icon Audio

HP8 MKII Instructions
Pure Triode Headphone Amplifier

No Compromise High End Pure Valve SE Headphone Amplifier

About the HP8 MK II

Thank you for purchasing one of our amplifiers, a lot of care has gone into the design, selection of components and production of this amplifier. We are sure that you will hear the difference.

Designed in Leicester by David Shaw

The conventional way to provide a headphone output on an amplifier is to drop the power through a resistor. This has a big problem that it provides very high source impedance (rather like a weak battery) the effect of this is to give very "Low FI" results. Ideally headphones should be driven from small high quality amplifiers. Many headphone amplifiers use small "microchip" amps which although are a better solution still do not provide ideal matching to the wide range of headphones available.

Our HP8 MK II is in fact a small integrated hi fi amplifier. We use a custom wound multi-tap output transformer which provides perfect matching to virtually any headphone load. We start with a substantial mains transformer with matching power supply and two output transformers. The HP8 MK II tops the scales at 6.5kg, giving you an idea of how much iron you get for your money!
Like our other models the HP8 MK II has no printed circuit board and is all hard wired with top quality components. We use silver PTFE audio cable, gold plated terminals and the famous "ALPS" volume pot for sonic purity.
The first stage gain uses the excellent ECC83. This wonderful valve has exceptional detail and fluidity. Its smoothness complements the super 6SN7. This combination will give you a simply stunning insight into inner detail of your favourite recordings whether Analogue or digital.

Like other Icon Audio amplifiers, close attention has been paid to the finish of the HP8 MK II. It uses the same "Bullet Proof"* build (*Hi Fi News/Hi Fi Choice) as our other amplifiers with a combination of anodised alloy plate, stainless and painted steel. We do not use "tin and plastic"!
For space saving we have used the same "lengthways" chassis as our phono pre-amp so it will fit nicely alongside your existing equipment, with the connections on the rear, and headphone socket at the front.

The HP8 MK II is very versatile. It may connected to your hi fi in several ways:
1, In a normal hi fi system you would connect to the "record out" of your amplifier. This will then be directly connected to the "source" that you have selected.
2, If your amplifier does not have a suitable output, splitter leads may be used.
3, With "Pre and power" systems a connection may be made from the pre-amplifier.
4, As a stand alone unit you can directly connect to any CD/MP3 player.

To get the best out of your unit and to save time please read this information & keep it to hand for reference

QUICK SET UP GUIDE

1 Unpack unit carefully. Make sure that it is in good condition. It is important that you keep packaging for warranty/service return.

2 Fit the valves if necessary. Or if fitted check that they are seated properly. (see also valve replacement)

3 You may connect directly to your source unit (e.g. CD player) or from the "Record Out" of your amplifier.

4 Connect to mains supply using the attached mains lead to 230/240v supply. **If you are outside the UK it may be necessary to change to a different type of mains plug, the welded plug must be removed and replaced with a suitable type. Or use a suitable "IEC" cable. Please then remove fuse and dispose of carefully.** (As they can be a danger to children if plugged in). The replacement plug should be wired in the following way Brown to Live terminal, Blue to Neutral terminal and Green/Yellow to Earth terminal.

6 Connect your headphones and SWITCH ON!
The blue mains indicator should light up and unit will take approximately 40 seconds to start working. All valves should have a visible orange glow from the cathode heaters. With the volume control set to minimum (fully anti-clockwise) there should be no sound coming from your headphones except a barely discernable hum.

6a, Headphone Impedance
The right hand knob marked **L M H** and **LS** refer to the matching impedance of your headphones and are banded as follows:

Low	4-32 ohms	(nominally 8)
Med	32-250	(nominally 100)
High	250-1000	(nominally 600)

7 Your unit should now be functioning. If not check wiring again and/Use selector/tape monitor/volume to choose source program and suitable listening volume. The best sound quality will be when the unit has warmed up for at least 20 mins.

8 Health and Safety. The valves when operating have moderately high surface temperatures. Keep out of reach of children and pets.
Under no circumstances operate with valves removed!
Like all amplifiers there are potentially lethal voltages inside (300v DC), which when switched off can take up to 15 mins to discharge! Do not remove bottom panel unless you are a competent engineer. There are no user serviceable parts inside. **Like other household electrical appliances do not leave unattended whilst switched on.**

Connecting inputs & outputs

Many problems with hi fi equipment involve connecting leads which are usually either **'Bad, or Wrong connection'**. So it's worth making sure that you have good connections and that your leads are the right way round.

Inputs
The amplifier will work with any standard piece of hi fi e.g. CD, Tuner, Tape Deck, Mini Disc, TV, Video Recorder, DVD etc.

General points

- Mobile phone 'breakthrough' is normal
- A switch-off 'click' through the headphones is normal.
- Storage in damp conditions could damage transformers.

Connecting Leads
Use good quality connecting leads, which are no longer than they need to be.

Leaving the amp switched on
People sometimes ask if the amp should be left running 24/7 without switching off. Whilst the amplifier will sound at its best when it is properly warmed up, there is no advantage leaving it switched on when it is not in use. It is using electricity and valves have a finite life. Conversely the valves and other components are stressed more at switch on; therefore do not switch on and off unnecessarily. **Although the amplifier should sound good within a few minutes like most hi fi units it will take a couple of months of regular use before it is 'run in'.**

Cabinet Care
To remove dust from the cabinet and valves we suggest gentle brushing with a soft paintbrush and a duster. Finger marks can usually be removed with a damp cloth. Always clean with the power disconnected.

CAUTION – HEALTH & SAFETY!
When making any adjustments remember to isolate from power supply, and remember that high voltages can remain present inside for some time after switch off.

Trouble Shooting

Amplifier Dead
Check the 1amp mains fuse which is in the IEC mains socket on the rear. Replacements should be 20mm 1Amp 'anti-surge' or "T" type. These are available from Icon Audio should you have any difficulty.
The fuse in the mains plug should be a 3 or 5 amp fuse, although unlikely, this should be checked if the amplifier fuse is OK.

No sound
Have you selected the right input? Are the connections OK? Is everything switched on? Are the headphones connected?

Distorted sound.
Try another source; if sound improves then it's probably something wrong with the first source. If no improvement try different headphones, if no improvement could be an amplifier problem.

Hum Problems
Excessive hum is generally caused problems external to the HP8. For example by a poor grounding in the signal lead, or a 'hum loop' caused by having too many earths. This may be identified by unplugging the input source from the mains whilst still connected to the HP8, the hum may then disappear. One remedy for this is to use an interconnect which only has the screen connected at one end. Some expensive interconnects are not screened so try with an standard alternative. Other causes of low-level

hum can be from adjacent equipment, so experiment with moving equipment around to see if this makes the hum better or worse.
The test for excessive hum coming from the HP8 is to check it with nothing connected at "zero" volume. If the hum is barely discernible this is normal. You will notice some hum on one channel if the volume is turned up, this is normal, but it will disappear when connected to a source component. Contact us for further advice.

One channel missing.
Usually 'bad' connection on either the input or the headphones. Try swapping the connection over to establish if the cause is:
(a) Input to the amp. Sound will move to the other channel.
(b) Amplifier or headphones. Sound will not move.

Strange noises coming from headphones
Turn volume to minimum on unused input, if problem corrected either fault with source unit or with connection. If noise persists, problem with amplifier.

A valve that is lit up is not a guarantee that it is working properly; conversely a valve that is not lit up will not be working.
Valve Replacement
Valve life will depend upon such things as hours of use and number of on/off cycles. As all the valves are lightly loaded. As a rough guide we would estimate life of approx 4 to 10 years. But this can vary.

What can happen?
A valve is at the end of its life if one of the following happens:

- Any of the six glowing heaters fails in either one of the 6SN7s or the ECC83
- A valve could get "noisy" or "microphonic"
- The emission (and therefore output and sound quality) may fall.
- The valve works intermittently.
- An air leak causes the valve to fail and the silver "getter" material to turns white.

It is essential that only the correct valves are used as some similar looking valves have a different pin connection and insertion could result in damage to the amplifier and risk of electric shock.
It is not good practice to remove the valves unnecessarily as this can strain the pins and cause micro air leaks. Icon Audio are happy to check valves and check to performance of your amplifier, and advise on the latest upgrades available FOC.

Method:
Switch off, disconnect from mains and allow to stand for 20 mins to allow voltages to discharge. Replace valves as necessary. Replace cover and test. Do not operate without cover!

Service: Should you suspect a problem, you could return the unit to your dealer or Icon Audio for a periodic service or return the valves for testing free of charge. You should carefully remove the valves they should be well packed in cardboard & foam or similar, and returned to Icon Audio. (Valves are very rugged if packed properly).

We welcome any comments you may have regarding errors or omissions in this manual.

Should you need further advice or information regarding the use of this unit please contact us.

NEW OWNER?
If you have bought this unit from someone else, please register with us by email or post stating your name, address, model, serial number and whom you purchased from in order that we can keep you up to date with upgrades and improvements

Specifications and Features

- All hand wired point to point
- No printed circuit board to 'colour' sound
- Japanese Blue ALPS volume pot.
- Class A, all Triode circuit
- Custom, hand wound transformers
- Output impedance matching from 8 to 600Ω
- 2 x 6SN7 output valves
- 1x ECC83 first stage valve
- 2x 1w output per channel max
- Signal to noise level -90db
- Freq response better than 20hz-20kHz
- Total harmonic distortion typically less than 0.2% 1khz
- Japanese steel EI transformers with low oxygen copper
- Slim profile design
- High quality 2W metal film, & wire-wound resistors
- Blue LED mains indicator
- Polypropylene audio capacitors
- Silver PTFE audio cable
- Custom hand wound output transformers
- Ceramic valve holders for minimum leakage
- Gold plated Input terminals
- One line input
- 300mv input sensitivity.
- 230/240volts 30 watts.1.0 A anti-surge fuse.
- C E, ROHS and WEEE compliant where applicable.
- 11cm W, 35 cm D, 14.8 H, 6.5 kg (remember to allow space for connections)

(Specifications subject to change, errors & omissions excepted. General 06/06/13)

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Final Inspection

This amplifier has been carefully checked, tested and final adjustments made by Icon Audio in Leicester.

It has passed our rigorous listening test and final inspection to assure you of optimum performance and reliability.

Date ….…./….

Model …….

Amp Serial Number …….

Customer ……

Check amplifier finish	…….
Run 6 hour test	…….
Check inputs/outputs	…….
Sound Quality	…….
Channel Balance	…….
Valve Microphony	…….
Valve Seating	…….
Hum & noise level	…….
RF Test	…….
Serial No sticker and recorded	…….
Mains voltage	110 / 240V

IEC Mains Fuse	……A
Sales invoice	…….
Credit card receipt	…….
Chassis linearity	…….
Bias meter	N/A
Transformer Protection	N/A
Upgrades:	
Output valve	…….
Capacitors	…….
Interconnects	…….

Signed off by ……..

Notes:

Please note we do not test the standard mains lead.

Gen 06/06/2013