

## 1. Introduction

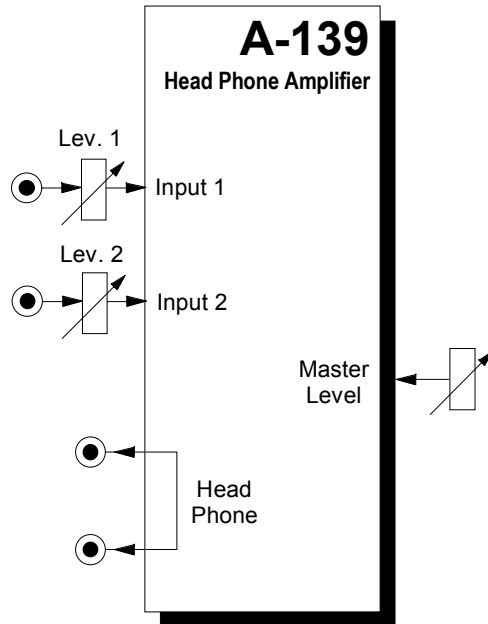
Module **A-139** is a **stereophonic headphone amplifier**.

One or two stereo headphones with 6.3mm (1/4") stereo jack plugs can be connected to the A-139. The minimum headphone impedance is **8 Ohm**.

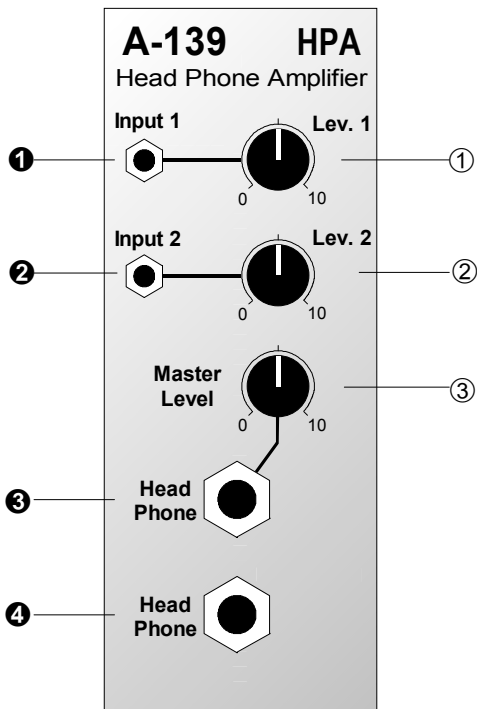
The levels of the audio signals connected to the audio inputs can be adjusted separately for each input.

The **Master Level** knob controls the overall loudness for both channels.

The **maximum power output** is **2 x 1.5 W**.



## 2. HPA - Overview



### Controls:

- ① **Lev. 1 :** Attenuator for audio signal at input ①
- ② **Lev. 2 :** Attenuator for audio signal at input ②
- ③ **Master Level:** Overall loudness for both channels

### In / Outputs:

- ① **Input 1 :** Audio Input 1
- ② **Input 2 :** Audio Input 2
- ③ **Head Phone :** Headphone output 1 (1/4" stereo jack socket)
- ④ **Head Phone :** Headphone output 1 (1/4" stereo jack socket), internally connected to output ③

### 3. Controls

#### ① Lev. 1 • ② Lev. 2

Attenuators ① and ② adjust the **relative level** of the audio signals at inputs ① and ② respectively. Basically, these controls are used to compensate for different levels of the input signals.

#### ③ Master Level

Control ③ is used to adjust the **overall loudness** and affects both channels (stereo potentiometer).

**Important:** Turn this knob fully counterclockwise and then turn it slowly clockwise until the desired loudness is reached. **Extreme audio levels will damage your hearing !**

### 4. In- / Outputs

#### ① Input 1 • ② Input 2

Audio inputs ① and ② are connected to the **audio sources** to be amplified (e.g. final VCA outputs).

#### ③ Head Phone • ④ Head Phone

Jack sockets ③ and ④ (internally connected) are the **headphone outputs** of the module.

Connect one or two **stereo headphones** with **1/4" stereo jack plugs** and **minimum 8 Ohm impedance** to these outputs.



#### Mounting of the A-139 module

Module A-139 uses integrated amplifier circuits with high fixed gain. The result is that the module is very sensitive to earth **hum** resulting from ground loops (bus board - patch cords - front panels - frame - mains GND).

Therefore **isolating spacers** and **plastic washers** are enclosed with the module. These enable isolated installation of the module into the A-100 frame, i.e. with no electrical connection between the front panel and the frame via the mounting screws.

In case your A-139 module generates an unacceptable amount of earth hum, these washers and spacers should be used for mounting the module within the frame.

## 7. Patch-Sheet

The following diagrams of the module can help you recall your own **Patches**. They're designed so that a complete 19" rack of modules will fit onto an A4 sheet of paper.

Photocopy this page, and cut out the pictures of this and your other modules. You can then stick them onto another piece of paper, and create a diagram of your own system.

Make multiple copies of your composite diagram, and use them for remembering good patches and set-ups.



- Draw in patchleads with colored pens.
- Draw or write control settings in the little white circles.

