

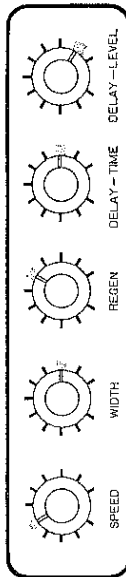
**OPERATION**

First, connect the instrument to the jack marked "Instrument". This jack incorporates a switch to turn off the battery when the jack is unplugged. Connect the "Amplifier" jack to the amp.

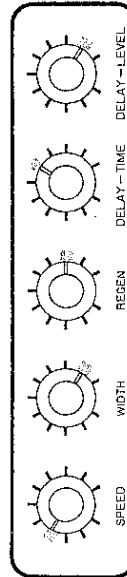
As with any new effect that you use, we suggest that you spend an hour or so familiarizing yourself with the range of the controls and their various combinations. Here are a few examples to start you experimenting.

**SAMPLE SETTINGS**

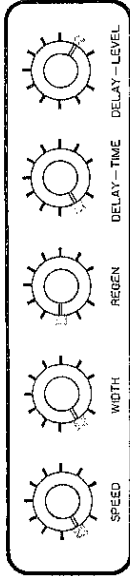
Medium flanging for guitar chording.



Rotating speaker effect.



Double voicing



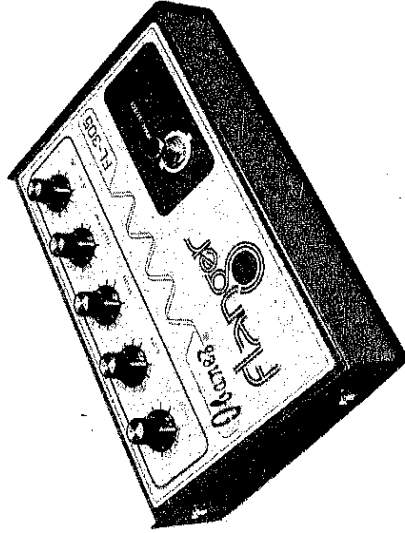
**FL-305 SPECIFICATIONS**

INPUT IMPEDANCE 470K ohm  
 OUTPUT IMPEDANCE 10K ohm  
 EQUIVALENT INPUT NOISE -80dBm  
 MAXIMUM INPUT LEVEL -5dBm  
 GAIN 0dB  
 CONTROLS SPEED (0.08~8.5Hz)  
 WIDTH  
 REGENERATION  
 DELAY TIME (0.8~16ms)  
 DELAY LEVEL

FOOT SWITCH NORMAL / EFFECT  
 SEMI CONDUCTORS IC 6pcs.  
 TRANSISTOR 6pcs.  
 DIODE 1pc.  
 BATTERY S006P 9Volts 2pcs.  
 POWER CONSUMPTION 160m Watts.  
 SIZE 6"d. x 4 3/4" w. x 2 1/3" h.  
 WEIGHT 19 oz

# FL-305 FLANGER

## INSTRUCTION



**Ibanez**

Flanging is an effect that derives its name from the technique of slowing down one of two synchronized tape decks by applying pressure to the "flange" of one of the tape reels. As the two decks come in and out of synch, certain frequencies are cancelled and others are amplified as the signals overlap. Unlike phase shifting, flanging uses actual time delay to achieve its characteristic filtering effect.

Until very recently, this effect could only be applied to taped programs, by using two tape decks, or by using very expensive digital processing. The Ibanez Flanger utilizes state-of-the-art analog delay technology and extremely low noise circuitry, which makes it ideal for recording and high volume live performance as well.

Since the variable delay process actually bends the pitch of the signal, the Ibanez Flanger can very accurately reproduce the sound of rotating speakers (The Doppler Effect) and can be used with guitar, bass vocals, keyboards, or any other amplified instrument.

#### CONTROL FUNCTIONS

**NORMAL/EFFECT SWITCH ①** - Changes from flanging to normal and back again at the touch of a toe.

**SPEED ②** - Controls the automatic sweep speed of the flanger. Turning the knob clockwise increases the speed.

**WIDTH ③** - Controls the bandwidth of the flanged frequencies. When set completely counterclockwise, there will be almost no flanging "sweep". When set completely clockwise, the flanging effect will be very apparent, particularly the pitch bending. The width control works in conjunction with the Delay Time control and you will notice that a great number of effects can be achieved by balancing these two controls carefully.

**REGENERATION ④** - Regeneration is the feeding back of the flanged signal into the input of the flanger. The resultant "flanged and flanged again" effect adds drama and depth to the sound. Turning the knob clockwise will increase the amount of signal fed back into the flanger.

**DELAY TIME ⑤** - Controls the delay and consequently the frequency band in which the flanger operates. When the control is fully clockwise, the delay is at its shortest. Mostly high frequencies will be flanged at this short delay. At this setting, a very prominent flanging effect can be achieved, while still retaining the integrity of the

fundamental notes. On the other hand, longer delays will bring the flanging effect into the lower frequencies. A more noticeable pitch bend will occur at lower frequencies. This Flanging of the lows is most useful when applied to percussion instruments such as drums, congas, cymbals, etc., giving them an added tonal dimension.

**DELAY LEVEL ⑥** - This control mixes the output of the flanger circuit with the dry, unflanged input signal. When the knob is fully counterclockwise, there is no flanged signal fed to the output. Turning the knob clockwise will increase the presence of the flanged signal.

