



**ENERGY**®

L O U D S P E A K E R S

connoisseur  
series

&

pro  
series

owners manual

## TABLE OF CONTENTS

FEATURES AND BENEFITS .....	2
ROOM ACOUSTICS AND SPEAKER PLACEMENT .....	3,4
SELECTION OF PROPER WIRE .....	5
AMPLIFIER REQUIREMENTS .....	5
CARE OF FINISH .....	5
AMPLIFIER TO LOUDSPEAKER CONNECTION .....	5
Conventional hook-up .....	6
Bi-Wire hook-up .....	6
Combination Bi-Amp/Bi-Wire hook-up .....	7
CONNOISSEUR SERIES SPECIFICATIONS .....	8
PRO SERIES SPECIFICATIONS .....	9
WARRANTY .....	10
WARNING .....	11

## WELCOME TO THE WORLD OF ENERGY LOUDSPEAKERS.

We are sure you will enjoy this superb product. The following advice is offered to facilitate proper installation of your **Energy** speakers in your home.

Extensive research along with great care at every design stage has enabled **Energy** to produce loudspeakers with extraordinary performance characteristics: a performance level that is equal, or superior to other speakers costing many times their price.

The finest components and materials, made with sophisticated manufacturing and quality control ensure that you will enjoy this exceptional performance for many years.

---

**PLEASE TAKE TIME TO READ ALL OF THE INSTRUCTIONS CONTAINED IN THIS MANUAL TO MAKE CERTAIN YOUR SYSTEM IS PROPERLY INSTALLED AND FUNCTIONING CORRECTLY.**

---

Be sure to unpack your speakers carefully. Retain the carton and all packing material for future use.

## FEATURES AND BENEFITS

Your new **Energy** speakers feature state-of-the-art technologies derived from development of the flagship of the line., the world acclaimed Veritas™ v2.8.

### Connoisseur Series:

- **Injection Molded Woofer Cones** - featuring proprietary aluminum fleck with polypropylene materials to ensure an extremely high stiffness to weight ratio resulting in far greater transient detail and much lower acoustic distortion versus conventional woofer materials.
- **Aluminum Hybrid Dome Tweeter** - this light rigid dome offers unparalleled dispersion and extremely low distortion with exceptional detail.
- **Spherex™ Baffles** - extremely rigid non resonant composite materials have been utilized to ensure complete mechanical isolation from the woofer and tweeter resulting in accurate timbral balance, detailed midrange and improved spaciousness and imaging.
- **Interloc™ Bracing** - strategically placed braces lock into the front, sides and back of the speaker enclosure to minimize cabinet resonances and reduce cabinet induced colorations.
- **Bi-Amp Capable** - allow use of separate amplifiers for the woofer and tweeter. Increases transient response and dynamics (refer to Page 7 for Bi-Amp hook-up).
- **Bi-Wire Capable** - allow connection of the bass/midrange driver and the mid/high frequency driver separately to enhance detail, timbre and sound stage (refer to Page 6 for Bi-Wire hook-up).

### Pro Series:

- **Multi-lam Dome Tweeter** - multiple layered composite dome materials ensuring a very high stiffness to weight ratio for fast decay times, smooth frequency response and wide dispersion, resulting in a faithful reproduction of ambiance and sound stage detail.
- **Injection Molded Woofer Cones** - computer designed woofers utilizing advanced composite materials result in exceptional midrange detail and fast, dynamic bass response with extremely low distortion.
- **Bi-Amp and/or Bi-Wire Capable** (Model Pro 4.5) - allow use of separate amplifiers for the woofer and tweeter: Increases transient response and dynamics (refer to Page 7 for Bi-Amp/Bi-Wire hook-up).

## ROOM ACOUSTICS AND SPEAKER PLACEMENT

**Energy** loudspeakers have been designed to provide high performance in a wide variety of domestic settings. It is important to note however, that building structure, dimensions and furnishings all play a part in the quality of sound you will ultimately achieve. Where possible the following should be taken into consideration when placing **Energy** speakers in your listening room:

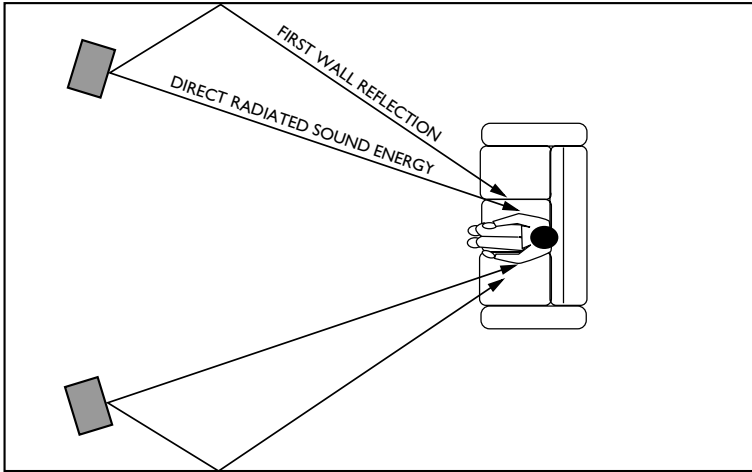
1. Low frequency performance (below 100 Hz) can be affected by the structure of the room. A solid floor is preferred to avoid exaggeration of low frequencies.
2. Rooms with different height, width and length are preferable for best low frequency performance.
3. Mid and high frequencies are affected by the mix of soft and hard furnishings in the room. An excess of soft items such as curtains, carpets, sofas and wall coverings can produce a dull, lifeless reproduction. The same room without any soft furnishings will produce a brighter, harder sound, so a balance of soft and hard furniture, floor and wall coverings should be your goal for optimum sonic performance.
4. Most of the sound heard from a loudspeaker has been reflected from one or more walls of the room. Usually, more than half the sound is heard directly from the loudspeaker. The remaining information you hear has been reflected from the surfaces of your room.

Reflective surfaces have individual sound absorption characteristics, and it is important for good stereo perception that frequency response be the same from both left and right channels. It is therefore important that consideration be paid to the left and right reflecting walls. First, they should be symmetrical, equally spaced from the speakers and the listeners. Secondly, they should have the same, or very similar reflective properties.

Example: A curtain on one wall and a painted surface on the opposite wall will result in unbalanced reflections, which in turn affect the stereo image. Experiment with toe-in/toe-out positioning of your speakers until best results are achieved.

5. **Energy** loudspeakers are designed to be free standing. For best results they should be positioned with an open space between the loudspeakers and the walls of the listening room. The Pro Series book shelf models (Pro .5, Pro 1.5 and Pro 3.5) can also be used effectively in bookshelf or wall mounting applications.
6. The loudspeakers should be positioned at least 30cm (12 in.) from the back wall. The distance from the left and right speaker to the side walls should be equal. For best results, placement distance from the rear wall should not be the same as from the side walls. (see Figure 1).
7. The loudspeakers should be placed 2 to 3 meters (6' to 10') apart. The distance from loudspeakers to listener should be about 1 to 1.5 times the distance separating the speakers. (see Figure 1).

## SPEAKER PLACEMENT (FIGURE 1)



## SELECTION OF PROPER WIRE

We recommend the use of high quality speaker cable. The speaker cable you select will ideally be fitted with high quality connectors with either spade lugs or dual banana plugs.

In most installations, ordinary lamp cord (16-18 gauge) has enough resistance to degrade the signal between amplifier and speakers, particularly in lengths over 3 meters (10'). If possible the speaker cables should be the same length for both channels and the shorter they are, the better the sonic performance will be.

### Amplifier Requirements

**Energy** loudspeakers have been designed to be driven to high listening levels with moderate power, while at the same time being capable of handling the power output of large amplifiers.

---

**NOTE:** The **Energy** Connoisseur and Pro series speakers are 8 ohms and will function well with most amplifiers. If using more than one set of speakers, powered by one amplifier, please check with the amplifier manufacturer to confirm that the amplifier can handle loads of 4 ohms.

---

## Amplifier to Loudspeaker Connection

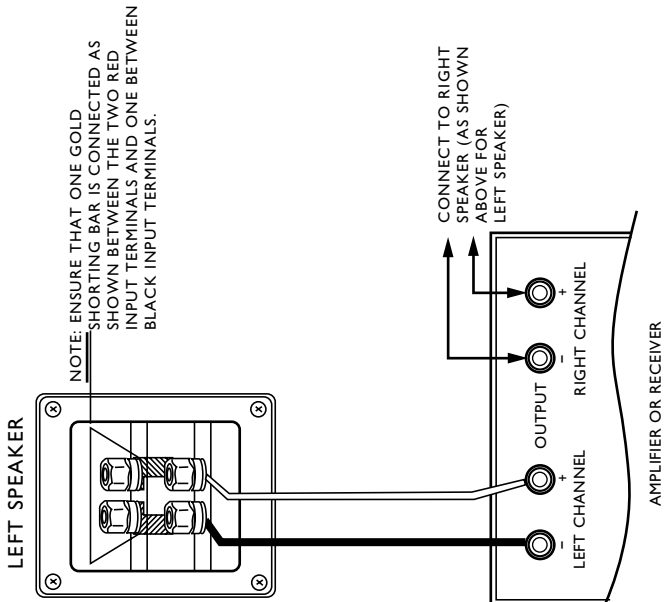
The Connoisseur Series and Pro 4.5 loudspeakers utilize two sets of binding posts. The upper set is for high frequencies and the lower set for lower frequencies. Bi-amp/bi-wire allows three different wiring options.

- 1) Conventional Hook-up** - You will note shorting straps have been installed. (see figure 2) - Positive (+) to Positive, Negative (-) to Negative. Connect speaker wire from the red positive (+) terminal on amplifier to upper positive terminal on speaker. Connect black negative (-) terminal from amplifier to upper negative terminal on speaker.
- 2) Bi-Wire Hook-up** - Remove shorting straps. Use two dual conductor cables; one cable for low frequencies and one cable for high frequencies. Separate connections are made between the power amplifier to the low frequencies binding posts on the speaker and from the power amplifier to the high frequency binding posts. This allows you to choose separate wires that are best suited for the low or high frequencies. (see figure 3)
- 3) Combination Bi-Amp/Bi-Wire Hook up** - This method uses separate amplifiers for the low frequency section and high frequency section of the speaker. This dramatically improves musicality. The amplifier's gains and the phase relationship of the amplifier's input to output must be identical. (see figure 4)

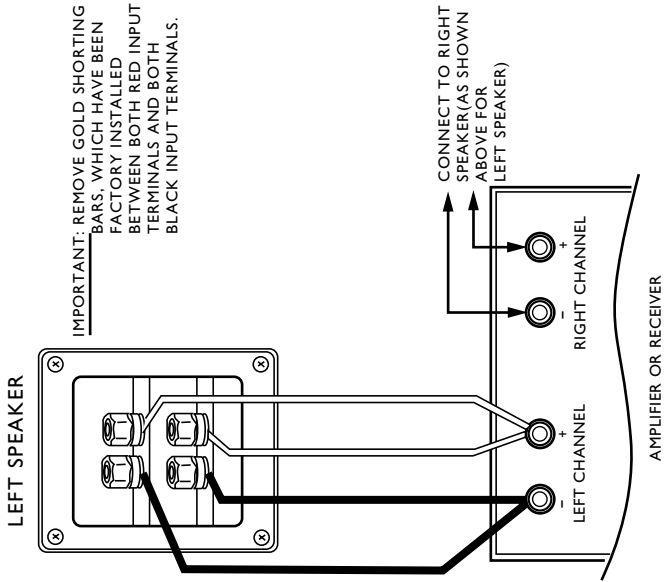
## Care of Finish

Your **Energy** speakers are attractively finished and should be gently wiped clean, from time to time, with a damp cloth to remove any dust or stains.

### CONVENTIONAL HOOKUP (FIGURE 2)



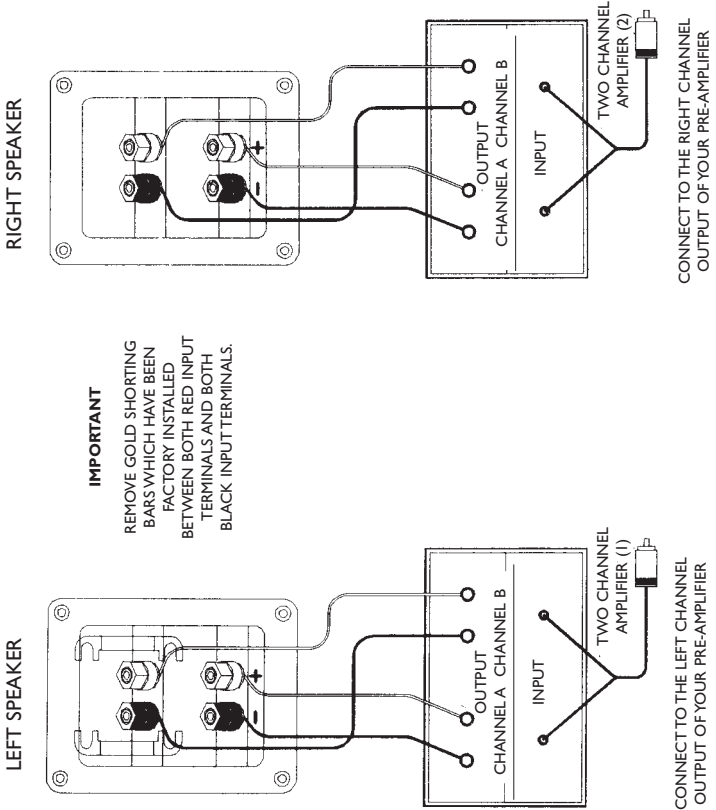
### BI-WIRE HOOKUP (FIGURE 3)



# COMBINATION BI-AMP/BI-WIRE HOOKUP

(Figure 4)

(THIS METHOD USES TWO IDENTICAL CHANNEL AMPLIFIERS FOR IMPROVED SYSTEM PERFORMANCE)





# CONNOISSEUR SERIES SPECIFICATIONS

Model:	C-2	C-4	C-6	C-8
<b>System type:</b>	Vented 2 Way	Vented 2 Way	Vented Tapered 3 Way	Vented Tapered 3 Way
<b>Driver Complement</b>				
<b>Tweeter:</b>	1 - 1" (25mm) Aluminium Dome/Cloth Suspension	1 - 1" (25mm) Aluminium Dome/Cloth Suspension	1 - 1" (25mm) Aluminium Dome/Cloth Suspension	1 - 1" (25mm) Aluminium Dome/Cloth Suspension
<b>Woofer(s):</b>	1-6-1/2"(16.5cm) Injection Molded Diaphragm/Rubber Suspension	1-8" (20.3cm) Injection Molded Diaphragm/Rubber Suspension	2-6-1/2" (16.5cm) Injection Molded Diaphragm/Rubber Suspension	2-8"(20.3 cm) Injection Molded Diaphragm/Rubber Suspension
<b>Frequency response ( dB):</b>	40Hz - 25kHz	35Hz - 25kHz	30Hz - 25kHz	28Hz - 25kHz
<b>Crossover points:</b>	1800Hz	1800Hz	1800Hz	1800Hz
<b>Sensitivity:</b>	88dB	88 dB	89 dB	90 dB
<b>Impedance:</b>	8 ohms (nominal)	8 ohms (nominal)	8 ohms (nominal)	8 ohms (nominal)
<b>Recommended Amplifier Power:</b>	50 - 130 Watts RMS/Chnl.	50 - 175 Watts RMS/Chnl.	50 - 225 Watts RMS/Chnl.	50 - 300 Watts RMS/Chnl.
<b>Maximum power handling (&lt;10% Clipping):</b>	130 Watts	175 Watts	225 Watts	300 Watts
<b>Dimensions (H x W x D): (in) (cm)</b>	17-3/4 x 9-5/8 x 9-3/4 45.1 x 24.4 x 24.8	33 x 9-5/8 x 12 83.8 x 24.4 x 30.5	36 x 9-5/8 x 14-7/8 91.4 x 24.4 x 37.8	39 x 9-5/8 x 16 99.1 x 24.4 x 40.6

## PRO SERIES SPECIFICATIONS

Model:	PRO 5	PRO 1.5	PRO 2.5	PRO 3.5	PRO 4.5
<b>System type:</b>	Vented 2 Way	Vented 2 Way	Vented 2 Way	Vented 2 Way	Vented-Tapered Way
<b>Driver Complement</b>					
<b>Tweeter:</b>	1-1/2" (13 mm) Flared Dome	1-3/4" (19 mm) Soft Dome	1-3/4" (19 mm) Soft Dome	1-1" (25mm) Multi-Laminate Dome	1-1" (25mm) Multi-Laminate Dome
<b>Woofer(s):</b>	1-5-1/4" (13.5cm) Injection Molded Diaphragm	1-5-1/2" (14cm) Injection Molded Diaphragm	1-6-1/2" (16.5 cm) Injection Molded Diaphragm	1-6-1/2" (16.5cm) Injection Molded Diaphragm/ rubber suspension	2.5-1/2" (14 cm) Injection Molded Diaphragm/ rubber suspension
<b>Frequency response ( dB):</b>	60 Hz - 20 kHz	52 Hz - 20kHz	48 Hz -20 kHz	45 Hz - 20 kHz	39 Hz - 20 kHz
<b>Crossover points:</b>	3000 Hz	2300 Hz	2300Hz	2000 Hz	2000 Hz
<b>Sensitivity:</b>	86.5dB	87 dB	88dB	88 dB	89dB
<b>Impedance:</b>	8 ohms (nominal)	8 ohms (nominal)	8 ohms (nominal)	8 ohms (nominal)	8 ohms (nominal)
<b>Recommended Amplifier Power:</b>	30-80 Watts RMS/Chnl.	30-100 Watts RMS/Chnl.	30-110 Watts RMS/Chnl.	30-120 Watts RMS/Chnl.	30-140 Watts RMS/Chnl.
<b>Maximum power handling (&lt;10% Clipping):</b>	80 Watts	100 Watts	110 Watts	120 Watts	140 Watts
<b>Dimensions (H x W x D):</b> (in.) (cm)	10-1/2 x 6-1/2 x 7-3/8 26.7x 16.5 x 18.7	11-7/8 x 7-3/8 x 7-5/8 30.2 x 18.7 x 19.4	13-3/4 x 8-5/8 x 9-1/8 34.9 x 21.9 x 23.2	15-3/4 x 8-1/2 x 9-3/8 40.0 x 21.6 x 23.8	32 x 7-1/2 x 10-7/8 81.3 x 19.1 x 27.6

# LIMITED WARRANTY POLICY

## Warranty Protection

**Energy** warrants this product to the retail purchaser against any failure resulting from original manufacturing defects in workmanship or materials. The warranty is in effect for a period of (5) years from date of purchase from an authorized **Energy** dealer and is valid only if the original dated bill of sale is presented when service is required.

The warranty does not cover damage caused during shipment, by accident, misuse, abuse, neglect, unauthorized product modification, failure to follow the instructions outlined in the owner's manual, failure to perform routine maintenance, damage resulting from unauthorized repairs or claims based upon misrepresentations of the warranty by the seller.

## Warranty Service

If you require service for your **Energy** loudspeaker(s) at any time during the (5) five year warranty period, please contact 1) the dealer from whom you purchased the product(s), 2) **Energy** National Service, 203 Eggert Road, Buffalo, N.Y. 14215 Tel 716 896-9801 or 3) **Energy** Loudspeakers, a division of Audio Products International Corp., 3641 McNicoll Avenue, Scarborough, Ontario, Canada, M1X 1G5, Tel 416 321-1800. You will be responsible for transporting the speakers in adequate packaging to protect them from damage in transit and for the shipping costs to an authorized **Energy** service center or to **Energy** Loudspeakers. If the product is returned for repair to **Energy** Loudspeakers in Scarborough or Buffalo, the costs of the return shipment to you will be paid by **Energy**, provided the repairs concerned fall within the Limited Warranty.

**Energy** Warranty is limited to repair or replacement of **Energy** products. It does not cover any incidental or consequential damage of any kind. If the provisions in any advertisement, packing cartons or literature differ from those specified in this warranty, the terms of the Limited Warranty prevail.

## Warranty Outside of the United States and Canada

Product warranties may be legislated differently from one country to another. Ask your local **Energy** dealer for details of the LIMITED WARRANTY applicable in your country.

## WARNING

### IMPORTANT TECHNICAL NOTE PLEASE READ BEFORE OPERATING SPEAKERS

THE WARRANTY ON SPEAKERS IS VOID IF THE VOICE COILS ARE BURNED OR DAMAGED AS A RESULT OF OVERPOWERING OR CLIPPING.

---

**OVERPOWERING:** The volume control of most amplifiers and receivers is a logarithmic type, which means that full power may be reached with volume control at as little as the halfway point. In addition, operating the loudness feature or boosting the treble or bass controls increases power output well beyond rated levels.

---

AS A RESULT OF THE ABOVE FACTORS, A 30 WATT AMPLIFIER CAN PRODUCE OUTPUT LEVELS OF OVER 100 WATTS AND MAY DAMAGE YOUR LOUDSPEAKER.

---

**CLIPPING:** Clipping refers to the power level at which an amplifier begins to distort a waveform by flattening its top and bottom into a square wave-shape. When fed to tweeters and/or midrange speakers, this may result in exceeding their maximum power handling capacity, causing damage to the speaker voice coil.

---

CLIPPING CAN BE IDENTIFIED BY A FUZZY OR DISTORTED SOUND. IF THIS IS HEARD, LOWER THE VOLUME IMMEDIATELY TO AVOID DAMAGE TO YOUR SYSTEM.

CONTINUOUS CLIPPING WILL DAMAGE OR BURN OUT THE SPEAKERS.