

ACELEC model one



Owner's Manual

Dear Customer,

Thank you for your decision to acquire Acelec loudspeakers.

Every Acelec model features the advanced Acelec loudspeaker technology by using the bitumized aluminum panel construction technology, resulting in music reproduction at a very high level. This advanced technology results from many years of intense research and development, the highest quality standards in production, and Acelec's passion for music.

The Acelec brand is made under the hood of Sonnet Digital Audio and is one of very few companies who can realize such loudspeaker concepts through its own in-house development and production facilities. To realize the highest sound quality from the loudspeakers, some areas should be addressed, as will be explored on the following pages. By considering the tips and suggestions, you will achieve the maximum performance and enjoyment of the loudspeaker and it's advanced musical capabilities for a long time to come.

We wish you many years of enjoyment experiencing music,

You're sincerely

Sonnet Digital Audio



The initial set-up of the Model One loudspeaker is relatively easy. Please take your time reading the guidelines and more detailed instructions on the following pages of this manual after completing the first four steps as listed below.

- 1. Unpacking.** Carefully remove the loudspeaker from the packaging and position it with its underside on the floor. Remove the plastic bag cover around the loudspeaker. We suggest that you keep the packaging for future use.
- 2. Positioning.** Place the loudspeaker facing the listening area at its desired position in the room. Remove the foam plugs from the rear bass reflex port.
- 3. Connecting.** While the amplifier is switched off, connect each loudspeaker to the amplifier with the speaker cable. Turn the volume level all the way down and power the amplifier on.
- 4. Listening.** The loudspeaker is now ready to play. Optimal performance will only be realized after careful positioning and running-in the speakers as described over the course of the following pages.

Feel free to contact the Acelec Customer Service department with further questions or for additional assistance.

<https://www.acelec.nl/Support.html>

**HIGH SOUND PRESSURE LEVELS**

Listening to high sound pressure levels over a longer period of time may harm your hearing.

- ◆ To avoid auditory effect do not listen to high sound levels over a longer period of time.

**CAUTION**





Fig. 1 Binding posts at rear of cabinet (example)

### Connecting the loudspeakers

1. Connect a two-pole (+/-) loudspeaker cable to the binding posts, located at rear of the cabinet (see Fig. 1). The high quality, gold plated binding posts can accommodate different connection systems:
  - 4.0 mm banana plugs: The pins can be put directly into the binding post without any tightening necessary.
  - Cable spades: Un-tighten the binding posts, insert the spade into the opening, and secure the spade by tightening the posts (exc. Emit).
  - Bare wires: Un-tighten the binding posts and place the cable into the binding posts. Tighten the posts.

### Note

- With every connection system, ensure that the contact is tight and has a proper contact area.
- Connectors with similar gold plating as binding posts will typically offer the best results and remain corrosion-free.
- Please ensure that the positive and negative cables do not make contact with each other. Tighten the posts, and check the contact after a few days to make sure that it hasn't loosened.

2. Connect the other cable ends to the loudspeaker outputs of your switched off power amp (see Fig. 2).

### Note

Please make sure that the red marked post of the speaker is connected to the red marked output of the amp, and the white or black marked post to the white or black marked output accordingly.

### Bi-wiring/bi-amping

The Model One feature a carefully fine-tuned cross-over, optimized using selected parts and an advanced circuitry to achieve a truly balanced and smooth frequency response. Therefore, dividing the frequency sections through bi-wiring or bi-amping is neither beneficial nor optional.

### Choice of loudspeaker cable

The loudspeaker cable can have an impact on sound quality. In general, quality cable products will yield a quality result.

The Model One is designed to be very neutral and thus are not extremely suited to any particular type of cable. The choice of cable is as much a factor of matching the cable to the entire audio system. Please consult your local dealer for information about compatible loudspeaker cables that will suit both your electronics and your loudspeakers.



Fig. 2 Amplifier loudspeaker outputs (example)

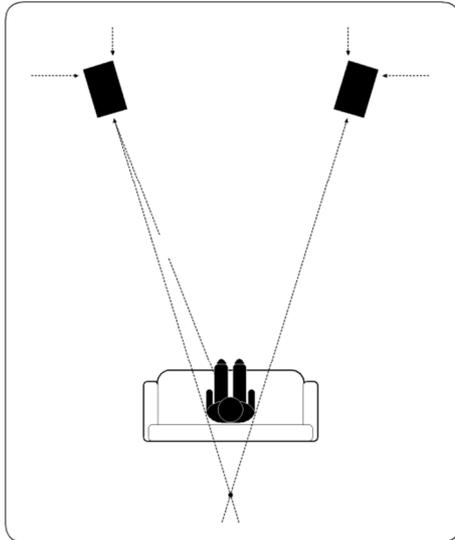


Fig. 3 Positioning the loudspeakers

Acelec loudspeakers consist of classic bass reflex loudspeaker designs with no unusual or extraordinary positioning demands. Every room will still have its own particular sound characteristics. Any room is also shaped and decorated uniquely, and therefore remains independent regarding options for positioning loudspeakers. The following steps are general suggestions that will make the correct positioning easier to achieve.

#### General recommendations

Following explanations refer to Fig. 3:

- The distance between each loudspeaker and your listening position should be the same (**B**). Try to achieve an isosceles triangle.
- The distance between the loudspeakers should be the same or better slightly less than the distance between each loudspeakers and your listening position (**A, B**).
- The closer the listening position is in relation to the loudspeakers, the closer the speakers can be positioned to each other.
- As a starting point, it is recommended that the speakers be about 2 meters apart from each other for the best results (**A**).
- If the speakers are positioned too close to each other, the stereo image will not seem realistic; if that distance is too wide, the image may leave an acoustic hole in the middle.
- Paying attention to the image during listening tests will help dictate optimum placement during experimentation and set-up.

### Distance to back and side walls

Every loudspeaker not only disperses sound energy directly into the room, but also to the side and even backwards. As a result, time-delayed reflections occur and add to the original music signal. Thus, when loudspeakers are positioned too close to walls, the sound quality can be restricted.

Acelec loudspeakers were developed to be placed free-standing, and therefore they reach their optimum performance when positioned as clear of any walls as possible.

- ◆ To minimize potential influences from the back and side wall boundaries, it is recommended that the distance from the speakers to each is at least 0.5 meters, and ideally the distance from each speaker to the back and side wall should not be equal.

### Adapting the bass reflex port

To minimize low frequency reflections, which will be heard as a thickening of the sound, the loudspeaker models can be adapted to the room's acoustic character by using foam plugs in the bass reflex port. This will essentially attenuate the room-induced boost in the low frequency range by dampening the deep frequencies, yielding a more clear and tight sound when the loudspeaker is positioned near rear walls.

- ◆ Fully insert the foam port plugs packed with your loudspeaker into the bass reflex tube, to attenuate the bass output (if required).

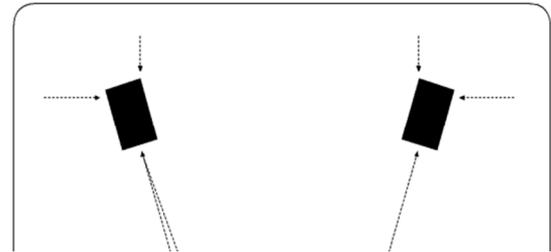
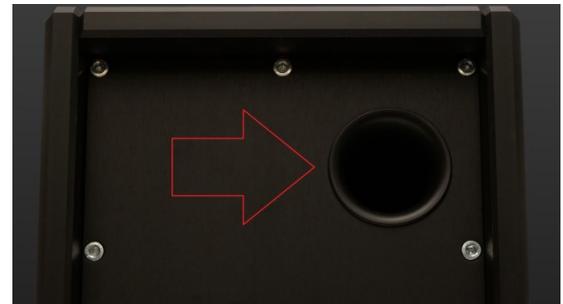


Fig. 4 Distance to walls





### CAUTION



### Floor-standing loudspeaker set-up

The floor-standing models feature a special base construction, which offers both an ideal performance and mechanical basis. Integrated into the base plinth are four individual spike assemblies. These stabilize the cabinet on an extremely small contact area, and therefore prevent any wobbling while offering optimal resonance control. The individually adjustable spikes allow leveling of the cabinet on uneven floors.

### SPIKES WITH SHARP PEAKS

The sharp peaks of the spikes may cause injuries and damage sensitive surfaces like hardwood flooring or tile.

- ◆ Be careful when handling the loudspeakers.
- ◆ Place plates between the spikes and the surface to protect the underlying surface.

### Compact loudspeaker set-up

The Model One is designed to offer exceptional performance while taking up minimal space. The Model One will realize his optimum performance when used in conjunction with a dedicated stand to position them at the proper height while absorbing any resonance.

Due to its dimensions, you can also place the loudspeaker on a ledge or shelf or on top of furniture. But to avoid the possibility of any negative influence on sound quality, one should take care to utilize a stable surface offering a wide enough space in front of the loudspeakers as to not limit the sound quality and performance.

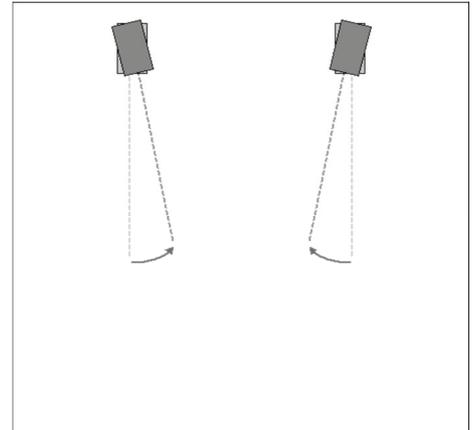
In such applications or if placing the speakers in enclosed audio/video furniture, the bass reflex port can usually be left unplugged as long as there is minimal clearance to the boundaries at the top and rear of the loudspeaker cabinet.

### Loudspeaker Toe-In

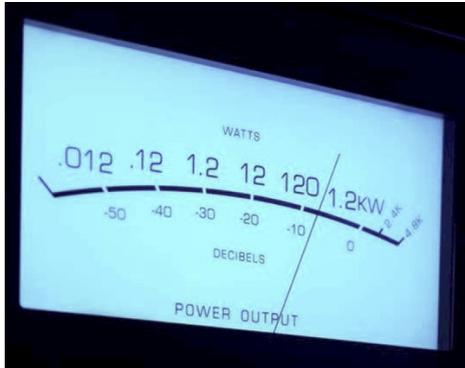
Depending on your personal listening environment and room dimensions, the loudspeakers may be angled in towards the listening area to focus the sound radiation. This positioning will typically improve imaging and is especially recommended by Acelec (see Fig. 5).

### Room and furniture influence

The sound quality of any loudspeaker is influenced by the furniture, wall materials and other objects in the listening room. For example, large rooms without much furniture and many clean, hard wall surfaces can give a bright and diffuse sound with diverse echoing frequencies. A room with thick carpet, curtains and soft furniture surfaces will give a warmer, darker and less lively sound.



*Fig. 5 Angle inwards loudspeakers to improve imaging.*



### Running-in the loudspeakers

The moving parts of a newly manufactured Model One loudspeaker have been acoustically checked after production, but nevertheless are not as flexible as they need to be for optimum results to be realized. The higher the quality of any driver system, the more demanding the loudspeaker will be regarding time for running-in the system. A newly unpacked Model One loudspeaker therefore requires several weeks running/playing to reach its optimum performance capability. After that period, a couple of minutes before every listening session will be helpful to “warm up” the loudspeakers.

### Power rating

Due to the construction and the driver technology The Model One loudspeakers can be driven with very high power levels. With a high quality amplifier, delivering undistorted signals, the speaker can achieve high levels without any compromises in sound quality. Attention must be given to amplifiers with very low power and adjustable tone controls or switches. These types may soon overreach their own performance limits and may send distorted output signals to the speakers, compromising even high quality technology. Any damage caused under such circumstances is not covered by the Acelec warranty and is easily avoided in the first place by consulting Sonnet Digital Audio for advice regarding the choice of amplifier.

### CAUTION



### DISTORTED OUTPUT SIGNALS

Distorted output signals from too weak, defective or overloaded amplifiers may damage the loudspeakers.

- ◆ Use high quality amplifiers only and run loudspeakers and amplifiers within specified power ratings.

The Model One requires no special treatment apart from the kind of careful handling you would normally apply to any high tech product in your home.

### **AGGRESSIVE CLEANING FLUIDS**

All-in-one cleaning materials, aggressive cleaning fluids or special furniture polishes may damage the cabinet surface or other speaker parts.

- ◆ Use a soft dry or slightly damp cloth when cleaning the cabinet and other plain parts.

### **CAUTION**



### **Cleaning the loudspeakers:**

- ◆ Switch off all components of your system when cleaning any of these components.
  - ◆ Avoid touching the AMT tweeter as any change of their shape may have an impact on sound quality.
  - ◆ Clean the cabinet and other plain parts with a soft dry or slightly damp cloth only.
  - ◆ Remove dust on the woofer diaphragms with a fine furniture brush.
- All materials used by Model One are integrated with exceptional care. By taking care of your loudspeakers, you will preserve the finish and build quality for very long time

### **Acelec Model One**

**System Format** 2-way

**Housing** 15 mm bituminized aluminum

**Bass Alignment** Low Q alignment Vented port system.

**Frequency Response (-6 dB)** 45 Hz – 35 kHz **Max. deviation**  $\pm 2.5$  dB

**Sensitivity (1W@1M)** 84 dB

**Nominal Impedance** 8 ohms

**Minimum Impedance** 5 ohms at 375 Hz

**Maximum SPL** 110 dBA (Pair)

**Power Handling (RMS)** 120 W

**Recommended Amplifier Requirements** 25 – 100 W

**Crossover Frequency** 1.8 kHz

**Drive Unit Complement** 15cm bass / mid transducer, 18 mm Air Motion Transformer

**Cabinet Dimensions (H x W x D)** 285 x 195 x 300 mm

**Finish** Silver or black finish. Special versions or colors on request

**Weight** 17 kg

Acelec provides a transferable limited manufacturer's warranty of two years. This warranty only covers faults or defects in material and production. Damage caused as a result of abuse, misuse or defective electronics is not covered by the warranty. All warranty claims must be accompanied by a copy of the original purchase invoice and warranties are only valid in the country or market of original origin or distribution. Should warranty service be required, it must be arranged for in the country of purchase by an authorized Acelec dealer. All performance criteria are strictly controlled. In the whole production procedure – from raw materials to the final assembly – Acelec thoroughly inspects all parameters along every step of way.

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<https://www.acelec.nl>