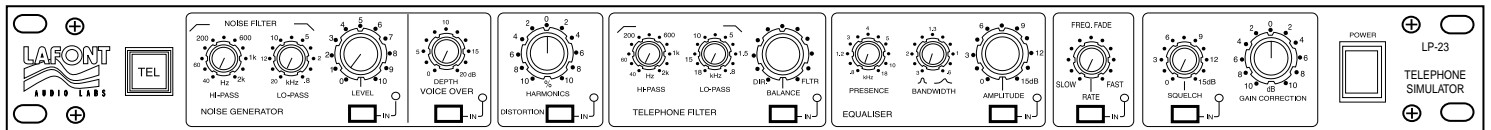


# LAFONT LP-23 TELEPHONE SIMULATOR

## "QUICK START"



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# TELEPHONE SIMULATOR

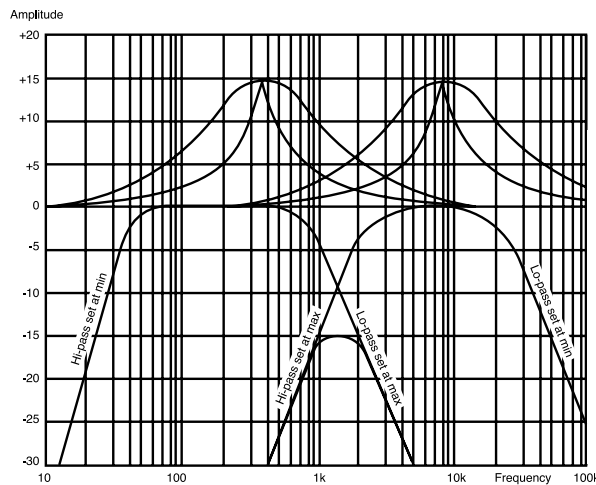
Most telephone simulators are mere filters that limit the frequency range of the processed signal. The LP-23 goes beyond. Not only is it equipped with extended range high-pass and low-pass filters, but it also has control over the distortion and various effects including squelch, fading and background noise. This will help the operator to simulate telephone and wireless intercom sound easily, without patching in a multitude of outboard devices.

## Telephone Filter

This section located in the middle of the front panel includes two filters and a balance control between direct and filtered signal. The high pass filter ranges from 35Hz to 2kHz with an 18dB/oct. slope, while the low pass filter ranges from 18kHz to 800Hz. Both filters may be switched IN or OUT.

## Equalizer

A band pass filter with sweeping frequency ranging from 400Hz to 7kHz and boost control up to 16dB at center frequency. The variable Q allows smooth transition from gentle enhancement to a hard, resonant sound.

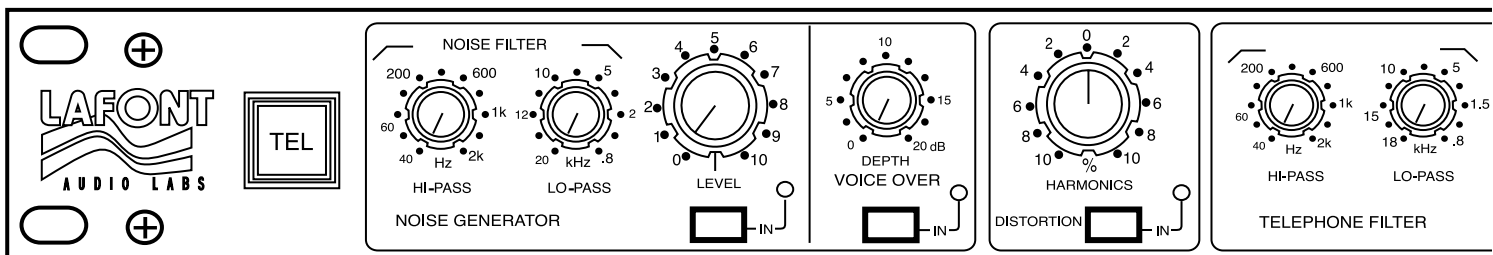


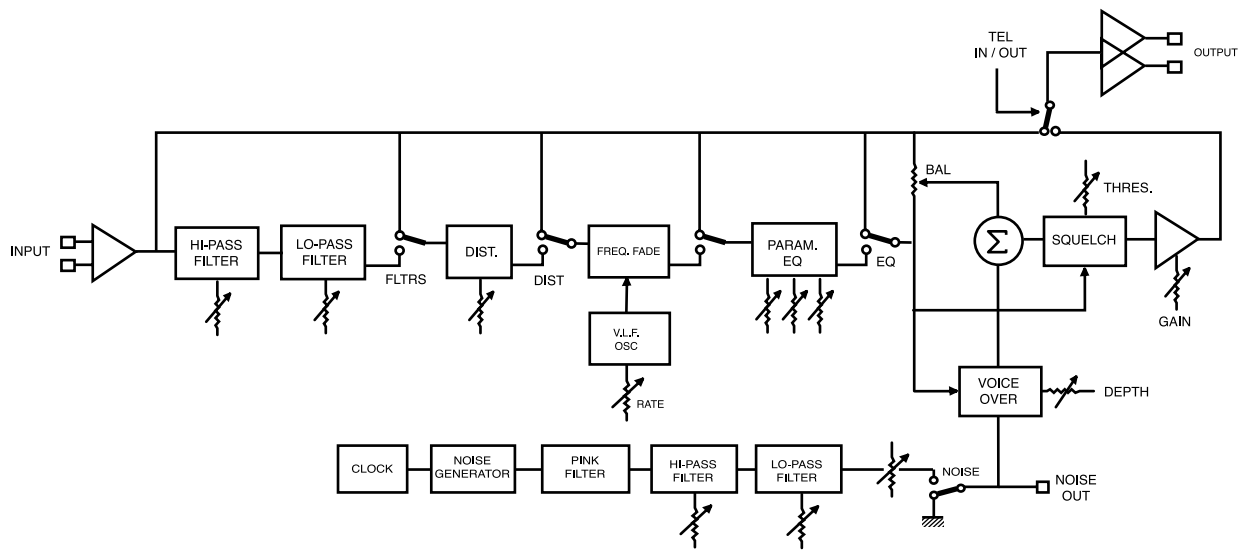
## Distortion

The distortion generator is controlled by one balance potentiometer. By turning to the left or right of the center position it will add or subtract a percentage of signal with a high content of harmonics. With the knob in the center position the generator adds no distortion. Distortion is independent of signal amplitude.

## Noise Generator

The noise generator section is on the left side of the front panel. By depressing the Noise switch, the operator engages the noise generator in the circuit. The noise level control ranges from infinity to -7dBu. The generator comes with its own set of filters which have similar characteristics to the ones cited above, except for a different slope.





It is important that the signal and the background noise have individual filters to avoid uniform coloration and masking effects. More intelligible results are obtained by giving a different color to the noise than the signal.

Noise can be used alone and sweeping the frequency will produce interesting wind effects. Pink noise generator is available on a separate jack socket for external process or sound level measuring purposes.

## Voice Over

This circuit reduces the background noise level when the speech signal is present. The depth of attenuation is adjustable from 0 to -20dB.

## Fading

In conjunction with filtered background noise, this section is used to simulate single side band radios (SSB), superheterodyne frequency fading and other radio transmission loss effects. The fading is controlled from a very low frequency oscillator. The sweep rate is adjustable from 2 sec. (fast), to 15 sec. (slow).

An IN/OUT switch is also provided.

## Squelch

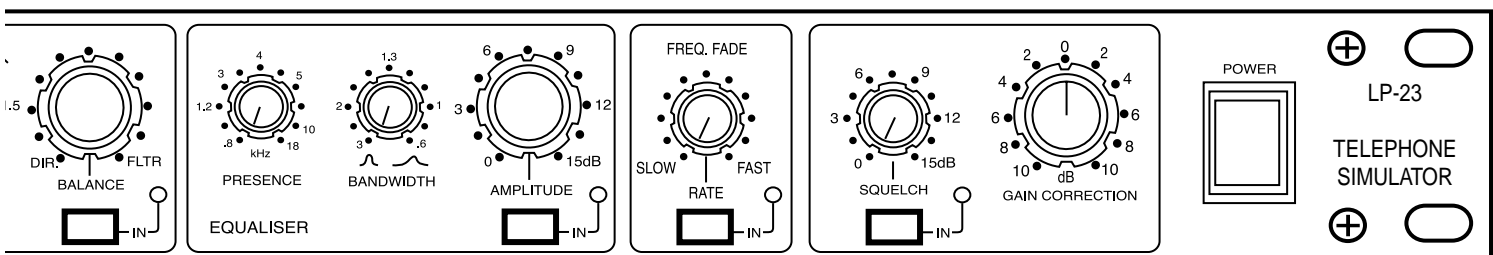
The squelch works like a sharp noise gate which cuts signal and background noise. The threshold of gate is variable from 0 to -15dB controlled with the squelch potentiometer.

## Output Gain Correction

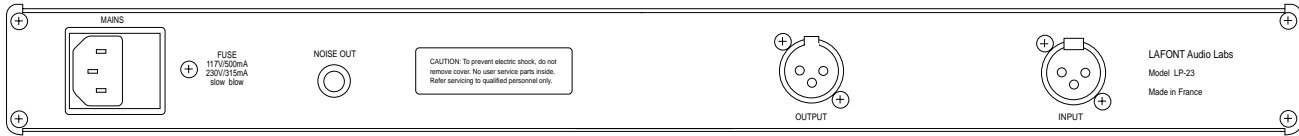
The output gain control allows level matching between normal and telephone signal.

## TEL Switch

At the left end of the front panel a changeover push button toggles between telephone signal and direct clean signal.



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## SPECIFICATIONS

Maximum Input Level:	+22.5dBm
Maximum Output Level:	+22.5dBm
Unfiltered Frequency Response:	5Hz - 100kHz @ 1dB
Unfiltered Distortion:	0.0016%
Unfiltered Signal to Noise Ratio:	-96dB
Hi-Pass Telephone Filter:	35Hz - 2kHz @ 18 dB per octave
Lo-Pass Telephone Filter:	800Hz to 18kHz @ 12 dB per octave
Presence Filter:	400Hz-7kHz - 0/+ 15dB
Pink Noise Generator:	30Hz to 20kHz, -7dB Max
Pink Noise Filter:	HP: 40Hz - 2kHz LP: 800Hz - 20kHz @ 12 dB/oct
Distortion Amplifier:	0.008% set at center 21% maximum
Gain Correction:	+/- 10dB
Physical Size:	19" x 1U rack panel 19" x 17.5" x 8.8" (483mm x 445mm x 225mm)
Shipping Weight:	11 pounds, 5.0 kg
Power Requirements:	60Hz 120VAC, standard 50Hz 220VAC upon request

In the interest of continuous product improvement and development, LAFONT Audio Labs reserves the right to change and modify any of the above specifications or features whenever, in our opinion, such a change produces an advantage to our customers.

## WARRANTY

LAFONT Audio Labs warrants its products to be free from defects in workmanship and material under normal use and service. Said warranty is to extend for a period of twelve months after date of purchase.