With your choice of this axxent induction loop amplifier you have decided on a high quality, reliable and rugged part of your sound system. In order to gain the maximum performance we recommend to carefully read this manual.

Important!

Because of potential dangerous hazard, the user may operate only the controls on the front side of the unit. All internal settings described on the following pages should be adjusted by qualified service personnel only – the same applies to opening the metal case (risk of electric shock).

Note:

The induction loop amplifier ISV1000 is contained in a standard 19" rack case with mounted rack ears. It may also be used as a table top unit with its rubber feet.

Rack mounting: when the unit is intended for rack mounting, you should make sure whether the factory pre-selected power setting for a coverage of up to 200 square meters would be sufficient for your application – if not, you will have to remove the housing top first. Internal jumpers on the PCB (printed circuit board) allow to alter these setting. On page 3 you will find the instructions for changing the jumper setting.

Surface mounted unit: Please remove the rack ears. Changing the power settings, of course, is the same as described in the previous paragraph.

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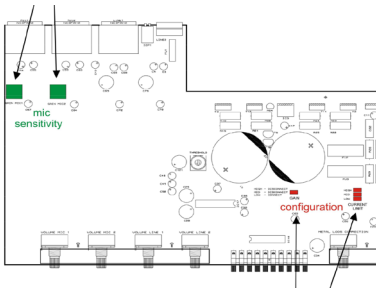
Settings and adjustments

Please keep in mind that the induction loop amplifier ISV1000 can drive induction loops for venue surfaces of up to 1000 square meters. In this maximum power position the current current reaches values to 8.8 A rms, equivalent to approximately 12.7 A peak.

The ISV1000 provides adjustments for 4 different power levels.

up to 100 sqm, 3 A rms
up to 200 sqm, 4.3 A rms (factory pre-set)
up to 500 sqm, 6.7 A rms
up to 1000 sqm, 8.8 A rms

The factory setting is the second level for up to 200 sqm, 4.3 A. Other settings for power/coverage are easily made by changing the internal jumper position (see schematic on next page).



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Microphone inputs

The internal jumpers are accessable by removing the top of the housing. **Danger!** Before doing so, first pull the power cord. All alteration of these setting should be performed by qualified service personnel only.

The graph next page explains the setting of the input sensitivity for both XLR microphone inputs. The default setting is 1.5 mV, the standard value for a “normal” dynamic microphone at equivalent SPL. Using a small screwdriver, this input sensitivity may be attenuated down to 150 mV – a typical AUX level, such as for CD/MP3 player etc.

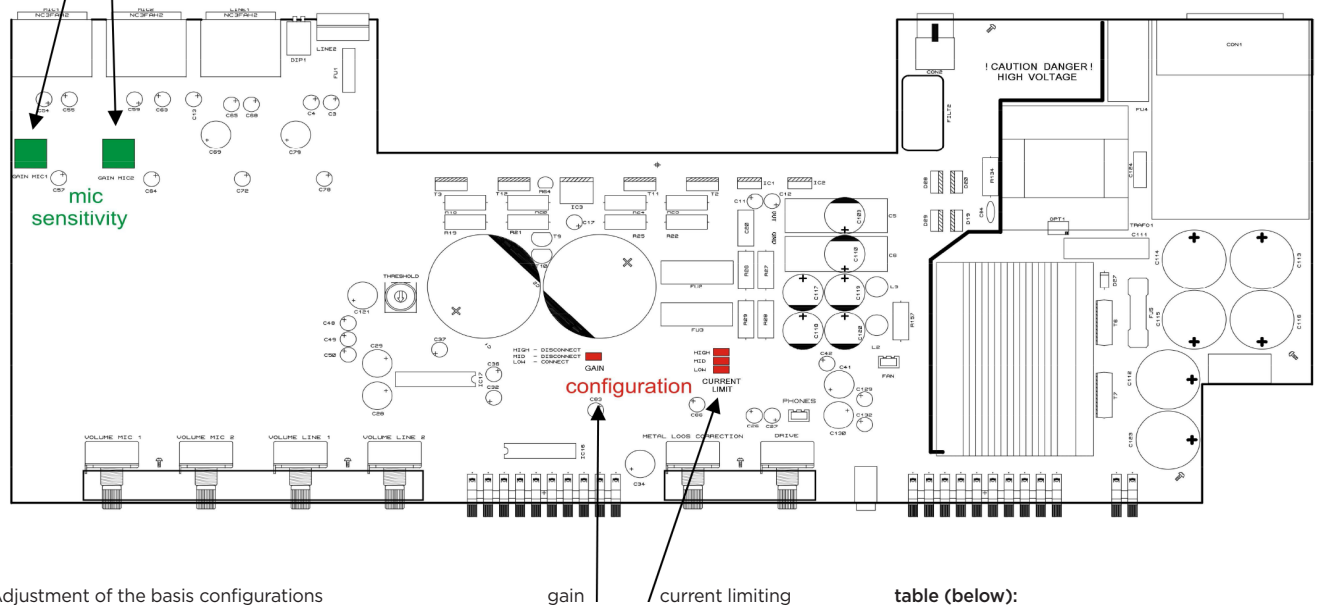
Line inputs

Further this instruction explains the Line 2 connection: While the A+/A- and “ground” for balanced lines is self explanatory, the 22 V DC output most likely is not. In fact this DC output is intended for remotely located microphone pre-amplifiers.

internal settings

input sensitivity
for mic inputs 1 and 2

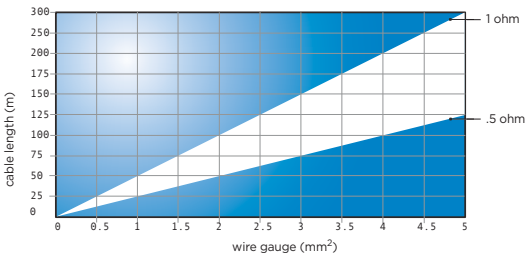
screwdriver adjustable in the range 1.5 to 150 mV
default value is 1.5 mV (input sensitivity line 1 & 2 = 150 mV)



Adjustment of the basis configurations
via internal jumpers

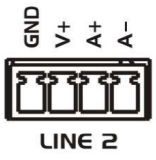
power level	gain jumper	current limit jumper		
up to 1000 sqm, 8.8 A_{rms}	no	High: yes	Mid: no	Low: no
up to 500 sqm, 6.7 A_{rms}	no	High: no	Mid: yes	Low: yes
up to 200 sqm, 4.3 A_{rms}	yes	High: no	Mid: no	Low: yes
up to 100 sqm, 3.0 A_{rms}	yes	High: no	Mid: no	Low: no

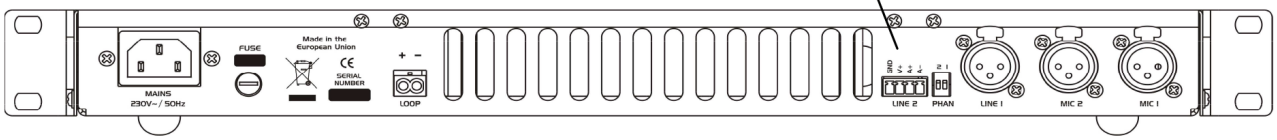
table (below):
finding the right gauge (single conductor, insulated)
for an impedance between .5 and 1 ohm.



Input LINE 2

Pin A+, A–	balanced input
Pin V+	output 22 V DC, max. 1 A
Pin GND	ground





As already described on the previous pages, the induction loop amplifier ISV1000 allows you to choose from four different power levels. So practically all power requirements for various venue sizes and auditoriums can be met with one model – a really unique feature.

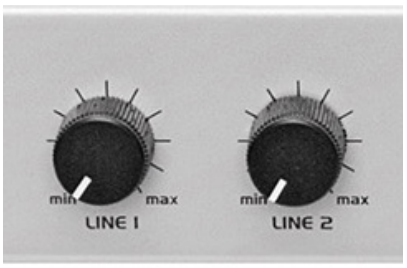
The controls

MIC 1, MIC 2

Left on the front side you will note four control knobs. The two left ones control the microphone input level. On the rear you will find the two corresponding 3pin XLR connectors. As already described on the previous pages, the input sensitivity of these inputs may be altered via small internal potentiometers, located on the printed circuitry board. Phantom power (48 V) for condenser microphones can be activated separately for each input via DIP switches labelled „PHAN 2 1“ (lower ON position).

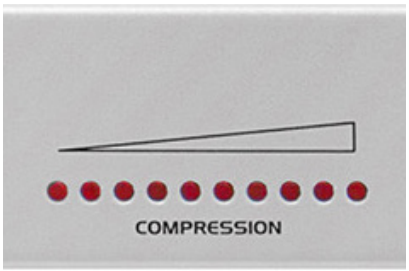
LINE 1, LINE 2

Right from the MIC potentiometers you will note two control knobs for the line signals. The corresponding connectors are also located on the rear side. Line 1 is a balanced 3pin XLR connector (female), while LINE2 is equipped with a 4 pole Phoenix connector. A+/A- and GND is the balanced line input, while V+ with GND represents the 22 v DC output, intended as power supply for external microphone pre-amplifiers.



COMPRESSION

In the centre of the front side you see an LED chain, labelled COMPRESSION. The bar-graph indicates the amount of compression, e.g. how much the dynamic range between the lowest audible signal and the maximum peak levels are compressed. This compression facilitates intelligibility especially for the “quiet” low level signals, highly appreciated by hearing impaired persons.



continued on next page –>

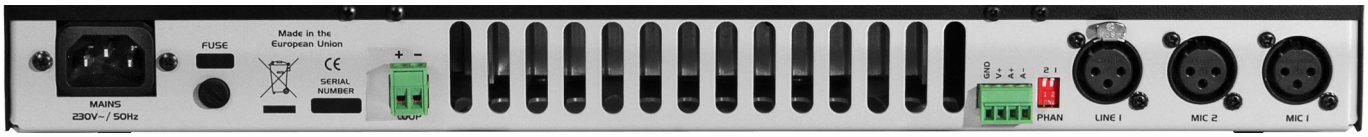
METAL
This potentiometer allows compensation of frequency anomalies, caused by metal parts or tubes located in vicinity of the induction loop. In order to determine these frequency response anomalies, we recommend use of an induction loop measurement instrument.

DRIVE
The DRIVE control sets the output power (output current) of the amplifier indicated by the LED chain. The “normal” safe level is represented by the green LEDs, while the red LEDs should only be lit at absolute level peaks.

HEADPHONE SYMBOL
This is the input connector for any type of headphones with standard phone plug (¼” TRS) in order to check the audio signal for distortion or other anomalies.

TEMP
The red TEMP LED lights when the maximum operating temperature is exceeded. If it lights up continuously, the induction loop is probably not properly sized or the amplifier is overdriven. Please check out these potential trouble causing sources.

POWER
Green LED indicator confirms activated POWER switch on the right (ON).



Rear of the case

MAINS
IEC power cord socket (230 v AC, 50 Hz).

FUSE
This is the fuse holder for glass fuses 5 x 20 mm, 2 A with “slow blow” characteristic. In case this fuse fails, please have it replaced with the same type of fuse (by qualified service personnel). In case this fuse blows again, please return the device for repair to your dealer or the manufacturer axxent e.K.

Declaration of Conformity

Product: AFILS Audio Frequency Amplifier for Hearing Impaired

Model: Axxent ISV1000 AFILS Audio Frequency Amplifier

The product is designed for amplifying acoustic frequency signal in induction loops for hearing impaired persons.

Producer of electronic devices in subject this declaration of conformity hereby declares that equipment specified above is in compliance with mentioned directives and standards and conforms to the requirements of the harmonized product standards.

Used directives and standards:

EMC regulation 2004/108/EG
and especially therefore complies with EN61000-6-1 2007,
electro-magnetic susceptibility for private use, commercial use and light industrial applications according to table 2.

The amplifier induces an audio frequency signal into a wire loop.
Low voltage directive 2006/95/EG of December 12, 2006 regarding electrical equipment.

Producer: axxent e.K.
Place: 63571 Gelnhausen, Germany, Zum Wartturm 15
Date: November 27, 2014

Name: Josef Becker
Position: Owner
Stamp and Signature:

ISV 1000

induction loop amplifier

Induction Loop Amplifier ISV1000

The loop amplifier ISV1000 is a newly developed product made by axxent. This type of amplifier powers induction loops inside rooms – either in the floor or in ceilings. This induces an induction into the air between the outer borders of the cable loops. Reception loops are built into most hearing aids. The audio signal from the induction loops is much better for the hearing impaired than the acoustic signal. This is because of the broad frequency spectrum fed into the loop and the compression used in the amplifier that enables the hearing impaired to hear low level music or speech.

Very new about the axxent ISV1000 is that it may not only cover room sizes of up to 1000 square meters, but also up to 500 square meters, 200 square meters or up to 100 square meters. Adjustments are made inside the amplifier and this makes it possible that only one model covers all applications.

Features

- **for induction loops of widely varying sizes**
- **up to 1000 sqm, 8.8 A RMS, 12.7 A peak current, jumper adjustable**
- **up to 500 sqm, 6,7 A RMS, jumper adjustable**
- **up to 200 sqm, 4,3 A RMS, factory preset**
- **up to 100 sqm, 3 A RMS, per jumper adjustable**
- **2 balanced XLR microphone inputs**
- **phantom power switchable**
- **XLR line input**
- **line input with Euroblock connector and 24 VDC for external mic/line amplifiers**
- **built in compressor**
- **metal correction potentiometer**
- **drive potentiometer**
- **3.5 mm connector for headphone monitoring**
- **all potentiometer knobs may be removed and covered by blinds to avoid mis-adjustment by unqualified users**
- **IEC power connector with 2 A fuse, slow blow**

Technical comments

The axxent induction loop amplifier ISV1000 drives induction loops with impedances between .3 ohms to 2.5 ohms with full power. Please note that at the highest available power a current of up to 12 Ampère may be flowing into the loop. It is advisable to check the loop that there is no complete shortage. This can be measured using a standard Ohm meter. Length of the loop should be checked also, so that the impedance mentioned above exists. Induction loops should have a single core cable. Basic difference between induction loop amplifiers and “standard” audio amplifiers is that loop amplifiers are amplifying current into very low impedance whereas “standard” amplifiers are meant to amplify voltage into higher impedances.

The ISV1000 has removable “rack ears” for its use as a table top amplifier. Rubber feet facilitate this use also. The housing is made of solid steel, powder coated.

Size: 434 mm W (w/o rack ears), 190 mm D (including potentiometer knobs and connectors), 44 mm H (w/o rubber feet). Weight: 3.3 kg net, shipping 5.1 kg.

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