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MA500

Five Channel Power Amplifier

Owner’s manual

STANDBY



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TROUBLE-SHOOTING
GUIDE

Some of the most common problems

No sound:

- Power turned off or system in standby mode. Check that the LED in the STANDBY button is blue.
- The input connection is loose or missing. Check that the connection is secure.
- Protection relay has operated because of a short circuit loudspeaker wire or amplifier overheating. Carefully check all wiring after switching the amplifier POWER OFF to allow it to cool.
- The fuse in the power cord inlet has failed. Unplug the power cord from both the wall socket and the amplifier and pull out the small receptacle below the power cord inlet. Two fuses should be visible. The further fuse is the operative one and should be checked. If it has failed, replace it with the nearer (spare) fuse. If this too fails, then return the amplifier to your dealer for service.
- UK version only: The fuse in the mains plug has failed. Check and replace if necessary.

Sound in one channel only:

- Loudspeaker cable pulled loose. Check all connections, both at the loudspeakers and amplifier.
- Interconnect cable pulled loose or making poor contact. Check and, if necessary, un-plug and re-plug all relevant cables.
- Amplifier produces less power than normal. First level temperature protection activated (see page 6). Reduce volume, or improve ventilation to allow amplifier to cool.

Amplifier fails to respond to My Link remote commands (from e.g. MDP 500 Preamplifier-Processor):

- My-Link cable is loose or not connected. Check connections on all linked units.

Loud buzz or hum:

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

Incorrect operation - some functions not working:

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

SPECIFICATIONS

Five channels driven

Continuous average power output(<0.05% THD, 20Hz-20kHz)8Ω:100W
4Ω:150W
IHF dynamic power.....	8Ω:150W
4Ω:240W

One channel driven

Maximum continuous power output (1% THD, 1kHz)8Ω:160W
4Ω:280W
IHF dynamic power.....	8Ω:180W
4Ω:320W

Input sensitivity (for 100W into 8Ω).....	1.0V
Voltage Gain.....	29dB
Input impedance	25 kΩ /440pF
Frequency response (20Hz - 20kHz).....	±0.2dB
Signal/Noise ratio (A weighted, ref. 100W)110dB
Line inputs	5 x RCA phono
Line outputs	5 x RCA phono
Control inputs/outputs	My-Link I/O: 2 x RCA phono
DC trigger I/O: 2 x 3.5mm mono jack
Loudspeaker outputs	5 pairs of gold-plated 5-way binding posts

Physical specification

Dimensions (width x height x depth)436 x 135 x 368 mm
Weight, Net:	20 kg

Power requirements

Voltage (set by internal wiring)120 or 230 V
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Stock No: OST0012000

OPERATING YOUR SYSTEM



FRONT PANEL CONTROLS

1 Standby

When the amplifier is plugged into a live wall socket and the POWER switched 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 amplifier is powered up, but disabled so that it consumes very little power and is isolated by relays at its outputs.

When the STANDBY button is pressed the amplifier circuitry will be activated and the LED will flash blue. After about four seconds delay the loudspeaker outputs will be connected to the amplifier and the LED in the STANDBY button will glow blue continuously. When the STANDBY button is pressed again the amplifier will be returned to standby mode. The LED in the STANDBY button will change back to red.

PLEASE NOTE: WHEN THE POWER AMPLIFIER IS REMOTELY ACTIVATED FROM ANOTHER UNIT, THERE MAY BE A BRIEF DELAY BETWEEN THE CLOSING OF THE OUTPUT RELAYS OF THE TWO UNITS. THIS IS NORMAL AND NO CAUSE FOR CONCERN.

CAUTION: WHEN IN STANDBY MODE THE INTERNAL CIRCUITRY OF THE MA 500 IS STILL LIVE, SO ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.

LOUDSPEAKER OUTPUT PROTECTION AND MUTING

When the amplifier is in standby mode the loudspeaker output terminals are isolated from the amplifier by a high quality relay. When the amplifier is first switched on from standby mode the loudspeaker outputs remain disconnected for a few seconds to allow the internal voltage levels to settle. The loudspeaker outputs are immediately disconnected again when the amplifier is switched back into standby mode.

The same loudspeaker mute relay is used to protect both the amplifier and your loudspeakers against possible damage. If any one of a number of fault modes is detected (loudspeaker outputs short circuit, amplifier overheating, amplifier DC fault) the loudspeakers will be disconnected from the amplifier to protect both. In the case of a short circuit or DC fault the loudspeakers will be re-connected after a few seconds, but will be disconnected again if the fault persists. If overheating has caused the protection system to operate, then it will take some time for the heatsinks to cool sufficiently to allow the loudspeakers to be re-connected (probably between five and fifteen minutes depending upon the room temperature and ventilation). The amplifier will cool more quickly if it is switched to standby mode, or if the POWER is switched OFF.

The protection circuits of each of the five channels of the MA 500 are linked together, so whichever channel’s protection is activated, whether by short circuit, overheating or any other reason, all five speaker relays will open so muting all five channels.

The MA 500 has two levels of over-temperature protection. If the lower temperature threshold is exceeded, the maximum power output of the amplifier is reduced until the temperature falls to a safe level. The amplifier’s gain is unaffected so this first level protection will probably have no audible effect. If the higher temperature threshold is exceeded the loudspeaker relays are opened, muting all five channels as described above.

INTRODUCTION

The Myryad MA 500 Power Amplifier has been designed to offer a combination of high quality sound reproduction and simple yet elegant styling. It can be used to provide power for high quality Home Cinema or music surround systems when partnered by a suitable surround preamplifier-processor such as Myryad’s MDP 500. It can also be used in install situations as a high-quality high-powered distribution amplifier.

The MA 500 has unbalanced line inputs plus directly linked line outputs for each channel, all on high-quality gold-plated RCA phono sockets. Loudspeaker outputs are provided by a pair of solid metal gold-plated 5-way binding posts.

Like all Myryad M-Series Power Amplifiers, the MA 500 may be controlled remotely via the My-Link communications bus when used with other Myryad M-Series products. My-Link allows remote control of standby and mute functions. In addition to this, the MA 500 power amplifier may be switched into or out of standby remotely using its DC trigger input.

- MA 500 applications include:**
- Use in conjunction with the MDP 500 Digital Preamplifier-Processor, delivering five channels at 100 watts into 8Ω in Home Cinema systems of the highest quality.
 - Use in a multi-room setup, possibly together with other MA 500s, to deliver high-power high-quality audio to a number of different rooms with minimal crosstalk between channels.
 - Stereo bi-amplifier operation with an MP 100 Stereo Preamplifier - the MA 500 delivering 2 x 100 watts/8Ω into each loudspeaker (one MA 500 channel unused).

INSTALLATION AND SAFETY NOTES

This amplifier 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, obstructing the air inlets in its underside. Do not allow papers or cloth to obstruct the ventilation grille in the top cover. The amplifier should not be installed in a built-in situation such as a bookcase or cabinet unless proper ventilation is provided. If the amplifier is moved shortly after operation take care not to touch the heatsinks, which are accessible from below, as they may be very hot. The amplifier is designed for use in moderate climates.

CAUTION: TO PREVENT A FIRE OR SHOCK HAZARD, DO NOT PERMIT THIS PRODUCT TO BECOME WET OR EXPOSE IT TO DRIPPING OR SPLASHING. DO NOT PLACE OBJECTS FILLED WITH LIQUID, SUCH AS VASES, ON THE AMPLIFIER. 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 AMPLIFIER AGAIN. IF THE LIQUID IS ANYTHING BUT WATER AND/OR ALCOHOL, A QUALIFIED SERVICE TECHNICIAN SHOULD EXAMINE THE AMPLIFIER BEFORE IT IS USED AGAIN. DO NOT PLACE NAKED FLAMES, SUCH AS LIGHTED CANDLES ON THIS PRODUCT.

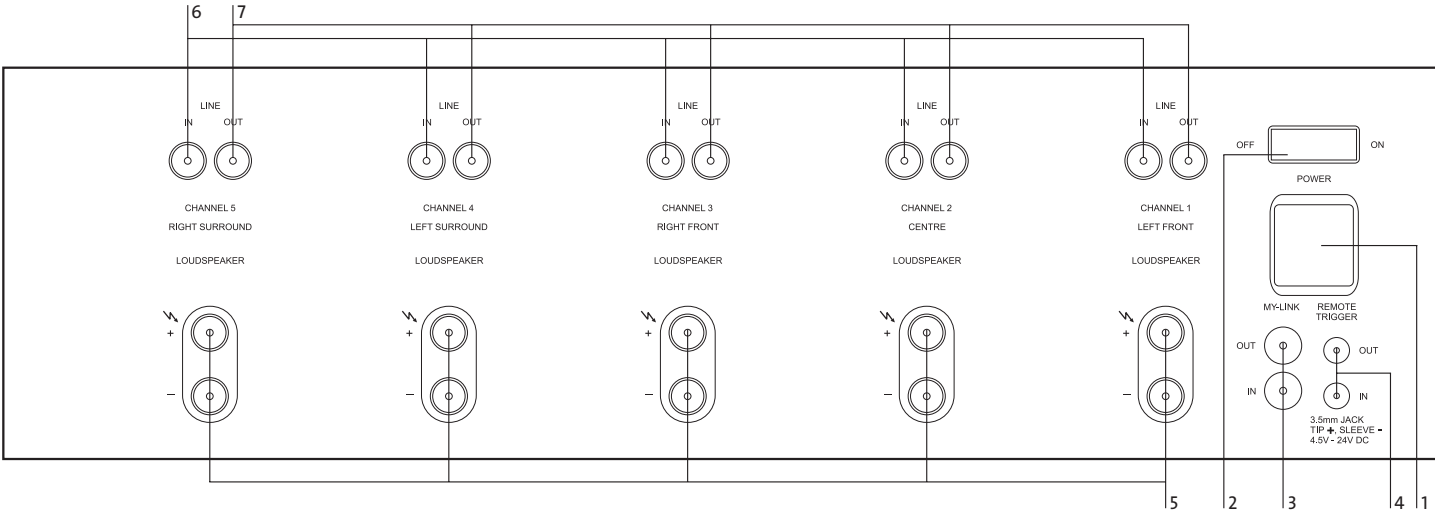
DO NOT REMOVE THE COVER, OR ATTEMPT TO MODIFY OR REPAIR THE AMPLIFIER YOURSELF. REFER ALL SERVICING TO A QUALIFIED TECHNICIAN.

ACCESSORIES

Your Myryad Power Amplifier is supplied complete with the following accessories:

- My-Link interconnect (0.5m RCA-RCA)
- Separate mains power cord to suit country of sale.

SETTING UP YOUR SYSTEM



REAR PANEL CONNECTIONS

1 Power inlet

Before making any connection, check that the mains voltage setting printed on the rear panel is the same as your local mains supply.

Plug the female (socket) end of the power cord into the power inlet on the rear of the amplifier. Plug the male (plug) end of the cord into a “live” wall socket or a suitable heavy-duty extension cable.

UK version: The mains plug is supplied fitted with a 13A fuse. It should only be replaced with a fuse of the same rating (13A) 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 amplifier ON and the other side (towards the speaker terminals) to switch it OFF. When the POWER switch is in the OFF position all power is disconnected from the amplifier. In this condition the amplifier cannot be powered up from the front panel or the My-Link or remote trigger. When the POWER switch is in the ON position (and the power cord correctly inserted and plugged in to a live wall socket) the amplifier will power up in standby mode (see FRONT PANEL CONTROLS, STANDBY, on page 6).

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

3 My-Link input/output

When the MA 500 is used in a system with other Myryad M-Series products all may be joined together via the My-Link. This will allow the different products to be remotely controlled via the infra-red receiver on, for example, an MDP 500 Preamplifier-Processor or any Myryad M-Series Preamplifier (or Integrated Amplifier) or a suitable multi-room controller.

When joined via the My-Link, the MA 500 will respond to STANDBY and MUTE operations on the preamplifier (whether operated from the front panel or by remote control). For example, if both the preamplifier and the MA 500 are in STANDBY, then switching the preamplifier out of standby will also bring the MA 500 out of standby. In this way an MDP 500 + MA 500 can be operated with the same ease as an integrated amplifier. If a number of MA 500s are being used in a multi-room system all the amplifiers may be My-Linked so that they can be controlled as one.

Use a short RCA-to-RCA (phono-to-phono) interconnect cable to connect from the MY-LINK OUT socket on the preamplifier to the MY-LINK IN socket on the MA 500. A suitable 0.5m long My-Link cable is supplied with the MA 500. A second cable can then run from the MY-LINK OUT socket on the MA 500 to the MY-LINK IN socket on a third Myryad component (if desired) and so on - in ‘daisy-chain’ fashion.

4 Remote trigger control input/output

If the MA 500 is being used in a system without a Myryad M-Series preamplifier, processor or integrated equipped with My-Link, the REMOTE TRIGGER input may be used to allow the MA 500 to be remotely switched into or out of STANDBY.

If your preamplifier or processor has a TRIGGER output which delivers a DC trigger signal when the unit is switched on (or out of standby) then it can be linked to the MA 500 to switch the MA 500 out of/into standby also. A lead must be used which is fitted with a 3.5mm mini-jack plug to connect to the MA 500’s REMOTE TRIGGER input socket. The lead must be wired according to the rules below:

- Connector to MA 500 REMOTE TRIGGER input: 3.5mm mini-jack plug
- Jack plug wiring: sleeve negative, tip positive
- Trigger voltage: DC, 4.5V to 24V
- Nominal loading of MA 500 REMOTE TRIGGER input: 2200Ω
- Operation:
 - MA 500 switched from standby to active
 - TRIGGER voltage change from 0 to +ve:
 - MA 500 switched from active to standby
 - TRIGGER voltage change from +ve to 0:

IF YOU ARE IN ANY DOUBT ABOUT MEETING ANY OF THESE CRITERIA, OR PREPARING A SUITABLE LEAD, ASK YOUR DEALER OR INSTALLER TO HANDLE THIS FOR YOU.

NOTE: IF THE TRIGGER INPUT IS ACTIVE WHEN THE REAR PANEL POWER SWITCH IS TURNED ON, THEN THE AMPLIFIER WILL NOT POWER UP INTO STANDBY MODE AS USUAL. IT WILL POWER UP IMMEDIATELY INTO ITS ‘ACTIVE’ STATE - WITH ITS NORMAL POWER-ON MUTE DELAY (SEE FRONT PANEL CONTROLS, STANDBY BELOW).

The REMOTE TRIGGER output is wired directly to the input. Using this output, further MA 500s, or other products, may be connected from a single trigger source without needing any special adaptors.

5 Loudspeaker outputs

The five amplifiers in the MA 500 are each capable of driving any loudspeaker with a rated impedance of 4Ω or greater. The loudspeaker terminals are high-current binding-posts, coded red and black.

CAUTION: THE RED TERMINALS ARE MARKED WITH A HAZARD SYMBOL ‘\N’ TO INDICATE THAT THEY CAN BE LIVE. READ ALL THE LOUDSPEAKER WIRING INSTRUCTIONS CAREFULLY. IT IS RECOMMENDED THAT READY-MADE LEADS BE USED WHERE POSSIBLE.

For correct imaging it is important that all the loudspeakers are wired “in phase”. To ensure correct phasing wire the black (-) terminal on the amplifier to the black (-) or “-” terminal on the loudspeaker. The red (+) terminal on the amplifier should be wired to the red or “+” terminal on the loudspeaker.

The MA 500’s five amplifier channels are numbered 1 to 5 and all are identical. They may be assigned in a variety of ways in Home Cinema or multi-room systems. For convenience of installation in Home Cinema applications the channels are also marked as follows:
channel 1 - left front,
channel 2 - centre,
channel 3 - right front,
channel 4 - left surround,
channel 5 - right surround.
However, if desired the channels may be re-assigned in any other way that is preferred. In each case make sure all loudspeakers are wired ‘in phase’ as described above.

6 Line inputs

The line inputs can be driven from the line outputs of any good quality processor or preamplifier (such as the Myryad MDP 500 or MP 100) or any other suitable line level source. The five channels are numbered 1 to 5 and also named for Home Cinema use (see above). High quality RCA-to-RCA (phono-to-phono) interconnects should be used.

7 Line outputs

Each channel’s line output is directly connected to its line input - without buffering. The line output allows power amplifiers to be ‘daisy-chained’ so that more complex multi-room systems may be built.