

# Opera Seconda

## System

Opera Seconda ("Second" in Italian) is the intermediate model of the Linea Classica series. It is a 2.5-way floorstander in a sealed cabinet - characterised, thanks to two woofers assembled in pneumatic suspension in separate chambers, by excellent response and authority in the low frequencies. The loudspeaker is equipped with four bi-wire ready gold-plated connectors of large diameter.

## The Cabinet

The Opera Seconda cabinet is designed with rounded edges, using quality MDF, and finished with finely polished real wood veneers. The front, top and rear panels are covered with manufactured leather, which beyond aesthetic qualities, also work as damping for the loudspeakers.

The front panel, following Opera's tradition, is thick enough to properly control the drivers.

The internal volume is divided into two separate chambers, that beyond strengthening the structure, remove the resonant frequencies associated with the height of the piece.

The cabinet interior is filled with quality acrylic wadding in order to control the extended frequency response, while lowering internal reflections.

Because there is no reflex port, the loudspeaker can be located near to the rear wall, and is therefore optimally used both as front and/or rear loudspeakers in home theatre systems.

## The Components

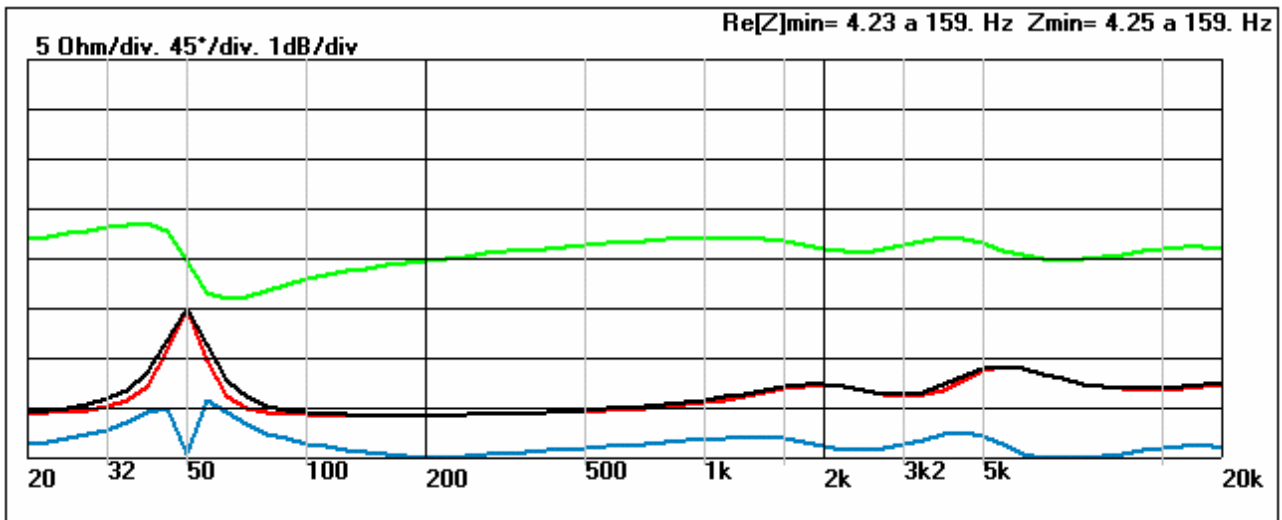
All models of the Linea Classica series use the same drive units; the one inch tweeter (the same used in the Callas SP) is a silk dome unit, with ferrofluid in the air gap and a wide rear decompression chamber. The qualities of this SEAS tweeter are well known and appreciated. The woofer, also made by SEAS, was developed specially for this line of loudspeakers. It is a 6.5 inch unit with 18cm chassis, 38mm voice coil, aluminium diaphragm and rubber outer suspension. It has a dynamic mass appreciably higher than the norm, and an impedance of 4 ohm. Two copper rings are fitted above and below the T-shaped pole piece, which both reduce distortion and stabilize the magnetic flux. Finally, the bullet-shaped phase plug in ABS helps to dissipate heat and overcome compression effects associated with normal dust-caps. It also improves emission at the high-frequency end of the unit's range. The cast chassis, of aerodynamic design, is fully open even beneath the inner suspension.

## The Crossover

In designing this new "Classic Series", particular attention has been paid to the electric impedance. In particular, we wanted to guarantee a load condition compatible with any type of amplifier.

In order to do so, the impedance minimums have been kept within the limits allowed by the DIN regulation that provides that, for nominal 4 ohm loudspeakers, the impedance does not fall below 3.2 ohm.

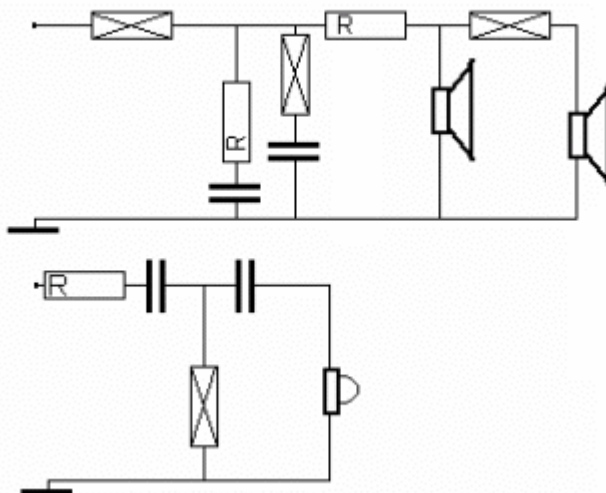
The electrical impedance modulus of Opera Seconda is always over 4.25 ohm, and the progression is regular with contained phase rotations.



Electrical Impedance of the Opera Seconda model  
 Electical Impedence : Black = Z module, Green =Phase, Red =Real[Z], Cyan Imag[Z]

We believe that the cost of a loudspeaker system has to be assessed together with the cost of the amplifier more suited to guide it. Opera Prima is a nominal 4 ohm diffuser that can be easily guided by a wide range of amplifiers, either with valves or solid.

The cross-over of Opera Seconda is characterised by the almost-parallel connection of the two woofers and by asymmetrical slopes of 12 and 18 dB for the sections low-pass and high-pass. The cross-over frequency is at about 2300 Hz and the sensitivity is 89 dB (2.83 V at one metre).

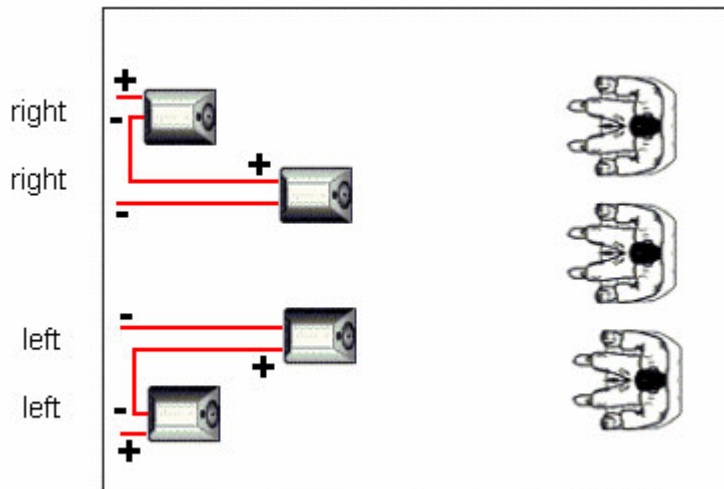


Opera Seconda Cross-Over

### Room Positioning

Opera Seconda is a floorstanding loudspeaker. We advise against placing the loudspeaker in a corner, and suggest keeping a minimum distance of at least 30 cm (12") from the side walls. The best position within your environment will be found with a little experimenting.

In case two pairs of Opera Seconda diffusers are used, these have to be connected in series as illustrated in the figure below.



Positioning of two pairs of diffusers, suggested by Righini

### Technical Specifications:

#### *Seconda*

#### **System:**

Floorstanding column, two separated sealed chambers

#### **Drive units:**

2 x 6.5 inch bass drivers - aluminium, cone

1 x 1 inch tweeter - fabric dome

#### **Number of ways:**

2 1/2 way

#### **Frequency response:**

32-20000 Hz

#### **Cross-over: low pass:**

Nearly-parallel for woofers 12 dB/octave low pass

24 dB/octave for the high pass

Crossover frequency 2300 Hz approx

#### **Power handling:**

140 watt RMS

#### **Recommended ampli.er:**

10 to 140 Watt RMS or more ( Without clipping )

#### **Sensitivity:**

89 dB/1watt/1 meter

#### **Nominal Impedance:**

4 ohm (Z min > 4.2 ohm)

#### **Room positioning:**

At least 20-30 cm from side room boundary

#### **Size:**

102,5 x 24 x 31,5 cm (h x w x d)

40,3 x 9,5 x 12,4 inch (h x w x d)

#### **Weight:**

25 Kg (55 lbs)