

Owner's Manual

# Magnet

Handcrafted Audio Products

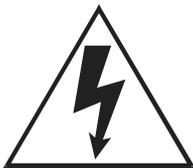
**MA-400**

*Limited Edition*

The Authentic Power

## WARNING

Please read and observe the following safety points at all times



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to people.



### CAUTION:

To prevent the risk of electric shock, do not remove the cover [or back] . No user-serviceable parts inside. Refer servicing to qualified service personnel.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT OPEN OR EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

[FOR CANADIAN MODEL]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THE PROVIDED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE. AVIS: RISQUE DE CHOC ELECTRIQUE. NE PAS OUV

R/R

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PORLONGGATUER, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSES AUCUNE PARTIE A DECOUVERT.

## INTRODUCTION

Welcome to Magnet family and congratulation on your purchase of what is unquestionably one of the finest Power Amplifier. With its combination of precision electronics circuitry and other components throughout, your MA-400 Limited Edition Power Amplifier will offer you many years musically satisfying enjoyment. Please take a few moments to read remainder of this Owner's manual. A thorough understanding of the operational features will allow you to gain maximum performance and ease of use for the power amplifier. The serial number of the product is located on the rear panel of each and also recorded below. Please include these serial numbers with any correspondence regarding your MA-400 Limited Edition Power Amplifier.

The MA-400 Limited Edition Power Amplifier is audio component of enduring value which will reflect a higher ideal of musical and artistic expression. Hope that these qualities will enrich your experience of ownership.



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## **Preface**

**Thank You** for purchasing the MAGNET MA-400 Limited Edition. The MA-400 Limited Edition Solid State Amplifier truly reflects MAGNET's reputation for research and development. It is a perfect example of MAGNET's innovation and experience of combining the strength of our MA-400 Limited Edition and circuitry developed by our engineering team. As with all MAGNET products, The MAGNET MA-400 Limited Edition. has been carefully designed, tested and manufactured to ensure high quality and reliability. We wish you many happy memories with MAGNET.

## **The MA-400 Limited Edition**

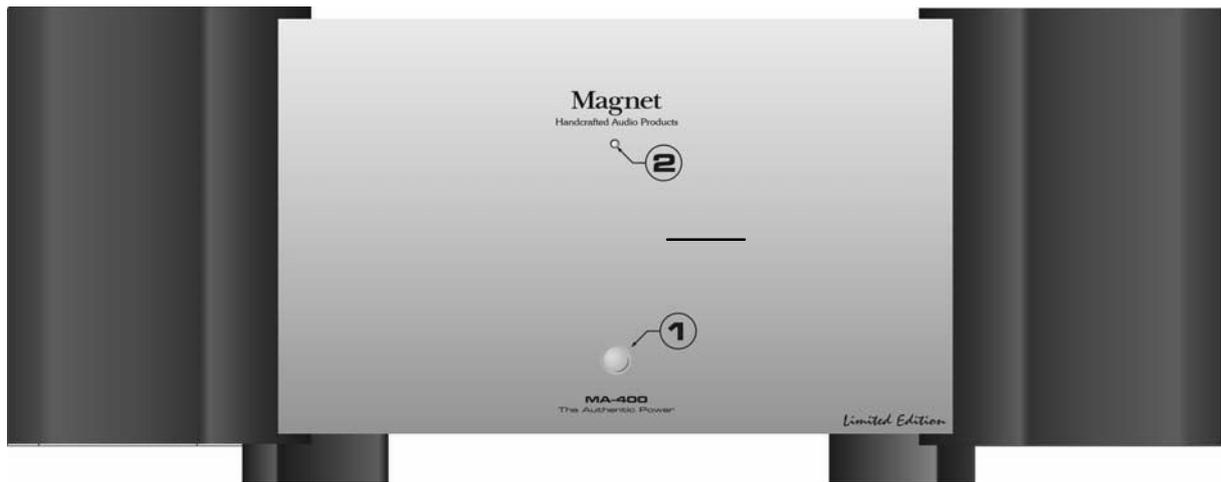
The MA-400 Limited Edition utilizes Full Complementary Symmetrical Push-pull and direct coupling with JFET differential input circuit. The Heavy duty design includes high capacitance power supplies, RFI filter, Heavy speaker's binding post and massive aluminum chassis. These are just some of the High end features. The combination of special remote on/off function, output over-current protection and DC fault protection make the MA-400 Limited Edition exceptionally good value in High end Audio.

Please read instructions carefully to avoid damage during operation. If you have any problems please do not hesitate to contact our Sales or Service Department.

## **Precautions**

Before proceeding with the installation, please read the instructions carefully. If you have any problems, do not hesitate to contact our Sales or Service Department.

1. All warnings on the unit and in the operation manual should be adhered to.
2. This unit should not be used near water or in humid conditions.
3. Do not touch any parts inside the machine in order to avoid electric shock.
4. The operating temperature range is  $+5 \sim +35$  °C. Operating humidity is 5% to 80%. Do not operate the unit when the temperatures and/or humidity are outside of this range.
5. Before connecting or disconnecting any cables, always turn off your equipment.
6. Turn on power amplifier first before the Pre Amplifier. Turn off power amplifier before the Pre Amplifier.



## Front Panel Function Control and Indicators

- 1. Power Button** Pressing the Power button once on the front plate will turn the machine ON. The LED on the front panel will appear BLUE when the machine in ON. Press power button again to turn the machine OFF. The LED will fade off when the power is switched OFF and return to standby mode.
- 2 Power Indicator** This small blue LED will light up when the power amplifier is operational normally. When this LED does not light up, all internal circuits are in protection mode.

In case of malfunction, the machine will go into protection mode. The LED will turn off. See more detail in Protection section.

REMARK The MA-400 Limited Edition can be linked with other MAGNET remote control Pre Amplifiers to utilize the remote On/Off option of your Pre Amplifier.



## Rear Panel Connections

1. REMOTE Loop      Allows amplifier to be turned On or Off when receiver or Pre Amplifier is turned On or Off for one touch operation, One trigger cable is included with each amplifier.
2. Balanced Inputs      The MA-400 Limited Edition Power Amplifier had provided Balanced [XLR] inputs to match a variety of products.
3. Unbalanced Inputs      The MA-400 Limited Edition Power Amplifier had provided Unbalanced [RCA] inputs to match a variety of products.
4. Input Type Switches      Selects between the unbalanced and balanced input for each channel. Verify that the switch is at the proper setting for the type of input used.
5. Speakers Terminal      Output signals to loudspeaker. The MA-400 Limited Edition has a pair of Binding Post for each channel.
6. AC Power Receptacle [Main Fuse is included]      Connect to your AC power line from the wall using the supplied power cord. Use noise free AC power and protection for system components. Use T8A [For AC Mains 220-240V] Slow- Blow fuse protects the amplifier from power overload. Replace only with same type fuse.
7. Grounding Post      Connection to ground for other units in the system. Connect the amplifier ground post to their ground post to maintain the lowest possible noise

## Protections

1. **OVER-CURRENT PROTECTION** - The MA-400 Limited Edition will go into protection mode and cut off all main power supplies to protect your amplifier and your loudspeakers.
2. **DC FAULT PROTECTION** - The MA-400 Limited Edition will go into protection mode when it detects DC voltage at the speaker output.
3. **OVERHEAT PROTECTION** - If the temperature of the output transistors exceed 76 degrees C, the MA-400 Limited Edition will shut itself down. It will not restart automatically. Wait 5 to 10 minutes to let the unit cool down, and then press the **POWER** button to turn it back on.

When in protection mode, the LED on the front panel will turn off. IF this occurs, turn off your Power Amplifier, wait a few seconds for it to reset then turn on machine again.

If protection mode continues, turn the machine off and contact our service department.

## Troubleshooting Guide

If the machine is not working properly please check the symptoms below and follow the corrective suggestion. If the problem still occurs, please contact our service department.

<u>Symptom</u>	<u>Problem and how to solve</u>
1. Unit does not power up/no LED on.	-Confirm AC is plugged in properly. -Check if fuse is still good.
2. No sound.	-Check speaker cable connection. -Check interconnects cable connection.
3. One side sound.	-Check speaker/interconnect cable connection. -Check the <b>BALANCE</b> on pre-amplifier, make sure that it is in the middle position.
4. Low bass sound.	-Check speaker cable phase connection.

## Specifications

Maximum Power Output	200Wrms, both channels driven continuously into 8 Ohms; 330W into 4 Ohms
Frequency Response [20 Hz to 20 kHz]	+0/-0.2 dB, 1W to 200W into 8 Ohms, -1 dB at 80 kHz
Total Harmonic Distortion Plus Noise	<0.02%, 20Hz to 20kHz. <0.01% at 1kHz
S/N Ratio, A Weighted [Ref. 200w]	<-100dB
Input Impedance	56kOhms Unbalanced, 4kOhms Balanced
Input Sensitivity	1.4Vrms
Output Impedance	0.01 Ohm
Size	Width : 19" [482mm] Height : 7.6" [194mm] Depth : 19" [482mm].
Weight	Net: 25 Kg, Shipping: 26.5 Kg

## Warranty Information

1. MAGNET Technology Corporation [hereinafter referred to as MAGNET] warrants to the original retail purchaser only, that its product is free from defects in material and workmanship under normal use and authorizes free service and/or parts exchange at any MAGNET Authorized Service Station only, for a period of ONE year from the date of purchase.
2. The warranty is subjected to the following conditions and limitations. The warranty is void : if product has been used other than in accordance with the instruction in the owner's manuals: abused or misused or is due to the product being repaired or tampered with by anyone other than MAGNET Technology Corp. or an authorized repair center.
3. The warranty does not apply to defects or failure caused by unauthorized parts, improper maintenance, fire, flood, lightning or other natural causes.
4. This warranty does not include the damage of external parts i.e., faceplate, knobs, metal casing, etc.
5. A returned product must include a copy of the Warranty Certification and the bill of sale.
6. The warranty does not extend to any incidental nor consequential cost or damages to the purchaser.

## By Product Class



<b>Magnet CD-11</b> Advanced DAC-Compact Disc Player	
Format	16-bit Linear PCM
Sampling Frequency	44.1 kHz
S/N Ratio	93 dB @ 2 Vrms
Dynamic Range	92dB
Outputs	2.024 Vrms
Frequency Response	20 Hz-20 kHz
Dimensions (W x D x H)	43.4 x 30.5 x 9 cm.
Weight	6.2 kg.

Magnet reserve the right to alter specifications without further notice.



<b>Magnet PV-10A</b> Cathode Follower Class-A Ultra Resolution PreAmplifier	
Gain	14 dB
Bandwidth [-3 dB]	5Hz - 170kHz
Input Impedance	100 kOhms
Maximum Output Voltage	2 Vrms
Crosstalk	< -85 dB [1 kHz, 1 Vrms]
Input Sensitivity	200 mV @ 1 Vrms Output
Output Impedance	200 Ohms
S/N RATIO [A-Weighted]	< -70 dB [1 Vrms, 20Hz - 20 kHz]
THD + Noise	< 0.1 % @ 1 Vrms

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<b>Magnet SP-01</b> Single Ended Cascode High Current Pre-Amplifier	
Frequency Response	20Hz - 50kHz [+0, -0.2 dB]
Bandwidth [-3 dB]	15Hz - 200kHz
Output Impedance	750 Ohms
Maximum Output Voltage	5.5 Vrms
Crosstalk	< -80 dB [1 kHz, 1 Vrms]
Tone Control	+/- 6 dB @ 10 kHz [TREBLE] +/- 6 dB @ 80 Hz [BASS]
S/N RATIO [A-Weighted]	< -80 dB [1 Vrms, 20Hz - 20 kHz]
THD + Noise	< 0.003 %

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<b>Magnet Hyperion Reference One</b> Dual Monaural Power Amplifier	
Number of Channels	2 Channels Bridgeable
Power output Stereo	250 Wrms @ 80ohms from 20Hz - 20kHz all channels driven 400 Wrms @ 4 Ohms from 20Hz - 20kHz all channels driven
Power output - Bridged	650 Wrms @ 8 Ohms from 20Hz - 20kHz all channels driven
THD + Noise	<0.01%at 1 KHz and <0.02% at 20 KHz, at rated power 8 Ohms
Frequency Response	20 Hz - 20KHz +/-0.1dB
Signal to Noise	>110dB from A-weighted below rated power
Crosstalk	>70 dB at 20KHz
Slew Rate	70v/microsecond
Damping Factor	>600
Input Impedance	24k Unbalanced / 50k Balanced
Input Sensitivity	1.55v for 250w ; 1v for 100w
Gain	29 dB
Bandwidth	300KHz @ 1w - 8 Ohms Load
Remote Trigger In	3 - 30v AC/DC 15mA +/-5mA
Remote Trigger Out	12v DC 100mA
Dimensions	Width : 452mm Height : 193.5mm Depth : 514mm
Weight	Net Weight : 34 kg Shipping Weight : 40 kg

Magnet reserve the right to alter specifications without further notice.

# Magnet

*Music Speaks Louder Than Words*

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