

# Red 1

## four channel microphone preamplifier

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The Red 1 provides four independent microphone preamplifiers, each available as a separate channel.

The design of the Red 1 also allows it to be used for stereo recording - see the section *Recording in Stereo*.

### Controls

Each of the four channels on the Red 1 is identical, and has the controls shown in the diagram.



The gain control is switched, and has 12 positions. The first position gives -6 dB gain, in other words it attenuates (reduces the volume of) the signal, and is for use with microphones that have very high output levels. Each subsequent position increases the gain by 6 dB, up to a maximum of 60 dB.

Ø is the phase button, and reverses the phase of the channel when lit.

+48 is the phantom power button. When lit, it provides phantom power to the microphone connected to the channel.

### Setting the Gain

Use the meter and gain control to match the incoming level and gain to the internal operating level. With an input signal coming into the channel, watch the meter as you use the gain control to modify the gain, and set the gain control so that the meter registers between -4 VU and 0 VU. This sets the level to give the maximum signal to noise ratio, whilst leaving room for any sudden increase in performance level (it gives about 20 dB of usable headroom).

### Setting the Phase

When recording a single source using more than one microphone then you need to ensure that you do not put your two close microphones out of phase with the ambient microphone.

If you think two signals are out of phase, listen for phase as follows:

1. On your monitor system, pan one signal to the left and the other to the right.
2. Use the phase switch to reverse the phase on one of the signals. When the two signals are in phase, the signal sounds bigger

### Recording in Stereo

Since the gain controls on the Red 1 are switched, accuracy between channels is very closely matched. When recording with a matched pair of stereo microphones, put them through separate channels of the Red 1 and set the gain controls for both channels to the same position.