Myryad Systems Ltd
2 Piper's Wood
Waterberry Drive
Waterlooville PO7 7XU
Tel +44 (0) 23 9226 5508
Fax +44 (0) 23 9223 1407
info@myryad.co.uk

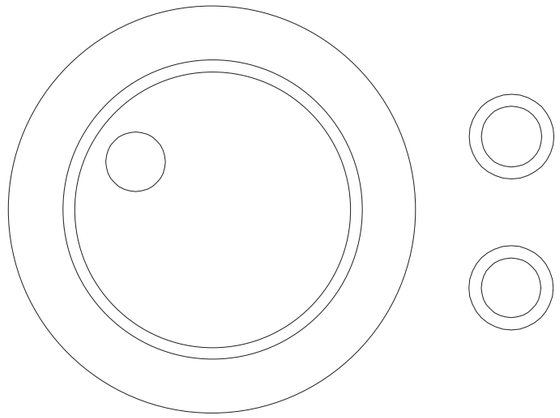
For further information,
please contact
Myryad direct or visit:
www.myryad.co.uk

MDP 500

Digital Preamplifier-Processor

Owner's manual

MYRYAD



MYRYAD

CONTENTS

INTRODUCTION

The Myryad MDP 500 Digital Preamplifier-Processor has been designed to offer a combination of high quality audio and video performance with simple yet elegant styling. The MDP 500 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 MA 240 and MA 360 two and three channel power amplifiers.

The MDP 500 decodes Dolby Digital[1], DTS[2] and Dolby Pro Logic[1] (MPEG decoding is an optional extra which may be retro-fitted). It also functions as a high quality stereo preamplifier. The 7.1 channel input is equipped with comprehensive volume control facilities and ensures that the MDP 500 will remain compatible with new multi-channel formats as they appear. The MDP 500 also has several music modes that may be used to enhance a normal stereo signal.

The MDP 500 accepts up to six digital input sources, eight line-level input sources, plus a tape loop and two additional record outputs. It has six composite and S-Video inputs, composite and S-Video monitor outputs, composite and S-video record outputs and n S-Video monitor output without OSD (On Screen Display) for highest quality video performance.

The MDP 500 has two main modes of operation. In the normal operation mode the MDP 500 automatically senses the type of the incoming signal and selects the best mode for that signal. The user can override the automatic selection and select different post-processing modes for the incoming signals. These modes feature a mono down-mix, stereo, Dolby Pro Logic and four music modes: Natural, Concert, Club and Party. The user can bypass the digital section of the MDP 500, if desired, and connect, for example, a high quality stereo source to the Left and Right channels of the 7.1 channel input.

The MDP 500 is supplied with a comprehensive learning remote control handset which is pre-programmed to control the MDP 500 and all other Myryad products. It can also control up to 6 other products, either by recalling one of its internally stored code sets, or by learning the codes of the product's own remote.

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

[1]This product is manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", the double-D symbol, "Dolby Digital" and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

[2]DTS is a trademark of Digital Theater Systems Inc.

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. The MDP 500 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 PREAMPLIFIER AGAIN. IF THE LIQUID IS ANYTHING BUT WATER AND /OR ALCOHOL, THE PREAMPLIFIER SHOULD BE EXAMINED BY A QUALIFIED SERVICE TECHNICIAN BEFORE IT IS USED AGAIN.

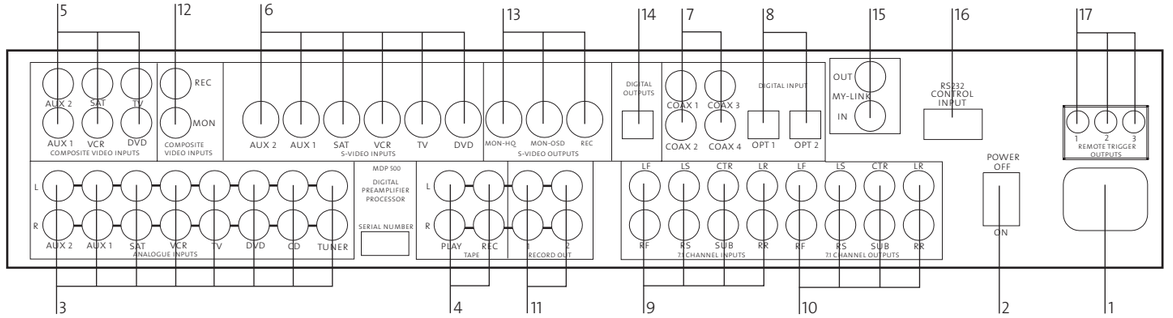
Do not remove the cover, or attempt to modify or repair the preamplifier yourself. Refer all servicing to a qualified technician.

ACCESSORIES

Your MDP 500 is supplied complete with the following accessories

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

SETTING UP YOUR SYSTEM



REAR PANEL CONNECTIONS

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 MDP 500 only to a grounded wall socket.

UK version only: The mains plug is supplied fitted with a 5A fuse. It should only be replaced with a fuse of the same rating (5A) which complies with BS1362.

2 Power switch

Press the bottom of this rocker switch to switch the preamplifier ON and the top to switch it OFF. When the POWER switch is in the OFF position all power is disconnected from the preamplifier. In this condition the MDP 500 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 MDP 500 will power up in standby mode (see FRONT PANEL CONTROLS, STANDBY on page 5).

It is recommended that the POWER switch is turned OFF if the MDP 500 is not going to be used for an extended period of time. Always switch the MDP 500 to STANDBY before switching the POWER off.

3 Analogue inputs

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

The signal from ANALOGUE audio inputs is fed to an A-D converter that converts the signal to digital format. The signal can then be Dolby Pro Logic decoded or post-processed with music modes. Then the signal is fed to D-A converters and thence to the 7.1 Channel outputs. The selected signal is also fed to the three ANALOGUE record outputs. (A-D = Analogue to Digital; D-A = Digital to Analogue).

4 Tape input/output

These connectors are suited to any type of tape recorder, including high-quality "3-head" types which allow you to monitor the signal off the tape whilst it is being recorded. Connect a stereo cable from the TAPE REC output sockets of the preamp to the LINE IN or RECORD IN sockets on your tape deck. Connect a second stereo cable from the TAPE PLAY input sockets of the preamp to the LINE OUT or PLAY OUT sockets on your tape deck.

The TAPE loop allows you to monitor the quality of an Analogue recording whilst the recording is taking place. It can also be used for connecting devices such as equalizers into the analogue signal path.

NOTE: IF AN EQUALIZER IS USED IT MUST BE BYPASSED WHEN LISTENING TO PRO LOGIC SOURCES.

Any ANALOGUE stereo source selected for listening on the MDP 500 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 inputs.

5 Composite video inputs

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

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

6 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.

Digital audio input	Associated 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	

7 Coaxial digital audio inputs

Connect the coaxial digital output cables of your source devices to these inputs. The digital inputs can be freely associated to any analogue audio sources (see menu option for further reference), but the MDP 500 is supplied set up as above.

If you re-assign any of the digital inputs to different analogue inputs, record this in the blank column provided.

8 Optical digital audio inputs

Connect the Optical Digital audio cables to these inputs. These inputs can also be freely associated to any analogue audio sources (see menu option for further reference), but the MDP 500 is supplied set up as shown in the table above.

9 Channel inputs 7.1 (left front, centre, right front, left surround, right surround, left rear, right rear and subwoofer)

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

You can also use these inputs as an “Analogue Direct” input if you want to bypass the digital section of the MDP 500. In this case it is not possible to use the record outputs.

10 Channel outputs 7.1 (left front, centre, right front, left surround, right surround, left rear, right rear and subwoofer)

Connect these outputs to the line inputs of your power amplifier(s), such as the Myryad MA 240 and MA 360 two and three 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.

The LEFT REAR (LR) and RIGHT REAR (RR) outputs are for compatibility with future surround formats. These outputs carry the analogue signal that is fed to the LEFT REAR and RIGHT REAR 7.1 CHANNEL INPUTS to allow the MDP 500 to be used with an external 7.1 channel analogue source connected to the 7.1 channel inputs. It will be possible in the future to fit the MDP 500 with a hardware upgrade which will allow it to decode 7.1 channel digital sources. At the time of writing this manual there is no 7.1 channel source material (e.g. DVDs) on the market.

11 Record outputs

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

12 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 output. The On Screen Display (OSD) information is present on this output. You can also use the COMPOSITE VIDEO MON output even if no composite video source is connected. The selected S-Video signal is down-mixed to this output and can be used for monitoring.

13 S-Video record, monitor and high quality monitor outputs

Connect the S-Video input of your VCR to the S-VIDEO REC output. Connect the S-Video input of your display device (TV) to the S-VIDEO MON output. The On Screen Display information is displayed in this output, but may be switched off using the 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.

14 Digital output

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

15 My-Link input/output

When the MDP 500 is used in a system with other Myryad M-Series products, all may be joined together via the My-Link. TheMY-LINK output of the MDP 500 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 two main benefits. firstly, when the MDP 500 is switched out of (or into) STANDBY, either using the front panel switch or the remote control, all the other linked Myryad products will switch out of (or into) STANDBY at the same time. Secondly, only one linked product with its own Infra Red receiver (e.g. a CD player, but not a Power Amplifier) needs to be “in line of sight” of the remote handset. The My-Link will carry the remote command from any IR receiver to all the other products that are linked together.

Finally, the 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.

16 RS 232 control interface

You can connect the MDP 500 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.

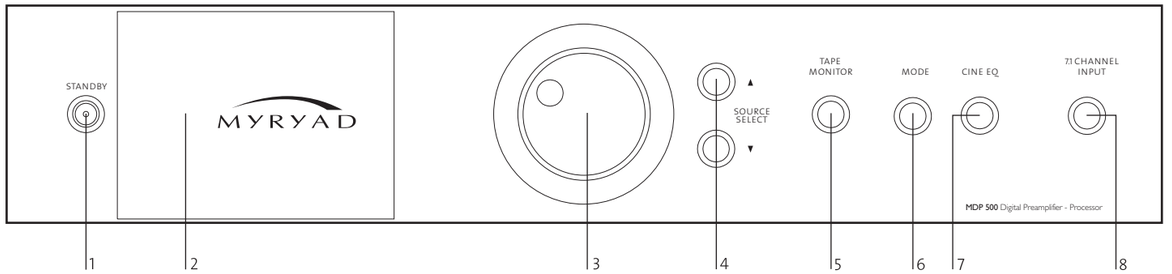
17 Remote trigger outputs – 1. 2 and 3

You can connect the DC trigger inputs of any audio or other equipment to these TRIGGER outputs. The TRIGGER outputs may be activated when the MDP 500 is switched out of STANDBY and turned off again immediately when the MDP 500 is switched into STANDBY again. The TRIGGER outputs may also be programmed to be activated under other conditions (see menu section, page 13).

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 switch

When the preamplifier is plugged into a live wall socket and the POWER switch is turned ON, it will power up in "standby" mode and the LED (Light Emitting Diode) in the STANDBY button will glow red. In this mode the internal circuitry of the MDP 500 is powered up but inactive.

When the STANDBY button is pressed 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 and the LINE outputs will be muted for a few seconds. During this delay period the blue LED in the STANDBY button will flash to indicate this mute condition. When switched out of STANDBY for the first time the AUX 2 input will be selected by default.

When the STANDBY button is pressed again the preamplifier will be returned to standby mode and the LED in the STANDBY button will glow red again. Always switch the MDP 500 to STANDBY before switching the POWER off at the rear.

CAUTION: WHEN IN STANDBY MODE THE INTERNAL CIRCUITRY OF THE MDP 500 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 MDP 500 – including the selected input, operating mode and volume setting. Also behind this window is the Infra-Red detector which receives the commands sent to the MDP 500 from the remote handset.

3 Volume control

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

The volume setting is indicated in the bottom right of the VF display, for example “vol: −35”. The display indicates the preamplifier gain in dB (decibels). When first switched on the volume sets automatically to −20, which is a typical listening level. If the volume is set below −20 then this will be remembered when the MDP 500 is switched into STANDBY and re-instated when it is switched on again. However, 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.

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 output sockets for recording. The display shows which input has been selected. The SOURCE ▲ and ▼ buttons scroll through all the sources except TAPE. TAPE and 7.1 CH inputs are selected by the TAPE MONITOR and 7.1 CHANNEL input buttons.

When any of these inputs is selected, the MDP 500 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 MDP 500, 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 music modes that are be available when a 2-channel analogue or digital source is selected. These are: STEREO, MONO, PRO LOGIC and MUSIC and they are described in the following table. When a multi-channel digital source is selected the MDP 500 will automatically use the most appropriate multi-channel processing.

Mode	Signal Type	Processing	Output from speakers
Stereo	Dolby Digital 5.1	not applicable	not applicable
	Dolby Digital 2/0	Stereo	L,R
	Dolby Digital 2/0, Pro logic flag on in the bitstream		
	DTS 3/2	not applicable	not applicable
	PCM	Stereo	L,R
	Analogue signal	Stereo	L,R
Mono	Dolby Digital 5.1	not applicable	not applicable
	Dolby Digital 2/0	not applicable	not applicable
	Dolby Digital 2/0, Pro Logic flag on in the bitstream	not applicable	not applicable
	DTS 3/2	not applicable	not applicable
	PCM	Mono	C
	Analogue signal	Mono	C
Pro Logic	Dolby Digital 5.1	not applicable	not applicable
	Dolby Digital 2/0	Dolby Pro Logic	L,R,C,LS,RS
	Dolby Digital2/0, Pro Logic flag on in the bitstream	Dolby Pro Logic	L,R,C,LS,RS
	DTS 3/2	not applicable	not applicable
	PCM	Dolby Pro Logic	L,R,C,LS,RS
	Analogue signal	Dolby Pro Logic	L,R,C,LS,RS
Music modes:			
(natural, concert, club and party)	Dolby Digital 5.1	not applicable	not applicable
	Dolby Digital 2/0	not applicable	not applicable
	Dolby Digital 2/0, Pro Logic flag on in the bitstream	not applicable	not applicable
	DTS 3/2	not applicable	not applicable
	PCM	Music mode	L,R,C,LS,RS
	Analogue signal	Music mode	L,R,C,LS,RS

7 Cine EQ button

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

The sound tracks on movies often 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.

NOTE: CINE EQ IS NOT AVAILABLE WHEN THE UNIT IS SET TO A MUSIC MODE.

8 Channel input 7.1 button

The 7.1 CHANNEL INPUT in the MDP 500 provides compatibility with future multi-channel formats. Pressing this button provides instant access to select the 7.1 CHANNEL INPUT. It may be deselected by changing the source using the SOURCE SELECT buttons, or by pressing the 7.1 CHANNEL INPUT button. In the latter case the MDP 500 will return to the input previously selected before the 7.1 CHANNEL button was pressed. In each case the similarly named buttons on the remote control work in exactly the same way (SRCE+, SRCE – and 7.1 CH).

REMOTE CONTROL HANDSET OPERATION

The MDP 500 is supplied with the Myryad Audio-Video Learning Remote Control handset. It will control not only your MDP 500, but also any Myryad CD player or FM tuner.

The Myryad Audio-Video Learning Remote Control handset is a very powerful and flexible remote. Apart from controlling Myryad products it can also control up to 6 further products (e.g. DVD, VCR, TV, Set-Top box etc.) – either by calling up pre-programmed code sets which are already stored in the handset, or by "teaching" the Myryad handset from your existing remote.

The Myryad Audio-Video Learning Remote Control handset is custom-made for Myryad by Universal Remote Control Inc.. Fully detailed instructions for the programming and operation of the remote are in the "Home Theater Master SL-9000 Operating Manual" supplied with the MDP 500.

To control Myryad products the handset must be set to AUDIO or CD mode by pressing either the AUD or CD button at the top of the handset. AUDIO mode is used for operating the MDP 500, or any Myryad integrated amplifier or preamplifier and Myryad FM tuners. CD mode is used for operating any Myryad CD player.

Remote operation of the MDP 500 and Myryad amplifiers and FM tuners (audio mode)

The remote control keys are listed in order, from left to right and from the top of the handset down. The top eight keys (AUD, CD, DVD, AUX, SAT, TV, VCR, CBL) set the operating mode of the handset. To control the MDP 500 first press the AUD key to switch to AUDIO mode. In this mode the remote will also control Myryad FM tuners and operates exactly as described in your Myryad tuner Owner's Manual.

Power

This key operates in exactly the same way as the STANDBY button on the front panel. It sends the command to switch the MDP 500, or any other Myryad preamplifier or integrated amplifier, into or out of standby mode.

Vol ▲ and ▼

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

CH ▲ and ▼, tuner functions

These keys operate in a similar way to the rotary tuning knob on the MT 100 and exactly as the front panel TUNE UP/DOWN keys on other Myryad tuners. A single brief key press will move either up or down in frequency or preset number or initiate SEARCH mode. In MANUAL and PRESET modes, when a key is pressed and held down the tuner will scan automatically in the desired direction.

Mute

Pressing the MUTE key on the handset will engage mute mode and the MDP 500'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 using the VOL ▲ on the remote control.

T/V, tuner function

This key sends the tuner STANDBY command and will switch the Myryad MT 100 (and any other Myryad tuner with a standby mode) into or out of standby mode.

Menu

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

Guide

Pressing this key once displays the status of the unit on the OSD. The status display shows selected source, audio and video signal type, audio output type and volume information. The status display disappears after 5 seconds or by pressing the same key again.

NOTE: THERE WILL BE NO STATUS INFORMATION IF "TEMP. DISPLAY – OFF" IS SELECTED FROM THE OSD SETUP MENU AND ONLY VOLUME INFORMATION IF "TEMP. DISPLAY – SIMPLE" IS SELECTED FROM THE OSD SETUP MENU

Exit

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

PRE. CH

This key has no function when the remote is in "AUDIO" mode.

SEL

This is the "enter" key in setup mode. Pressing once memorises the changes that have been made in setup mode.

▲, ▼, ◀, ▶

These keys are used to navigate in the menu. Up and down keys are used to select the parameter to be adjusted and the left / right keys are used to adjust the parameter selected with the up / down keys. The selected parameter is shown in the OSD with different colour and in the bottom row of the front panel display.

SAT, AUX 1, AUX 2, DVD, TV, VCR, tuner and CD (also marked 1, 2, 3, 4, 5, 6, 7, 8 and 9)

All sources can be accessed from these keys directly. For example pressing DVD selects DVD audio and video signals that are then processed and fed to the appropriate outputs for viewing and listening.

7.1 CH (also marked +10)

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.

Tape (also marked 0)

When you press the TAPE MONITOR 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: 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 key has no effect on the other source select keys.

Preset, manual and search, tuner functions (also marked FAV, info and next)

FM tuner Tune Mode keys. These operate exactly as the FM tunerís front panel buttons.

E-bass (also marked enter)

This key switches on and off E-Bass mode. In E-Bass mode, bass signals are sent to both the main loudspeakers and to the subwoofer channel, thus allowing greater bass output when full range main loudspeakers are employed.

Test (also marked ALT)

This key switches on the Noise Test signal, after the LEVEL key has been pressed or the level setup entered from the 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 TRIM keys may be used to adjust the level of any channel during this cycle (see below). While the level is being trimmed the noise signal will remain directed to that channel, and only move on to the next after the trimming has been completed.

Comp

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

Cine EQ

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

SRCE + and –

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

Mode + and –

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

TRIM + and –

These keys are for trimming speaker levels in LEVEL mode or speaker delays in DELAY mode. first press LEVEL (or DELAY) and then trim using these keys. If LEVEL (or DELAY) has not been pressed the keys function as the Subwoofer level trims.

Level

This key switches on LEVEL Trim mode and will cycle though the channels for trimming levels. The key is pressed once to enter level setup mode and select the Left Front channel.

The TRIM (and (keys are then used to adjust the Left Front speaker level, either using the TEST noise source (see above), or programme material. If the TEST key is pressed the system will cycle automatically through the channels. If the Level is being trimmed using programme material then the LEVEL key should be pressed again to advance to the Centre channel and so on until all the channels have been trimmed, when the system will exit LEVEL mode automatically. LEVEL trim is not active on the 7.1 Channel input.

Delay

This key switches on DELAY setup mode and will cycle though three channels for trimming delays. The key is pressed once to enter delay setup mode and select the Centre channel. The TRIM ▲ and ▼ keys are then used to adjust the delay to the Centre speaker (see below for guidance in determining the correct speaker delay settings). Press the DELAY key again to advance to the Right Surround speaker to set its delay, followed by the Left Surround speaker. One further press of the DELAY key will exit DELAY setup mode.

NOTE: DELAYS CAN ONLY BE SET TO THE CENTRE, RIGHT SURROUND AND LEFT SURROUND SPEAKERS. THE DELAYS ARE NOT ACTIVE ON THE 7.1 CHANNEL INPUT.

On screen display and front panel display set-up menus

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

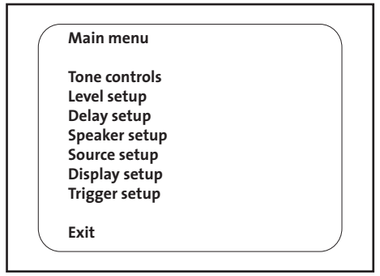
The UP (▲) and DOWN (▼) keys are used to move the cursor in the menu to highlight a sub-menu or function to be adjusted. To select a sub-menu SEL key in the middle of the cursor keys is pressed. The functions are adjusted using LEFT (◀) and RIGHT (▶) keys. The EXIT key escapes from the menu without saving.

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

Main menu

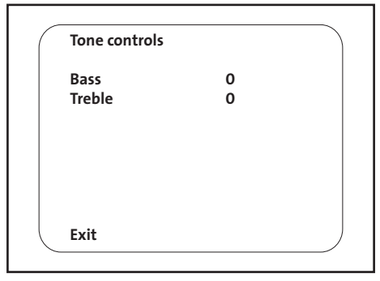
The main menu lists sub-menus that can be highlighted using the UP and DOWN keys and accessed by pressing the SEL key.

- Tone Controls include Bass and Treble controls
- Level setup defines the speaker levels
- Delay setup sets the delays for Centre, Left Surround and Right Surround speakers
- Source setup defines source-related parameters
- Display setup sets video formats and defines how the On Screen Display works
- Trigger setup sets the parameters for the TRIGGER outputs
- EXIT returns to normal operation mode



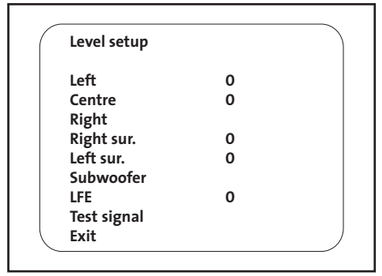
Tone controls

- Bass can be adjusted between a 12dB cut (−12dB) and a 12dB boost (+12dB), in 1dB steps.
- Treble can be adjusted between a 12dB cut and a 12dB boost, in 1dB steps.
- EXIT returns to the main menu



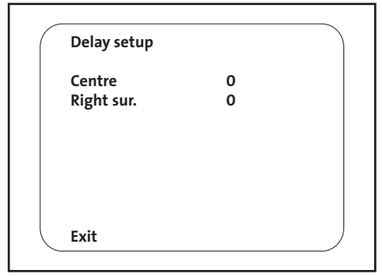
Level setup

- The speaker levels can be adjusted by pressing the LEFT (◀) and RIGHT (▶) keys.
- The subwoofer level refers to the signal level sent to the subwoofer.
- The LFE level refers to the level of redirected bass from the LFE channel to the large speakers in cases when there is no Subwoofer. (LFE = Low Frequency Effects channel. This is the "0.1" of the 5.1 channel digital surround signal and so is only present with Dolby Digital or DTS 5.1 channel sources.)
- The range of adjustment is −10dB to +15dB, except for the LFE channel which may only be adjusted from −10dB to 0dB
- The noise test signal is engaged by selecting Test signal and pressing either the LEFT (◀) and RIGHT (▶) keys. This will start the test signal cycling through the channels exactly as when the TEST key is pressed (see above), but in this case level adjustments are made using the LEFT (◀) and RIGHT (▶) keys.
- EXIT returns to the main menu



Delay setup

- The Centre, Right Surround and Left Surround speaker delays can be adjusted by pressing the LEFT and RIGHT keys. The range of adjustment is 0 to 5ms for the Centre channel and 0 to 15ms for the Right Surround and Left Surround channels.
- The Left and Right Front speakers should normally be positioned so that they are further away from the listening position than the other speakers.
- The delays are calculated by measuring the distance from the listening position to each of the speakers. These figures are entered in the table below. Place the Left and Right speakers at an equal distance from the listening position. Measure the distances from the listening position to each of the speakers and write them in the table below. Write the Left/Right Front speaker distance down three times, in each of the boxes in the top row. See next page.



	Distance to listening position (m)		
Speaker	Centre	Right surr.	Left surr.
Left and right front	m	m	m
Centre	– m		
Right surround		– m	
Left surround			– m
(L/R front) -(Ctr or surr)			
X3=delay in ms			

The calculation of the correct delays is illustrated by an example. The Left and Right Front speakers are 3m from the listener, the Centre speaker is 2m and the Right and Left surrounds are 3m and 4m respectively.

Example delay setup

	Distance to listening position (m)		
Speaker	Centre	Right surr.	Left surr.
Left and right front	3m	3m	3m
Centre	– 2m		
Right surround		– 3m	
Left surround			– 4m
(L/R front) -(Ctr or surr)	1m	0m	– 1m
X3=delay in ms	3ms	0ms	0ms

Having written down these distances in the table, the next step is to subtract each of the speaker distances from the figure for the Left/Right speakers. So, (L/R Front – Centre) = 1m, (L/R Front – Right Surround) = 0m and (L/R Front – Left Surround) = −1m. The required delay for each speaker is calculated by multiplying this figure by 3 as shown in the example table above. If the calculated distance is negative (i.e. if the speaker is set further away than the Left/Right Front speakers) then set the delay to zero as shown (or re-position the speakers).

- EXIT returns to the main menu

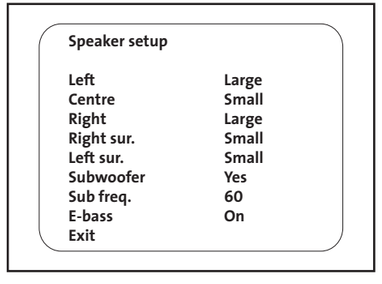
NOTE: IF YOU PREFER TO MEASURE ALL THE DISTANCES IN FEET, THE PROCEDURE IS EXACTLY THE SAME AS DESCRIBED ABOVE, EXCEPT THAT THE FINAL CALCULATED DISTANCE (IN FEET) SHOULD NOT BE MULTIPLIED BY 3. THE EXAMPLE TABLE WITH DISTANCES IN FEET WOULD READ AS FOLLOWS:

Example delay table (ft)

	Distance to listening position (m)		
Speaker	Centre	Right surr.	Left surr.
Left and right front	10ft	10ft	10ft
Centre	– 7ft		
Right surround		– 10ft	
Left surround			– 13ft
(L/R front) -(Ctr or surr)	3ft	0ft	– 3ft
X3=delay in ms	3ms	0ms	0ms

Speaker setup

- The speaker setup defines which speakers can take full scale low frequency signals as in the case of "Large" speakers or if the bass from these channels must be redirected to those which do have "Large" speakers and/or a subwoofer.
- The speakers that can take full frequency signal are set to be Large.
- The speakers that cannot take full signal are set to Small. The bass from these speakers is redirected to Large speakers and / or subwoofer.
- If a speaker is not present (e.g. Centre) it should be set to "None".
- The subwoofer crossover frequency can be set between 40Hz and 140Hz. The crossover frequency defines the frequency below which the low frequencies from Small speakers are redirected to Large speakers and/or subwoofer.
- E-Bass duplicates the subwoofer information to both large speakers and the subwoofer. This may be desired in some cases to get more bass out of the system.
- EXIT returns to the main menu



Source setup

- The Source Setup specifies the parameters for each analogue source. This includes which digital input is assigned to each source, and also the analogue input sensitivity. In addition it is possible to change the name of a source as it appears in the On Screen and Front Panel displays.
- 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 (Tuner, CD, DVD, TV, VCR, SAT, Aux1, Aux2).
- When Title is selected the source Title may be edited, if desired. Press SEL and use the LEFT and RIGHT keys to choose which character is to be changed, and the Up and DOWN keys to change the character. When the editing is completed press SEL to store the new name. The table below lists the default names for all the sources and provides a column to enter any new names programmed.
- When Digital is selected the LEFT and RIGHT keys may be used to select which of the six digital sources is assigned to the analogue source being set up. A digital source may be assigned to more than one analogue source if desired.
- When "Analog. sens." is selected, the input gain of the Analogue to Digital converter may be adjusted. The gain may be set to −6dB, −3dB, 0dB or +3dB. For CD players and other sources with a similar signal level, a setting of −3dB or −6dB is recommended. This ensures an adequate overload margin – typically 3Vrms with −3dB and 4Vrms with −6dB. If the signal source has a lower level, then the input gain may be set higher – to 0dB or +3dB – which will result in a reduced level of background noise. If distortion is encountered on loud signals with an analogue source, re-set the "Analog. sens." to a lower level. The MDP 500 is supplied with all input sensitivities set to −3dB which should be suitable for most sources
- EXIT returns to the main menu

See table next page

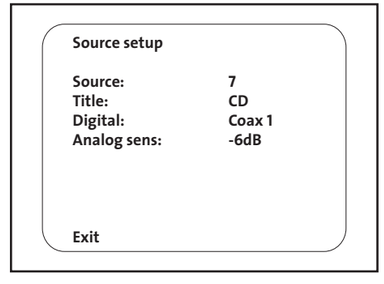


Table for recording new source names

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

Display setup

The Display Setup specifies the parameters for the On Screen Display. In each case the the LEFT and RIGHT keys may be used to alter the parameter selected.

- Select TV System to switch between NTSC and PAL to suit your TV monitor.
- Superimpose allows the OSD either to replace the TV picture (Off), or be superimposed over it (On).
- During normal operation of the MDP 500, it is possible to have a "temporary" OSD appear for a few seconds every time any adjustment is made. This is set using the "Temp. Display" parameter which may be set to Full, Simple, or Off as desired.
- Video Format can be set to S-Video or Composite, or Auto – that automatically selects the best source present.
- The OSD Output can be sent to the Composite, or S-Video Monitor outputs, or both, or it may be switched Off.
- OSD style changes the screen text colour if Superimpose is switched Off.
- EXIT returns to the main menu

Display setup

TV system:	**NTSC**
Superimpose:	**On**
Temp. display:	**Full**
Video format:	**Auto**
OSD output:	**Both**
OSD style:	**1**

Exit

Trigger setup

The Trigger Setup specifies the parameters for the DC Trigger outputs (see page 4).

Each of the trigger parameters may be set separately for "Trig1" which controls the TRIGGER 1 output and "Trig2" which controls the TRIGGER 2 and TRIGGER 3 outputs. Use the UP and DOWN keys to select which parameter you wish to change. In each case the the LEFT and RIGHT keys are used to alter the parameter selected.

- "sense" sets what controls activate the Trigger output. Set to Power On to activate the trigger when switching out ofSTANDBY (and de-activate it when returning to STANDBY). Alternatively the trigger output may be activated when any of the inputs is selected (Tuner, CD, DVD, TV, VCR, SAT, Aux1, Aux2 and 7.1CH).
- "polar" 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 1second to 3 minutes or to "No" which give zero delay.
- "durat." 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 while the "sense" condition prevails.
- EXIT returns to the main menu

Trigger setup

Trig1 sense:	**Power on**
Trig1 polar.:	**Posit.**
Trig1 delay:	**No**
Trig1 durat:	**Infin.**
Trig2 sense:	**DVD**
Trig2polar.:	**Posit.**
Trig2 delay:	**1s**
Trig2 durat:	**30s**

Exit

Using the Myryad A-V Learning Remote in CD mode.

To switch the remote into CD mode press the CD "device" key at the top of the handset. In CD mode many of the keys still operate the MDP 500 functions as described above. Only those whose function changes to control Myryad CD players are described below.

The CD Player keys carry out exactly the same functions as the identically named keys on the CD remote control handset supplied with your Myryad CD Player. Some of the keys on the CD handset controlling certain infrequently used functions have been omitted from the A-V Learning Remote Control so that it is more straightforward to use. All the other keys continue to control the MDP 500 and operate exactly as described in the previous section – with the sole exception of the "7.1 CH / +10" key which has no function in CD mode.

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

INSTALLING AND REPLACING BATTERIES

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

TROUBLE-SHOOTING GUIDE

some of the most common problems

If a fault is detected switch the preamplifier OFF immediately before checking or changing cables or connections.

No sound:

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

No sound in one channel only:

- Interconnect cable pulled loose or making poor contact. Check and, if necessary, un-plug and re-plug all relevant cables.

Loud buzz or hum:

- Interconnect cable pulled partially out of its socket.
- Defective interconnect cable.

Hum in tape playback

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

Incorrect operation
– some functions not working

- Control processor latched. Switch off POWER and wait for about one minute. Then switch POWER on. Normal operation should resume.

For further help please visit
www.myryad.co.uk/faqs.html

SPECIFICATIONS

All specifications ref. 1Vrms output and 0dBf digital or 2Vrms analogue input, except where stated.

Stereo analogue inputs

Input level 2Vrms
Input impedance 17kΩ/100pF
Maximum input level (input sensitivity – 6dB) 4Vrms

Stereo analogue outputs

(Tape REC and record outputs)
Output level ..... 2Vrms (same as input)
Output impedance ..... Tape Rec 500Ω
..... Record outputs 60Ω

7.1 Channel analogue inputs

Input level 1Vrms
Input impedance 17kΩ/100pF
Maximum input Levels 8Vrms

7.1 Channel line outputs

Output level 1Vrms
Output impedance 60Ω
Total harmonic distortion ..... Stereo source 0.01%
..... 7.1 Channel source 0.003%

Signal-to-noise ratio (A weighted, analogue sources) ..... Stereo source 90dB
..... 7.1 Channel source 95dB
Signal-to-noise ratio (A weighted, digital PCM source) 100dB

Dimensions (width x height x depth) ..... 436 x 95 x 341mm
Weight, Net 6kg
Voltage (automatic setting) ..... 100 to 240V

Stock No: OST0011890
Revision A