

**KORG®**

**PROFESSIONAL  
MODULAR EFFECTS**



**DIST WAH  
KDW-301**

**OWNER'S MANUAL**

## Features & Functions

### FILTER MODE selector

Each filter modifies the sound in a different way.

#### LP (Low-pass filter):

Passes all of the low frequencies and cuts part of the highs. Gives an ordinary wah effect by "opening up" to let through more upper harmonics (at positive ENV INT settings).

#### BP (Band-pass filter):

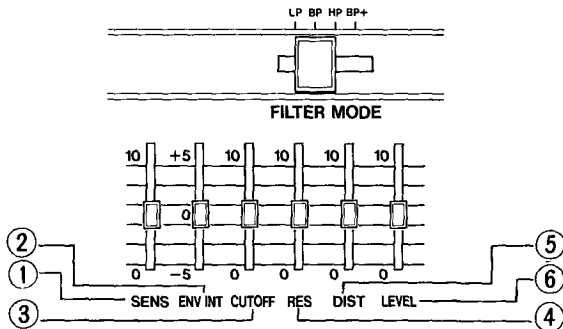
Passes just the middle frequencies. This gives the most pronounced wah effect because there are simultaneous changes in both the lower and higher frequencies.

#### HP (High-pass filter):

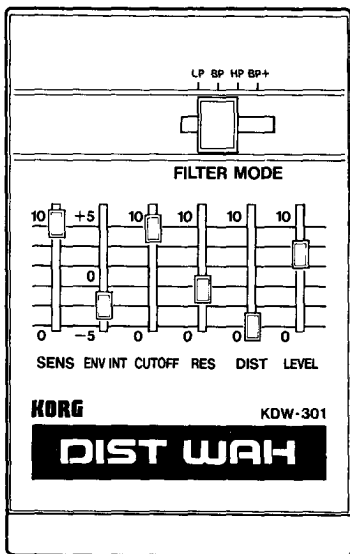
A high pass filter lets through all of the guitar's harmonic overtones while cutting out lower frequencies. The HP filter mode is therefore useful for gaining a clearer guitar sound.

#### BP+ (Band-pass filter+):

At this setting the bandpass filter output is mixed with the original unfiltered instrument sound. This is handy when you want a less obvious effect or when you want to retain the characteristics of your instrument. This new function is very effective when used with the KDW-301's built-in distortion.



- EX. 2:** This inverts the input signal envelope to produce a backwards wah-wah effect. Adjust ENV INT to control how far down the filter sweeps. The result also depends on the SENS setting and the way you pick the strings.



**KORG Professional Modular Effects** were designed to be a **TOTAL effects system**, which offers the musician a combination of convenience, flexibility, dependability, and performance not available in previous equipment.

KORG has solved the two major problems which have troubled musicians using effects since music became electric: sound quality and ease of use.

The Professional Modular Effects system can handle virtually any type of guitar, keyboard or other instrument signal with ease, providing a professional level of sound quality typical of expensive rackmount equipment. Careful design and AC powering provide clearly superior dynamic range, noise, distortion and frequency response.

The different Effects Modules are available individually, so that you can put together exactly the combination of effects that is best for your unique needs. These effects fit into a special Pedalboard which will hold four units of your choice. The individual units and the board are designed to work together to optimise sound quality and minimize noise. Therefore, you can depend on clear, satisfying results whether you switch on only one effect or several together.

KORG has also solved the mounting problem of traditional effects. KORG Effects Modules slide quickly and easily into the Pedalboard, without fussing with a tangle of signal cables or AC adaptors. The result is compact, light weight, and extremely portable.

## DIST-WAH Distortion Wah KDW-301

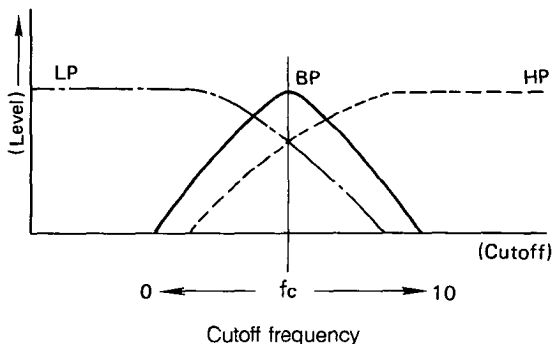
The DIST-WAH pedal automatically creates wah-wah effects by rapidly shifting or "sweeping" a filter's cutoff frequency in response to the dynamics of single notes played on a guitar, bass, or other instrument. Distortion can be generated simultaneously for a more interesting and varied sound possibilities.

There are four filter modes to choose from: LP or low-pass filter, HP or high-pass filter, BP or bandpass filter, and BP+ which is a mixture of BP filter output and the original guitar sound. The BP+ setting gives a more subtle effect than straight BP and is extremely usable in many musical applications.

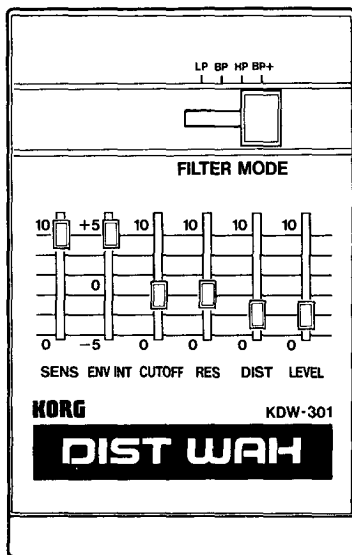
For more bizzare "reverse wah" effects, try using a negative setting for the ENV INT (envelope intensity) control.

If ENV INT is set to 0 then there will be no wah effect. You can then use the cutoff and resonance controls to tailor the tone, much as you would on a simple parametric equalizer.

**Figure 1: Filter characteristics**



- Ex. 1:** This gives a well defined distorted wah-wah sound using the BP+ filter mode to retain part of the original guitar characteristics.  
Adjust the SENS control for best results with your picking style.



## ① SENS

This adjusts sensitivity. Set to the position that matches your picking style and guitar output. Near the "10" setting you will get a wah effect even if you pick very lightly.

## ② ENV INT (Envelope Intensity)

This adjusts the intensity of the effect. At positive settings (towards +5), the sound will become brighter in proportion to the dynamic volume envelope of the input signal. At negative settings (towards -5), the tonal characteristics are modulated by an inverted envelope so you get the opposite effect.

## ③ CUTOFF

Sets cutoff frequency (see graph). This is the filter cutoff which moves up and down the frequency spectrum as it is modulated by the input waveform's envelope (volume change over time).

## ④ RES (Resonance)

This emphasizes the frequencies near the cutoff. Higher resonance settings produce a more pronounced effect.

## ⑤ DIST (Distortion)

Adjusts the gain of the pedal's preamp stage. Higher settings produce more distortion.

## ⑥ LEVEL

This determines output level when the effect is on. Ordinarily you would set this so that the volume remains the same when you play the guitar with the pedal on or off.

## Specifications

• **Maximum Input Level:** +6 dBm at 1 kHz/RES 0. • **Maximum Output Level:** +14 dBm at 1 kHz. • **Minimum Input Signal:** -45 dB at 250 Hz. • **Maximum Filter Sweep:** 40 Hz ~ 5 kHz. • **Residual Noise Level:** -90 dBm, IHF-A/DIST 0. • **Power Consumption:** 33 mA. • **Functions:** SENS, ENV INT, CUTOFF, RES, DIST, LEVEL, FILTER MODE (LP BP HP BP+). • **Power Supply:** DC 15 V (DC is supplied from the Pedalboard). • **Dimensions:** 68.0(W) × 55.0(H) × 106.5(D) mm. • **Weight:** 200 g (All values are typical).

### NOTICE

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

# KORG®

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5908DTH PRINTED IN JAPAN