



APPLICATION NOTE

Bel Air Wah

WAH PLUS VOLUME IN ONE PEDAL

This is the latest evolution in the Vision Low Line Range and has an improved continuous **SWEEP** control with greater range of wah tones that range from "Band of Gypsys" to "Funk" that players often require.

The original guitar can also be blended back into the mix to produce full control. It has dual modes of **BYPASS** to provide the 2 options of using the **BEL AIR**:

Mode 1 = AUTO - Switch between WAH and VOLUME.

Players can now change from wah and control their volume instantly when they choose.

The low profile and silky smooth action entices players to use both functions of Wah or Volume in new ways as awkward and stiff mechanical manipulations of a gear train and switch are removed in our new modern evolution as compared to the normal 40-year-old design.

Mode 2 = WAH - Switch between WAH and BYPASS.

This is the default setting for the Bel Air and can be changed by moving the pc card mounted jumper to the alternate position

I have a long history of successfully creating wah electronics that have produced some of the most notable wah sounds ever recorded and I am happy to bring the "Band of Gypsys" wah tones plus a Volume pedal with variable range together in one modern ergonomically designed package. Players can now achieve a more natural way to express themselves as the connection between foot and mind become virtually transparent.

Front Controls:

WAH SWEEP

Continuous control of wah sweep frequency. Discover the wah tones I developed for Jimi and used by him at the "Band of Gypsys" concert plus the Funk tones used on many records. .

WAH BLEND

This allows blending of the guitar back into the wah sound to allow full control of wah depth and Q.

Other adjustable features:

VARIABLE VOLUME RANGE

Remove the bottom plate to access this multi-turn control. This control allows precise adjustment of the reduction in volume level desired when the pedal is in the up position. The volume range has purposely been limited to a maximum of -30dB so that during performance the pedal has a usable range and is not just a volume switch. An excessively large range of control is not that easy to control with your foot when standing up and in fact when using the pedal in a live situation a range of 20dB is popular and is easily controlled by your foot. This corresponds to turning the guitar volume from 10 to 5. The fact that the range can be limited and set now enables the Bel Air to accurately control amp or pedal distortion

BYPASS SWITCH FEEL

The pressure required on the foot plate in the down position to actuate the changeover or bypass can be set electronically on the PC Card. There is a multi turn preset labelled SW Adjust near the small IC. Turn this control in small increments to set pressure required.

DUAL MODE BYPASS MODE:

There are two modes that can be selected via by moving the jumper on the card.

Mode 1 = AUTO - Switch between WAH and VOLUME.

Mode 2 = WAH - Switch between WAH and BYPASS.

PEDAL FEEL

A vari-friction nylon bearing adjusts the pedal feel and because the top plate is fully balanced it will remain in position even in the lightest friction settings. There is a black nylon plate with 4 screws that allow the friction to adjusted. Tighten or loosen these screws equally to produce the required mechanical feel.

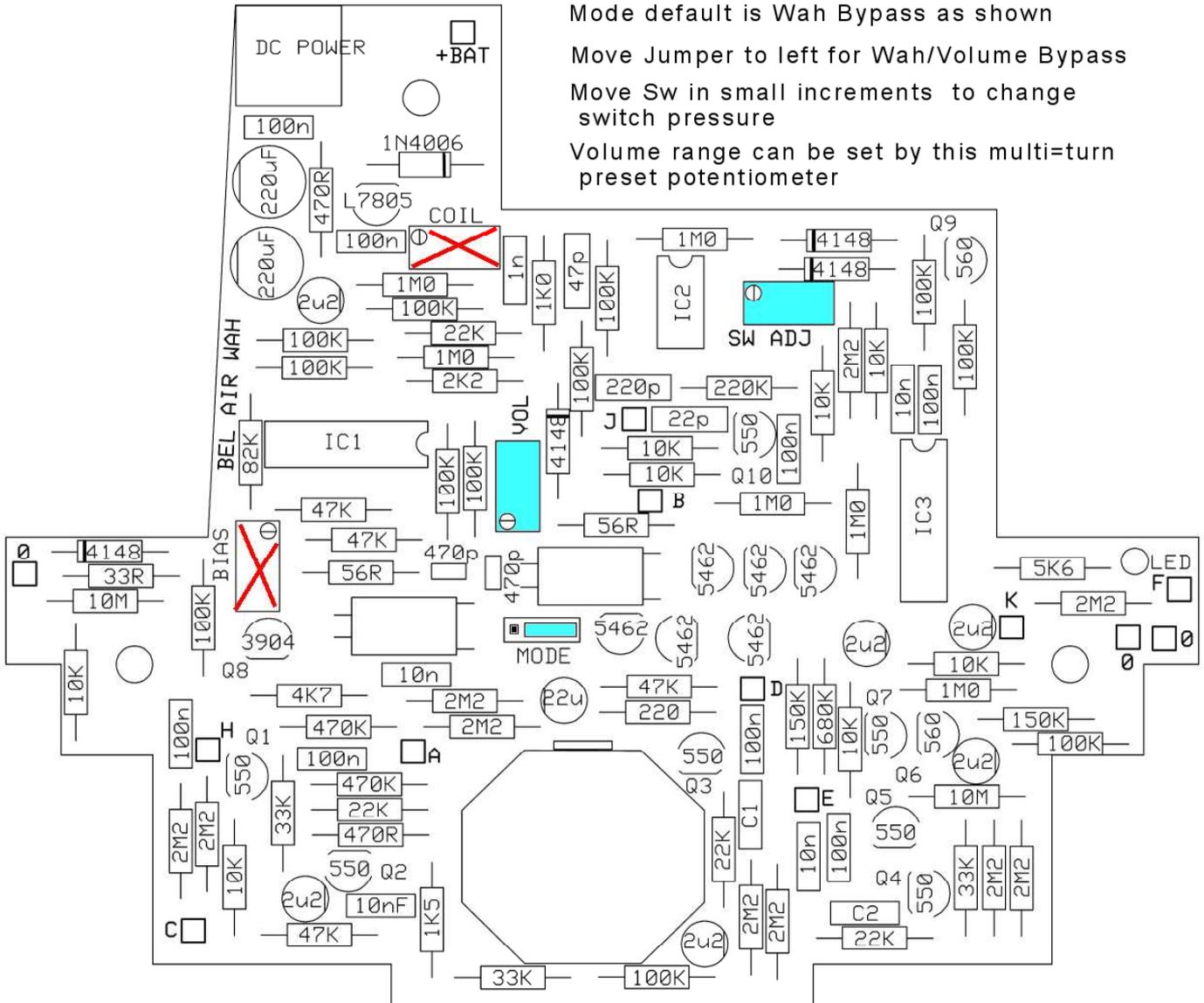
POWERING

Extensive internal power supply filtering provides virtual battery performance from commercial power supplies used on pedal boards.

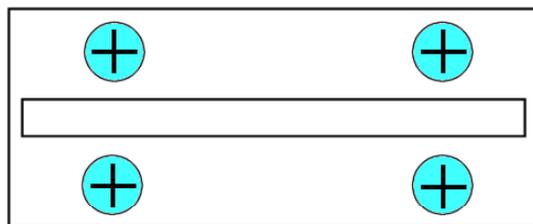
A 9 volt regulated power supply is recommended with at least 50mA current output.

An internal 9V battery can also be used.

BEL AIR WAH ADJUSTMENTS



Mode default is Wah Bypass as shown
 Move Jumper to left for Wah/Volume Bypass
 Move Sw in small increments to change switch pressure
 Volume range can be set by this multi=turn preset potentiometer



VARI FRICTION BEARING
 Adjust each of the 4 screws equally
 to change the mechanical feel of the pedal

BEL AIR WAH

SWITCH PRESSURE AND VOLUME RANGE ADJUSTMENTS

User PC Card Adjustments

Switch Pressure:

This can be adjusted by turning the multi turn preset marked **SW ADJ** slowly and in small increments from the factory preset position. Test the feel of the switch and if necessary adjust again until the required feel is found.

Volume Range:

The Volume Range is factory set to about 20Db and this range can be adjusted with multi turn preset marked **VOL**. As this a multi turn preset it will take a few turns or so to hear a difference and this preset does not allow for complete silence but rather gives a useful control range for the player when performing to give expression. After all you still have a VOLUME control on the Guitar that can be used in conjunction with the Volume function to give a wide range of performance control.

DANGER: Do not adjust the other two presets as this will cause the pedal to malfunction due to not being correctly set up. The setup procedure should be left to competent technicians with the correct test equipment and really cannot be set by trial and error.

Electronic Method to Set Starting Point for Switch Pressure:

If the BEL AIR WAH will not turn on and off this is almost certainly due to the switch pressure not being set up correctly. So please set the pressure first and don't touch anything else before you do this.

Equipment Needed: Digital Multimeter 3.5 digits.

Turn the pedal upside down so that the pedal top is resting lightly on the rubber stop. Measure voltage at **POINT B (pin 5, IC2)** and then adjust the voltage at **POINT C (pin 6, IC2)** to be equal within 2mV or so using the **SW ADJ** multi-turn preset. This adjustment will roughly set the switch to a starting position. Find out whether the switch works by checking out the LED and adjust the preset until the desired pressure is obtained.

The above information is supplied to assist users who wish to make adjustments to their BEL AIR WAH or have moved the SW ADJ timmer out of working range.

For full technical set-up from scratch please contact us directly as this work should only be done by a professional competent technician.

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