



# APPLICATION NOTE

## Voodoo-Vibe

### Operating Instructions

**History:** The Voodoo-Vibe is the latest evolution of the Univibe as used by Jimi Hendrix and Robin Trower. The Voodoo-Vibe will faithfully reproduce all the old sounds and incorporates the modifications I personally developed for Jimi. The Supervibe was the next evolution of the Univibe and many leading performers including Stevie Ray Vaughan and Robin Trower used this unit. The Voodoo-Vibe also has a Tremolo circuit plus the usual Chorus and Vibrato functions and the control of the sound parameters has been greatly expanded. It is capable of producing many new and unheard effects and is truly a worthy successor in the art of analogue processing.

**Technical:** The Voodoo-Vibe is completely analogue in operation and exhibits a very transparent and full sound quality that is lacking in digital products that simulate chorus and flanging effects. The digital zipper noise and graininess is eliminated and the guitar tone is maintained throughout the full dynamic range. Class A discrete circuitry is used in all audio stages and results in ultra high audio quality and very low noise. The signal to noise ratio of the unit is 102dB, which is about 12dB better than a CD. Extensive internal power supply filtering is used so that the low noise performance is maintained when using even the most basic commercial mains adapter or battery eliminator.

#### Front Panel Controls:

**Function:** The unit can be set to operate in **Chorus**, **Vibrato** or **Tremolo** modes by the front panel switch.

**Range:** The Voodoo-Vibe has three speed ranges of either sine wave or triangular wave type of modulation. These two different types of waveform when used in conjunction with the Symmetry control will allow different types of sweep effects to be produced and these effects are especially effective and noticeable on the slower sweep speeds.

**Fine:** This control allows fine setting of the speed range as selected by the Range switch.

**Symmetry:** The linearity of both sine and triangular waveforms, which are used to sweep the filter sections or modulate the tremolo section, can be adjusted. This has the effect of altering the ratio of the rise and fall time of the wave from the usual symmetrical 50% to other values. This has the audible effect of altering the way the filter sweeps as the symmetry is adjusted away from the norm. The Tremolo function, which traditionally uses a sine wave of 50% symmetry, can now produce some new wild radical sounds. Try changing the wave to triangle and adjusting the symmetry along with the Bias and Intensity controls. This control has the most apparent effect in the Chorus and Tremolo modes, as the change in sweep linearity in Vibrato modes is hard to perceive.

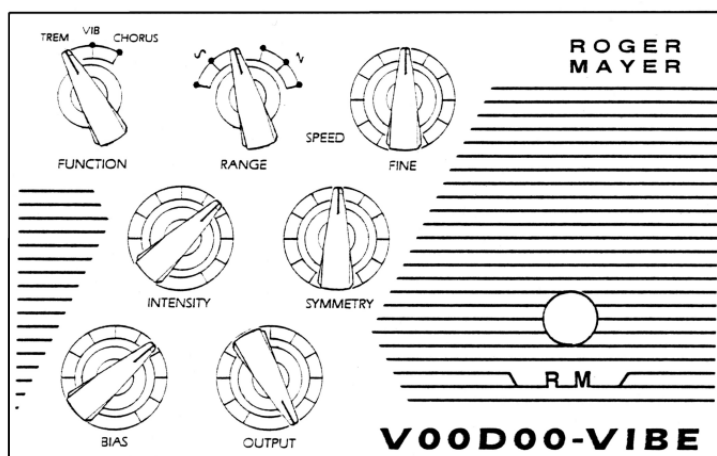
**Bias:** This control enables the unit to be tuned to produce different sweep effects in the chorus and vibrato modes and will change the centre sweep frequency. In the tremolo mode the bias

sets the depth of effect as well as the offset. This control is one of the most important sweep parameters to get right and it pays to only make small changes and carefully evaluate them. In the Chorus mode the Bias can be first set by setting the Intensity control to fully counter clockwise or minimum and then slowly rotating the Bias control until a null or phased sound is heard from a full range chord. This is a very good starting point and the approximate position is shown in the starting point diagrams. The Intensity control is then increased and a very typical Univibe type chorus sound will be heard. It should also be noted when the Intensity control is set at minimum the effect of the filter tuning can be heard and can be useful if a fixed tone change is required. The Vibrato mode is not as sensitive to the Bias control as in the Chorus mode and listen first to it with the same settings as Chorus before you deviate to much. The Vibrato mode is useful at higher speeds with just a little intensity to give a shimmer to the tone. The higher levels of intensity produce quite large frequency shifts, which can be useful for those wild effects. In the Tremolo mode the Bias controls the depth of effect as well it's offset so it is possible to adjust the Bias, Intensity and Symmetry controls to produce Tremolo sounds from retro to radical pulsating amplitude modulation type effects. These radical effects can sound like repeat echoes or deep helicopter throbbing effects.

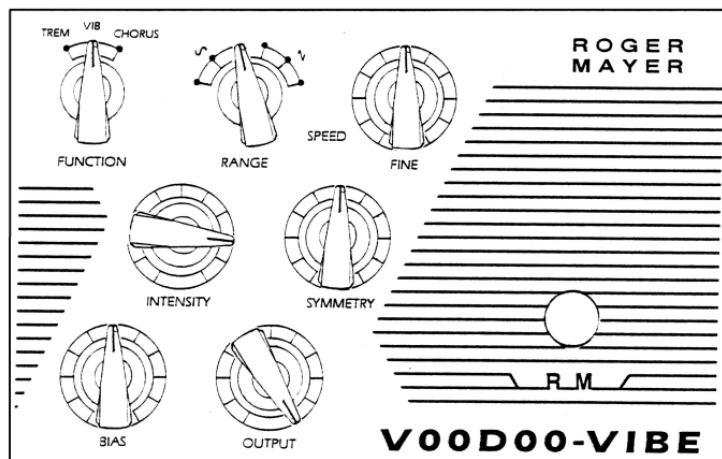
**Intensity:** The level of depth of effect can be set by this control and is used in conjunction with the other controls to set up the effect required.

**Output:** This controls sets the Output Level required.

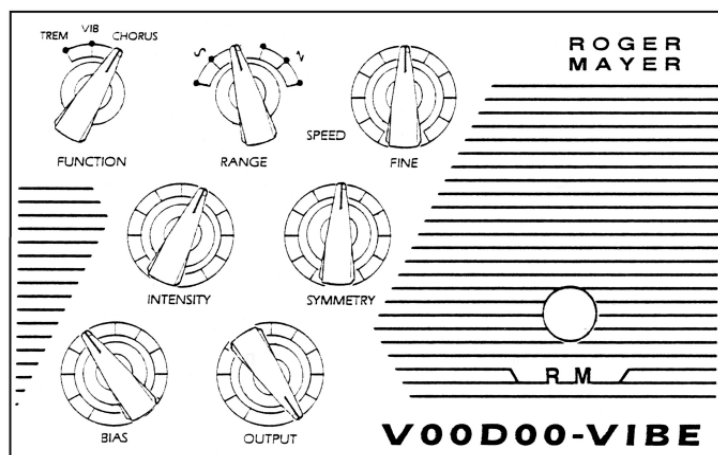
The following set up diagrams are some starting points from which you can get a good idea of the basic sounds of the Voodoo-Vibe. There are many different approaches outlined in the above descriptions of front panel controls with regards to the effect of changing the various control parameters. The golden rule is turn each of the controls in small increments to judge the individual effect of each of the controls and to obtain a mental picture of what they do. It is very easy to go past the sweet spot and a smooth approach to adjustment will provide a very wide range of usable sounds.



Tremolo Starting Point



Vibrato Starting Point



Chorus Starting Point

## Rear Panel Jack Sockets:

**Input Jack:** The unit is powered on by inserting a lead into this socket when using the internal 9V battery. Keep the plug out of this socket when not in use.

**HW Out:** This is a hard wire or true bypass output. The dual buffered outputs are disconnected when this output is selected.

**Buffered Out:** These are identical dual low impedance Class A buffered outputs and are provided to act as a splitter both in the bypass and effect modes thus enabling long cable lengths to be driven with no high frequency loss or to facilitate parallel path signal processing.

**To / From:** These two jack sockets are for connection to an external foot volume pedal (not supplied) for the external control of speed. Please consult website/manuals to download wiring diagrams to allow the use of commercial volume pedals.

**DC Power Jack:** An external AC adapter (not supplied) can be used and access is through a standard DC power jack situated next to the jack sockets. It uses the standard negative centre pin connection protocol used by many leading manufacturers. Internal onboard filtering ensures that optimum low noise performance is maintained and diode protection provides peace of mind in case of polarity setting mistakes.

**Internal Battery:** Access to the internal battery is made by loosening the 4 screws on the bottom to allow the cover to open and it is recommended to use a premium alkaline type battery for the longest life

**LED Indicator:** The LED indicator shows the status of the unit .

**Precautions:** It is recommended to use an AC Adapter for extended use but the internal battery gives in excess of 20 hrs use. If you are using an internal battery remember to unplug the input lead when the unit is not being used to stop unnecessary drain on the battery.

### **Specifications:**

**Power Requirements:** 9V alkaline battery or AC adapter 9V rating 50mA. A regulated type adapter is recommended

**Input Impedance:** 1M ohms.

**Output Load Impedance:** 10K ohms or more.

**Signal to Noise Ratio:** 102dB.

**Dimensions:** 220 (W) x 75(H) x 150(D) mm.

**Weight:** 1470g