode of the handset. To control the MXD6000 first press the AUD key to switch to AUDIO mode. In this mode the remote will also control Myryad tuners and operates exactly as described in your Myryad tuner Owner’s Manual.

Power
This key operates in exactly the same way as the STANDBY button on the front panel. It sends the command to switch the MXD6000, or any other Myryad preamplifier or integrated amplifier, into or out of standby mode.

Vol ▲ and ▼
Pressing one of the VOLUME ▲ or ▼keys will increase or decrease volume setting - in exactly the same way as rotating the front panel volume control. If the preamplifier is in mute mode (after pressing MUTE on the R/C handset) then pressing the VOLUME ▲ key will automatically disengage mute mode and re-connect the signal to the power amplifier and loudspeakers. This prevents an excessively high volume level from being set by mistake.

CH ▲ and ▼ (Tuner functions)
These keys operate in a similar way to the rotary tuning knob on the MXT 2000 and exactly as the front panel TUNE UP/DOWN keys on other Myryad tuners. A single brief key press will move either up or down in frequency or preset number or initiate SEARCH mode. In MANUAL and PRESET modes, when a key is pressed and held down the tuner will scan automatically in the desired direction.

Mute
Pressing the MUTE key on the handset will engage mute mode and the MXD6000’s 7.1 CHANNEL line outputs will be muted. MUTE is a "toggle" function, so pressing the key again will disengage the mute mode. The mute is also disengaged when the volume setting is increased.

T/V (Tuner function)
This key sends the tuner STANDBY command and will switch the Myryad MXT 2000 (and any other Myryad tuner) into or out of standby mode.

Menu
When this key is pressed the unit goes to setup mode. The up / down / left / right keys are used to navigate the menus (see setup menu section). The unit leaves setup mode either by selecting “EXIT” from the OSD (or VFD) or by pressing MENU key again.

Guide
Pressing this key once displays the status of the unit on the OSD. The status display shows selected source, audio and video signal type, audio output type and volume information. The status display disappears after a few seconds or if you press the same key again.

Exit
This key exits the setup mode without saving the new settings. This is used if a setup menu is adjusted by mistake.

Pre.Ch
This key has no function when the remote is in “AUDIO” mode.

Sel
This key is used to select menu items in setup mode. Pressing once selects the desired menu or sub-menu.

▲,▼,◄,► (up, down, left and right).
These keys are used to navigate in the menus. Up and down keys are used to select the parameter to be adjusted. The left / right keys are used to adjust the selected
parameter. The selected parameter is marked in the OSD by a pointer (‣) and is also shown in the bottom row of the front panel display.

SAT, AUX 1, AUX 2, DVD, TV, VCR, TUNER and CD (also marked 1, 2, 3, 4, 5, 6, 8 and 9)
All sources can be accessed from these keys directly. For example pressing DVD selects DVD video and audio signals (and any digital source assigned to the DVD input). These are then processed and fed to the appropriate outputs for viewing and listening.

7.1 CH (also marked 7)
The 7.1CH key operates in exactly the same way as the 7.1 CHANNEL button on the front panel. It provides instant access to select the 7.1 CHANNEL INPUT, which is deselected when the source is changed using either the remote or the front panel SOURCE SELECT buttons or by pressing the 7.1 CH key again.

PRESET, MANUAL and SEARCH (Tuner functions (also marked FAV, INFO and NEXT))
FM tuner Tune Mode keys. These operate exactly as the FM tuner’s front panel buttons.

DIM (also marked +10)
This key dims the front panel VF display, which may be preferred in a darkened room. This is a "toggle" function key: press it once to dim the display and press again to switch back to full brightness.

TAPE (also marked 0)
When you press the TAPE key you can hear the output signal from a recording device connected to the TAPE PLAY sockets on the rear panel. This is a "toggle" function key: press it once to engage and press again to disengage. The TAPE input also disengages if a new source is selected either from the remote or front panel. Pressing the TAPE key has no effect on the other source select keys.

E-BASS (also marked ENTER)
This key switches on and off E-Bass mode. In E-Bass mode, bass signals are sent to both the main left front and right front loudspeakers (when they have been set up as “large”; see Speaker setup - size menu on page 10) and to the subwoofer channel, thus allowing greater bass output when full range main loudspeakers are employed.

TEST (also marked ALT)
This key switches on the Noise Test signal, after the LEVEL key has been pressed or from the Speaker level setup menu. A broadband noise signal is sent first to the Left Front channel for a few seconds, then to the Centre channel and so on through

the other channels. The level of any channel may be adjusted during this cycle using either the TRIM +/- keys or the Speaker level setup menu. While the level is being trimmed the noise signal will remain directed to that channel, and only move on to the next after the trimming has been completed. Pressing TEST again will switch off the noise test signal.

Comp

This key activates Dolby Late Night function that compresses a Dolby Digital soundtrack
so that all details are audible even at low listening levels, but loud sounds are reduced in volume. Note: this function is only available with Dolby Digital sources.

Cine EQ
This key switches on and off the Cinema Equalisation function. It operates in exactly the same way as the front panel CINE EQ button.

SRCE + and -
These keys function in exactly the same way as the front panel SOURCE ▲ and ▼buttons.

Mode + and -
These keys function in exactly the same way as the front panel MODE button, but allow selection up and down through the available modes.

Trim + and -
These keys are for trimming speaker levels in LEVEL mode or speaker distances in DELAY (distance) mode. First press LEVEL (or DELAY) and then adjust the relevant parameter using these keys. If LEVEL (or DELAY) has not been pressed the keys function as temporary Subwoofer level trims (not stored in memory) and this temporary trim level is shown briefly in the bottom right hand corner of the OSD. In the Speaker level setup menu the TRIM keys can be used to adjust the level of the currently active speaker during TEST noise calibration.

Level
This key switches on LEVEL Trim mode and will cycle though the channels for trimming – shown in the front panel display only, not the OSD. The key is pressed once to enter level setup mode and select the Left Front channel. The TRIM + and - keys are then used to adjust the Left Front speaker level, either using programme material, or the TEST noise source (see above). If the TEST key is pressed the system will cycle automatically through the channels. If the Level is being trimmed using programme material then the LEVEL key should be pressed again to advance to the Centre channel and so on until all the channels have been trimmed, when the system will exit LEVEL mode automatically. LEVEL trim is not active on the 7.1 Channel input.

Delay
This key switches on DELAY (= distance) setup mode and will cycle though all active channels (including subwoofer) for setting up the distance from the listener to each speaker – shown in the front panel display only, not the OSD. The key is pressed once to enter delay setup mode and select the Left channel. The TRIM + and - keys are then used to set the distance to the Left speaker. Press the DELAY key again to advance to the Centre speaker to set its distance, followed by the Right speaker and so on.

The last selected speaker is “Subwoofer” - one further press of the DELAY key will exit DELAY setup mode.

Note: the delays are not active on the 7.1 Channel input as these signals remain in the analogue domain.

USING THE SETUP MENUS – VIA THE ON SCREEN DISPLAY OR FRONT PANEL DISPLAY

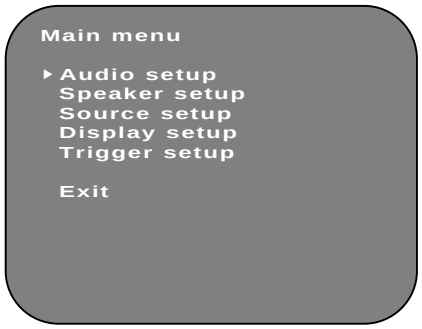
The setup menus are accessed by pressing the MENU key on the remote controller. The UP, DOWN, LEFT and RIGHT arrow keys (▲,▼,◄,►) are used to navigate in the menus. The menus are shown below as they appear on the On Screen Display (OSD).

The UP (▲) and DOWN (▼) keys are used to move the cursor within the menu to highlight a sub-menu or function to be adjusted. To select a sub-menu press the SEL key in the middle of the cursor keys. The functions are adjusted using LEFT (◄) and RIGHT (►) keys. The EXIT key escapes from the menu without saving.

The front panel display will show only the title line and one other line of the menu, commencing with the top line. The UP (▲) and DOWN (▼) keys may be used to select the other lines of the menu to access a sub-menu or function to be adjusted. In this way all setting-up can be done using the front panel display if desired.

In each case, selecting “Exit” within a menu will return you to the previous level menu. Pressing MENU again (or selecting Exit from the Main menu) will return to normal operation and save any new settings. Pressing the EXIT key on the remote control will exit the menu system without saving the new settings.

MAIN MENU



The main menu lists the sub-menus that can be selected using the UP and DOWN keys and accessed by pressing the SEL key.

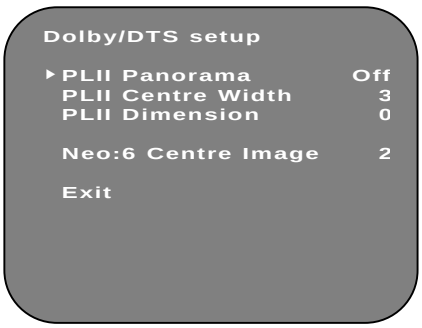
- Audio setup: bass and treble tone controls, LFE level, Dolby Pro Logic II setup and preset setups
- Speaker setup defines speaker levels, distances and sizes
- Source setup defines source-related parameters
- Display setup sets video formats and defines how the OSD (On Screen Display) works
- Trigger setup sets the parameters for the TRIGGER outputs
- Exit returns to normal operation mode.

AUDIO SETUP

The Audio setup menu allows adjustment of the main bass and treble controls, the LFE channel level and Dolby Pro Logic II Music mode parameters. It also allows access to the preset setup menus.

- Bass can be adjusted between a 12 dB cut (-12 dB) and a 12 dB boost (+12 dB), in 1dB steps.
- Treble can be adjusted between a 12
- dB cut and a 12 dB boost, in 1dB steps.
- The LFE (Low Frequency Effects) channel contains only low frequency signals. It is the “0.1” of the 5.1 or 6.1 channel digital surround signal and is only present with Dolby Digital, DTS and DTS-ES sources. LFE level can be set from -10dB to 0dB in 1dB steps.
- Dolby/DTS setup enters the Dolby/DTS setup menu for setting the parameters in Dolby Pro Logic II Music mode and DTS Neo:6 Music mode (see below).
- Preset setup enters the preset sub-menus (see below).
- Exit returns to the main menu.

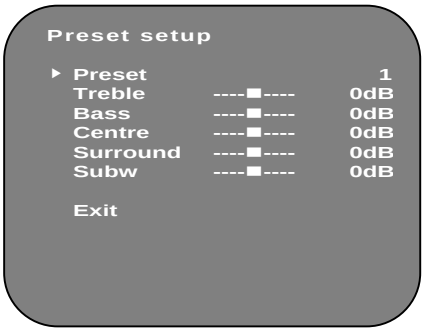
DOLBY/DTS SETUP



The Dolby/DTS setup menu allows adjustment of the individual parameters when using Dolby Pro Logic II Music mode and DTS Neo:6 Music mode.

- Dolby Pro Logic II panorama, centre width and dimension settings allow adjustment of Dolby Pro Logic II parameters. These are effective in Dolby Pro Logic II Music mode only. ”Movie” mode uses fixed parameters.
- “PLII Panorama” wraps the sound of the front left and right speakers around you for a more exciting perspective. It can be set either On or Off. The default setting is Off.
- “PLII Centre Width” allows adjustment of the centre width from “Min”, through 1 to 6 up to “Max”. Centre width allows you to spread the centre channel sound field gradually into the left and right front speakers. At its widest setting, all the sound from the centre is mixed with the left and right. This control may help achieve a more spacious sound or a better blend of front image. The default setting is 3.
- “PLII Dimension” adjusts the front-to-back balance of the sound field to suit your taste. Dimension may be set from -3 to +3, positive settings moving the sound field to the front and negative settings to the rear. The default setting is 0.
- “Neo:6 Centre Image” adjusts the centre channel image dominance by subtracting some of the centre signal from the left and right channels. It is effective only in DTS Neo:6 Music mode (DTS Neo: 6 and Neo:6 Cinema mode have fixed parameters). The centre image setting can be varied from 0, which allows the Left and Right Front channels to pass unaltered, up to 5, which makes the centre channel more dominant by subtracting the maximum amount of the centre signal from the left and right channels and can be desirable if listeners are located well off-centre. The default centre image setting is 2. The centre channel output level is not affected by the centre image setting.

PRESET SETUP



When “Preset setup” is selected a third level menu appears:

This menu allows up to five preset setups to be programmed into the MXD6000, numbered 1 to 5. Each setup allows individual adjustment of Treble and Bass, and Centre, Surround and Subwoofer trim levels - each over the range from -12dB to +12dB in 1dB steps.

It should be noted that the three level trim adjustments (Centre , Surround and Subwoofer) are *added* to any “Speaker Level setup” settings already made. It is therefore recommended that the “Speaker Level setup” adjustments are made to balance the system accurately - to compensate for speaker sensitivities, speaker placement and room acoustics - while the Preset level trims are used to add personal preferences for different sources (see “Source setup” below). The preset tone settings are *not* added to the “normal” settings, but replace them when a preset setup is in use.

Each of the five preset setups can be assigned to any desired input source (apart from 7.1 Channel and TAPE) using the Source Setup menu (see below).

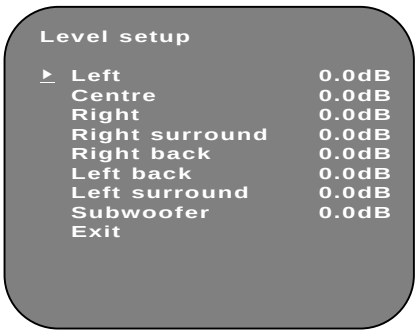
Note: Any preset level setup in use (Centre, Surround and Subwoofer) is disabled when the Level setup menu is entered and so will also not be active when the noise test signal is in use.

SPEAKER SETUP

The Speaker setup menu allows access to three sub-menus:

- Level setup – set the relative volume level of each loudspeaker.
- Distance setup – set the distance to each loudspeaker.
- Size setup – to set the size of, or absence of, each loudspeaker and bass crossover parameters.
- Exit returns to the main menu

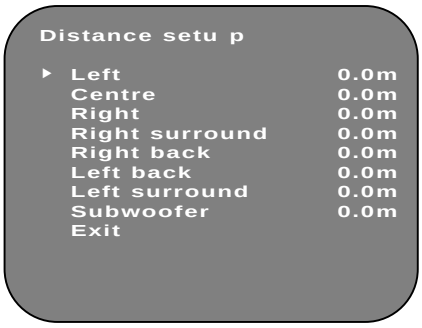
LEVEL SETUP



The Level setup menu is used to balance the system accurately - to compensate for different speaker sensitivities, their placement and room acoustics.

- The speaker levels can be adjusted by pressing the LEFT (◄) and RIGHT ►) Keys.
- The range of each level adjustment is from –15 dB to + 15 dB, in 0.5dB steps.
- If any speaker has been set in the Speaker size menu (below) as being absent, then “None” will appear in place of the level setting in this menu.
- Exit returns to the Speaker setup menu

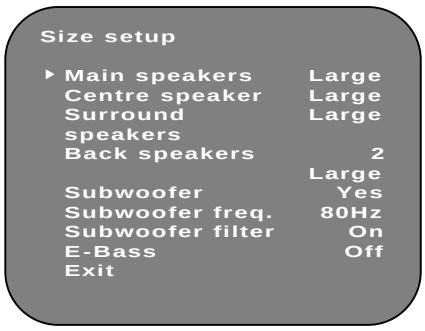
DISTANCE SETUP



The Distance setup menu is used to set the distance from the listener to each loudspeaker. The MXD6000 then calculates the amount that the sound should be delayed to each speaker in order to produce a clear and stable acoustic image.

- The speaker distances can be adjusted by pressing the LEFT (◄) and RIGHT (►) keys.
- Distances can be set in metres (the default setting) or feet using the Display setup menu on page 11.
- Distances can be set from 0 to 21.7m (71ft), but the maximum difference between the nearest and furthest speaker is 5.2m (17ft). A distance setting which exceeds the maximum difference will appear in red on the OSD
and the distance units (“m” or “ft”) will disappear.
- The Left and Right front speakers should normally be roughly the same distance from the listener. A warning appears on the OSD if the difference between the left front and right front delays exceeds 2ms (difference in distance exceeds 0.7m/2ft).
- The speaker delays are set in units of 1ms, which does not correspond to an exact distance in metres. You will therefore find that the distance will change in steps of 0.3 metres or 0.4 metres in the sequence 0,0.3, 0.7, 1.0.
- If any speaker has been set in the Speaker size menu (below) as being absent, then “None” will appear in place of the distance setting in this menu.
- Exit returns to the Speaker setup menu

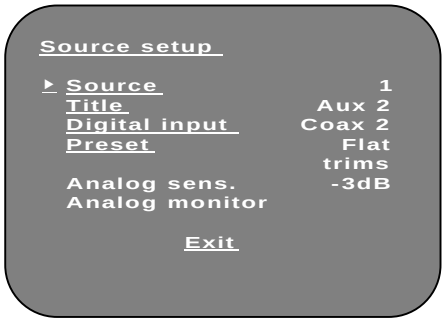
SIZE SETUP



The Size setup menu is used to set the presence or absence of each loudspeaker, to input its size and to set the bass crossover parameters.

- The speaker size setup menu defines which speakers can take full range low frequency signals as in the case of “Large” speakers. This menu also defines the subwoofer settings.
- The speakers that can take a full range signal are set to “Large”.
- The speakers that cannot take a full range signal are set to “Small”. The bass from these channels is redirected to front Large speakers or the subwoofer if present.
- If a speaker is not present (e.g. Centre) it should be set to “No”.
- If there is only one back speaker connected, select “1 Small” or “1 Large” as necessary. Connect the back speaker’s amplifier to the Left Back (LB) 7.1 channel line output.
- If a Subwoofer is present set “Subwoofer” to “Yes”. If no subwoofer, set to “No”.
- The subwoofer crossover frequency can be set between 40 Hz and 140 Hz in 10Hz steps. The crossover frequency defines the frequency below which the low frequencies from Small speakers are redirected to Large speakers and / or a subwoofer.
- The subwoofer filter can be bypassed (set to “Off”) if desired, so that the subwoofer’s own filter may be used instead.
- E-Bass duplicates the subwoofer information to both large speakers and the subwoofer. This may be desired in some cases to get more bass from the system.
- Exit returns to the Speaker setup menu

SOURCE SETUP



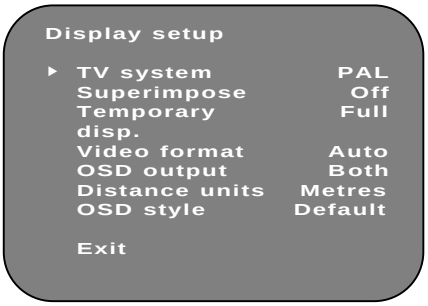
The Source setup menu specifies the parameters for each analogue source. This includes which digital input and preset setup is assigned to each source, the analogue input sensitivity and also the name of a source as it appears in the On Screen and Front Panel displays. In addition it is possible to monitor the incoming analogue signal level to aid setting the analogue sensitivity.

- When “Source” is selected the LEFT and RIGHT keys may be used to select which of the eight analogue sources is to be set up (Aux2, Aux1, SAT, VCR, TV, DVD, CD and Tuner. As the “Source” is changed the MXD6000 simultaneously selects the new source, so that the programme can be heard while it is being adjusted.
- When “Title” is selected the source Title may be edited. Press SEL and use the LEFT and RIGHT keys to choose which character is to be changed, and the UP and DOWN keys to change the character. When the editing is completed press SEL to store the new name. The table below lists the default names for all the sources and provides a column to enter any new names programmed.
- When “Digital input” is selected the LEFT and RIGHT keys may be used to select which of the six digital inputs is assigned to the source being set up. Enter details of which digital input is assigned to which source in the table on page 4. A digital input may be assigned to more than one source if desired.
- When “Preset” is selected, any of the five preset setups made in the “Audio setup” menu can be assigned to the selected source. When a preset setup is assigned, the tone settings replace the “default” tone settings from the Audio setup menu, but the level trims (Centre, Surround and Subwoofer only) are *added* to the existing speaker level settings (see Audio setup menu).
- The default level and tone settings can be retained by setting “Flat trims”.
- Alternatively “No change” may be selected for a source, which means that whichever tone and level settings were in use with the previous source will be retained.
- When “Analog. sens.” is selected, the input gain of the Analogue to Digital converter may be adjusted. The gain may be set from –5dB to +10dB. For CD players and other sources with a similar signal level, a setting of –3dB is recommended. This ensures an adequate overload margin – typically 3Vrms with a –3dB setting. If the signal source has a lower level, then the input gain may be set higher, up to +10dB, which will result in a reduced level of background noise. If distortion is encountered on loud signals with an analogue source, re-set the “Analog. sens.” to a lower level. You may use the “Analog monitor” mode (see below) to aid setting. The MXD6000 is supplied with all input sensitivities set to –3dB which should be suitable for most sources.
- “Analog monitor” mode is recommended for setting the analogue sensitivity with a source of unknown level. When it is selected a “bar-graph” appears on the OSD, with the heading “Input level monitoring”. The levels of the two stereo channels are shown on the bargraph to the right of the display. The current setting of the “Analog. Sens.” is shown on the left hand side of the display (marked “Gain”), together with the highest peak signal level encountered since entering analog monitor mode (marked “Peak”). First play some music which has high peak levels and see if the signal clips
- (i.e. exceeds 0dB). Then use the left and right keys to adjust the gain so that the signal never clips, but the signal peaks come within a few dB of “0” (recommended “Peak” reading of -3 to -2dB). Press the SEL key to accept the indicated “Gain” figure as the new analogue sensitity for this source. Or press EXIT to leave analog monitor mode without changing the “Analog. Sens.” setting. The “Peak” reading changes *pro rata* as the “Gain” is adjusted and is automatically reset when leaving analog monitor mode.
  The Analog Monitor can also be used to monitor digital signal input levels, but the input gain cannot be changed.
- Exit returns to the main menu.

Table for recording new source names.

Source Number	Original source name	New source name	Remote control	
			Key name	Key No.
1	AUX 2		AUX 2	3
2	AUX 1		AUX 1	2
3	SAT		SAT	1
4	VCR		VCR	6
5	TV		TV	5
6	DVD		DVD	4
7	CD		CD	9
8	TUNER		TUNER	8

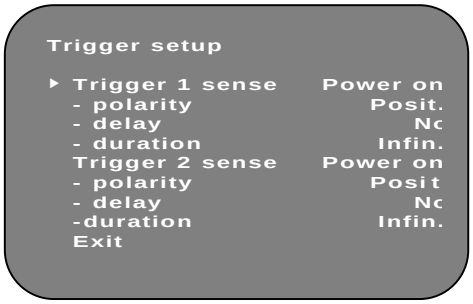
DISPLAY SETUP



The Display setup menu specifies the parameters for the On Screen Display.

- Select TV System to switch the OSD between NTSC and PAL to suit your TV monitor. This parameter only has an effect when there is a "blueback" display – when the monitor is not showing any video picture. During video playback the OSD automatically adopts the TV system of the incoming video signal.
- Superimpose allows the OSD menus either to replace the TV picture (Off), or be superimposed over it (On).
- During normal operation of the MXD6000, it is possible to have a "temporary" OSD appear for a few seconds every time any adjustment is made (or when the video or digital source signal changes). This is set using the "Temporary display" parameter which may be set to Full, Simple, or Off as desired. With the "Simple" setting most changes are shown in the bottom right corner of the screen.
- Dolby Digital movies carry a "Dialog Normalisation" parameter on the disc which ensures that movie dialogue is always presented at the same volume level, by adjusting the decoder gain if necessary. If the "Dial norm" parameter is set to other than its default value (-27dB) the MXD6000 briefly displays the difference in dB at the bottom right hand corner of the temporary display at the beginning of the movie – for example "Dial norm offset 2", or "Dial norm offset -1". If temporary display is set to "Simple" then only the "Dial norm" value will be displayed, and if set to "Off" no "Dial norm" is displayed.
- Video Format can be set to S-Video or Composite if only one type of video source is to be used. In the "Auto" setting, the MXD6000 automatically selects the best source present.
- The OSD output can be sent to the Composite, or S-Video Monitor outputs, or both, or it may be switched Off.
- "Distance units" is used to set the units used in the Speaker setup - distance menu to either metres or feet.
- "OSD style" changes the screen text colour and background colours when Superimpose is switched Off. The default setting is white text on a blue background.
- Exit returns to the main menu.

TRIGGER SETUP



The Trigger Setup specifies the parameters for the DC Trigger outputs (see page 5). Each of the trigger parameters may be set separately for "Trigger 1" which controls the TRIGGER 1 output and "Trigger 2" which controls the TRIGGER 2 and TRIGGER 3 outputs.

- "Trigger 1/2-sense" sets what activates the Trigger output. Set to Power On to activate the trigger when switching out of STANDBY (and de-activate it when returning to STANDBY). Alternatively the trigger output may be activated by any of the following: Dimmer, Compos. SVideo, VidSign, VidSrc, AudSrc, Zone On, Off, Aux2, Aux1, SAT, VCR, TV, DVD, CD, Tuner, Ext. 7.1.
- When "Dimmer" is chosen the trigger will be activated when the front panel display is dimmed using the remote control.
- When Compos. or SVideo is chosen the trigger will be activated if any source with an active composite or S-Video signal is selected.
- When VidSign. is chosen the trigger will be activated if a source with any active video signal is selected.
- When VidSrc. is chosen the trigger will be activated if an audio-video input is selected (Aux2, Aux1, SAT, VCR, TV or DVD).
- When AudSrc. is chosen the trigger will be activated if an audio input is selected (CD, Tuner or Ext. 7.1).
- When Zone On is chosen the trigger will be activated when Zone B is switched On.
- When Off is chosen the trigger output will be permanently inactive.
- If one the named inputs is chosen then the trigger will be activated only when that input is selected.
- "-polarity" sets the polarity of the trigger output. "Posit." gives a +12V DC output when the trigger is active and zero when inactive. "Negat." gives a +0V DC output when the trigger is active and +12V when inactive.
- "-delay" sets a delay between the "sense" signal and the trigger output voltage changing. The delay may be set to various times from 1 second to 3 minutes or to "No" which gives zero delay.
- "-duration" sets the period (duration) that the trigger output is active. The trigger duration may be set to various times from 10ms (milliseconds) to 3 minutes, or to "Infin." which keeps the trigger active all the time the "sense" condition prevails. Note: 10ms and 100ms pulses are also generated when the trigger becomes inactive. This allows them to be used for triggering, for example, on and off for pulse triggered power amplifiers.
- Exit returns to the main menu.

SYSTEM OPERATION WITH SMART MY-LINK®

When used as a linked system (e.g. with CD player, DVD player and Tuner), Myryad products with Smart My-Link®, have a number of extra features that make the system as a whole easier and quicker to use than a normal hi-fi. With the MXD6000 as system controller, the following with Smart My-Link® functions are available:

Start-on-Play (CD/DVD)
Press play on the CD/DVD player (or its remote control) and both the CD/DVD player and amplifier will switch out of standby (if necessary) and play the disc. The amplifier will automatically select the CD or DVD source as necessary.

Start-on-Open (CD/DVD)
With the units in standby, press open/close on the CD/DVD player and both the CD/DVD player and amplifier will switch out of standby and the disc drawer will open. The amplifier will automatically select the CD or DVD source as necessary.

Intelligent Input Selection (Amplifier)
Press a source select button on the remote control and the system will awaken (if in standby) only the amplifier and the selected source.

Automatic Switch-On (CD/DVD/Tuner)
If the standby button on the Tuner, CD or DVD player is pressed, the amplifier will also awaken (if in standby) and select the correct source.

USING THE MYRYAD A-V LEARNING REMOTE IN CD MODE

To switch the remote into CD mode press the CD “device” key at the top of the handset. In CD mode many of the keys still operate the MXD6000 functions as described previously. Only those whose function changes to control Myryad CD players are described below.

The CD Player keys carry out exactly the same functions as the identically named keys on the CD remote control handset supplied with your Myryad CD Player. Some of the keys on the CD handset controlling certain infrequently used functions have been omitted from the A-V Learning Remote Control so that it is more straightforward to use.

See below for key conversion table.

All the other keys continue to control the MXD6000 and operate exactly as described in the previous section.

A-V Learning Remote key	Myryad CD function
POWER	STANDBY
CH ▲	SKIP ►
CH ▼	SKIP ◄
▲ / PAUSE	PAUSE
▼ / STOP	STOP
◄ / REW	SCAN ◄
► / FF	SCAN ►
SEL / PLAY	PLAY
PRE. CH / ▲	OPEN/CLOSE (not all Myryad CD players)
0,1,2,3,4,5,6,7,8,9	0,1,2,3,4,5,6,7,8,9
+10 / DIM	DIM (display on/off)
FAV	SHUFFLE
INFO	TIME
NEXT	REPEAT

USING THE MYRYAD A-V LEARNING REMOTE IN DVD MODE

To switch the remote into DVD mode press the DVD “device” key at the top of the handset. The key allocations In DVD mode are not the same for all Myryad DVD players. Please consult your DVD player Owner’s Manual for details.

REPROGRAMMING THE MYRYAD A-V LEARNING REMOTE

Should you deliberately or accidentally erase or over-write the data stored for the AUDIO, CD or DVD modes, it can be recalled using the following procedures:

Audio mode:
1. Press the **AUD** device button at the top of your handset and the **MUTE** button simultaneously. **SET** will appear in the LCD display.
2. Enter the three digit code **0, 0, 1**. **S_001** will appear in the LCD display.
3. Press the **AUD** device button again and **PASS** will flash in the LCD display.
4. Check that the remote control now operates correctly in AUDIO mode, controlling your MXD6000. For instance, try the Volume Up and Down keys.

CD mode:
1. Press the **CD** device button at the top of your handset and the **MUTE** button simultaneously. **SET** will appear in the LCD display.
2. Enter the three digit code **0, 0, 1**. **S_001** will appear in the LCD display.
3. Press the **CD** device button again and **PASS** will flash in the LCD display.
4. Check that the remote control now operates correctly in CD mode, controlling your Myryad CD Player. For instance, put a disc in your CD player and press PLAY on the remote.

A similar procedure is used to program the DVD mode using the **DVD** device button. The code number required differs between Myryad DVD players. Please consult your DVD player Owner’s Manual for details.

INSTALLING AND REPLACING BATTERIES

The remote handset uses four 1.5 V type AAA batteries. To fit new batteries first open the battery compartment in the rear of the handset and remove any existing batteries. Fit the new ones as directed by the symbols printed inside the battery compartment, then replace the battery compartment cover. The batteries should always be removed if they are discharged (indicated by no remote control operation or by operation only at very short range).

ZONE B OPERATION

The MXD6000 can send to its “Zone B” outputs programme signals which are different from, and independent of, those sent to the Line outputs, power amps and speakers in the main room (known as the “main zone”). The Zone B signal source and volume level are selected independently from the main zone and the Zone B outputs remain present even when the main zone is switched to standby. The Zone B outputs carry stereo analogue audio plus composite video only.

The Zone B audio output can be selected from any of the eight analogue stereo sources (see page 3). Note: this does not include the Tape and 7.1 channel inputs. It is also not possible to send audio signals from digital sources (optical or coaxial) to the Zone B outputs.

The Zone B Composite Video output will be active when one of the composite video inputs is selected: AUX1, AUX2, SAT, VCR, TV or DVD and the relevant composite video source is present. Note: there will be no Zone B video output from any S-Video source.

SELECTION AND CONTROL OF ZONE B

To switch Zone B on and access Zone B control mode, the MXD6000 can be in standby or switched out of standby, but without the on-screen menu active:

- Press the ZONE button on the front panel. The front panel display will indicate “Zone B Off”.
- Immediately touch the standby ellipse and the MXD6000 will switch Zone B on and enter Zone B control mode. The front panel display will indicate the Zone B source and volume setting.

Whist in Zone B control mode the following operations are possible:

- Select Zone B source, using either the front panel or remote source? ? buttons, or the direct source selection keys on the remote control. The newly selected Zone B source will be shown on the front panel display. Tape and 7.1 channel sources cannot be sent to Zone B.
- Set Zone B volume using either the front panel rotary volume control or the remote volume ? ? keys. The Zone B volume setting will be shown on the front panel display.
- If the MUTE key on remote control is pressed, only the Zone B audio output will be muted. It will not affect the Zone B video signal – or the main zone audio.
- If Standby is pressed on the front panel or remote, Zone B will be switched off again and the MXD6000 will leave Zone B control mode.
- Any other command from the remote control will work normally (i.e. on the main zone), but will also immediately de-activate Zone B control mode.
- To re-enter Zone B control mode, press the ZONE button again. This will switch to Zone B control mode for 5 seconds, or until another Zone B command is received.

Exit Zone B control mode in any of the following ways:

- Press the front panel ZONE button again
- Use any command from the remote control other than source select, volume or mute keys
- Make no command from front panel or remote for more than 5 seconds

Once out of Zone B control mode, the MXD6000 will once again operate normally in “main zone mode”, but the selected Zone B source (audio and video) will continue to be sent to the Zone B outputs. When the MXD6000 (main zone) is switched into standby the front panel display will not extinguish, but will continue to display “Zone B On” and the Zone B outputs (audio and video) will remain active.

To switch Zone B off again, repeat the first two steps above. When the MXD6000 is switched out of standby (but not with the on-screen menu active):

- Press the ZONE button on the front panel to enter Zone B control mode. The front panel display will indicate the Zone B source and volume setting.
- Immediately touch the standby ellipse and the MXD6000 will switch Zone B off and leave Zone B control mode. The front panel display will indicate the main zone source and volume setting once more.

It is also possible to control Zone B with direct commands from the RS-232 bus input or using a programmable Infra-Red remote controller such as the Philips “Pronto” range. Details of the relevant codes for these operations may be found on the Myryad website www.myryad.co.uk.

TROUBLE-SHOOTING GUIDE –

to some of the most common problems

If a fault is detected switch the preamplifier into standby and the Power OFF at the rear before checking or changing cables or connections.

No sound:
- Power turned OFF or power cord disconnected. Check that the LED in the STANDBY button is illuminated.
- An inoperative input has been selected (e.g. CD input with no CD playing or TUNER input with the tuner switched off).
- An input has been selected with no source connected.
- TAPE input has been selected with no tape playing.
- UK version only: The fuse in the mains plug has failed. Check and replace if necessary.

No sound in one or more channels:
- A defective interconnect cable or cables.
- Interconnect cable loose or making poor contact. Check and, if necessary,un-plug and re-plug all relevant cables.
- Check speaker settings in speaker setup.

Loud buzz or hum:
- Interconnect cable pulled partially out of its socket.
- A defective interconnect cable or cables.
- Ground loop. Try disconnecting each source in turn.

Hum in tape playback
- Tape deck too close to the power amplifier (e.g. directly above or below).
- Plugs making poor contact with sockets.

Distortion when using analogue stereo audio inputs
- Analogue-to-Digital Converters overloaded. Reduce analogue input sensitivity (“Analog sens.”). Set “Analog sens. to a lower, or negative figure, or use the “Analog Monitor” feature to check the source signal level. See Source setup menu on page 10 for more details.

Digital input will not work with 24bit/96kHz sources, but works correctly with 48kHz sources
- Use a higher quality interconnect (coaxial or optical). 96kHz operation is very sensitive to the quality of the interconnection.

Remote control doesn’t work or works intermittently
- Remote codes have been over-written or corrupted. Reload device code page (see page 12 for details).
- Low batteries – indicated by “L_BAT” message in remote display, or by remote display dimming when a key is pressed. A new set of alkaline batteries should last for about 6 months of normal use. See SL-9000 Operating Manual for more details.

Sluggish response to commands
- Video source has a poor video signal.

Incorrect operation - some functions not working
- Control processor latched. Switch POWER off and wait for about one minute. Then switch POWER on. Normal operation should resume.

For further help please visit the Myryad website at:

http://www.myryad.co.uk

APPENDIX – DETAILS OF DECODING AND PROCESSING MODES

MODE	DETAILS
Dolby Digital 3/2.1	For decoding sources encoded in Dolby Digital and Dolby Digital Surround EX to produce up to 5.1-channel surround sound.
DTS 3/2.1	For decoding DTS 3/2.1 encoded sources to produce 5.1 channel surround sound.
Dolby Digital EX	For processing sources encoded in Dolby Digital Surround EX to produce 6.1- and 7.1- channel surround sound.
DTS-ES Matrix	For processing DTS-ES Matrix encoded sources to produce 6.1 or 7.1 channel surround sound.
DTS-ES Discrete	For decoding DTS-ES Discrete encoded sources to produce 6.1 or 7.1 channel surround sound.
DTS Neo:6 and DTS Neo:6 – Cinema	For processing DTS 3/2.1 encoded sources, or 2-channel movie sound sources to produce 6.1 or 7.1 channel surround sound.
DTS Neo:6 – Music	For processing 2-channel music sources to produce 6.1 or 7.1 channel surround sound.
Surround 6.1	Alternative option for processing Dolby Digital 3/2.1 and DTS 3/2.1 encoded sources to produce 6.1 or 7.1 channel surround sound.
Mono	Down-mixes any source to produce a single output channel.
Stereo	For playing any stereo sources directly, or down-mixing any source to play through only two loudspeakers. Analogue stereo sources sampled at 48kHz.
Stereo96	For use with stereo analogue sources only. The signal is sampled at 96kHz to produce the highest sound quality with wide bandwidth. No processing possible (includes no tone controls, or CineEq). Only Stereo and Mono modes are available.
Dolby Pro Logic	For processing sources encoded in Dolby Surround to produce 5.1-channel surround sound.
Dolby Pro Logic II – Movie	For processing sources encoded in Dolby Surround to produce 5.1-channel surround sound. Produces two separate surround channels (LS and RS are different).
Dolby Pro Logic II – Music	For processing 2-channel music or other sources to produce 5.1 channel surround sound
Natural	For processing 2-channel music or other sources to produce 5.1 channel surround sound
Party	For processing 2-channel music or other sources to produce 5.1 channel surround sound with surround channels carrying the same signals as Left and Right front channels, so that listeners anywhere in a crowded room can hear all the music.

SPECIFICATIONS

All specifications ref. 1Vrms output and 0dBfs digital or 2Vrms analogue input, analogue input sensitivity 0dB, volume setting -3dB, except where stated.

STEREO ANALOGUE INPUTS		
Input level		2 Vrms
Input impedance		17 kΩ / 100pF
Maximum input level (input sensitivity –5dB)		4 Vrms
STEREO ANALOGUE OUTPUTS (Tape REC and Record outputs)		
Output level		2 Vrms (same as input)
Output impedance	**Tape REC**	500 Ω
	Record outputs	60 Ω
7.1 CHANNEL ANALOGUE INPUTS		
Input level		1 Vrms
Input impedance		17 kΩ / 100pF
Maximum input level		8 Vrms
7.1 CHANNEL LINE OUTPUTS		
Output level		1 Vrms
Output impedance		60Ω
Total Harmonic Distortion	**Stereo source**	0.02 %
	7.1 Channel source	0.003 %
Signal-to-noise ratio (A weighted, analogue sources)	**Stereo source**	92 dB
	7.1 Channel source	98 dB
Signal-to-noise ratio (A weighted, digital PCM source)		98 dB
Maximum output level		8 Vrms
PHYSICAL SPECIFICATIONS		
Dimensions (width x height x depth)		436 x 95 x 343 mm
Weight		Net 7.5 kg
Voltage (automatic setting)		100 to 240 V

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