



Eightch

Instructions for use and installation

Welcome

Thank you for purchasing this DACS product; we are sure it will have a long and satisfactory working life, giving you clear and accurate monitoring for the foreseeable future. We are always developing our products, so if you have any thoughts about what you would like to see on this product, please e-mail to:

Douglas@dacs-audio.com

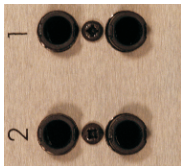
This user guide includes a brief description of the unit, installation details, advice on getting the best performance from your Eightch, and technical specifications. For further information please contact us directly (see below for details).

Introduction

The Eightch is an eight channel volume control. Used for 5.1, 7.1 monitoring, 8/16 channel ambisonic research, or controlling the volume of any multi speaker format; the Eightch is the perfect professional tool. Our aim was to produce a simple but very high quality unit, with an affordable price tag. It seemed to us that most DAWs these days had plenty of internal controls, and there was little point in duplicating these. We wanted to focus on the requirements outside the box for real systems of speakers. The unit provides 8 inputs and 8 outputs on TRS jacks, 8 trimmers (+/-6dB) and one Volume knob.

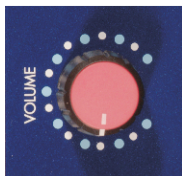
Technical Note

We have used THAT Ingenius® input ICs, THAT 2181A VCAs, their finest - each one is hand trimmed to achieve their best performance



2. **For Balanced Signal I/O**
 - TRS jacks wired Tip HOT/+, Ring COLD/- and Sleeve to 0V/Screen or not connected
- For Unbalanced Signal I/O**
 - TRS jacks wired Tip SIGNAL, Ring 0V, Sleeve N/C OR
 - Two pole jacks wired Tip SIGNAL, Sleeve 0V/Screen

1. IEC inlet factory set to 240V. For 110V supply remove fuse holder and rotate so that 110V legend is on top/correct way up



4. Volume Control - best performance is achieved by setting your speaker/amplifier to provide the maximum likely output level when the Eightch volume control is at maximum



5. Power Switch

3. Trim Controls ($\pm 6\text{dB}$), factory set to unity. Alter with a precision screwdriver. Settings are internal to prevent from accidental knocks/slips of the controls



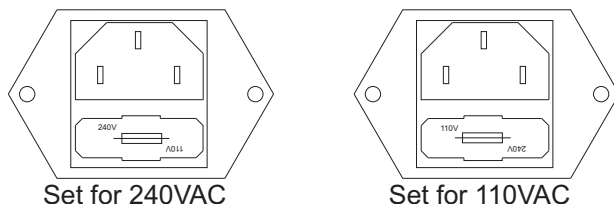
Using the DACS Eightch

Installation

1 Connecting the Power

The unit will accept 240 VAC and 110 VAC mains supplies. The IEC inlet's fuse holder is used as a selector as shown in Fig 2. The factory setting is for 240 VAC.

Figure 2



2 Balanced/Unbalanced Signal

All of the inputs and outputs can run balanced or unbalanced. Connections can be made using:

For Balanced Signal I/O

- TRS jacks wired Tip HOT/+, Ring COLD/- and Sleeve to 0V/Screen or not connected

For Unbalanced Signal I/O

- TRS jacks wired Tip SIGNAL, Ring 0V, Sleeve N/C
- OR
- Two pole jacks wired Tip SIGNAL, Sleeve 0V/Screen

Getting the best from your Eightch

Each VCA is trimmed to achieve the best possible performance. This is done when the unit has been switched on long enough to achieve thermal stability, usually about ten minutes. This means that the factory set performance will not be achieved until the unit has been on for around ten minutes. In addition it should not be placed immediately above or below very hot running equipment, and should be positioned where a reasonably consistent temperature will be maintained.



3 & 4 Trim Controls and Volume Control

The Eightch is factory set to provide unity gain through all channels when the volume is at maximum. On many consoles, you would probably expect the monitor volume control to be around 12 o'clock for fairly high level monitoring. With the Eightch, best performance is achieved by setting your speaker/amplifier to provide the maximum likely output level when the Eightch volume control is at maximum. The trimmers are included to allow you to adjust for different front and rear speakers, or for setting up surround mixes where the rear level is lower than the front.

The Ingenius® input ICs perform extremely well in terms of hum rejection and stability, and performance is not effected by the use of an unbalanced source. The same is true of the outputs. In addition, the signal level for unbalanced outputs is the same as for balanced outputs (some balanced equipment, if connected to an unbalanced destination, suffers a 6dB reduction in level).

5 Power Switch

This switches the power on and off, and is connected before the fuse. When it is illuminated, this indicates that AC mains is present. If the unit does not work, the fuse may be blown. The unit comes with a spare fuse in the fuse carrier. Replacement fuses should be T1A.

Important Safety Instructions

Please keep this user guide in a safe place for future reference.

Before connecting this unit to the mains, check that the fuseholder is oriented correctly (230VAC or 110VAC).

Earth Connection: Do not disconnect the earth in the power cord plug.

WARNING: This equipment must be earthed





Specifications for Eightch

THD+Noise (20Hz to 20kHz)@+10dBu	<0.003%
Phase variation between channels	<0.55% @20Hz <0.24% @20kHz
Gain tracking between channels (figures shown are maximum deviation between channels)	<0.1dB@-10dB <0.2dB@-20dB <0.5dB @-40dB <1dB @-50dB
Channel crosstalk	<-88dB
Unit Dimensions	Height = 44mm Width = 485mm, 444mm without rack ear Depth = 180mm, 152mm without sockets, etc
Unit Weight	2.3kg
Shipping Dimensions	Height = 427mm Width = 527mm Depth = 135mm
Shipping Weight	3.35kg

Limited One Year Warranty

This product has been manufactured in the UK by DACS and is warranted to be free from defects in materials or workmanship for a period of one year from the date of purchase by the original owner. To ensure the high level of performance and reliability designed in to this equipment, please read this User Guide before installation and use. In the event of a fault, please notify us as soon as possible for repair under warranty subject to the following conditions:

Conditions of Warranty

1. The equipment has been installed and used as described in this User Guide.
2. The equipment has not been damaged, misused either intentionally or accidentally, or altered in any way, unless this alteration was authorised by DACS.
3. Any previous repair or alteration was carried out by DACS or our service agent.
4. This warranty does not cover wear and tear.
5. The defective unit is to be returned carriage prepaid to DACS or our service agent with a completed returns form including the original invoice.



Other Fine Hand Crafted Audio Products from DACS Ltd
Clarity from DACS Ltd
A new philosophy, a new range of devices

DACS' range of high performance studio and stage devices embody our philosophy. We believe in simplicity, but above all else, Clarity; sonic Clarity and functional Clarity. The range includes the **DACS MicAmp2**, a two channel microphone¹ (see also reviews in Sound on Sound and Studio Sound, both November 1997 viewable on our web site), and the **DACS HeadLite2**, a four channel headphone amplifier. According to users, both units perform flawlessly **AND** sound fantastic. Our recently launched (Aug 2006) **Eightch**, an eight channel volume control, won the Pro Audio Review PAR Excellence award.

For many years **DACS** have manufactured custom equipment for professionals the world over using a number of our own high performance audio *building block* circuits. The performance of these circuits has been honed over the years out in the field, and developed through fulfilling the changing professional requirements of their many customers in widely divergent sectors of the industry.

DACS have crystallised these years of experience to bring you this range of elegantly simple high performance units, all hand made throughout. Where they benefit performance we use expensive components and time consuming processes, but do not spend prodigiously on 'cosmetics'. Though we are bucking the trend towards *downsizing* work-forces and automating manufacturing processes, these units are very competitively priced. This is achieved by a combination of good design, good organisation, low overheads, and the use of standard housings and other components where possible.

These visually striking, well engineered devices will last well into this century achieving levels of performance that digital technology, and much analogue technology, aspires to today.

YOU are what make your studio world class.

Our equipment is designed to help you continue to produce fine music well into this century.

¹ We are proud to announce that the MicAmp won the Studio Sound Audio Industry Recognition Award in the Outboard Pre-amp category. This was voted for by registered readers of Studio Sound worldwide.



Notes