F One Active Subwoofer

General description
The Genelec F One is a very compact active subwoofer designed to complement Genelec G One or G Two active loudspeakers. The F One extends the system’s bass response down to 35 Hz and integrates perfectly with the main loudspeakers in any environment. The playback level for the whole system is conveniently controlled by the wireless volume control provided with the subwoofer. A wired volume control is available as an option.

The F One has integrated bass management for the two output channels which directs frequencies below 85 Hz to the subwoofer and higher frequencies through the output connectors to the main loudspeakers. When using the subwoofer for the .1/LFE channel of a multichannel system, we recommend that bass management is done in the processor or receiver and only the LFE channel is connected to the subwoofer.

Installation
Before connecting the audio signals, ensure that all equipment is switched off.

As the F One contains its own amplifier, no separate power amplifier is needed. Never connect the F One to the loudspeaker outputs of a power amplifier, integrated amplifier or receiver.

Please follow the steps listed below for a successful setting up of the subwoofer:

1. Check the contents of the shipment. In addition to the subwoofer, there is a wireless remote control, a mains cable, an IR extension cable and a Quick Setup Guide.
2. Pull out the battery insulating strip from the underside of the remote control as shown in figure 1. This strip insulates the battery from the contacts on the remote control during shipping and the remote control does not function before it is removed.
3. Place the subwoofer in its position.
4. Connect audio cables from your signal source(s). You can connect up to two digital audio sources and two analog audio sources.
5. Connect the main loudspeakers to the output connectors of the subwoofer.
6. Adjust the phase of the subwoofer as instructed in this manual and the Quick Setup Guide.
7. Use test recordings and familiar music pieces to judge the sound balance. Use the “SUBWOOFER LEVEL” rotary control and the “BASS ROLL-OFF” dip switches to fine-tune the balance. If this fails, consider relocating the subwoofer.

Operating Environment
The F One subwoofer is designed for indoor use only. The ambient temperature should be 15-35 °C (50-95 °F) and the relative humidity 20-80 %. Condensation is not allowed. If it has been stored or transported in a cool environment, the product must be allowed to warm up in its packing to the ambient temperature before connecting mains power.

Connectors
The F One is equipped with both analog and digital signal input connectors, that can be used simultaneously to connect up to four audio sources (two analog, two digital). Switching between sources is done with the Select button on the connector panel or with the “<” and “>” buttons on the remote control. The colour of the LED light on the subwoofer enclosure indicates which source is selected.

Analog Input Connectors
The F One has two stereo inputs (3.5 mm jack and L/R RCA connectors) and an LFE RCA connector. The stereo inputs are parallel, so you can connect two audio sources at the same time, just play only one of them at a time. The Select function does not work between these two inputs. The LFE input is used for the LFE (.1) signal in a 2.1 or 5.1 channel sound system. The LFE input has a 120 Hz low pass filter, so it is not suitable for full frequency range signals.

Digital Input Connectors
The F One has two digital signal input connectors, one coaxial and one optical, that accept stereo PCM format digital signal. You can connect two digital sources and switch between them using the Select function.
Figure 2. Connectors and controls of the F One.

Figure 3. Audio cabling
**Functions And Controls**

**HT Mode**

Turn this switch to "ON" when you connect a sound source with its own volume control to the analog inputs of the F One. In this mode, the volume control of the F One does not have effect on the analog signals. However, it works with the digital inputs, so you can use them to connect other signal sources.

**ISS Sensitivity Low**

If the Intelligent Signal Sensing (ISS) function switches the subwoofer on when there is no audio signal present, turning this switch to "ON" reduces the triggering sensitivity of the function.

**ISS**

The Intelligent Signal Sensing (ISS) function monitors the audio signal fed to the subwoofer. If there is no signal for approximately 45 minutes, the function switches the subwoofer to Standby mode, reducing the power consumption to less than 0.5 Watts. When the signal resumes, the subwoofer powers up again. There is a slight delay in the automatic powering up. In those environments where the subwoofer is required to be on all of the time, the ISS function can be disabled by setting the "ISS" switch to the "OFF" position. Then the subwoofer is continuously powered and can be turned off using the power button on the remote control or connector panel.

**LED Off**

This switch deactivates the status indicator LED on the "foot" of the subwoofer.

**Roll-Off**

These two switches attenuate the subwoofer's bass response below 35 Hz. Attenuation levels are -2, -4 and -6 dB (both switches "ON").

**Phase**

These two switches provide phase adjustment for the subwoofer in -90 degree increments. See chapter "Phase Alignment".

**Subwoofer Level**

This rotary adjustment adjusts the playback level of the subwoofer. The level is increased by turning the adjustment clockwise and reduced by turning it counterclockwise.

**Select**

This button allows signal input selection between the two digital inputs and the analog input and initiation of the matching procedure for IR remote controls (see Matching IR Remote Controls).

**Power**

This button switches the subwoofer between Standby and Power mode. Note that this button does not completely disconnect the subwoofer from the mains power. If this is necessary, the subwoofer’s mains cable must be disconnected. This button can also be used for restoring the factory settings by keeping it depressed for 10 - 15 seconds. This returns the volume setting on the remote control to factory level and deletes possible remote control pairing and IR remote control matching. Also the source selection returns to automatic, which is the factory setting.

### Positioning In The Room

The placement of the subwoofer in the room affects the overall frequency response and sound level of the system dramatically, as at low frequencies the effects of the room are strong. Even a slight change in the location of the subwoofer can cause a marked difference in the frequency balance and sound level of the system dramatically.

The placement will also affect the bass response and the phase difference between the main loudspeakers and the subwoofer. These effects can be compensated using the controls in the subwoofer but we recommend that at first you leave the switches untouched and concentrate on finding the position where the subwoofer gives the smoothest response, and only then use the controls to fine-tune the balance and phase alignment between the subwoofer and the main loudspeakers.

Start by placing the subwoofer close to the center of the front wall. We recommend a distance of less than 60 cm / 24” to the wall. This position gives increased acoustic loading and sound pressure level due to the proximity of the front wall and floor. Ideally the subwoofer and main loudspeakers should be positioned symmetrically and at an equal distance from the listening position.

If the frequency balance is not quite right, try moving the subwoofer to the left or right.

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### Table 1. Suggested Bass Roll-Off settings in typical situations

<table>
<thead>
<tr>
<th>Subwoofer placement</th>
<th>Bass Roll-Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Near a wall</td>
<td>-2 dB</td>
</tr>
<tr>
<td>In a corner</td>
<td>-4 dB</td>
</tr>
</tbody>
</table>

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### Figure 4. F One remote control

**Genelec 9310A Wired Volume Control**

This connector allows connecting the Genelec 9310A Wired Volume Control which is available as an accessory. When connected, the 9310A controls the volume of the whole system, including the main speakers.

**IR IN Connector**

If the F One is used with an infrared type remote control (see chapter Use with IR Remote Controls) and the desired location of the subwoofer does not allow an unobstructed line of sight to the receiver located next to the LED in one of subwoofer’s feet, the IR extension cable provided with the subwoofer can be connected here. The receiver end of the cable is then brought to a location where the IR remote control reception works conveniently, for instance close to the IR receiver of a television set when using the subwoofer and speakers with a TV.

**Analog Output Connectors**

The F One has RCA analog stereo L/R output connectors. Connect signal cables from these connectors to the main speakers. These outputs are high pass filtered at 85 Hz (See chapter Bass Management).

**System Volume Control Connector**

This connector allows connecting the Genelec 9310A Wired Volume Control which is available as an accessory. When connected, the 9310A controls the volume of the whole system, including the main speakers.

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### Functions And Controls

- **HT Mode**
  - Turn this switch to "ON" when you connect a sound source with its own volume control to the analog inputs of the F One. In this mode, the volume control of the F One does not have effect on the analog signals. However, it works with the digital inputs, so you can use them to connect other signal sources.

- **ISS Sensitivity Low**
  - If the Intelligent Signal Sensing (ISS) function switches the subwoofer on when there is no audio signal present, turning this switch to "ON" reduces the triggering sensitivity of the function.

- **ISS**
  - The Intelligent Signal Sensing (ISS) function monitors the audio signal fed to the subwoofer. If there is no signal for approximately 45 minutes, the function switches the subwoofer to Standby mode, reducing the power consumption to less than 0.5 Watts. When the signal resumes, the subwoofer powers up again. There is a slight delay in the automatic powering up.

- **LED Off**
  - This switch deactivates the status indicator LED on the "foot" of the subwoofer.

- **Roll-Off**
  - These two switches attenuate the subwoofer's bass response below 35 Hz. Attenuation levels are -2, -4 and -6 dB (both switches "ON").

- **Phase**
  - These two switches provide phase adjustment for the subwoofer in -90 degree increments. See chapter "Phase Alignment".

- **Subwoofer Level**
  - This rotary adjustment adjusts the playback level of the subwoofer. The level is increased by turning the adjustment clockwise and reduced by turning it counterclockwise.

- **Select**
  - This button allows signal input selection between the two digital inputs and the analog input and initiation of the matching procedure for IR remote controls (see Matching IR Remote Controls).

- **Power**
  - This button switches the subwoofer between Standby and Power mode. Note that this button does not completely disconnect the subwoofer from the mains power.

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### Positioning In The Room

The placement of the subwoofer in the room affects the overall frequency response and sound level of the system dramatically, as at low frequencies the effects of the room are strong. Even a slight change in the location of the subwoofer can cause a marked difference in the frequency balance and sound level of the system dramatically.

The placement will also affect the bass response and the phase difference between the main loudspeakers and the subwoofer. These effects can be compensated using the controls in the subwoofer but we recommend that at first you leave the switches untouched and concentrate on finding the position where the subwoofer gives the smoothest response, and only then use the controls to fine-tune the balance and phase alignment between the subwoofer and the main loudspeakers.

Start by placing the subwoofer close to the center of the front wall. We recommend a distance of less than 60 cm / 24” to the wall. This position gives increased acoustic loading and sound pressure level due to the proximity of the front wall and floor. Ideally the subwoofer and main loudspeakers should be positioned symmetrically and at an equal distance from the listening position.

If the frequency balance is not quite right, try moving the subwoofer to the left or right.
along the wall so that different room modes are excited at different levels. Positioning the subwoofer close to a corner will boost the bass level at lower frequencies and may cause asymmetrical spatial imaging.

ISS™ Autostart
The automatic power saving function ISS (Intelligent Signal Sensing) can be activated by setting the “ISS” switch on the connector panel to “ON.” Automatic powering down to standby mode happens after a certain time when playback has ended. The power consumption in standby mode is typically less than 0.5 watts. Playback will automatically resume once an input signal is detected from any source.

Alternatively, the subwoofer can be activated by pushing any button on the remote control. There is a slight delay in the automatic powering up. If this is undesirable, the ISS™ function can be disabled by setting the “ISS” switch on the connector panel to “OFF.” In this mode, the subwoofer is powered on and off using the remote control or the power button on the connector panel.

The “ISS SENSITIVITY LOW” switch lowers the triggering sensitivity of the ISS function. This can be necessary if the subwoofer “wakes up” even if there is no audio signal.

Setting The Playback Level
The rotary “SUBWOOFER LEVEL” level adjustment can be used for matching the subwoofer’s playback level with the main loudspeakers.

Setting The Bass Roll-Off

Setting The Phase Control
The effect of incorrect phase alignment between the main loudspeakers and subwoofer at the listening position is dependent upon the distance from the listener to the subwoofer in relation to the main loudspeakers. To avoid phase differences between the left and right main loudspeakers and the subwoofer, the subwoofer should be placed close to the center of the front loudspeaker array.

Two phase matching switches allow compensation for incorrect phase alignment. Four settings are provided between 0° and -270°.

Coarse Phase Correction Method
Connect an audio frequency signal generator to a signal input on the subwoofer which has a main loudspeaker connected to the corresponding “OUT” connector. If the loudspeakers are placed at different distances from the listening position, choose the loudspeaker that is nearer.

Set the generator to 85 Hz. If a signal generator is not available, it is possible to use an audio test recording which has a test frequency in the range 70 Hz to 100 Hz. Suitable test signals can be downloaded at www.genelec.com and found in some smart phones.

Matching IR Remote Controls
The F One subwoofer can be used with most IR remote controls, providing convenient use with, for instance, the remote control of a TV set when connected to it via a fixed level digital signal input. Turn the subwoofer upside down so you can easily reach the “Select” button on the subwoofer’s connector and the status indicator LED on the subwoofer’s foot is visible. The IR receiver is located in the LED. Note that the “Select” buttons on the RF remote control provided with the subwoofer do not actuate the matching.

The matching procedure is as follows:

- Keep the “Select” button on the subwoofer depressed until the status indicator LED starts blinking red.
- Choose the button on the remote control that you want to actuate “volume up” function. Keep it depressed until the LED stops blinking. With some remote controls pressing the button multiple times works better.
- Now the LED blinks green, indicating that the button for “volume down” can be selected. Follow the procedure described above.
- Next the LED blinks blue for selection of the button for “Select” button.
- Yellow LED indicates the selection of “Mute” button.
- Magenta LED indicates the selection of “Power” button.

A short press on the “Select” button allows you to skip a step in the procedure, if you do not want to “teach” all the commands listed above. If you want to interrupt the procedure, press “Select” for approximately two seconds. This saves the settings made so far. If you don’t want to save the settings, press the Power button for two seconds. This will also delete the matching settings done by that point. If you want to change the matched buttons, just redo the matching process.

Matching The RF Remote Control To The Subwoofer
When shipped, the remote controls delivered with F One subwoofers will function with any other F One subwoofer as well. If this is not desirable, for instance when there are sev-
eral F One subwoofers in the same premises, and the user wishes to avoid the situation that more than one subwoofer reacts to the commands given by each remote control, the remote controls can be matched to operate only one subwoofer.

1. Press and hold down the “Power” and “Select +” buttons on the subwoofer until the LED starts blinking white.

2. While the LED is blinking, first press and hold down the volume “+” button on the remote control and then the volume “-” button. Keep both buttons pressed for a few seconds until the status indicator LED on the subwoofer stops blinking. This indicates that matching is completed and the matching operation ends automatically.

Now the subwoofer should only respond to commands given by the matched remote control, and respectively, the matched remote control should not work with other F Two units. For cancelling the matching operation while the LED is blinking, press and hold down the “Power” button on the subwoofer for two seconds. If you wish to undo a matching completely, press and hold down the “Power” button on the subwoofer for ten seconds.

NOTE: In some cases the local WiFi network can cause problems with the RF remote control, if they operate on the same wavelength. We recommend the use of an IR remote control in these cases.

Safety Considerations
The Genelec F One complies with international safety standards. However, to ensure safe operation and maintain the equipment in safe operating condition the following warnings and cautions must be observed.

• Do not use this product with an unearthed mains cable or a mains connection without the protective earth contact as this may lead to personal injury.
• Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
• The battery shall not be exposed to excessive heat such as sunshine, fire or the like.
• Servicing and adjustment must only be performed by qualified service personnel.
• Opening the subwoofer is strictly prohibited except by qualified service personnel.

• Do not expose the subwoofer to water or moisture. Do not place any objects filled with liquid, such as vases on the subwoofer or near it.

Note that the amplifier is not completely disconnected from the AC mains service unless the mains cable is removed from the amplifier or the mains outlet.

Warning!
This equipment is capable of delivering sound pressure levels in excess of 85 dB, which may cause permanent hearing damage.

Compliance To FCC Rules

Remote control
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This product emits radio frequency energy, but the radiated output power of this device is below FCC radio frequency exposure limits. This equipment complies with FCC RF radiation exposure limits forth for an uncontrolled environment. Nevertheless, the device should be used in such a manner that the potential for human contact with the antenna during normal operation is minimized. Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Subwoofer
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential instal-

Figure 5. Changing the remote control battery

Changing The Remote Control Battery
The remote control battery can be changed by turning the battery cover on the back of the remote control anticlockwise. Use a small screwdriver under the right side of the battery (see figure 5) to wedge the battery out. Replace the battery with a similar CR2032 type battery. Insert the battery with the left side first as shown in figure 5 and close the battery cover.

Take the used battery to your local battery recycling point. Under no circumstances should the battery be disposed with general dry waste.
Maintenance

There are no user serviceable parts inside the subwoofer. Any maintenance of the unit must only be performed by qualified service personnel.

Guarantee

This product is supplied with two year guarantee against manufacturing faults or defects that might alter the performance of the unit. By registering your product at:

www.community.genelec.com

You can get an additional three year guarantee that covers the spare parts.
### SYSTEM SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free field frequency response (-6 dB)</td>
<td>Main 35 Hz...85 Hz LFE 35 Hz...120 Hz</td>
</tr>
<tr>
<td>Maximum short term sine wave SPL output averaged from 30 to 85 Hz, measured in half space at 1 meter</td>
<td>100 dB</td>
</tr>
<tr>
<td>Self generated noise level in half space at 1 m on axis (A-weighted)</td>
<td>≤ 5 dB SPL</td>
</tr>
<tr>
<td>Driver, magnetically shielded</td>
<td>165 mm (6 1/2 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>5.6 kg (12.3 lb)</td>
</tr>
</tbody>
</table>
| Dimensions
  Height | 256 mm (9 3/4") |
  Diameter | 305 mm (12") |

### AMPLIFIER SECTION

<table>
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<tr>
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<th>F One</th>
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<tbody>
<tr>
<td>Amplifier short term output power (Long term output power is limited by driver unit protection circuitry)</td>
<td>40 W</td>
</tr>
<tr>
<td>Amplifier system THD at nominal output</td>
<td>≤ 0.05 %</td>
</tr>
<tr>
<td>Mains voltage</td>
<td>100 - 240 VAC 50/60 Hz</td>
</tr>
</tbody>
</table>
| Power consumption (average)
  Stand by | 0.5 W |
  Idle | 5 W |
  Full output | 60 W |
| Crossover frequency (subwoofer/main channels) | 85 Hz |
| LFE channel cutoff frequency | 120 Hz |
| Midband rejection >400 Hz | ≥50 dB |
| Analog input level for 90 dB SPL output at 1 m | -8 dBu at level control max |
| Digital input level for 90 dB SPL output at 1 m | -19dBFS at level control max |
| Digital input word length | 16...24 bits |
| Digital input sample rate | 32...96 kHz |
| Sensitivity adjustment range | 18 dB |
| Bass Roll-Off control operating range in 2 dB steps | From 0 to -6 dB @ 35 Hz |
| Phase matching control in 90° steps | From 0 to -270° @ 85 Hz |

### CONNECTORS

<table>
<thead>
<tr>
<th></th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog audio inputs 10 kOhm RCA 3.5 mm stereo jack</td>
<td>L, R, LFE 1</td>
</tr>
</tbody>
</table>
| Digital audio inputs
  Optical Toslink
  Coaxial RCA 75 Ohm | 1 1 |
| Audio outputs
  RCA | L, R |

### CROSSOVER SECTION

<table>
<thead>
<tr>
<th></th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsonic filter (18 dB/octave) below</td>
<td>35 Hz</td>
</tr>
<tr>
<td>Crossover frequency (subwoofer/main channels)</td>
<td>85 Hz</td>
</tr>
<tr>
<td>LFE channel cutoff frequency</td>
<td>120 Hz</td>
</tr>
<tr>
<td>Midband rejection &gt;400 Hz</td>
<td>≥50 dB</td>
</tr>
<tr>
<td>Analog input level for 90 dB SPL output at 1 m</td>
<td>-8 dBu at level control max</td>
</tr>
<tr>
<td>Digital input level for 90 dB SPL output at 1 m</td>
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<tr>
<td>Phase matching control in 90° steps</td>
<td>From 0 to -270° @ 85 Hz</td>
</tr>
</tbody>
</table>
F One 有源超低音音箱

概述

真力 F One 是一款紧凑型有源超低音音箱，搭配真力 G One 或者 G Two 主动式有源音箱使用。F One 可与全频音箱完美衔接，将整个系统的低频下潜扩展至 35 Hz。整个系统的音量控制非常方便，可通过无线遥控器控制超低音音箱进行调节，也可以选择有线音量旋钮进行控制。

F One 具有完善的低频管理功能，能对 2 个输出声道进行低频管理，音箱将频率在 85 Hz 以下的声音滤出，由 F One 进行播放；高于 85 Hz 的声音经输出接口送给全频音箱，由全频音箱进行播放。当将 F One 做为多通道音频系统中的 LFE 声道使用时，我们建议用信号处理器或者 AV 前级进行低频管理，而该超低音音箱仅连接 LFE 声道。

安装

在连接音频信号前，请确保所有设备的电源开关都处于关闭状态。

F One 配有专属的独立功放，不需要单独配置外部功放。注意！切勿将 F One 连在后级功放或合并式功放的音频输出接口上（通常为一黑一红的端子接头）。

请根据下列步骤，即可成功设置超低音音箱:

1. 检查音箱配套的附件，包含一个无线遥控器、一根电源线、一根红外延长线和一本快速安装指南。
2. 将无线遥控器的电池绝缘片取出，如图 1 所示的方式取出，绝缘片的作用是防止电池在运输过程中发生接触。如不取出绝缘片，遥控器将无法工作。
3. 正确摆放超低音音箱。
4. 从音源连接音频信号线到音箱。您最多可以连接两个数字音源和两个模拟音源。
5. 从超低音音箱的输出接口连接全频音箱。
6. 按照本手册和《快速安装指南》中的说明调节超低音音箱的相位。
7. 使用测试音频素材和熟悉的音乐片段来判断声音的平衡。可使用“SUBWOOFER LEVEL（超低音音量）”控制旋钮和“BASS ROLL-OFF（低频滚降）”拨档开关微调声音的平衡。如果效果不理想，请尝试挪动超低音音箱的位置。

使用环境

F One 超低音音箱仅限室内使用。允许的环境温度为 15-35 摄氏度（50-95 华氏度），相对湿度为 20%-80%。使用环境中禁止出现冷凝。

如果此产品从温度较低的储存或运输环境，转移至温暖的环境中时，必须先放置在包装中，让箱体温度恢复到室温后方可连接电源。

数字输入接口

F One 具有两个数字信号输入接口，一个同轴接口和一个光纤接口，可接收 PCM 格式的立体声数字信号。您可以接入两个数字音源，并通过“选择”按键进行切换。

模拟输出接口

F One 具有 RCA 模拟立体声输出接口。使用信号线将这两个接口连接到全频音箱。该接口经过 85Hz 的高通滤波器。（请参阅低音管理章节）。

系统音量控制器接口

该接口用于连接 Genelec 9310A 有线音量控制器（选购）。9310A 可以控制整个系统的音量，包括全频音箱。

红外输入接口

如果 F One 和红外遥控器一起使用（请参阅配合红外遥控器使用章节），而音箱所在的位置受限，使得位于音箱脚上的红外接收器与操作者之间有阻挡，可以用音箱附带的红外延长线连接至该接口。将线缆末端的接收器放置于接收控制信号便利的地方。例如，当音箱和电视连接使用时，将该接收器靠近电视的红外接收器。
图2. F One的接口和控制键

图3. 音频连接

模拟信号音源：手机，电脑，AV前级等。

数字信号音源：电视，播放器，声卡等。
超低音音箱

摆放位置

靠墙放置 -2 dB

放置于角落 -4 dB

<table>
<thead>
<tr>
<th>超低音音箱摆放位置</th>
<th>低频滚降开关</th>
</tr>
</thead>
<tbody>
<tr>
<td>靠墙放置</td>
<td>-2 dB</td>
</tr>
<tr>
<td>放置于角落</td>
<td>-4 dB</td>
</tr>
</tbody>
</table>

表1. 在典型情况下建议的低频滚降开关设置

图4. F One 遥控器

功能和控制

HT模式

当您将带有音量控制功能的音源连接到F One的模拟输入时，请将此开关拨到“ON”。在此模式下，F One的音量控制对数字输入信号无效，不过它仍然对数字输入起作用，所以您依然可以控制数字音源的音量。

降低智能休眠灵敏度

如果没有输入信号，待机模式中的超低音音箱仍被智能休眠功能激活。将此开关拨至“ON”可以降低智能休眠功能的触发灵敏度。

智能休眠

智能休眠功能会控制超低音音箱的输入信号。如果大约45分钟没有检测到输入信号，音箱将被自动唤醒。自动唤醒的时间间隔会稍有延长。某些使用场景中要求超低音音箱一直处于工作状态，可以通过将智能休眠(’SIS’)开关拨到“OFF”来禁用该功能。智能休眠功能的触发电压是0.5瓦。自动唤醒的过程会有短暂延迟。如果不需要此功能，可以通过将智能休眠(IS)开关拨到“OFF”，禁用该功能。自动唤醒的过程会有短暂延迟。

设置回放音量

超低音电平旋钮可用于调整超低音音箱和全频音箱回放音量的平衡（注意，该旋钮仅改变F One的音量）。

设置低频滚降开关

低频滚降开关可调节超低音音箱的回放音量。顺时针旋转为增大音量，逆时针旋转为减小音量。

相位

此按键用于在两个数字输入和模拟输入之间进行切换，还可以用于对配对的红外遥控器(请参阅配对红外遥控器)。

电源

此按键可使超低音音箱在待机和工作模式之间切换。请注意，此按键不会完全断开音箱电源。如需断电，必须断开音箱的电源线。按住此按键10-15秒，音箱将恢复出厂设置。该操作将把遥控器上的音量恢复为出厂设置，并删除可能储存在音箱内的遥控器配对记忆和红外遥控器配对记忆。信号源的选择会返回到出厂设置下的自动选择。

超低音音箱的摆放位置

由于低音受房间声学的影响较大，因此，超低音音箱在房间中的摆放位置会影响整个系统的频率响应以及音量。有时，稍微改变超低音音箱的摆放位置，就能产生显著的频率响应变化，耐心以及科学的实验和测试，能帮助您找到最佳的摆放位置。

超低音音箱的声学响应与房间的声学特性和摆位有关（参考表1）。为了使超低音音箱与这些因素相适应，可以使用接口面板上的“低频滚降”开关。所有的滚降开关默认处于关闭状态，此操作会在出厂状态下自动选择。

设置回放音量

超低音电平旋钮可用于调节超低音音箱和全频音箱回放音量的平衡（注意，该旋钮仅改变超F One的音量，不能控制全频音箱的音量）。

设置低频滚降开关

(Bass Roll-Off)

超低音音箱的声学响应与房间的声学特性和摆位有关（参考表1）。为了使超低音音箱与这些因素相适应，可以使用接口面板上的“低频滚降”开关。所有的滚降开关默认处于关闭状态，此操作会在出厂状态下自动选择。

设置相位控制

全频音箱与超低音音箱之间因距离不同而导致的相位差。如果不经过校准，会导致回放内容在全频音箱与超低音音箱的音量点处产生相位差，这种现象，来源于听者与全频音箱和超低音音箱的距离差。为了避免左右声道与超低音音箱的相位差，超低音音箱应该放置于靠近前方音箱连线中点的位置。

两个相位匹配开关可以补偿不正确的相位耦合，提供0°、270°和180°四档选择。

相位校准粗调

在超低音音箱的输入接口接入一个音频信号发生器，在超低音音箱对应输出接口上连接一只全频音箱。如果两只全频音箱到听音位的距离不同，选择距离听音位较近的那只。

将信号发生器的频率调到85Hz，使超低音音箱和全频音箱同时播放这一信号。如果两只全频音箱到听音位的距离不同，选择距离听音位较近的那只。

将信号发生器的频率调到85Hz，使超低音音箱和全频音箱同时播放这一信号。如果没有音频信号发生器，也可以使用一段含有70Hz到100Hz的音频测试文件代替。您可以在无反射声的消声室中获得平直的响应。
更换遥控器电池

逆时针旋转遥控器背面的电池盖，将电池盖打开，然后用小螺丝刀从右面将电池撬出来（图5）。装入CR2032电池（或与其同等的电池）。注意，先将电池的左部分放入电池盒内，然后再推入右部分，盖上电池盖。

用过的电池不可作为一般的垃圾处理，请您送到您所在区域的回收站。

维护

在音箱内部没有任何用户可调整的部分。任何关于音箱的维护或维修都应由真力授权的维修服务人员来完成。

质保

真力（Genelec）为材料和工艺上的质量问题提供2年的质保服务。通过微信注册您的音箱，可将质保服务延长至5年。

安全注意事项

虽然F One是按照国际安全标准设计的，用户仍需遵循以下警告和注意事项，以确保操作安全，并使音箱保持安全工作状态：

- 请勿将本产品连接未接地的电源线或未连接保护性地线的电源，这可能会导致人身伤害。
- 使用不恰当的电池可能引发爆炸的危险。请使用原装电池或者同类型的电池。
- 请勿将电池暴露在高温环境下，例如阳光直射，明火等等。
- 维修和调试只能由具有维修资质的专业维修人员完成。
- 禁止在未经专业维修人员指导的情况下打开音箱盖。
- 切勿将音箱暴露于水或湿气中。切勿在音箱顶部或旁边放置花瓶等任何盛有液体的物品。

请注意，除非已从音箱或电源插座上拔下了电源线，否则，音箱并未完全与市电交流电源断开。
### 系统规格

<table>
<thead>
<tr>
<th>功能</th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>自由场中的频率响应 (-6 dB)</td>
<td>主声道 35 Hz ~ 85 Hz, LFE声道 35 Hz ~ 120 Hz</td>
</tr>
<tr>
<td>半开放空间, 轴上最大短时正弦波声压级输出, 30 Hz ~ 85 kHz均值@1m</td>
<td>100 dB</td>
</tr>
<tr>
<td>自由场内自身噪声电平 @ 1米 轴上 (A计权)</td>
<td>≤ 5 dB SPL</td>
</tr>
<tr>
<td>驱动单元 (磁屏蔽)</td>
<td>165 毫米 (6 1/2英寸)</td>
</tr>
<tr>
<td>重量</td>
<td>5.6 千克 (12.3磅)</td>
</tr>
<tr>
<td>尺寸</td>
<td>高 256 毫米 (9 7/8英寸), 直径 305 毫米 (12英寸)</td>
</tr>
</tbody>
</table>

### 功放部分

<table>
<thead>
<tr>
<th>功能</th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>短期内功放的输出功率 (功放的长期输出功率受驱动单元保护电路的限制)</td>
<td>40 瓦</td>
</tr>
<tr>
<td>在标称输出功率下功放系统失真参数</td>
<td>≤ 0.05 %</td>
</tr>
<tr>
<td>电源电压</td>
<td>100 - 240 VAC 50/60 Hz</td>
</tr>
<tr>
<td>平均耗电量</td>
<td>待机 0.5 瓦, 空闲 5 瓦, 满输出 60 瓦</td>
</tr>
</tbody>
</table>

### 接口部分

<table>
<thead>
<tr>
<th>功能</th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>模拟音频输入</td>
<td>10k欧姆莲花接口, 3.5毫米立体声耳机插口</td>
</tr>
<tr>
<td>数字音频输入</td>
<td>光纤接口, 同轴莲花接口</td>
</tr>
<tr>
<td>音频输出</td>
<td>连续</td>
</tr>
</tbody>
</table>

### 分频部分

<table>
<thead>
<tr>
<th>功能</th>
<th>F One</th>
</tr>
</thead>
<tbody>
<tr>
<td>超低频滤波 (18 dB/倍频程)</td>
<td>35 Hz</td>
</tr>
<tr>
<td>分频点 (超低音箱与主声道)</td>
<td>85 Hz</td>
</tr>
<tr>
<td>LFE 通道截止频率</td>
<td>120 Hz</td>
</tr>
<tr>
<td>中频截止频率 &gt;400 Hz</td>
<td>≥ 50 dB</td>
</tr>
<tr>
<td>模拟输入电平 (1m处 90dB SPL输出)</td>
<td>-8 dBu (音量调整到最大)</td>
</tr>
<tr>
<td>数字输入电平 (1m处 90dB SPL输出)</td>
<td>-19dBFS (音量调整到最大)</td>
</tr>
<tr>
<td>数字信号输入量化精度</td>
<td>16...24 bits</td>
</tr>
<tr>
<td>数字信号输入采样范围</td>
<td>32...96 kHz</td>
</tr>
<tr>
<td>灵敏度调整范围</td>
<td>18 dB</td>
</tr>
<tr>
<td>低频滚降开关调节范围 (2 dB 步进)</td>
<td>从0 ~ -6 dB @ 35 Hz</td>
</tr>
<tr>
<td>相位调节控制 (90° 步进)</td>
<td>从0 ~ -270° @ 85 Hz</td>
</tr>
</tbody>
</table>