

GROUND PROTECTOR



Dear customer,

Thank you for your purchase of a SCHNERZINGER product.

Please take the time to precisely read the information in this guide. You will find important instructions to use your product and hints for the optimal integration into your Hi-Fi system.

This guide facilitates your use of the product, promotes understanding its functional characteristics and helps you to obtain the full efficiency of the product.

We hope you enjoy your new SCHNERZINGER product.

Please clean the product with a nonscratching dry duster only. Avoid using cleaning agents.

In case of malfunctions contact your SCHNERZINGER dealer. Please do not attempt to service the device yourself or to open it, in that case you will lose your entitlement for our manufacturer warranty.

In the case of damages at the power plug or power cable please initiate an exchange at SCHNERZINGER via your dealer.

Package Contents

GROUND PROTECTOR

CONTROL UNIT

12V Power Supply, cable length 1,5m

3,5mm jack extension cable 5m

Antenna

1 GROUND INTERFACE

Contents

PROTECTOR SYSTEM

GROUND PROTECTOR

Setting up a SCHNERZINGER system

Connecting the GROUND PROTECTOR to the power grid

Connecting the Hi-Fi Components

Setting up the GROUND PROTECTOR

Lasting effect of the GROUND PROTECTOR

PROTECTOR SYSTEM

The music reproduction quality of an audio system is highly affected by low and high frequency electrical interfering fields, caused by Wi-Fi, cellular radio, power lines etc. With the **PROTECTORS** and their integrated trendsetting **GIGA-PULSE** technology, SCHNERZINGER has developed a product category that actively eliminates the sonic effects of low and high frequency interfering fields.

The **PROTECTORS** significantly enhance the transmission quality of audio systems. The sonic effects include an astonishingly higher spatial depth and resolution as well as increased broad and fine dynamics in music reproduction.

Utilizing the operating principle and efficiency of the GIGA-PULSE technology, the SCHNERZINGER **PROTECTORS** represent a unique solution in the market.

An important health aspect: protector technology does not increase radiation exposure within the room.

GROUND PROTECTOR

The GIGA-PULSE technology of the **GROUND PROTECTOR** extremely effectively clears up grounding resp. ground problems via its 3-channel-system.

- Channel 1 clears up grounding resp. ground problems of the attached devices
- Channel 2 directly operates in the signal path of the attached devices
- Channel 3 clears up interfering fields within the Hi-Fi system power distribution, without slowing down current flow at all.

Moreover the bidirectional operating device connections (**GROUND INTERFACES**) prevent transmission of interfering fields between the Hi-Fi devices.

The operating principle and efficiency of the **GROUND PROTECTOR** are unique; a single **GRID PROTECTOR** raises the potential of the entire music system to a new level.

Setting up a SCHNERZINGER system

Recommendation for the first setting resp. resetting of several SCHNERZINGER components:

1. Step:

Connect all components

- with the power circuit, if required (see manual)
- with the Hi-Fi devices (GROUND, SPEAKER AMP)

2. Step:

Set all switches at all components to basic setting (switches to position 0).

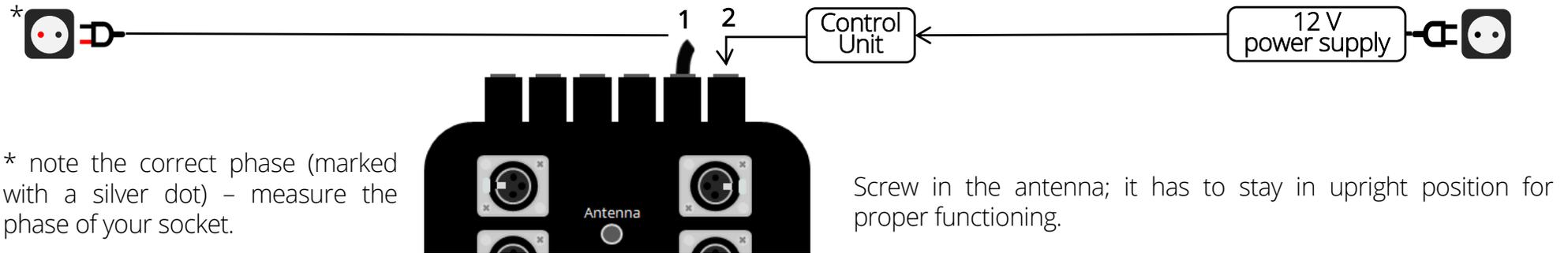
3. Step:

Test each component **one after the other** for its optimal setting according to the manual, with the following configuration sequence:
CABLES, GROUND PROTECTOR, GRID PROTECTOR, POWER GUARD, OPERATOR/NEW INNOVATOR, SPEAKER AMP PROTECTOR, EMI PROTECTOR, GIGA PICCOLO PROTECTOR, GIGA GUARD, GIGA PROTECTOR

If you add your device to an already existing SCHNERZINGER chain, outstanding results will be obtained mostly when all devices will keep their former settings and just the additional product will be installed and configured as described in its manual.

If this does not provide satisfactory results, we recommend a complete system resetting.

Connecting the GROUND PROTECTOR to the power grid



1

The **GROUND PROTECTOR** should be connected* to the first slot of the Hi-Fi power strip.

2

The **CONTROL UNIT** will be connected to the **GROUND PROTECTOR** and the **12V power supply** will be connected to the **CONTROL UNIT**. The 12 Volt power supply should be connected to a power circuit separate from the Hi-Fi system – ideally even to a different power phase. The **GROUND PROTECTOR** may be used without the 12V power supply. This supports a flexible placement of the unit. But in this case it should be connected to the grid with **CONTROL UNIT** and 12V power supply once a year for 15 minutes. Mostly a better result will be achieved, when the 12V power supply is permanently connected.

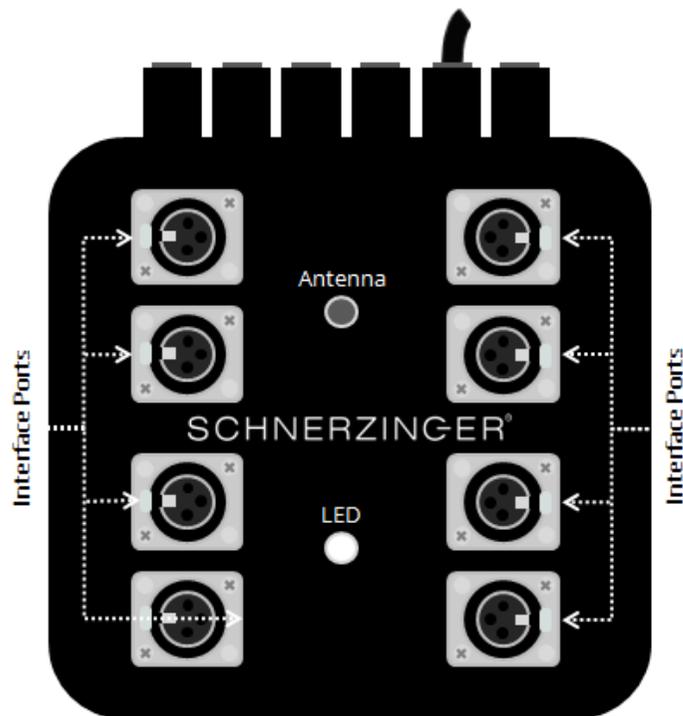
The other ports are reserved for **PROFESSIONAL LINE** accessories.

Connecting the Hi-Fi Components

The **GROUND PROTECTOR** can be connected to up to 8 components (but no speakers*). Hi-Fi Components are connected by **INTERFACES**, available in the grades** REFERENCE and EXTREME.

It's recommended to connect all key components of the Hi-Fi system to the **GROUND PROTECTOR**, starting with the major source, the other sources and further on in the direction of signal flow through the preamp to the power amplifier. The particular Hi-Fi component should be switched off* during installation.

Via the **INTERFACE** options RCA, XLR/W, XLR/M, BNC, USB Type A and Type B first the free inputs of the Hi-Fi components are available to connect to the **GROUND PROTECTOR**.



For each single component please test the optimal input; primary digital inputs, alternatively analog inputs. Per component only one **INTERFACE** will be connected. If the right and left channels are available for analog inputs, one channel will be connected via an **INTERFACE**, while the second channel may be connected to a **GIGA GUARD**. If no digital or analog input is available, the effect of an **INTERFACE** may also be tested at an output (digital or analog, but no speaker terminal*).

Connected this way, the **GROUND PROTECTOR** operates in the component particularly effective, both via the signal path as well as via the grounding.

If a component to be connected has no suitable free input or output, the connection can be done just via the grounding with the **INTERFACE** Option Chassis Ground.

* Caution – risk of damage

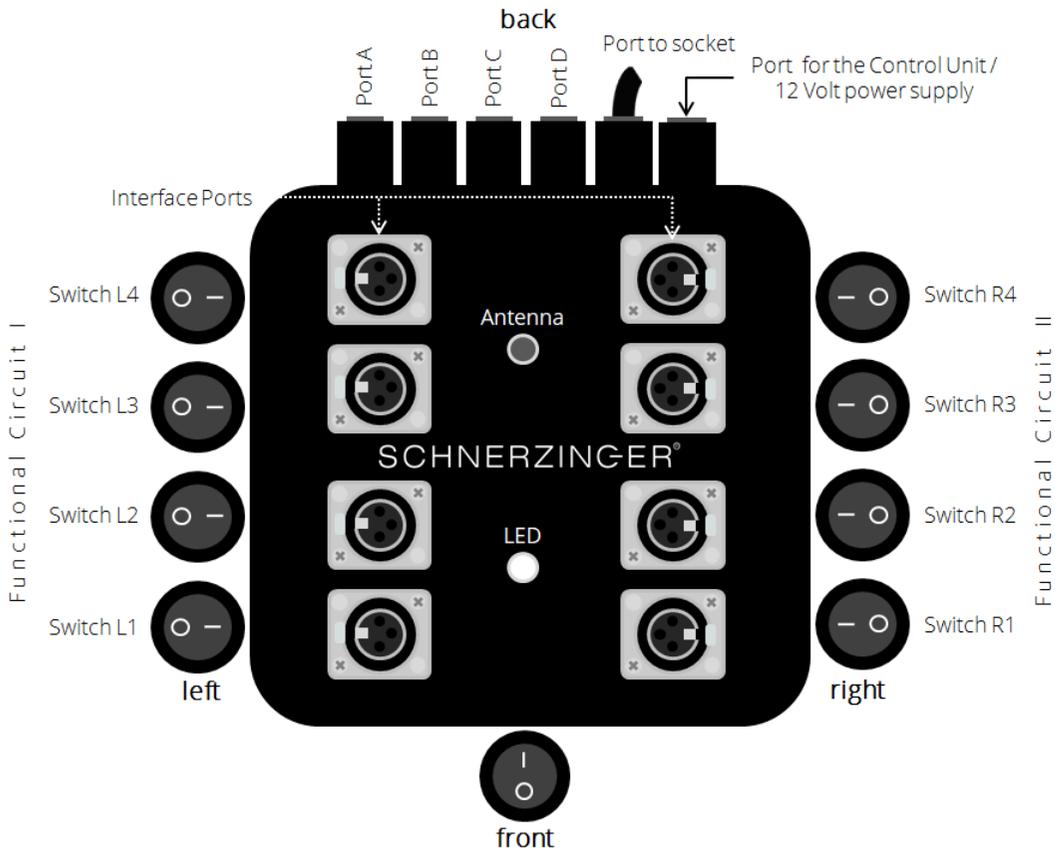
** Choosing the quality level for a single interface not only affects the effect on the connected component, but affects the **GROUND PROTECTOR** as a whole. **SCHNERZINGER** Advisory Service will be glad to support you.

Setting up the GROUND PROTECTOR

The **GROUND PROTECTOR** has an additional GIGA-PULSE amplifier and two functional circuits, allowing to optimally calibrate the unit to the respective interference field spectrum of the environment (e. g. WLAN, mobile communication, DECT, Bluetooth, radio waves and other interfering sources).

Changes need some time to take effect mostly. Therefore at each of the following steps you should wait for app. two minutes before judging.

Do not change the results as determined from the previous steps when you do the subsequent steps.



1. Step:

Set all 9 switches to base setting 0.

2. Step: Switch in front:

Activating a **GIGA-PULSE amplifier**.

0 = Power Level 1 (without CONTROL UNIT and 12V power supply)

0 = Power Level 2 (with CONTROL UNIT, without 12V power supply)

1 = Power Level 3 (with CONTROL UNIT and 12V power supply, LEDs on)

3. Step: Switches left:

Functional circuit I – setting the **GIGA-PULSE bandwidth**

Switches: L1 = narrow to L4 = wide

Starting from the base setting the switches L1 - L4 will be set sequentially from position 0 to position 1. Each step will increase the bandwidth.

If the bandwidth is to low, the best possible effect will not be reached yet. If the bandwidth is to high, even a sound degradation may occur.

The test ends, when the subsequent step won't achieve a better result.

4. Step: Switches right:

Functional circuit II – setting the **GIGA-PULSE clocking**

Switches: R1 = low to R4 = high

Starting from the base setting the switches R1 - R4 will be set sequentially from position 0 to position 1. Each step will increase the clocking pace.

If the pace is to low, the best possible effect will not be reached yet. If the pace is to high, even a sound degradation may occur.

The test ends, when the subsequent step won't achieve a better result.

Lasting Effect of the GROUND PROTECTOR

The **GROUND PROTECTOR** constantly operates to clear up interfering fields effectively and comprehensively.

If after a while you once want to hear the performance of your system without your **GROUND PROTECTOR**, the buffering effect absolutely has to be considered.

If the **GROUND PROTECTOR** is switched off for a short time only, it still takes effect because of the buffering of the power supply unit.

Disconnect the 12V power supply and the **CONTROL UNIT** from the power grid and the **GROUND PROTECTOR** resp. and detach the power cable of the **GROUND PROTECTOR** from the power grid. Remove all other connections completely, especially the **INTERFACES**. Additionally bend the antenna at the hinge into a horizontal position and place the unit on the floor. Keep these conditions for several hours, preferably overnight. This way you achieve that the **GROUND PROTECTOR** has no effect any more.

Upon recommissioning the interfering fields will be cleared again fast.

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