

## CREEK OBH-21 OBH-21SE SPECIFICATION

	STANDARD	SE
OUTPUT POWER	> 10 mW into 30 $\Omega$ to 300 $\Omega$ loads	
HEADPHONE IMPEDANCE	30 $\Omega$ to 300 $\Omega$	
THD	$\leq$ 0.01% at 1 kHz	$\leq$ 0.005% at 1 kHz
SIGNAL TO NOISE RATIO	> 70 dB	> 70 dB
POWER CONSUMPTION	< 4 VA	< 6 VA
POWER SUPPLY	24V DC 150mA	24V DC 250mA
SIZE	180mm x 100mm x 65mm (7.4" x 4" x 2.6")	
WEIGHT (NETT)	570 gms (20 ozs)	

*Creek Audio Ltd reserve the right to change or modify the specification of its products without prior warning.*

*Designed and made in the UK .*

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# Creek OBH-21 & OBH-21SE



## Operating Instructions

Thank you for purchasing the OBH-21/ 21SE Headphone Amplifier. You are now in possession of a State of the Art product. The functions and operation of the OBH-21 and OBH-21SE are extremely simple. However, the following notes are provided to explain all aspects of its design and use.

### OVERVIEW

The OBH-21 is a miniature audio amplifier, designed specifically to drive two pairs of low to medium impedance (30 $\Omega$ –300 $\Omega$ ) headphones from a line level source. The OBH-21SE is a high -end version using more expensive components and power supply. It is more efficient to have a small amp to do this rather than waste the power of a full size one when only driving headphones.

The OBH-21 and 21SE are compatible with any source at line level. For example: an average output level CD player can be connected directly to the input of the OBH-21/ 21SE, just as it could also be used in conjunction with a stand-alone pre-amplifier or integrated amplifier which doesn't have a headphone output.

The OBH-21 is not designed to be connected to the high-level speaker output of an integrated or power amplifier. Output level is controlled by the high quality volume control on the front panel.



## INPUT AND OUTPUT CONNECTIONS

The OBH-21 has two pairs of stereo phono sockets (RCA jacks) on the rear panel. The first pair is the Input from any line level source, direct from the source or via the tape output of an amplifier. The second pair of sockets, marked 'Output', are to chain link the signal onto the next component in the system. Therefore, the OBH-21 can be driven from the Tape Output of an amplifier and the second set of sockets can be used to link the signal to the Tape recorder input. There is a 2.1mm DC power jack, with centre positive pin, for connection to a custom Creek OBH type power supply adaptor. On the front panel there two sockets on the front of the for plugging in the headphones.

## INSTALLATION AND OPERATION

Connect the OBH power supply adaptor to the mains socket. Find a suitable place for the OBH-21 and plug the DC power lead into the rear panel DC jack socket. Connect a pair of high quality interconnect cables from the output of the source to the input sockets on the rear of the OBH-21. Refer to the wiring diagrams showing the different options for connecting the OBH-21 to your system.

Plug the headphones into the socket on the front panel. If you are using the OBH-21 with two headphones, the output from each socket will be identical. However, if you are using only one pair of headphones, the impedance on each socket will be different. This feature is designed to give a better match with your particular headphones. Try each socket to get the best result.

Push the On/Off button on the rear to power-up the OBH-21. The small green LED on the front panel will light when it is ready for use. The front panel volume control should be set to the desired signal level.

## POWER SUPPLY REQUIREMENTS

In common with all electrical appliances, the OBH-21 needs a power source (24 Volts DC @ 150 mA). A Creek OBH-1 custom power supply has been provided to run it, which must be connected to the unit via the DC inlet (2.1mm positive centre pin power jack) on the rear panel. For improved performance, the higher quality Creek OBH-2 regulated power supply can be used instead. The OBH-21SE is supplied with the OBH-2 (24V DC @ 250mA) as standard and we do not recommend that it is used with the OBH-1. The power supply adaptor should be plugged into the mains socket which should be matched for the voltage of the country of use.

N.B. Due to the circuitry charging-up it is normal to hear a small thump through the headphones during switch-on.

**Note 1:** The OBH should be placed away from transformer hum fields for low noise operation.

**Note 2:** When new, it is necessary for the OBH to be 'burned-in' for at least 24 Hours before its full sound quality potential can be realised.

**Note 3:** Listening to excessive sound pressure levels can seriously damage your hearing. Be careful and enjoy the music.

## WIRING DIAGRAMS

