

# Datasheet

Volume Pots

### **Application & Purpose:**

Provides volume control by attenuating the signal to the pre-amp.

Comprises two potentiometers; one for volume control, the other for volume sensitivity. Volume sensitivity allows control of the volume controls 'aggression'. E.g. in a small room, the volume control can be made less aggressive and in a large room, more so.



3D view of blank PCB

#### Specification:

PCB Dimensions	76.3mm x 13mm x 1.6mm			
Purpose	- Provides volume control			
	<ul> <li>Allows 'aggression' of volume control to be adjusted</li> </ul>			
Impedance	48k at extreme setting. 100-150k at normal settings.			

#### Details:

Mounted behind the front-panel of ZinAmp integrated and pre amplifiers. Provides volume control and control of the 'aggression' of the volume control. Two volume pots – one of 200k and one of 50k are used to achieve this.

# Working Principle:

A 200k linear volume pot controls the volume of the amplifier. A second linear pot of 50k is connected between the wiper and earth terminals of the 200k pot. The effect of turning the 50k pot is to make the 200k pot more logarithmic (less aggressive) or less logarithmic (more aggressive).

The 50k pot is used as a second (smaller) volume dial called Volume Sensitivity. Turning the dial to the left makes the 200k pot less aggressive and to the right, more aggressive. On the front panel of the amplifier, these settings are labelled as Small Room (left) and Large Room (right).

As well as offering a useful additional feature, the main benefit of this approach is that linear pots can be used to achieve a logarithmic attenuation response. Linear pots tend to be significantly cheaper and more reliable than logarithmic pots. Because it is possible to turn the 200k pot fully to the right and the 50k fully to the left, additional resistors are used to prevent the overall impedance falling to near-zero at this setting. Minimum impedance is approximately 48k. Typical impedance at normal (mid) settings is between 100k and 150k. Therefore, the minimum impedance a line level source connected to a ZinAmp can see is approximately 48k.

## Parts List:

ID	Value/Spec	Quantity	Manufacturer	Manufacturer Part	RS Part
L SCN R	SOURCE, PREAMP	2	RS-PRO	790-1092	790-1092
LISCN, RISCN	OUT-L, OUT-R	2	RS-PRO	790-1098	790-1098
Volume - 200k	J1	1			
Vol Sens - 50k	J2	1			
27k	R1,R2	2	TE Connectivity	LR1F27K	148-837
22k	R3,R4	2	TE Connectivity	LR1F22K	125-1167

Parts available from <u>RS Online</u>. Also try <u>Farnell</u>, <u>Mouser</u> and other online suppliers.

Parts from different manufacturers can be substituted where spec is sufficient

Supplier trading names may differ by country.