LAFONT LP SERIES

FILM PROCESSORS

DAVID MELLOR runs down a rack's worth of processors from Lafont, designed to please the film industry.

The Lafont line of processors, manufactured in France, are not yet widely known. Perhaps they ought to be since the line offers a new slant on the manipulation of sound. They are directed primarily toward the needs of film of course, but there is no reason why these units could not be used in any other field of audio. Briefly, the series consists of a dual mic pre-amp, ADR/Foley processor, telephone simulator, cinema filter set, eight-channel bar graph meter and a theater speaker silencer. Some of these are conventional, some are more unusual, Let's dive straight in with a unit that will probably be used at least every other day, and will pay for itself in terms of time saved, probably within a week.

LP-23 Telephone Simulator

It is often necessary in drama to simulate the particular audio quality of a telephone line, also in dramatized documentaries and other types of programs. I suspect that sometimes when a live news report from the other side of the world comes through in crisp digital quality there may be a desire to grunge it up a little to reflect the adverse conditions in which the reporter finds himself.

There are ways and means of dealing with this using conventional equipment: filter out the high and low frequencies; turn up the gain until it clips; or send the signal through a tiny, beaten-up portable radio speaker. These methods work, but they take time and are not always as flexible as one could hope. Lafont has addressed this problem in the form of the LP-23 Telephone Simulator, which provides a variety of functions to reduce audio quality in appropriate ways.

There are two filters: high-pass from 35Hz to 2kHz, and low-pass from 800Hz to 18kHz, Appropriately, the slopes of these filters are a steep 18dB/octave, which gets closer to the characteristics of a telephone line than conventional EQ can. Following the filters in the signal chain comes a distortion generator, which with only one control (plus In/Out switch) 'manages to provide a suitable range of distortion effects. At its maximum setting the distortion is quite prickly, but lower down in the range it is possible to add a subtle grittiness that you would expect from the largely analog signal path of even a modern digital telephone network.

Skipping over to another part of the signal chain, the LP-23 also incorporates a noise generator. Pink noise is generated and passed through a pair of filters similar to those in the main signal path, but ▶

with a lesser slope of 12dB/octave. It is worth considering whether the noise should be subjected to the same filtration as the signal, since both are transmitted along the same path in a real telephone system.This might be sonically more correct, but it may be more desirable to allow the signal to cut through with a

calibrated in kHz rather than Hz x100. which is a little confusing. Still, your ears will tell you what you need to know. The three so-called band rejection filters are identical and cover the entire frequency range from 18Hz to 20kHz. As with most filters that cover such a wide range, a switch splits the full range into sections, in

is adjustable; attack time can be program-dependent or simply fast. A nine-stage LED bar graph indicates the amount of downward expansion. An external key input is available so that expansion can be controlled by a signal other than that coming from the pre-amp. This is labeled KEY, but apparently in early production units this switch bore the

balance of frequencies different to that of the noise component.The speech signal also has a parametric equalizer to provide up to 16dB of boost from 400Hz to 7kHz. This comes, sensibly, after the distortion generator. The processed speech and noise signals are then mixed together in the desired proportions with gain correction so that the processed signal comes out of the unit at the same level as the bypassed signal, which would be desirable when making comparisons between the two.

Further features include a Squelch function, which is similar to what we would normally call a noise gate. The squelch action is very noticeable and is particularly appropriate if it is desired to imitate radio communication (where the term is commonplace) rather than telephony. A variable fading function is also provided to simulate the regular coming and going of the signal that is often found in single-sideband and other forms of radio transmission.

All in all, the telephone simulator is a very useful piece of equipment that strikes the right balance between versatility and ease of use. It isn't digital, therefore it isn't possible to store presets. Then again,you don't need a week of training to operate it. Recommended.

LP-24 Cinema Filter Set

The LP-24 Cinema Filter Set has a curiously familiar look to it, or is it my imagination? It is the tool to use if you have some audio with a constant unwanted background noise, such as mains hum or video monitor whistle. At the extremities of the audio band are 24dB/octave variable high-pass and low-pass filters. The high-pass filter ranges from 18Hz to 200Hz, the low-pass from1800Hz to 20kHz. It would have been nice if the low-pass filter had been

this case three. The most interesting thing about the band rejection filters is the depth of cut - up to 60dB. Used carefully in conjunction with the width (Q) control, this should kill the most annoying whine, as long as it is consistent in frequency. Although these filters can be switched to boost, the amount of boost is only 6dB and is really provided as an aid to finding the problem frequency rather than as a creative option. (It makes you think though - what could you do with6OdB boost?).

The Cinema Filter Set is a basic working tool for dealing with a common problem. It isn't flashy, but it does the job effectively. Also recommended.

LP-22 ADR/Foley Processor

These are probably the least obviously interesting units in the Cinema Processor line, but only because there is more competition in these market areas.However, if they do the job, then surely they are worth considering (and the whole set looks so nice sitting together in the rack). The LP-22 ADR/Foley processor might sound fancy, but it is really just a voice channel, with an excellent set of features. The mic pre-amp of the LP-22 (with phantom power, pad, phase inversion, and so on) is followed by variable 12dB/octave high- and low-pass filters. The ranges of these filters overlap so you could end up with a curious absence of signal if you were not careful, but this adds to their flexibility. There is a seven-stage output level meter for the pre-amp section, and also a switchable insert point.

The pre-amp stage is followed by an expander/gate with adjustable threshold and attenuation. Release time

legend FCK (for Frequency Conscious Keying). Now why did they change that? Following the expander/gate is a compressor/limiter with the usual controls and an external sidechain input. Attack once again can be program-dependent or fast. A limiter switch sets the ratio to a steep 20:1. Usefully, the compressor also incorporates de-essing, so it isn't necessary to set up an external equalizer. The de-esser has a high-frequency filter, variable from 18kHz down to 800Hz. A nine-stage LED bar graph indicates gain reduction. If two units are used for a stereo signal the side chains can link for equal dynamic processing.

LP-21 D u a l Mic Pre-amp

The LP-2 1 Dual Mic Pre-amp is basically just that. There are some unusual features, including a healthy maximum gain of 75dB, variable high- and low-pass filters, and also

LP-25 EIGHT-CHANNEL BAR GRAPH METER

Much work in the film world is done away from the large-scale mixing consoles of other audio applications, hence the requirement for an external metering unit. In comparison to the LED bar graphs of the LP-21 and LP-22, this is a high resolution meter with bar graphs of approximately 10cm in length covering a calibrated range from -25dB to +6dB (the lowest segment is labeled minus infinity). This eight-channel unit can operate in VU mode (ANSI-C 16.5) and alternatively in PPM mode (DIN 45406 and IEC 268-10). The unit can be calibrated by the user (with appropriate equipment) using screwdriver presets on the rear panel. Each bar graph has two inputs labeled A and B, which are selectable globally. Loop-through connectors are provided to take the signal on to the receiving equipment In addition to the eight level bar graphs, there is also a phase correlation bar graph meter, which you can switch to any pair of sources, or to two additional rear panel connectors provided for this purpose.

an M&S decoder. The M&S decoder has a variable width control, as is common, and also the less common feature of a separate output with level control for the mid mic signal. Another unusual feature is a push-button mute that can also be remote controlled. I suspect that few users will need remote muting, but those that do will be well pleased.

The LP-21 and LP-22 may not be quite as unusual as the other members of the range, but they are probably more fully featured than competitive units, and therefore well worth auditioning.

LP-28 Theater Speaker Silencer

The LP-28 Theater Speaker Silencer is a curious unit whose primary aim in life is to cut the signal between the power amplifier and loudspeakers. Yes, that is between the power amplifier and the loudspeakers. A voltage, remotely applied to the unit, mutes the input to the power amp. Ten milliseconds later a 15xx resistor is put in parallel with the speaker. After another ten milliseconds the speaker disconnects. Unmuting reverses this sequence.

The LP28 was originally designed to silence a room where there's a live microphone in the studio, for example when recording ADR or Foley. You can wire the unit into the mixing desk so that selecting the mic channel activates the LP28, automatically muting the speakers, with two advantages. First, there is no accidental mic feedback, and no background amp hiss on your recordings In addition, The LP28 has found favor with live venue situations: silencing speakers in-between performances, intervals, and so on. Also, where a studio is equipped with multiple loudspeakers, not all of which will be in use all of the time (especially where surroundsound is in use). The 'redundant' speakers will under normal circumstances, produce a potentially distracting amount of noise unless someone takes the trouble to switch the amplifiers off. Each LP-28 unit can handle two channels and is certainly recommendable, but you'll have to know why you want it.

Conclusion

Taking the Lafont Cinema Processor line as a whole, it shows quality of design and construction, attention to detail, and an understanding of the needs of the market. There are few competitors for the telephone simulator and speaker silencer, so these units will probably recommend themselves to potential users. The dual mic pre-amp and ADR/Foley processor are some way off being unique and have significant competition. Nevertheless, Lafont has provided these units with features that may easily sway the balance. The cinema filter set provides functionality that can be obtained elsewhere, but the convenient presentation and ease of use are appealing.

INFORMATION

- Lafont LP Series. See Price Box.
- Sascom Marketing Group, 34 Nelson Street, Oakville, Ontario L6L 3H6, Canada
- 905 469 8080.
- 905 469 1129
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PRICE BOX

LP-21 Dual Mic Pre-amp	$1495.
LP-22 ADR/Foley Processor	$1495.
LP-23 Telephone Simulator	$1495.
LP-24 Cinema Filter Set	$1795.
LP-25 8-channel Bar Graph Meter	$3395.
LP-28 Theater Speaker Silencer	$1095.