MXD7000

Digital Preamplifier Processor

Owner's Manual

MX

MYRYAD

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INTRODUCTION

The Myryad MXD7000 Digital Preamplifier-Processor has been designed to offer a combination of high quality audio and video performance with simple yet elegant styling. The MXD7000 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 MXD7000 can decode a wide variety of discrete surround material using a range of decode processes including Dolby Digital[1], Dolby Digital Surround EX[1], Dolby Pro Logic IIx[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 with minimal further processing. The 7.1 channel input is equipped with comprehensive volume control facilities and ensures that the MXD7000 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 MXD7000 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], Dolby Pro Logic IIx[1], DTS Neo:6 [2], and two proprietary music modes: Natural, and Party.

The MXD7000 can accept up to seven digital input sources, ten line-level input sources (one of which can be balanced), plus a tape loop and two additional record outputs. It has six composite and S-Video inputs, three component video inputs, composite, S-Video and component monitor outputs, composite and S-video record outputs and composite and 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 MXD7000 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 MXD7000 and connect, for example, a high quality stereo source to the Left and Right channels of the 7.1 channel input.

The MXD7000 provides 7.1 channel line outputs plus four further line outputs: two user programmable channels, one infra-bass (for shaker etc.) and one extra subwoofer output (duplicates main sub output) – allowing systems up to 9.3 channels to be configured. In addition, fully balanced outputs on XLR connectors are provided for the main 7.1 channels.

The MXD7000 is supplied with a comprehensive learning remote control handset which is pre-programmed to control the MXD7000 and other Myryad products. In addition to the MXD7000 it can also control up to 18 other products using a combination of the pre-programmed Myryad codes and either code sets from the Universal database, 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 two Xantech-compatible IR inputs, 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 MXD7000 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

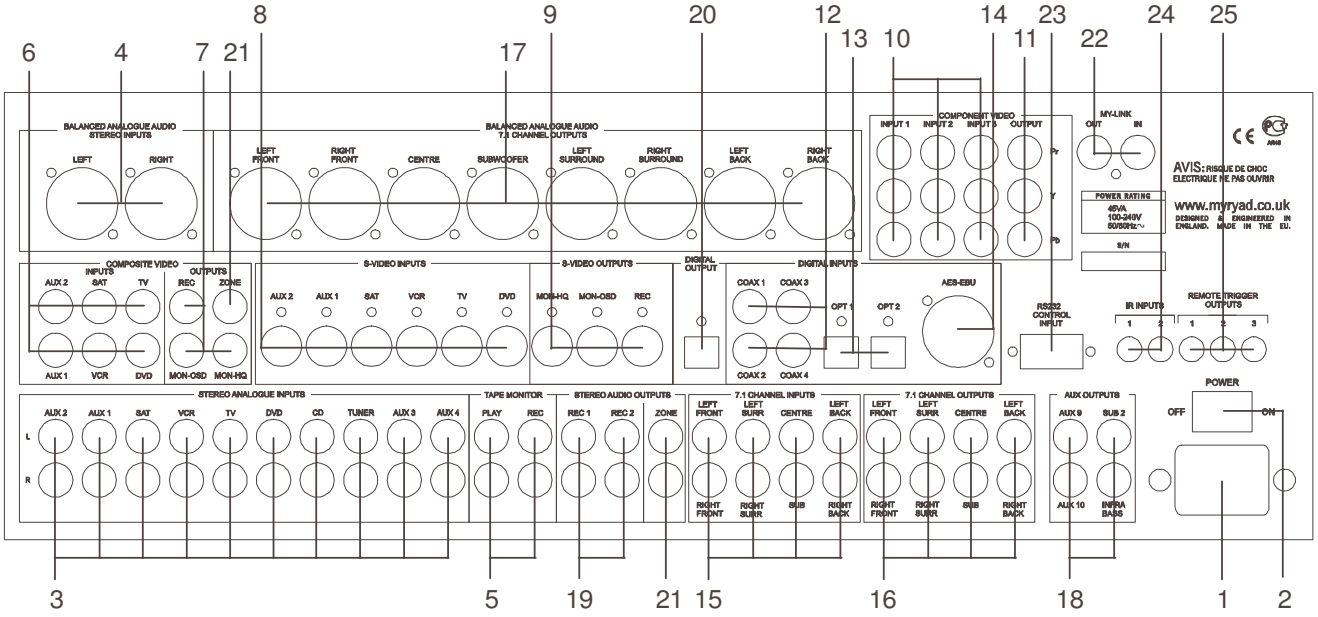
Your MXD7000 is supplied complete with the following accessories:

- Separate mains power cord to suit country of purchase.
- Home Theater Master MX-700 Remote Control handset pre-programmed with Myryad remote codes
- Four AAA batteries for handset
- MX-700 "Simple" Guide
- MX-700 "MX Editor" Manual and Software on CD-ROM
- Serial cable, D9 female to 3.5mm male plug for programming remote

1. Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", "Pro Logic II", "Pro Logic IIx", "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 MXD7000 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 MXD7000). ALL EQUIPMENT BEING CONNECTED TO THE MXD7000, 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 MXD7000 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 MXD7000 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 MXD7000 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 MXD7000 will power up in standby mode (see FRONT PANEL CONTROLS, Standby on page 7).

It is recommended that the POWER switch is turned OFF if the MXD7000 is not going to be used for an extended period of time.

CAUTION: ALWAYS SWITCH THE MXD7000 TO STANDBY BEFORE SWITCHING THE POWER OFF, TO AVOID LOUD NOISES THROUGH THE LOUDSPEAKERS.

3. Analogue stereo inputs (unbalanced)

Connect the analogue audio output cables of the appropriate devices to these sockets. Always connect these inputs, even if 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 and Zone outputs.

The signal from the 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/IIx, 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. Analogue stereo inputs (balanced

Connect balanced audio output cables, fitted with “XLR” connectors, from any balanced analogue source to these sockets.

The balanced input must be assigned to one of the analogue stereo inputs in the “Source setup” menu and will disable the unbalanced input connectors for that source. The signals are normally fed to the A-D converter for processing in the same way as the unbalanced stereo inputs, but there is also a “Bypass” mode which sends the balanced input signals direct to the left and right balanced outputs, avoiding the DSP section, for best sound quality.

Note: in bypass mode, the balanced inputs signals are fed only to the balanced outputs, not to the unbalanced (RCA) outputs, so bypass mode is only available when the balanced outputs are used.

5. 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 MXD7000 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.

6. 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 and to the ZONE video output. On Screen Display information is added to the monitor (MON) output.

7. 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 "MON-OSD" monitor output. The On Screen Display (OSD) information is present on this output only. You can also use the "MON-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 "MON-OSD" output using the Display setup menu. Alternatively you can connect your display device to the "MON-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.

8. 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 MON-OSD output for displays which do not have S-Video inputs.

9. 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-OSD 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.

10. Component video inputs

Connect the component video output cables from your video sources to these inputs (three RCA cables per source). The component video inputs may be assigned to any source via the Source setup menu.

Component signals are of higher quality than composite or S-Video signals. Therefore if your source devices have component outputs it is recommended that you use them, together with the component video inputs on your display. Component video sources are not mixed down to S-Video or composite, so there will be no signal on these outputs, unless there is also an S-video or composite input connection from the selected source.

The component video input-output path is a direct high-quality signal path – fully capable of carrying High Definition TV signals without degradation.

Component video connectors are usually marked "Y/Pb/Pr" or "Y/U/V" and are colour-coded green, blue and red respectively.

11. Component video outputs

Connect these outputs to the component video inputs of your display device (TV). Any source selected which has been set up for a component input will be sent directly to these outputs. In addition, any composite or S-video source may be "up-converted" to component video so that only a single component video connection to the TV is necessary (see Source setup menu for details of up-conversion assignment).

12. Coaxial digital audio inputs

Connect the coaxial digital output cables from 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 MXD7000 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	
AES/EBU	-	

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 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.

13. 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 MXD7000 is supplied set up as shown in the table above.

Note: The "SPDIF" digital interface is 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.

14. AES/EBU digital audio input

Connect the XLR Digital cable from an AES/EBU digital source (e.g. CD or DVD player) to this input. It can be freely assigned to any analogue audio or audio-video source, but the MXD7000 is supplied un-assigned as shown in the table above.

15. 7.1 Channel inputs (Left Front, Right Front, Left Surround, Right Surround, Centre, Subwoofer, Left Back and Right Back)

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 MXD7000 (use Left Front and Right Front for a stereo source). The record outputs are not active when the 7.1 channel input is selected.

16 7.1 Channel outputs – unbalanced (Left Front, Right Front, Left Surround, Right Surround, Centre, Subwoofer, Left Back and Right Back)

Connect these outputs to the unbalanced (RCA) 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.
Note: a "bypassed" balanced analogue audio input cannot be heard from the unbalanced outputs.

17 7.1 Channel outputs – balanced (Left Front, Right Front, Centre, Subwoofer, Left Surround, Right Surround, Left Back and Right Back)

Connect these outputs to the balanced (XLR) line inputs of suitable power amplifier(s). 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.

These outputs carry exactly the same signals as the unbalanced 7.1 channel outputs, except that a bypassed balanced analogue audio input can only be heard from the balanced left and right front outputs.

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

18. Aux outputs (unbalanced)

The MXD7000 has four additional unbalanced line outputs, two of which are programmable for a wide variety of applications.

The SUB2 output duplicates the main SUB output for the connection of a second main subwoofer.

The INFRA BASS output is designed to feed tactile transducers (e.g. floor shakers) for enhanced reproduction of special effects. It is a low-pass filtered version of the main SUB output and delivers signals below 20Hz only.

The AUX 9 and AUX 10 outputs are fully programmable in mix, level and delay – described in detail in the section on the Speaker setup menu. They may be used for various applications including extra side speakers, front speakers, overhead speakers, stereo subwoofers, a mono feed to a second room and many more.

Note: AUX 9 and AUX 10 outputs are not available in "Stereo96" mode or when receiving 96kHz sample rate signals.

19. Record 1 & 2 outputs

The REC outputs carry the signal from whichever ANALOGUE stereo source device is currently selected (except sources connected to the TAPE PLAY input, the 7.1 CHANNEL input, or the BALANCED 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.

20. 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.

21. Zone B audio and composite video outputs

These connectors carry the stereo analogue audio and composite video signals selected for Zone B. The MXD7000 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 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 18 for full details of how the second Zone operates.

Tables summarising available input/output connections and signal routing

Audio input/output	Main 7.1 outputs	Balanced 7.1 outputs	Record 1 & 2 outputs	Tape monitor rec output	Digital outputs	Zone audio output
	Available from					
Unbalanced analogue inputs	Yes	Yes	Yes	Yes	No	Yes
Balanced in - normal (DSP)	Yes	Yes	Yes	Yes	No	Yes
Balanced in - bypass	No	Yes	No	No	No	No
Tape monitor in (play)	Yes	Yes	No	No	No	No
Digital inputs	Yes	Yes	No	No	Yes	No
7.1 channel analogue inputs	Yes	Yes	No	No	No	No

Note: The Aux outputs access the same sources ad the main (unbalanced) outputs.

Video input/output	Composite video outputs	S-video outputs	Component video output	Composite video rec out	S-Video rec output	Zone video output
	Available from					
Composite video in	Yes	No	Yes [2]	Yes	No	Yes
S-video in	Yes [1]	Yes	Yes [2]	No	Yes	No
Component video in	No	No	Yes	No	No	No

Notes:
1 = Available at composite video "MON-OSD" output. Not available at composite MON-HQ output
2 = Available when up-conversion is chosen in the Source setup menu

22. Smart My-Link® input/output

When the MXD7000 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 MXD7000 should be connected to the My-Link input of the next product and its My-Link output connected to the My-Link input of the next and so on in "daisy-chain" fashion. This inter-linking provides four main benefits.

Firstly, when the MXD7000 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 MXD7000 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.

Thirdly, when linked to other Myryad Smart My-Link® equipped products, more powerful system features are available (see "System Operation with Smart My-Link® on page 16).

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.

23. RS 232 control interface

You can connect the MXD7000 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.

24. IR remote inputs

These two 3.5mm jacks accept remote control signals relayed from remote IR receivers or sensors. Using a remote IR sensor allows the MXD7000 to be controlled when installed in a cabinet with closed doors, or even from another room.

The IR inputs are compatible with Xantech IR repeater products – for example the 291 series IR sensor via the CB12 connecting block.

If it is recommended that the MXD7000 and any remote sensors are positioned such that the two cannot receive IR signals from the remote handset at the same time, otherwise the MXD7000 may not respond correctly to some commands.

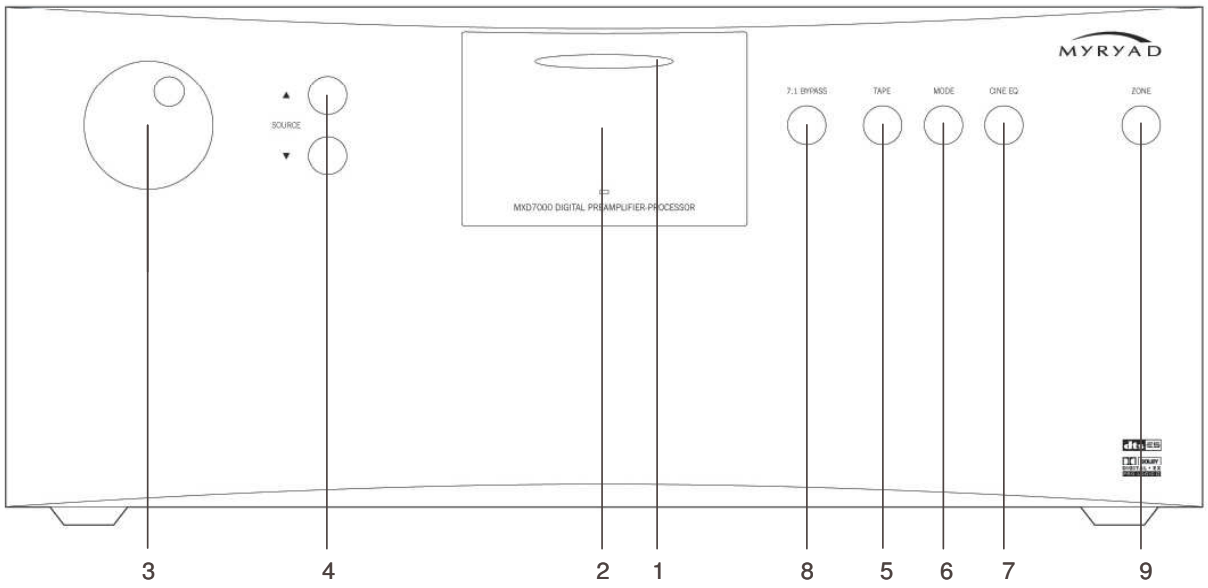
25. Remote trigger outputs – 1, 2 and 3

You can connect the DC trigger inputs of any audio or other equipment to these TRIGGER outputs using 3.5mm jack plugs. The TRIGGER outputs may be activated when the MXD7000 is switched out of STANDBY and turned off again immediately when the MXD7000 is switched back into STANDBY. The TRIGGER outputs may be programmed to be activated under other conditions (see Trigger setup menu section, page 15).

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 MXD7000 Powering-up” after about 3 seconds. This display will remain for 5 seconds before the display goes blank and the LED (Light Emitting Diode) in the display glows red. The MXD7000 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 MXD7000 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 ellipse is touched again the preamplifier will be returned to standby mode, the display will briefly read “Myryad MXD7000 Shutting down” and the LED in the display will glow red again.

CAUTION: always switch the MXD7000 to STANDBY before switching the POWER off at the rear to save control settings and to avoid loud noises through the loudspeakers.

CAUTION: WHEN IN STANDBY MODE THE INTERNAL CIRCUITRY OF THE MXD7000 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 MXD7000 – 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 MXD7000 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 and the Aux 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 MXD7000 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.

When an input is selected, the MXD7000 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 MXD7000, 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 (in 6.1 or 7.1 systems - with one or two back speakers assigned[1])
Dolby Digital 3/2.1	**Direct, , Dolby Pro Logic IIx Movie[2], Dolby Pro Logic IIx Music, Dolby Digital EX, Surround 6.1, Mono, Stereo**
Dolby Digital Surround EX	**Direct, , Dolby Pro Logic IIx Movie[2], Dolby Pro Logic IIx Music, 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 IIx Movie[2], Dolby Pro Logic IIx Music, DTS Neo:6 Cinema, DTS Neo:6 Music, Natural, Party, Mono**
PCM (up to 48kHz sampling)	**Stereo, Dolby Pro Logic, Dolby Pro Logic IIx Movie[2], Dolby Pro Logic IIx 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 IIx Movie[2], Dolby Pro Logic IIx Music, DTS Neo:6 Cinema, DTS Neo:6 Music, Natural, Party, Mono**

Notes:
1. In 5.1 channel systems (no back speakers) Dolby Pro Logic IIx and Dolby Digital EX are not available. With 2 channel sources (DD 2/0, PCM or analogue stereo), Dolby Pro Logic II is available in place of IIx.
2. Dolby Pro Logic IIx "Movie" mode is only available when two back speakers are present. When there is one back speaker, only "Music" mode may be selected in Dolby Pro Logic IIx.

When the "Direct" MODE is chosen, the signal source is decoded in the expected way without further processing– for example DTS 3/2.1 material will be processed using DTS 3/2.1 decoding. The MXD7000 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 MXD7000 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 MXD7000 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**	
Dolby Pro Logic	**L / R / C / LS / RS**	
Dolby Pro Logic II Movie/Music	**L / R / C / LS / RS**	
Dolby Pro Logic IIx Movie/Music	**L / R / C / LS / RS / LB / RB**	(back channel information is in stereo)
Dolby Digital EX	**L / R / C / LS / RS / LB / RB**	(back channel information is in mono))
DTS 3/2.1	**L / R / C / LS / RS**	
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**	
Natural / Party	**L / R / C / LS / RS**	

More details of the various decoding and processing modes are given in the Appendix on page 19. Details of how to make adjustments to the processing parameters in Dolby Pro Logic II/IIx Music mode can be found in the Audio setup menu section on page 12.

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

- There is limited digital processing of 96kHz sample rate signals. Subwoofer output can be obtained using the E-BASS mode as usual and the tone controls also operate normally, but there is no surround processing, no Aux9/10 outputs and no CineEq available.
- The MXD7000 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 with “CineEQ On” on 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 MXD7000 provides a pure analogue bypass input for any mono, stereo or multi-channel source. 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 MXD7000 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 MXD7000 will automatically drop out of Zone B control mode 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 18 for full details of how the second Zone operates.

REMOTE CONTROL HANDSET OPERATION

The MXD7000 is supplied with the Home Theater Master MX-700 Remote Control handset from Universal Remote Control Inc. (www.universalremote.com). It will control not only your MXD7000, but also Myryad CD players, Tuners and DVD players – and other Myryad preamplifiers and integrated amplifiers.

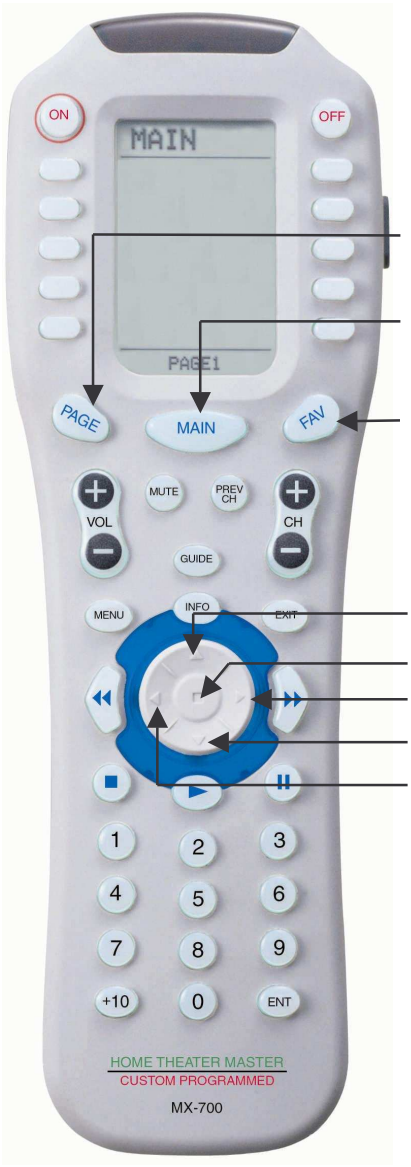
The MX-700 handset is a very powerful and flexible remote. Apart from controlling the Myryad products mentioned above, it can also control up to 15 further products (e.g. VCR, TV, Set-Top box etc.) – either by calling up pre-programmed code sets from Universal’s database, or by “learning” from an existing remote.

Fully detailed instructions for the programming the MX-700 are in the “MXEditor Reference Manual” and the MXEditor software, both on the CD-ROM supplied with the MXD7000.

To control Myryad products the handset must be set to AUDIO, ZONEB, DVD, CD or TUNER mode. First press the “MAIN” key to bring up the MAIN Menu, and then press the relevant soft key at the top of the handset to select the appropriate “device”. AUDIO is used for operating the MXD7000 (or Myryad integrated amplifiers or preamplifiers) and ZONEB for controlling the MXD7000’s second zone.

The picture below shows the MX-700 set to MAIN page 1. The screen is shown blank as its contents will depend upon how the handset has been programmed by your installer or yourself. However, the default “MAIN” programming as supplied by Myryad is:

AUDIO	ZONEB
DVD	TUNER
CD	



PAGE – switches between screen pages for a particular device

MAIN – selects the MAIN page(s) for device selection

FAV – this page can be programmed with “favourite” shortcut commands – e.g. to change to a specific channel on TV or satellite.

Menu navigation commands:

UP

SELECT

RIGHT

DOWN

LEFT

The white keys on either side of the screen (five each side) are used to select the device pages shown on the screen. They are called “soft” keys because their function varies with different screen pages.

The MX-700 can be programmed with two MAIN pages – allowing for up to 20 different devices.

The other keys are called “hard” keys because their primary functions are printed on them. All are programmable except PAGE, MAIN and FAV.

As supplied by Myryad, the hard keys on the MAIN page are not programmed for any function. They are left for the installer or user to program as required.

All the other devices (AUDIO, ZONEB, DVD, CD, and TUNER) are fully programmed with soft and hard keys. Details are given on the following two pages for remote control of the MXD7000 using AUDIO and ZONEB modes.

Control of other Myryad products using DVD, CD, and TUNER device modes are described on pages 16-17.

REMOTE CONTROL OF THE MXD7000 AND MYRYAD AMPLIFIERS (AUDIO and ZONEB)

The AUDIO commands will also control other Myryad preamplifiers and integrated amplifiers.

Hard keys
The hard keys are listed in order, from left to right and from the top of the handset down. All the hard keys have exactly the same function in both AUDIO and ZONEB modes.

Those keys sending DVD player commands will operate most Myryad DVD players, but not those from other manufacturers.

ON
This key switches the unit out of standby. If the unit is already on, it has no effect.

OFF
This key switches the unit into standby. If the unit is already in standby, it has no effect.

VOL + and -
Pressing one of the VOL **+** 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 VOL **+** 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.

MUTE
Pressing the MUTE key on the handset will engage mute mode and all the MXD7000's 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.

Discrete mute commands are available on AUDIO page 3 soft keys.

PREV CH (DVD function)
This key sends the DVD OPEN/CLOSE command.

CH + and - (DVD functions)
These keys skip to the next or previous chapter/track respectively.

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.

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 by pressing MENU key again.

INFO
This key has no function when the remote is in AUDIO or ZONEB mode.

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

▼,▲,◀ , ▶ (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.

■ (select - in centre of navigation keys)
This key is used to select menu items in setup mode. Pressing once selects the desired menu or sub-menu.

◀◀ and ▶▶ (DVD functions)
These keys send the DVD fast reverse and fast forward (scan) commands.

■ (stop)
This key sends the DVD stop command.

▶ (play)
This key sends the DVD play command.

→ (pause)
This key sends the DVD pause command.

1 – 9 and 0 (number keys)
These keys send DVD number commands to select chapter/track number or enter data.

+10 and ENT
These keys have no function when the remote is in AUDIO or ZONEB mode.

Soft keys
There are three pages of soft keys for AUDIO and two pages for ZONEB. The soft key functions are described below.

AUDIO page 1

AUX2	AUX1
SAT	VCR
TV	DVD
CD	TUNER
AUX3	AUX4

AUX 2, SAT, TV, CD, AUX3, AUX 1, VCR, DVD, TUNER and AUX4
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.

AUDIO page 2

TAPE	7.1CH
MODE-	MODE+
COMP	CINEQ
TEST	EBASS
SUB-	SUB+

TAPE
The TAPE key operates in exactly the same way as the TAPE button on the front panel. 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.

7.1 CH
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.

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.

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.

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

TEST
This key switches on the Noise Test signal when in 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 the menu navigation keys to select the desired channel and adjust its level. When a channel's level is changed the noise signal will immediately switch to that channel and remain there until the TEST key is pressed again, which re-starts the noise cycling. Pressing TEST whilst the noise is cycling will switch off the noise test signal.

E-BASS
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 13) and to the subwoofer channel, thus allowing greater bass output when full range main loudspeakers are employed.

SUB - and +
These keys allow temporary adjustment of the Subwoofer level (not stored in memory). This temporary trim level is shown briefly in the bottom right hand corner of the OSD and in the front panel display.

AUDIO page 3

SRCE-	SRCE+
DIM	SBY+-
MU ON	MUOFF
TP ON	TPOFF

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

DIM
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.

SBY+-
This key sends a standby “toggle” command, duplicating the function of the front panel standby ellipse. It is useful for some earlier Myryad preamps and integrateds which may not respond to the discrete On and Off commands.

MU ON and MUOFF
These keys provide discrete mute control – sending mute on and mute off commands. When the MXD7000 is muted, mute on has no effect and when it is not muted, mute off has no effect.

TP ON and TPOFF
These keys provide discrete tape monitor control – sending tape monitor on and tape monitor off commands. Operation is similar to the discrete mute commands above.

ZONEB Hard keys
All the ZONEB hard keys have exactly the same function as in AUDIO mode. Operation of Zone B is described in more detail in “Selection and Control of Zone B” section on page 18.

ZONEB Soft keys
The Zone B soft keys allow direct control of all Zone B functions from the remote, without the necessity of pressing the front panel ZONE button.

Note: Zone B must be switched on before the other Zone B commands can be used.

When a Zone B command is received the front panel display will show the Zone B status (Zone B source and volume) for about 5 seconds, before reverting to the main zone display.

ZONEB page 1

AUX2	AUX1
SAT	VCR
TV	DVD
CD	TUNER
AUX3	AUX4

AUX 2, SAT, TV, CD, AUX3, AUX 1, VCR, DVD, TUNER and AUX4
These keys select the source to be sent to the Zone B outputs (stereo analogue audio and composite video only). They have no effect on the source being sent to the main zone.

ZONEB page 2

Z ON	Z OFF
MU ON	VOL+
MUOFF	VOL-

Z ON
This key switches Zone B on. If Zone B is already on, it has no effect. Zone B must be switched on before the other Zone B commands can be used.

Z OFF
This key switches Zone B off. If Zone B is already off, it has no effect.

MU ON and MUOFF
These keys provide discrete control of zone muting – sending zone mute on and mute off commands. When Zone B is muted, mute on has no effect and when it is not muted, mute off has no effect.

VOL+ and VOL-
These keys adjust the Zone B volume level. They have no effect on main zone volume.

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 control. 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).

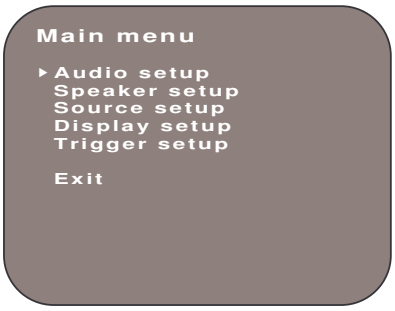
The UP (▲) and DOWN (▼) keys are used to move the cursor within the menu to highlight a sub-menu or function to be adjusted. To select a sub-menu press the select (■) key in the middle of the cursor keys. The functions are adjusted using LEFT (◄) and RIGHT (►) keys.

Whilst within the menu system most other controls, including volume and input selection, will not function, but the MUTE key remains active.

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 select key.

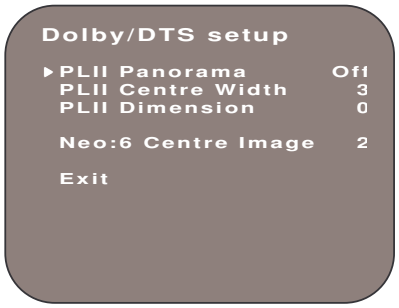
- Audio setup: Dolby Pro Logic II/IIx and DTS Neo:6 (music modes) setup, preset setups, bass/treble tone controls, and LFE level
- Speaker setup includes speaker levels, distances and sizes (bass management) and also programming of the Aux 9 and Aux 10 outputs
- Source setup defines source-related parameters and the assignment of the Balanced analogue input
- 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 Dolby Pro Logic II/IIx and DTS Neo:6 Music mode parameters, bass and treble tone controls, and LFE channel level. It also allows access to the preset setup menus.

- 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).
- Select “Tone controls” to enter the tone controls sub-menu (see below).
- 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.
- 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/IIx Music mode and DTS Neo:6 Music mode. In 5.1 channel systems (no back speakers) these parameters apply to Dolby Pro Logic II Music mode parameters. In 6.1 and 7.1 channel systems (one or two back speakers) they apply to Dolby Pro Logic IIx Music mode.

- Dolby Pro Logic II panorama, centre width and dimension settings allow adjustment of Dolby Pro Logic II/IIx parameters. These are effective in Dolby Pro Logic II/IIX 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 MXD7000, 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.

In addition a “Lipsync” audio delay can be added, from zero to 150ms in 1ms steps. This delay is primarily intended for use when a video processor or scaler is in use (which may be within a TV monitor or projector). The video processing will produce a delay in the video signal which results in the audio appearing before the video – leaving spoken words “out-of-sync” with lip movements. In the MXD7000 the audio signal can be delayed, by up to 150ms, to correct for this error and leave the audio and video in sync once more. Some DVDs have the video delayed with respect to the audio and this too can be corrected using the MXD7000’s lipsync audio delay. We would recommend this to be set as a temporary adjustment (see below) as the required delay will vary between discs.

Note: with 96kHz data rate digital sources and in Stereo96 mode, the lipsync delay range is reduced to 0 - 75ms. If a delay has already been set greater than 75ms (with a 48kHz source), the delay will automatically be reduced to 75ms if the source is changed to 96kHz, or Stereo96 mode is selected.

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” menu). 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.

Whilst within the preset setup menu, any adjustment is immediately applied to the audio signal and will remain in place until either a different preset or a different source is selected – even if the preset is not assigned to the currently selected source. The preset setup menu can therefore be used for making temporary adjustments to the relevant parameters.

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

TONE CONTROLS

The MXD7000 has advanced tone controls, which allow the user to set the turnover frequencies for the bass and treble controls, so that the tone adjustment can control more or less of the audio range as desired.

- Bass level can be adjusted between a 12 dB cut (-12 dB) and a 12 dB boost (+12 dB), in 1dB steps.

- Bass slope (turnover frequency) can be set to 80Hz, 110Hz or 140Hz (default 80Hz)
- Treble level can be adjusted between a 12dB cut and a 12 dB boost, in 1dB steps.
- Treble slope (turnover frequency) can be set to 6kHz, 8kHHz or 10kHz (default 6kHz)

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.
- Aux channel setup – to set the parameters for the programmable output channels, Aux 9 and Aux 10.
- Exit returns to the main menu

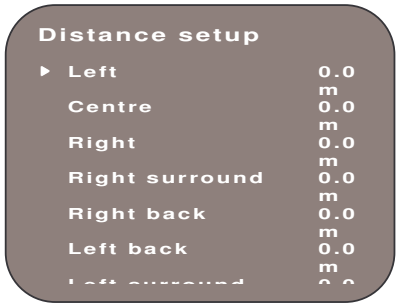
LEVEL SETUP

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

To activate the “noise” test signal for setting speaker levels, press the TEST key on the remote control (see remote operation section for more details).

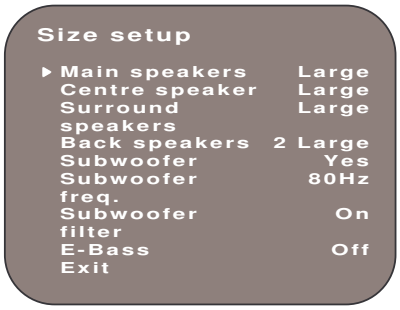
DISTANCE SETUP



The Distance setup menu is used to set the distance from the listener to each loudspeaker. The MXD7000 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 15.
- 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 distances are set in units of 1 foot, 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

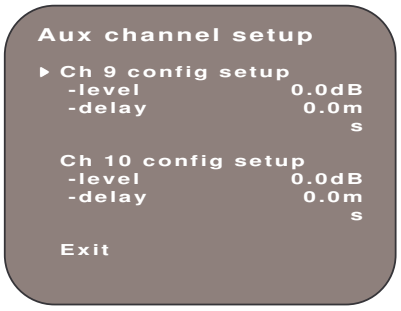
SIZE SETUP



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.

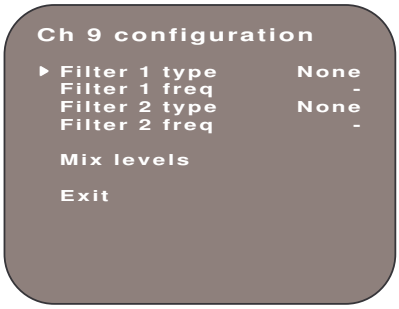
- The speaker size setup menu defines which speakers can take full range low frequency signals as in the case of “Large” speakers. This menu also defines the subwoofer settings.
- The speakers that can take a full range signal are set to “Large”.
- The speakers that cannot take a full range signal are 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 20 Hz and 200 Hz in 5 Hz 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 low-pass 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

AUX CHANNEL SETUP



Programming of the channels Aux 9 and Aux 10 is carried out using the Aux channel setup menu (above) and two sub-menus for each channel shown below. The two sub-menus are identical for Aux 9 and Aux 10, so only Aux 9 menus are shown

If “Ch 9 config setup” is selected from the Aux channel setup menu, the Ch 9 configuration menu will appear.



If “Mix level” is selected from the Ch 9 configuration menu, the Ch 9 mix level menu will appear.

The programming of the Aux channels is best described by going through these menus in reverse order.

The mix levels menu allows signals from any or all of 6.1 input signal channels to be mixed in any proportion. The amount of each channel mixed to Aux can be set from +100% through zero (default level) to -100% (full level but 180° out of phase).

This mixed-down signal is then passed through two filters which are set up in the configuration menu. Filter 1 and Filter 2 can each can each be set up as follows:

- Each filter can be set to None (no filtering), Low pass (passes only signals below the specified frequency), or High pass (passes only signals above the specified frequency)
- Low pass filters can be set to frequencies in the range 20Hz to 18kHz
- High pass filters can be set to frequencies in the range 20Hz to 1kHz

Any combination of filters may be used, including two of the same type, to produce the desired effect.

After filtering, the signal is then passed to a delay, and finally a level control. The delay (0 to 80ms in 1ms steps) and level (-15dB to +15dB in 0.5dB steps) for both channels are set in the Aux channel setup menu.

Examples of some possible Aux channel setups are:

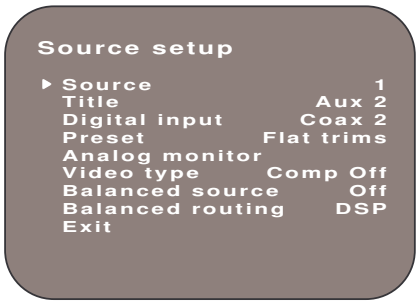
Rear channel subwoofer
50% Back, 25% Left surr, 25% Right surr plus low-pass filtering and delay as necessary.

Mono channel for adjacent room
100% Centre, 50% Left, 50% Right, 25% Left surr, 25% Right Surr, 50% Back

Extra side speakers
Left: 10% Left, 100% Left Surround
Right: 10% Right, 100% Right Surround

In each case add delay and filtering as necessary/desired.

SOURCE SETUP



The Source setup menu specifies the parameters for each analogue source. This includes which digital input, preset setup and component video input/up-conversion is assigned to each source 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 and set the analogue input sensitivity and to set up the Balanced input (which is actually a “global” setting).

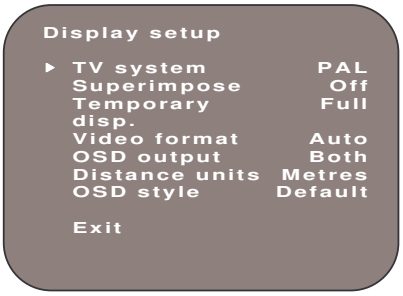
- When “Source” is selected the LEFT and RIGHT keys may be used to select which of the eight analogue sources is to be set up (Aux2, Aux1, SAT, VCR, TV, DVD, CD, Tuner, Aux 3 and Aux 4. As the “Source” is changed the MXD7000 simultaneously selects the new source, so that the programme can be heard while it is being adjusted.
- When “Title” is selected the source Title may be edited. Press select 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 select 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 seven 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).
- 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.
- “Analog monitor” mode is used to adjust the input sensitivity (gain) of the analogue stereo inputs to guard against overload – and to allow the gain of lower level sources to be increased. 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 Gain setting of the current source is shown on the left hand side of the display, together with the highest Peak signal level encountered since entering analog monitor mode.
  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 passages with an analogue source, re-set the gain to a lower level. The MXD7000 is supplied with all input sensitivities set to –3dB which should be suitable for most sources.
  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 -3dB to -2dB). Press the select 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 (stereo PCM only), but the input gain cannot be changed.
- “Video type” is used to select which video source is to be sent to the Component video output - chosen from Off (no component output), Comp1, Comp2, Comp3, or Up-conv. If Comp1, 2 or 3 is chosen then the relevant component video input signal will be passed directly to the component output at high quality (HDTV compatible). If “Up-conv” is chosen then any S-Video or Composite signal will be up-converted to the component output.
- “Balanced source” is a global setting (it is set once and appears on all source setups) and assigns the balanced analogue input to a particular source, chosen from any of the ten analogue stereo inputs. The balanced input replaces the assigned unbalanced (RCA) input, which will be inactive. Select “Off” if the balanced input is not to be used.

- Balanced routing is also a global setting (it is set once and appears on all source setups). “DSP” sends the balanced signal via the DSP board for processing – and both balanced and unbalanced outputs are present as ususal. “Bypass” provides a direct analogue bypass from the balanced input, but the signal is *only* fed to the balanced outputs. No signal is present at the unbalanced (RCA) outputs.
- Exit returns to the main menu.

Table for recording new source names.

Source Number	Original source name	New source name
1	AUX 2	
2	AUX 1	
3	SAT	
4	VCR	
5	TV	
6	DVD	
7	CD	
8	TUNER	
9	AUX 3	
10	AUX 4	

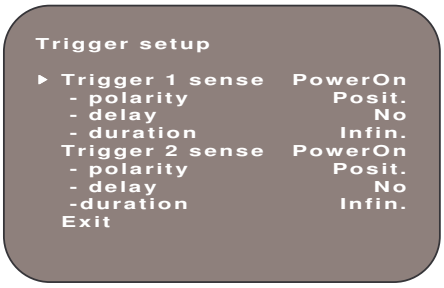
DISPLAY SETUP



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 MXD7000, 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 MXD7000 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 MXD7000 automatically selects the better 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 6). 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, Aux 3, Aux 4, Ext. 7.1, Balancd.
- When “Dimmer” is chosen the trigger will be activated when the front panel display is dimmed using the remote.
- 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” for 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 MXD7000 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 MX-700 REMOTE IN DVD MODE

To switch the remote into DVD mode press the MAIN key followed by the DVD "device" key on the LCD screen. The VOL+/- and MUTE keys will still operate the MXD7000 functions as described previously. Only those keys whose function changes to control Myryad DVD players are described briefly below. Note, not all functions will apply to all Myryad DVD players. Please consult your DVD player Owner's Manual for further details.

Hard keys

ON and OFF
These keys switch the DVD player out of or into standby.

PREV CH
This key sends the DVD OPEN/CLOSE command.

CH + and -
These keys skip to the next or previous chapter/track respectively.

GUIDE Accesses the disc's title menu.

MENU Accesses the disc's main menu.

INFO Accesses the DVD player's setup menu.

EXIT
This key has no function when the remote is in DVD mode.

▼,▲,◀ , ▶ (up, down, left and right).
These keys are used to navigate the DVD disc and player menus.

■ (select - in centre of navigation keys)
This key is used to select menu items and is equivalent to the "enter" function on DVD players.

◀◀ and ▶▶
These keys send the fast reverse and fast forward (scan) commands.

■ (stop)

▶ (play)

→ (pause)

1 – 9 and 0 (number keys)
These keys send DVD number commands to select chapter/track number or enter data.

+10 and ENT
These keys have no function when the remote is in DVD mode.

Soft keys
There are two pages of soft keys in DVD mode.

DVD page 1

RPT	AUDIO
A-B	SUB-T
SHUFF	GO TO
OSD	SLOW>
DISP	CLEAR

RPT Repeat

A-B A-B Repeat

SHUFF Shuffle

OSD On Screen Display (of track/ time/status information)

DISP Switches DVD display on/off (toggle command)

AUDIO Changes DVD audio sound track

SUB-T Select/change subtitles

GO TO Select Go To function

SLOW> Slow forward play

CLEAR Clear entry in Go To and other functions

DVD page 2

ANGLE	PRGRM
ZOOM	
	RTRN
SBY+-	
N/PAL	PSCAN

ANGLE Select viewing angle

ZOOM Zoom in

SBY+- This key sends a standby "toggle" command, duplicating the function of the front panel standby control.

N/PAL Switches between NTSC, PAL and Auto video modes.

PRGRM Program

RTRN Return

PSCAN Progressive Scan (not all Myryad progressive scan players will respond to this command).

USING THE MX-700 REMOTE IN CD MODE

To switch the remote into CD mode press the MAIN key followed by the CD "device" key on the LCD screen. The VOL+/- and MUTE keys still operate the MXD7000 functions as described previously. Only those keys whose function changes to control Myryad CD players are described briefly below. Note, not all functions will apply to all Myryad CD players. Please consult your CD player Owner's Manual for further details.

Hard keys

ON and OFF
These keys switch the CD player out of or into standby.

PREV CH
This key sends the CD OPEN/CLOSE command.

CH + and -
These keys skip to the next or previous track respectively.

GUIDE, MENU, INFO, EXIT, ▼,▲,◀ , ▶ ■
These keys have no function when the remote is in CD mode.

◀◀ and ▶▶
These keys scan back/forward.

■ (stop)

▶ (play)

→ (pause)

1 – 9 and 0 (number keys)
These keys send CD number commands to select chapter/track number or enter data.

+10 and ENT
These keys have no function when the remote is in CD mode.

Soft keys

CD page 1

RPT	PRGRM
TIME	CHECK
SHUFF	CLEAR
DISP	A-B

RPT Repeat

TIME Change time display (track/disc elapsed/remaining)

SHUFF Shuffle

DISP Switches CD display on/off (toggle command)

PRGRM Program

CHECK Check

CLEAR Clear

A-B A-B Repeat

CD page 2

SBY+-	

SBY+- This key sends a standby "toggle" command, duplicating the function of the front panel standby control. It is useful for some earlier Myryad CD players which may not respond to the discrete On and Off commands.

USING THE MX-700 REMOTE IN TUNER MODE

To switch the remote into TUNER mode press the MAIN key followed by the TUNER "device" key on the LCD screen. The VOL+/- and MUTE keys still operate the MXD7000 functions as described previously. Only those keys whose function changes to control Myryad CD players are described briefly below. Note, not all functions will apply to all Myryad Tuners. Please consult your Tuner Owner's Manual for further details.

Hard keys

ON and OFF
These keys switch the Tuner out of or into standby.

PREV CH
This key has no function when the remote is in TUNER mode.

CH + and -
These keys send tune up/down commands.

MENU
This key is used to access the tuner setup menu.

GUIDE, INFO, EXIT
These keys have no function when the remote is in TUNER mode.

▼,▲ (up, and down).
These keys are used to navigate the tuner control menu.

■ (select - in centre of navigation keys)
This key is used to select menu items.

◀◀, ▶▶, ■, ▶ and →
These keys have no function when the remote is in TUNER mode.

1 – 9 and 0 (number keys)
These keys send tuner digits e.g. for selecting preset stations.

+10 and ENT
These keys have no function when the remote is in TUNER mode.

Note: Navigation of tuner control menu. Some Myryad tuners may not respond to the above menu access and navigation commands. Instead you should use:

Number "0" key to access menu and select menu items.

CH+ and CH- keys to navigate menu options.

Soft keys

TUNER page 1

PRSET	FM
MAN	AM
SRCH	MONO
STORE	DISP

PRSET, MAN and SRCH
These keys access the tuning modes – Preset, Manual and Search.

STORE Store – for storing preset stations in the tuner's memory

FM and AM
Select FM or AM band directly

MONO Mono mode (toggle command)

DISP Switches tuner display on/off (toggle command)

TUNER page 2

	FM/AM
	SBY+-

FM/AM Switches between FM and AM bands (toggle command)

SBY+- This key sends a standby "toggle" command, duplicating the function of the front panel standby control. It is useful for some earlier Myryad tuners which may not respond to the discrete On and Off commands.

PROGRAMMING THE MX-700 REMOTE

Any necessary programming of the MX-700 remote – beyond the pre-installed Myryad codes – will normally be done by your dealer or installer. However, the Universal Remote's "MXEditor" software and Reference Manual are on the CD-ROM supplied with the MXD7000. This allows the experienced user to program his/her own remote and up-to-date code libraries are always available from the Universal Remote Controls website www.universalremote.com. The website can also provide access to programming support should that prove necessary.

The CD-ROM contains the following files:

MX 700 Simple Guide (pdf copy of printed manual supplied)

MXEditor Programming Manual (pdf copy)

MX-700 Editor Software

MX700 - Myryad Rev 1 ("mxf" file copy of data for re-programming the MX-700 to its original state as supplied by Myryad)

Note: The MX700 is supplied pre-programmed with the remote code device file "MV200" for Myryad's earlier DVD players (MDV200 and Z120). This device can be accessed if needed using MXEditor. It is located in the second MAIN device page – which is normally hidden.

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 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 in the LCD screen, or by no remote control operation or by operation only at very short range).

The MX700 remote program is stored in non-volatile memory and will be retained indefinitely – even when no batteries are installed.

ZONE B OPERATION

The MXD7000 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 ten analogue stereo sources (see page 3). Note: this does not include the Tape and 7.1 channel inputs or the balanced input if it is set to “bypass”. 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 MXD7000 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 MXD7000 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 – using main zone controls:

- 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 MXD7000 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 “AUDIO” device pages 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 MXD7000 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 MXD7000 (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 MXD7000 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 MXD7000 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 directly, without using the front panel “ZONE” button, using commands from “ZONEB” device pages of the remote control (see page 11).

TROUBLE-SHOOTING GUIDE –

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 standby LED 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 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 gain Use the “Analog Monitor” feature in the Source setup menu and reduce the “Gain” setting. See Source setup menu on page 14 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
- Low batteries – indicated by warning at the bottom of the screen whenever you press the Power ON key. See MX700 guide 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 Dolby Digital or Dolby Digital Surround EX encoded sources 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. Basic processing is available, including tone controls and E-Bass, but not CineEq).
Dolby Pro Logic	For processing sources encoded in Dolby Surround to produce 5.1-channel surround sound (surround is mono).
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.
Dolby Pro Logic IIx – Movie	For processing any native stereo or 5.1 channel source to produce 7.1-channel surround sound.
Dolby Pro Logic IIx – Music	For processing any native stereo or 5.1 channel source to produce 6.1 or 7.1-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 -3dB, except where stated. The balanced input has 6dB lower gain than the unbalanced analogue inputs. The balanced output levels are 6dB higher than the corresponding unbalanced outputs.

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**	0.005 %
	7.1 Channel source	0.003 %
Signal-to-noise ratio (A weighted, analogue sources)	**Stereo source**	93 dB
	7.1 Channel source	103 dB
Signal-to-noise ratio (A weighted, digital PCM source)		100 dB
Maximum output level		8 Vrms
PHYSICAL SPECIFICATIONS		
Dimensions (width x height x depth)		436 x 190 x 340 mm
Weight		Net 13.3 kg
Voltage (automatic setting)		100 to 240 V

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