

# AG 8<sub>2</sub>

## active monitor



# AG 82 active monitor

## user manual

| <b>Contents</b>                               | <b>Page</b> |
|---|-------------|
| 1. Introduction                               | 3           |
| 2. Safety instructions                        | 4           |
| 3. Controls and connections                   | 5           |
| 4. Starting up                                | 6           |
| 4.1 Cabling and switching-om                  | 6           |
| 4.2 Level adjustment                          | 6           |
| Note: Level adjustment                        | 6           |
| 5. Functional characteristics                 | 7           |
| 5.1 Ground                                    | 7           |
| 5.2 Master                                    | 7           |
| 5.3 EQ  | 7           |
| 5.4 Aux in                                    | 7           |
| 5.5 Mic in                                    | 7           |
| 5.6 Line in                                   | 7           |
| General Note: Use of 48V or 24V phantom power | 7           |
| 5.7 Insert loop pre/post EQ                   | 8           |
| 6. Technical Specifications                   | 9           |
| 7. Circuit Diagram                            | 10          |



## 1. Introduction

Welcome to AER.

Thank you for purchasing the **AG 82 active monitor**.

The **AG 82 active monitor** is a professional, compact and powerful active monitor amplifier.

Three inputs enable the independent operation of microphone, instrument and line sources. The dynamically controlled power amplifier and the 8" twin-cone speaker-system guarantee distortion-free reproduction and absolute reliability in full-load operation despite strikingly small sizes and little weight.

Read on and have fun using your **AG 82 active monitor!**

## 2. Safety instructions

The following guidelines shall help minimize the risk of injury through fire or electric shock.

1. Carefully read these safety notes before you use the device!
2. Keep these safety notes in a safe place.
3. Pay attention to all warnings, instructions and additional texts on the unit.
4. Do not install or use your device in close proximity to water or if you are wet yourself.
5. Use your device in a safe place where nobody can step on cables or trip over and damage them.
6. Always pull the mains plug before cleaning your device. Use only a dry cloth for cleaning. Avoid the use of detergents and do not let any liquids seep into the unit.
7. Never install your device close to units with strong electromagnetic fields such as large mains transformers, revolving machines, neon illumination etc. Do not lay signal cables parallel to power current cables.
8. There are no user-serviceable components inside the unit. To avoid the risk of an electric shock, the unit must not be opened. All maintenance, adjustment and repair works should be carried out by qualified staff only. Any unauthorized tampering

will void the 2-year warranty.

9. In keeping with the EMV regulations screened cables with correctly fitted connectors must be used for all signal connections.
10. Always use an earthed power supply with the correct mains voltage. If you are in doubt about the power outlets ground, have it checked by a qualified technician.
11. Cable up your device only when it is powered off.



### 3. Controls and connections



1) ground                      signal ground/protective ground disconnecting switch      = off      = on

|           |                         |               |
|-----------|-------------------------|---------------|
| 2) power  | on/off status indicator |               |
| 3) clip   | overload indicator      |               |
| 4) volume | master level control    | <b>master</b> |

|           |                                |           |
|-----------|--------------------------------|-----------|
| 5) treble | treble frequency level control |           |
| 6) bass   | bass frequency level control   | <b>eq</b> |

|           |  |               |
|-----------|--|---------------|
| 7) level  | aux in level control   |               |
| 8) aux in | stereo input for additional signal sources (e.g. CD-player), Cinch/RCA-sockets (white = left channel, red = right channel) | <b>aux in</b> |

|            |   |               |
|------------|---|---------------|
| 9) level   | mic in level control  |               |
| 10) mic in | signal input - combo socket for 6.3 mm mono jackplug and XLR male connectors (symmetrical, 48V phantom power) | <b>mic in</b> |

|                      |   |                |
|----------------------|---|----------------|
| 11) level            | line in level control   |                |
| 12) line in          | signal input - 6.3 mm mono jack socket, <b>factory provided phantom power not activated</b> | <b>line in</b> |
| 13) phantom power 9V | 9V phantom power indicator - option – <b>default setting: not activated</b>                 |                |

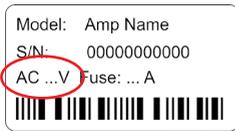
|             |   |               |
|-------------|---|---------------|
| 14) pre EQ  | insert pre equalizer, 6.3 mm stereo jack socket, tip = send, ring = return, |               |
| 15) post EQ | insert post equalizer, 6.3 mm stereo jack socket, tip = send, ring = return | <b>insert</b> |

16) power on                      power on/off switch with mains socket and fuse holder (ref. to technical data: mains fuse)

# 4. Starting up

## 4.1 Cabling and switching on

Before connecting to mains, please ensure that your local mains voltage is suitable for the voltage of the device (e.g. 120V in the USA, 230V in Europe).



The relevant specs and safety symbols are printed on the rear side of the unit.

**Volume** and **level controls** should be in **zero** position (over to far left), **bass** and **treble** control in **centre** position, the **ground** lift should be switched **off = not pressed**.

Connect all cables according to your application and switch the **AG 82 active monitor** on. The green **power** control LED indicates operational readiness.

## 4.2 Level adjustment

First ensure that the **volume** level control is in zero position (over to far left), so that when you are setting the sound level, the signal passes through the electronics only and does not reach the loudspeaker. Turn the **level** control of each input with incoming signal up to a short flicker of the **clip** indicator. Thus you make sure that your signal source (e.g. instrument) provides the input-stage of the amplifier with the necessary input.

The **clip**-LED indicates an overload. A short flicker is of no danger to AER devices. During operation a short flicker can be accepted, to be on the safe side you should reduce the **level** slightly to achieve an optimal and distortion-free performance.

Finally set the desired overall volume level with the **volume** level control.

### Note: Level adjustment

By setting the level correctly we mean the signal level in one or several devices in a signal chain is neither too high nor too low. This applies equally to all circuits in a complete circuit design (EQs, preamps etc.)

Consequently, care must be taken that no part of the circuit is overloaded or that distortion is unintentionally added to the signal.

We have carefully designed the circuit to achieve this objective whilst also providing controls for „manual“ intervention.

# 5. Functional characteristics

## 5.1 Ground

The **ground** switch separates signal ground from protective ground to prevent unwanted humming from possibly occurring ground loops.

## 5.2 Master

Adjust the overall volume with the **volume** control, the **clip** LED shows a possible overload in the three inputs, the **power**-LED indicates operational readiness.

## 5.3 EQ

The dual-band equalizer provides you with an active and high quality sound interaction tool for an accentuated high- or low-frequency-modulation through the **treble** and **bass** controls.

## 5.4 Aux in

Stereo input socket for additional signal sources (e.g. for CD player).

## 5.5 Mic in

Microphone input with combo socket (XLR-female plus 6.3 mm jack socket), the XLR socket is equipped with **48V phantom power**. (s. **General Note: „Use of phantom power“ on this page**)

## 5.6 Line in

Input for line level sources (6.3 mm jack socket), factory provided **phantom power is not activated**. If required, **9V-phantom power** can additionally be activated in this input by an internal jumper.

**Please note: For this alteration the device must be opened, therefore only qualified service personnel may carry out modifications concerning the de-/activating of phantom power.**

After the activation, devices that require 9V-phantom power may be connected to this input via **stereo** jackplug. The phantom power supply will be indicated by the related LED. (s. **General Note: „Use of phantom power“ on this page**)

### General Note: Use of 48V or 24V phantom power

(Phantom power = remote supply, here: powering an audio device via the connected audio line)

Turn on the phantom power only if the unit connected to an XLR socket is designed to handle it!

In general, suitable units are e.g. condenser microphones, active DI-boxes and other special audio devices, whose power supply is drawn from the phantom power. Such devices are also labelled accordingly; please heed the permissible power consumption (max.10mA).

High-quality dynamic microphones with a balanced signal need no phantom power, but can handle it anyway.

Other devices, which have not been designed explicitly for phantom power operation, can suffer from considerable malfunctions and damage may result as well.

### Examples of devices that may be damaged by incorrect application of phantom power include:

Low-cost dynamic microphones with a mono jack-plug (unbalanced signal) that were fitted afterwards with an XLR connector.

Audio devices with a balanced XLR output (e.g. DI-boxes, effects devices, instrument preamps with a DI output etc.) which are not protected against phantom power applied to their XLR output. (The DI connectors on AER products are protected against applied phantom power.)

Other audio devices (such as preamps, effects pedals etc.) whose unbalanced line output was replaced by an XLR socket.

**If in doubt please consult the manufacturer of the device you are using.**

## 5.7 Insert-loop pre/post EQ

The **insert-loop** (without/pre od with/post eq) is an in-/output on a **stereo-socket** to link different effect-devices (EQ, compressor etc.) in serial mode with **tip = send** (input) and **ring = return** (output). This configuration allows several more applications, such as:

1. use as additional line-output
2. use as additional line-input
3. link between two or more AER-amps with insert-feature (AG8, Domino, Compact ClassicPro)

For each of these applications you'll need the appropriate cable connection, e.g. use as line-output: stereo-jack (tip and ring = hot, sleeve = ground) to mono-jack.

In link operation it is assured, that the signals of all connected amps are hearable on all devices, even with different effect settings. You just have to be aware, that the different levels depend on each other.



**AER** The Acoustic People®

[www.aer-music.de](http://www.aer-music.de)

AG 82 active monitor - 2012\_10\_GB