# SCHNERZINGER®





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### LAN PROTECTOR

In addition to harmful electrosmog interferences that lie on the power grid, the electrosmog loads that permeate throughout the ethernet network are among the most potential sound killers.

If a device of the audio system (e.g. streamer) is connected to the network, the disturbances within the ethernet permeate unhindered into the connected HiFi-component - and from there on through the connected cables into further connected devices. This vastly degrades the quality of audio playback and music reproduction regardless whether mainly music signals or just additional control/remote commands are sent over the lines.

The LAN PROTECTOR lifts the quality of music playback via digital media to the highest essence only known from pure analog HiFi-realms.

Just as with the GRID PROTECTOR, the Schnerzinger GIGA CANCELING technology operates to full extend within the LAN PROTECTOR.



#### CONNECTION:

The LAN PROTECTOR is connected to the network via the enclosed switch:

- into the network-wallsocket (HiFi-room)
- into den router

or more connection details and a recommended switch port assignment, see page 2.

#### **RECOMMENDATION:**

We recommend **using the enclosed switch** to connect to the network! Using other network switches can limit the performance of the LAN PROTECTOR.

We recommend **using a SCHNERZINGER LAN cable** (with internal bidirectional barrier) to connect the audio signal to the digital player. This means that even the "last metre" is protected from any interference.

LAN PROTECTOR → Ethernet / Network GRID PROTECTOR → Power Grid / Power Lines

### Important Connection Info

There are 2 network connection sockets (RJ45) on the back of the device. They operate at different clock rates in order to be able to detect different interference fields.

### The use of the enclosed network switch is highly recommended!

Due to integrated filters the use of existing highend switches or LAN conditioners can have a negative impact on the performance of the LAN PROTECTOR. The variant, LAN PROTECTOR into the switch, has proven itself, but various variants are possible. Trying always decides on the best sound.

The schematic diagrams below show examples of the structure and recommended integration of the LAN PROTECTOR.

The LAN PROTECTOR itself has no signal transmission function - it is therefore not directly connected to a HiFi component.

All connections can generally be realized with standard network cables. However, we explicitly recommend the use of a Schnerzinger LAN cable for the connection to the digital player.

\* Thanks to its integrated BIDIRECTIONAL BARRIER, it closes the existing gateway for sound-damaging high-frequency interference potentials from the immediate environment, which can penetrate into the subsequent signal path via this cable connection, even over the last meter.



#### Variant 1

LAN PROTECTOR: Output A LAN-Switch: Port 2



#### Variant 2

LAN PROTECTOR: Output B LAN-Switch: Port 2



#### Variant 3

LAN PROTECTOR: Output A LAN-Switch: Port 2

LAN PROTECTOR: Output B LAN-Switch: Port 4

### Step By Step Adjustment

#### 1. Power Connection and Antenna

Operation initially without 12V power supply Connection of antenna (vertical position)

#### 2. Basic Setup

All three switches in basic setting 0 (LED off) Power Switch usually remains in basic setting 0 (LED off)

#### 3. Comparison

First connect socket A and listen Remove cable. Connect socket B and listen. Then connect both sockets and listen. Compare everything and keep the best variant.

#### 4. Switch 1 and 2

Set switch 1 to I, listen. Then up to II, listen. Keep best setting.

Set switch 2 to I, listen. Then up to II, listen. Keep best setting.

**Please note:** if socket A or B is not connected, the corresponding switch on top remains at 0.

## 5. Increasing the power (POWER switch)

In most cases setting is now done.

However, if the basic setting is not sufficient for the present interference field spectrum, it is necessary to permanently connect the 12V power supply unit to the mains (observe correct plugging into the socket, current phase is marked).

The 12V power supply should be connected to a separate circuit from the HiFi-system - ideally to a different phase of the house mains.  $\ .$ 

Do not change the optimal setting determined in steps 3 and 4.

Listening comparison of the power levels: starting with switch setting I (LED on), then switch setting II (LED bright).

If there is no improvement, or even degradation, return to the basic POWER setting: Remove 12V power supply again, switch position POWER to 0, LED remains off.

**Please note:** To maintain its performance, the LAN PROTECTOR it should be connected to the grid with the 12V power supply once a year for approx. 15 minutes.



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