

# **GIGA 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 HiFi 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 non-scratching dry duster only. Avoid using cleaning agents.

A potting compound in the devices protects the innovative GIGA CANCELING technology with its particular electrical components specially manufactured for SCHNERZINGER against direct access and screening via X-ray or magnetic field applications. A slight rustling caused by this potting compound is normal and does not result in any functional impairment. There are no informed crystals in the devices.

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**

# **GIGA PROTECTOR (2 units)**

CONTROL UNIT (COUA, 2 units)
12V Power Supply, cable length 1,5m (2 units)
3,5mm jack extension cable 5m (2 units)
Antenna (2 units)

**Dimensions and weight** (I  $\times$  w  $\times$  h in cm, weight in kg) GIGA PROTECTOR, each 16.2  $\times$  16.2  $\times$  7.5 (without antenna), 5 The big antenna is 39 cm long.

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## **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 CANCELING** 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 CANCELING 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.

### **GIGA PROTECTOR**

The **GIGA PROTECTOR** is an innovative 12-channel high-frequency interfering field elimination system for the entire listening room. It consists of a two communicating devices, which protect the environment wide-ranging and broadband from losing sound quality due to high frequency interfering fields.

The GIGA PROTECTOR can be specifically configured so that beside the adjustment to the respective room situation even particular frequency areas can be triggered to allow for direct sound correction in the high-, mid- and low frequency area.

The products **EMI PROTECTOR** and **PICCOLO PROTECTOR** are available for the targeted adjustment of punctual interfering field peaks.

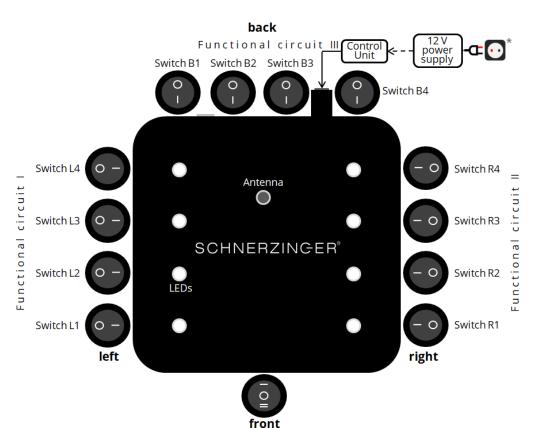
# **Setting up the GIGA PROTECTOR**

The **GIGA PROTECTOR** has three power levels and three functional circuits to simply adjust bandwidth and clock rate of GIGA CANCELING technology via toggle switches. This makes it possible to adapt to any interference field spectrum. The change in bandwidth extends or decreases the detection range, changing the clock rate the processing speed.

The rule is: the narrower the bandwidth, the higher the efficiency - the smaller the detection range. The lower the clock rate, the higher the extinction rate - the less interference frequencies are detected.

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.



#### First set the switches of one device in full, then the second device.

Because each device finds different environmental conditions within the room, the parameter settings of both devices may differ.

#### 1. Step: Base setting

Usually (power level 1), the GIGA PROTECTOR will be operated without the 12V power supply. To maintain its performance, it should be connected to the grid with CONTROL UNIT and 12V power supply once a year for 15 minutes.

**Connect antenna** (upright position) and **CONTROL UNIT** (COUA) to the GIGA PROTECTOR, without 12V power supply.

Set all 13 switches to base setting 0.

## 2. Step: Optimal Positioning

Recommended placement:

- 1. diagonal front right (beside or behind the speaker) and rear left, or diagonal front left (beside or behind the speaker) and rear left
- 2. right and left behind, beside or in front of the speakers
- 3. Right and left beside the listening position
- 4. Front and rear, central to the listening room respectively (if no **EMI PROTECTOR** is used)

## 3. Step: Switch in front in position 0 - power level 1

Start with switch setting 0 = power level 1 – with CONTROL UNIT, **without** 12V power supply.

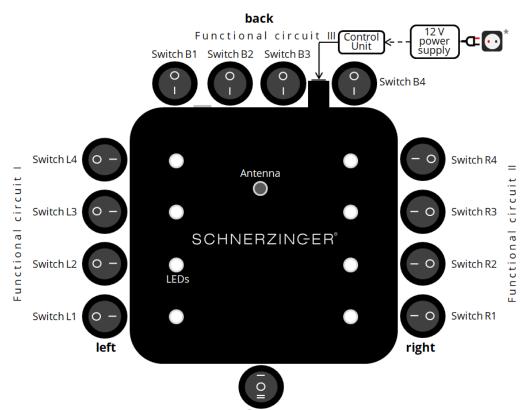
# **Setting up the GIGA PROTECTOR**

#### 4. Step: Switches at the back:

Functional circuit III – setting the **clocking**, switches: B1 = low to B4 = high Starting from the base setting the switches B1 - B4 will be tested sequentially in position 0 and 1. For each switch, retain the better result.

#### 5. Step: Switches left:

Functional circuit I – setting the **HF-bandwidth** 



front

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.

### 6. Step: Switches right:

Functional circuit II – setting the **LF-bandwidth** 

Switches: R1 = narrow to R4 = wide

Starting from the base setting the switches R1 - R4 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.

Now you've identified the optimal result without 12V power supply.

#### 7. Step: Switch in front - adjustment of the power level:

If power level 1 is not sufficient for the present interference field spectrum, 2 additional power levels can be activated. This requires the permanent connection of the 12V power supply\* to the CONTROL UNIT and the grid. The 12 Volt power supply should be connected to a power circuit separate from the HiFi system – ideally even to a different power phase.

Set all switches to base setting 0; then activate power level 3 by position 2 of the front switch. Repeat steps 4 to 6 to identify the optimal switch settings of functional circuits I to III **for operation with 12V power supply**. With this setup, compare power level 2 and 3.

0 = Power Level 1 – with COUA, without 12V power supply

1 = Power Level 2 – with COUA, with 12V power supply, LEDs on

2 = Power Level 3 – with COUA, with 12V power supply, LEDs high

<sup>\*</sup> note the correct phase (marked with a silver dot) – measure the phase of your socket.

# **Lasting Effect of the GIGA PROTECTOR**

The **GIGA 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 GIGA PROTECTOR, the buffering effect absolutely has to be considered.

If the GIGA 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 (if connected) and the CONTROL UNIT from the power grid and the GIGA PROTECTOR resp. Additionally remove the antenna, place the unit on the floor and set the switch in front to position 2. Keep these conditions for several hours, preferably overnight. This way you achieve that the GIGA PROTECTOR has no effect any more.

Upon recommissioning the interfering fields will be cleared again fast.

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