

Owner's Manual

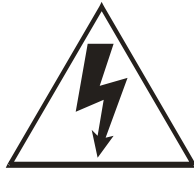
# Magnet

Handcrafted Audio Products

*Hyperion* Reference One  
Dual Monaural Power Amplifier

## 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

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**

### 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

RIF

ATTENTION: POUR PREVENIR LES CHOCES 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 Hyperion Reference One 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 number with any correspondence regarding your Hyperion Reference One Power Amplifier.

The Hyperion Reference One 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.



Pongtorn Malakul Na Ayudhya  
President/founder



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## **PRODUCT OVERVIEW**

### **SYMMETRICAL AMPLIFIER TECHNOLOGY**

The Hyperion Reference One uses a symmetrical current feedback topology to ensure low distortion and greater clarity even at the highest levels. Any signal put into The Hyperion Reference One will be current amplified in the circuit, amplified with all details intact. Magnet Amplifier employs fully complimentary circuit, so the two halves of the amplifier are mirror images of themselves helping lower noise and distortion.

Balanced complimentary input stage delivers ultra wide bandwidth performance for the best reproduction audio sources.

Ultra-High current output stage deliver instantaneous current for maximum transient impact. The Hyperion Reference One provides high peak current delivery, for a realistic music experience.

### **DUAL MONAURAL**

A monaural feature of The Hyperion Reference One, which allow them to outperform other amplifiers, is that each channel has its own transformer and power supply. Power amplifiers that share a single power supply across all channels will actually deliver far lower power levels than the maximum power rating when all channels are driven. The Hyperion Reference One is designed to support the current delivery for each channel independently.

The Hyperion Reference One delivers 400 continuous watts per channel into 4 ohms with all channels driven (250 watts/channel into 8 ohms). Instantaneous peak exceeds 500 watts into 4 ohms (300 watts/ channel into 8 ohms or 750 watts/ channel into 2 ohms).

You can realize music experience, details, dimensionality and low distortion sound with powerful bass at virtually any power level.

## IMPORTANT SAFETY PRECAUTIONS

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

- 1.** All warnings on the unit and in the operating manual should be followed.
- 2.** Operate the unit only from a power source of the appropriate voltage indicated on the rear panel.
- 3.** Do not use a damaged or deformed power cord as it may cause electric shock. When removing the plug from the wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.
- 4.** This unit should not be used near water or in humid conditions.
- 5.** Do not pour or spill liquids of any kind onto this unit.
- 6.** Do not operate this product with any cover removed.
- 7.** Before connecting or disconnecting any cables, always turn off your equipment and disconnect your entire system from the AC mains.
- 8.** Do not replace any fuse with a value or type other than that specified.
- 9.** Do not overload the wall outlet or extension cord because this can result in a risk of fire or electric shock.
- 10.** Do not push objects of any kind into this product through the openings e.g., ventilation slots, because they may touch dangerous voltage points or short-out parts. This act could result in a fire or electric shock.
- 11.** Do not attempt to repair this product because opening or removing covers may expose you to dangerous voltage or other hazards. If a problem occurs, contact your Marsh retailer.
- 12.** Disconnect your entire system from the AC mains before cleaning.
- 13.** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of this product and to protect it from overheating. These openings must not be blocked or covered.
- 14.** The operating temperature ranges from +5 to +35 degrees C. Operating humidity ranges from 5% to 80%. Do not operate the unit when the temperature and/or humidity are outside of this range.

## UNPACKING

The following information will guide you through the setup and operation of the Hyperion Reference One Power Amplifier. Please read through this entire manual preceding your setup.

Make sure you have the following to best enjoy the high performance of your Hyperion Reference One Power Amplifier.

- A.** This owner's manual
- B.** Your source equipment, speakers and their owners manuals.
- E.** Interconnects cable and speaker cable to connect source components and speakers to your Hyperion Reference One Power Amplifier.

### UNPACKING THE AMPLIFIERS

Take care in unpacking your Hyperion Reference One Power Amplifier so as not to scratch or damage the unit. Magnet recommends saving the box should you ever need to move it or return it for any reason.

While unpacking please make note of the enclosed item and set them aside.

#### Items Included

|      |   |
|------|---|
| 1 Ea | Copy of this Manual                         |
| 1 Ea | 1/8"-to-1/8" mono mini remote trigger cable |
| 3 Ea | Fuse TBAL 250V                              |
| 1 Ea | Fuse T15AL 250V                             |
| 1 Ea | AC Power Cord                               |
| 1 Ea | Warranty card                               |

## INSTALLATION GUIDELINES

Before placing, connecting and using your Hyperion Reference One Power Amplifier, please read through these guidelines to familiarize yourself with the installation specifications.

### HEAT DISSIPATION

The Hyperion Reference One Power Amplifier is a high current design, and like all amplifier, will produce heat under normal operating conditions. To maintain proper operation of your Power Amplifiers:

DO NOT stack your amplifier in an enclosed environment such as closets or completely enclosed audio racks.

When placing your amplifier into your audio system allow 3" of clearance on the top and 2" of clearance on each side to help disperse the heat. Each amplifier should be placed on a separate shelf with space above and to the sides.

If the amplifiers are required to be mounted in an enclosed environment, the use of a fan is recommended to remove excess heat from the enclosure.

DO NOT place amplifier directly on carpeted floors. An amplifier placed on carpeting restricts the flow of air from the bottom and causes the amplifier to heat up prematurely. This may also pose a safety hazard because may come in direct contact with the amplifier's chassis which is a source of heat.

### AC POWER LINE

Connection is made through a heavy duty grounded power cord. For safety and proper operation DO NOT remove the ground pin, cut the power cord or use a ground lifting adapter.

### AUDIO CONNECTIONS

When purchasing cable to connect your Hyperion Reference One Power Amplifier to your system, make sure the cable are long enough to have some slack between components.

DO NOT stretch the cables tightly between components. Cables should be of sufficient length so that they are not pulled around shelves or other components.





## HYPERION REFERENCE One FRONT PANEL FUNCTION CONTROL AND INDICATORS

**A. Power/Standby button** – Press this button to operate power amplifier and press this button again to place power amplifier in standby mode.

**B. Power/Standby 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 is in standby mode.

**C. Protection indicator** – This small, Red LED will light up when the power amplifier is in protection mode and the power amplifier will automatically shutdown.

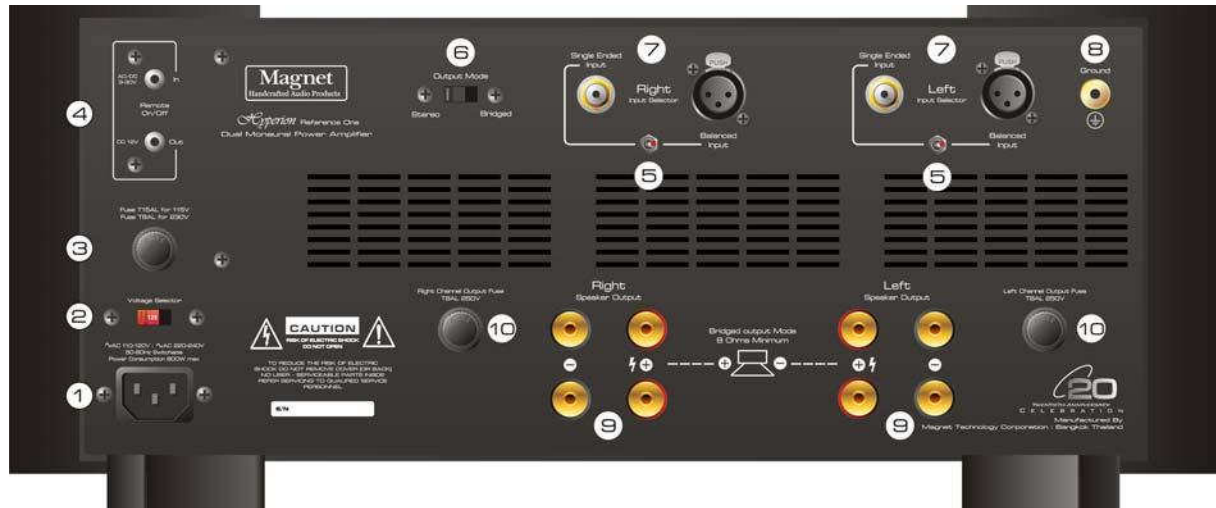
## INTERNAL PROTECTIONS

**1. DC-FAULT PROTECTION** - The Hyperion Reference One Power Amplifier will go into protect mode when it detects DC voltage at the speaker output. This is caused by a DC voltage leak from the pre-amplifier outputs or by an internal fault that gives a DC voltage leak at the speaker output.

**2. OVERHEAT PROTECTION** - If the temperature of the output devices exceed 90 degrees C, The Hyperion Reference One Power Amplifier 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 the above mentioned protect mode, the unit will shut down to prevent damage to itself or the speakers. If this occurs, wait for the unit to reset and turn itself on again.

**If protect mode continues, turn the unit off and contact your authorized Magnet dealer.**



## HYPERION REFERENCE One REAR PANEL

### 1. AC Power Receptacle

– Connect to your AC power line from the wall using the supplied power cord. Use noise free AC power and protection for system components.

### 2. Voltage Selection Switch

– Selects the power voltage for use on a variety of AC lines. Make sure that this switch is set to the proper voltage for your location. In the Thailand, standard AC power is 220v. Be sure to use the proper AC power cord for your country. Take off AC power cord before using this switch.

### 3. Main Power Fuse

– T8A [For AC Mains 220-240V] or T15A [For AC Mains 110-120V] Slow- Blow fuse protects the amplifier from power overload. Replace only with same type fuse.

### 4. Remote On/Off

– Allows amplifier to be turned On or Off when receiver or preamplifier is turned On or Off for one touch operation, One trigger cable and one power transformer are included with each amplifier.

### 5. Input Type Switch

–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.

### 6. Bridged Mono/Stereo Selection Switch

–Set this switch to Stereo for normal operation and Bridged Mono to bridge the amplifier into one channel.

### 7. Amplifier Input

–The Hyperion Reference One Power Amplifier had provided both Unbalanced [RCA] and Balanced [XLR] inputs to match a variety of products.

### 8. Grounding Connection

– Connection to ground for other units in the system. Connect the amplifier ground posts to their ground posts to maintain the lowest possible noise floor.

### 9. Speaker Terminals

– Binding posts allow for multiple types of speaker connections.

### 10. Channel Fuses

– T8A 250v Slow-Blow fuse protects the individual amplifier channel from power overload. Replace only with same type fuse.

## INSTALLATION AND OPERATION

The following section will guide you through the steps to connect your Hyperion Reference One Power Amplifier to the rest of your system. Read through this section carefully before connecting.

### INPUT CONNECTIONS

**A.** The Hyperion Reference One Power Amplifier provide both unbalanced [RCA] type and balanced [XLR] type connection for use with a variety of systems. Should your preamplifier have both types of the connections, Magnet recommends using balanced connections for cleaner more accurate reproduction.

**CAUTION: Never connect both balanced and unbalanced to the same input. Damage to components may occur.**

**B.** Input connections are marked with the channel name they are intended for. In some situations the channel input may be from a different channel. Please make note of which channel you use if a channel other than the one marked is used.

For unbalanced RCA type connections please follow Step 1A for each amplifier.  
For balanced XLR type connections, please follow Step 1B for each amplifier.

### SPEAKER CONNECTIONS

Just like input speaker connections are labeled with the channel name as well as begin color coded.

**CAUTION : When connecting speakers all polarity marking must be followed exactly or damage can occur to components.**

|       |            |
|-------|------------|
| RED   | Positive + |
| BLACK | Negative - |

**Never make audio connections when the power is on.**

To prevent damage to the Hyperion Reference One Power Amplifier and other components, never make connections when power is applied. Connect amplifiers to AC power last to ensure damage will not occur.

### TRIGGER CONNECTIONS

The Hyperion Reference One Power Amplifier feature remote trigger input and output to turn the amplifier on/off with the preamplifier.

As well. Refer to the amplifier specifications page for more information. The remote trigger works on 3-30v AC/DC and the remote trigger out is 12v DC.

### KNOWING THE CONNECTIONS

Before continuing with the connection of the Hyperion Reference One Power Amplifier, please familiarize yourself with the amplifier back panel. This will allow you to make the proper connections, prevent damage and ensure you get the most enjoyment from your amplifiers.

Once you are familiar with the back panel follow the steps provided in the connections guide.

## **HYPERION REFERENCE STEREO CONNECTIONS**

### **STEP 1A : For Unbalanced RCA Connection**

- 1.** Connect one of the unbalanced RCA type interconnects to the Left and Right channel Preamplifier output of your Preamplifier.
- 2.** Connect the other end of the unbalanced interconnects to the appropriate channel inputs on the Hyperion Reference One Power Amplifier
- 3.** Set Input Type Switch [5] towards the Unbalanced Input for each input.

### **STEP 1B : For Balanced XLR Connections.**

- 1.** Connect one of the balanced XLR type interconnects to the Left and Right channel Preamplifier output of your Preamplifier.
- 2.** Connect the other end of the balanced interconnects to the appropriate channel inputs of Hyperion Reference One Power amplifier.
- 3.** Set Input Type Switch [5] toward the Balanced Input for each input.

### **STEP 2 : Bridged Mono/Stereo Switch**

- 1.** Set bridged Mono/Stereo [6] switch to the **stereo** position

### **STEP 3 : Speaker Connections**

- 1.** Connect one end of each speaker cable to the Left and Right Speaker terminals [9] on the amplifier. Make sure to follow the markings for Positive and Negative to maintain proper speaker polarity.
- 2.** Connect the other end of each speaker cable to the appropriate speaker. Make sure to Follow the markings. For Positive and Negative to maintain proper speaker polarity.

### **STEP 4 : Remote Trigger Connections**

- 1.** Connect one end of the 1/8"-to-1/8" mono mini cable to the remote output of your preamplifier.
- 2.** Connect the other end of the 1/8"-to-1/8" mono mini cable to the remote trigger in [4] of the Hyperion Reference One. If you are using the 12V power transformer, connect the end with the 1/8" mono mini jack to the remote trigger in of the Hyperion Reference One
- 3.** Connect one end of the 1/8" -to- 1/8" mono mini cable to the remote output of the Hyperion Reference One and the other end to the component you wish to control.

### **STEP 5 : AC Power Connections**

- 1.** Set the power selector switch [2] to the proper voltage.
- 2.** Connect one end of the supplied AC power cord to the Hyperion Reference One [1]
- 3.** Connect the other end into the local AC Mains.

## HYPERION REFERENCE One BRIDGED MONO CONNECTIONS

The Hyperion Reference One is designed to be used in a 2 channel system, in some of these systems more power may be required. In that case, two Hyperion Reference One amplifiers can be used in bridged mono mode which more than doubles the power output of the amplifiers. The following diagram shows how to make connections.

### STEP 1A : Unbalanced RCA Connections.

1. Connect one end of the unbalanced RCA type interconnect to the preamp output of your Receiver/preamp.
2. Connect the other end of the unbalanced interconnect to the RIGHT channel input on the Hyperion Reference One
3. Set Input Switch towards the Unbalanced Input.

### STEP 1B : Balanced XLR type connections.

1. Connect one end of the balanced XLR type interconnect to the receiver/preamp you wish to use.
2. Connect the other of the balanced interconnect to the RIGHT channel input on the Hyperion Reference One
3. Set Input Type Switch toward the Balanced Input.

### STEP 2 : Bridged Mono/Stereo Switch

Set bridged mono/stereo switch [6] to the **bridged** position.

### STEP 3 : Speaker Connections

1. Connect the positive terminal from the speaker to the right channel terminal of the Hyperion Reference One [ + ]
2. Connect the negative terminal for the speaker to the left channel terminal of the Hyperion Reference One [ + ]

### STEP 4 : Remote Trigger Connections

1. Connect one end of the 1/8"-to-1/8" mono mini cable to the remote output of your Preamplifier.
2. Connect the other end of the 1/8"-to-1/8" mono mini cable to the remote trigger in of the Hyperion Reference One. If you are using the 12V power transformer, connect the end with the 1/8" mono mini jack to the remote trigger in of the Hyperion Reference One
3. Connect one end of the 1/8" -to- 1/8" mono mini cable to the remote output of the Hyperion Reference One and the other end to the component you wish to control.

### STEP 5 : AC Power Connections

1. Set the power selector switch [2] to the proper voltage.
2. Connect one end of the supplied AC power cord to the Hyperion Reference One [1]
3. Connect the other end into the local AC Mains.

## TROUBLESHOOTING

The following lists some troubleshooting types should you encounter issues when using your Hyperion Reference One Power Amplifier.

| <b>Problem</b>                               | <b>Possible Cause</b>  | <b>Remedy</b>   |
|--|--|---|
| Amplifier does not turn on                   | Power cord disconnected  | Check power cord and connects to AC line  |
|  | Blown power fuse   | Check Main power fuse on back of amplifier.<br>Disconnect amplifier from AC before removing fuse. Replace with same value fuse only   |
|  | Preamplifier remote trigger cable not connected to preamplifier                  | Verify that remote trigger cable is connected to both the power amplifier and the preamplifier.   |
|  | Remote trigger out from Preamplifier is incorrect voltage.                       | Remote trigger in requires 3-30V AC/DC to turn amplifier ON. If the output of the preamplifier remote trigger is not within this range, the power amplifier will not turn on.   |
| No sound from one or more channels           | Input type selection switch set to the incorrect input type                      | Verify that all of the Input type selection switch are in the correct position.<br>If using standard RCA connections, the switch should be set to Unbalanced.<br>If using XLR connections, the switch should be set to balanced.  |
|  | Input from Preamplifier Is not connected   | Check input connections   |
|  | Speaker Cables Not Connected to Amplifier or Speakers<br>Channel Fuse Blown      | Check speaker connection<br><br>Verify that the channel fuses have not blown.<br>If they have, replace with the correct type and value fuse. Check the speaker and connections to the speaker for that channel. Verify there is no short in the connections of the speaker. |
| Sound comes out of Incorrect speaker channel | Preamplifier output channel connected to an Incorrect input channel on amplifier | Verify that the receiver/Preamp output Channel is properly connected to the corresponding input channel on the amplifier.   |
|  | Amplifier Output Channel Connected to Incorrect speaker                          | Verify that the amplifier output channels go to the correct speakers.   |
| Protection Red LED lights up                 | DC faults protection   | The power amplifier will automatically shutdown. Please contact your authorized Magnet dealer.  |
|  | High temperature protection  | Wait 5 to 10 minutes to let the unit cool down, and then press the POWER button to turn it back on.   |

## WARRANTY INFORMATION

Thank you for purchasing this Magnet handcrafted Audio product. All Magnet Power Amplifier product are finely engineered and robustly manufactured to boost any system's performance beyond that you thought possible. Magnet proudly stands behind every one of its products, We know your Hyperion Reference One Power Amplifier will bring you tremendous satisfaction and outstanding performance and reliability.

1. Magnet Technology Corp. warranty only applies to the original retail purchaser. The warranty certifies that the product is free from defects in material and workmanship and authorizes free service and/or parts exchange for a period of **TWO** years from the date of purchase. Service must only be done at an authorized Magnet Service center.
2. The warranty is subjected to the following conditions and limitations. The warranty is void if the product has been used in a manner other than that specified within the operating manual, if the product has been abused or misused, or if the product has been repaired by anyone other than an authorized Magnet Service center.
3. The warranty does not apply to defects or failure caused by usage of unauthorized parts, improper maintenance, fire, flood, lightning or other unusual natural causes.
4. This warranty does not cover damage to the external parts, e.g. front panel, knobs, casing, etc.
5. A returned product must include a copy of the Warranty Certificate and the receipt of sale and must be sent in the original packaging.
6. The warranty does not extend to any incidental or consequential cost or damage to the purchaser caused by a malfunction of the product.

## TECHNICAL SPECIFICATIONS

|                        |  |
|------------------------|--|
| Number of Channels     | 2 Channels Bridgeable  |
| Power output Stereo    | 250 Wrms @ 8Ω from 20Hz – 20kHz all channels driven<br>400 Wrms @ 4Ω from 20Hz – 20kHz all channels driven |
| Power output – Bridged | 650 Wrms @ 8Ω 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 – 8Ω Load  |
| Remote Trigger In      | 3 – 30v AC/DC 15mA +/-5mA  |
| Remote Trigger Out     | 12v DC 100mA   |
| Dimensions             | Width : 434mm  |
|                        | Height : 193.5mm   |
|                        | Depth : 514mm  |
| Weight                 | Net Weight : 34 kg   |
|                        | Shipping Weight : 40 kg  |

# Magnet

Music Speaks Louder Than Words

## **Head office / Show room(1)**

45/11-12 Moo 2, Soi Chokechai 4, Ladprao Road., Ladprao, Bangkok 10230, Thailand

Tel. [662] 907-7920, [662] 907-7923-5 Fax. [662] 907-7864

Email : [info@magnet.co.th](mailto:info@magnet.co.th)

## **Show room(2)**

Room 509, 5th floor, Hi-Fi Center, Rajdamri Road., Patumwan, Bangkok 10330, Thailand

Tel. [662] 655-3526-7 Fax. [662] 655-3529

[www.magnetaudio.com](http://www.magnetaudio.com)