

Revox B77

Test Report (*Best Buy' Magazine circa 1978*)



The B77 series is a most worthwhile successor to their very well established A77 models, and machines are available in half- or quarter-track versions and also with two speed combinations, either 9.5/19cm/s or 19/38cm/s. Versions incorporating Dolby B are forthcoming, and I am pleased to report that whilst the facilities are very similar to the old series, many earlier niggling minor criticisms have now disappeared.

The review sample was a high speed half-track model, and all the series offer source/tape monitoring, highly sensitive unbalanced mike inputs, 5-pin DIN and line in/out sockets and a good headphone provision on a ¼ in stereo jack, suiting all impedances and independently adjustable in level

Whilst the tape transport has been significantly improved with better head/tape contact, the record and replay circuitry is very similar to the old models, although improved throughout where necessary. Stereo/mono switching is possible allowing the two inputs to mix for mono with f.e.t. switching. Replay monitoring can be switched to stereo, L, R or track mixing. The VU type meters under-read as usual but have LEDs for peak indication at +6dB, metering also being switchable between record and play back (a distinct improvement here). Push button logic operated controls allow transfer between functions, including dropping into record, and a cuing facility is provided. Built-in tape scissors and an editing block are also fitted. Available accessories include remote control, slide synchronisation and a facility for capstan drive at various speeds. The tape position indicator does not correlate with time, feet or metres unfortunately. The accidental erasure problem on the old model has been eradicated.

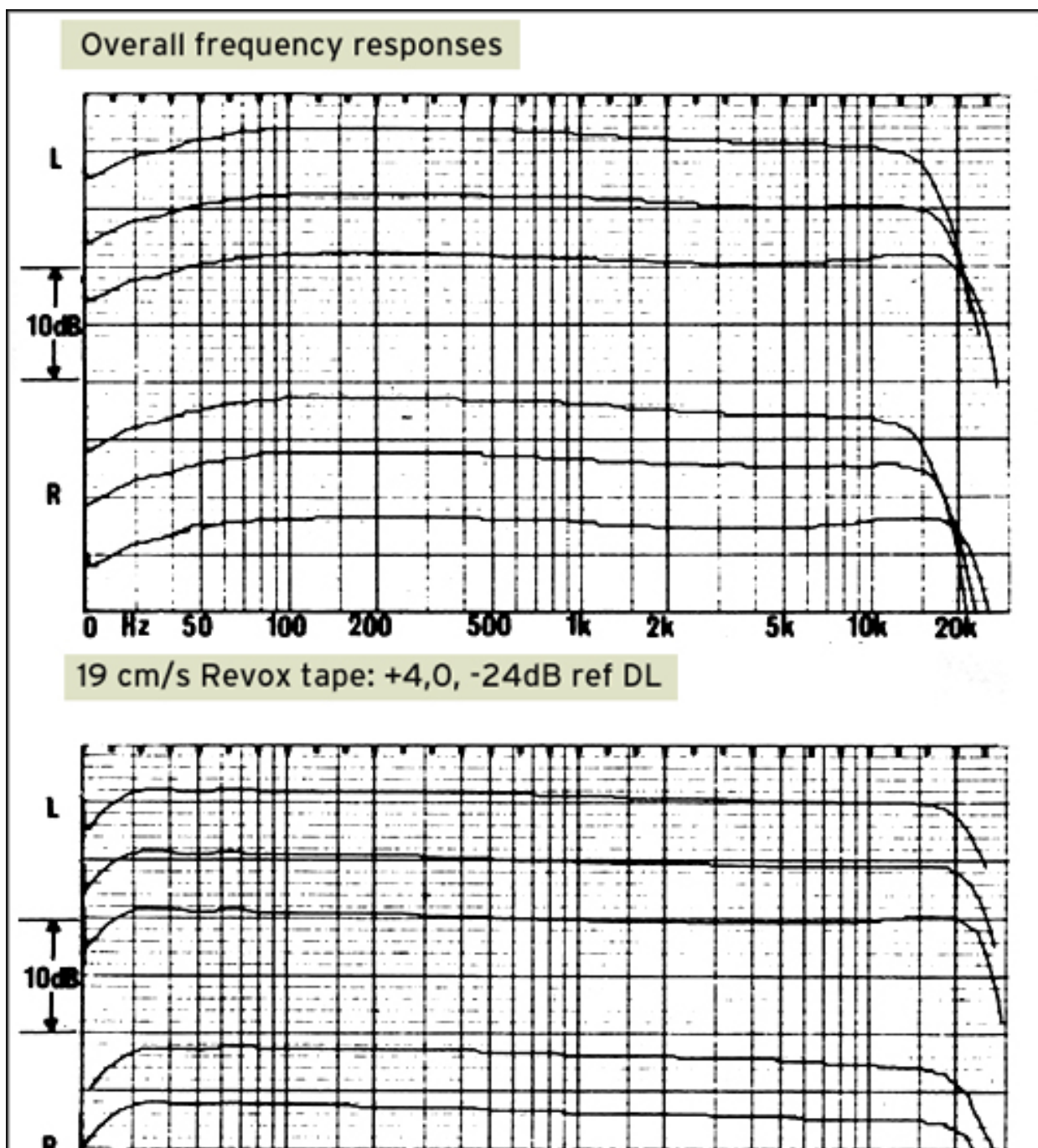
The front panel controls include monitoring mode, input selection for each channel, record track selection, speed change with tension control, source tape switching and independent record levels for left and right (unfortunately not concentric).

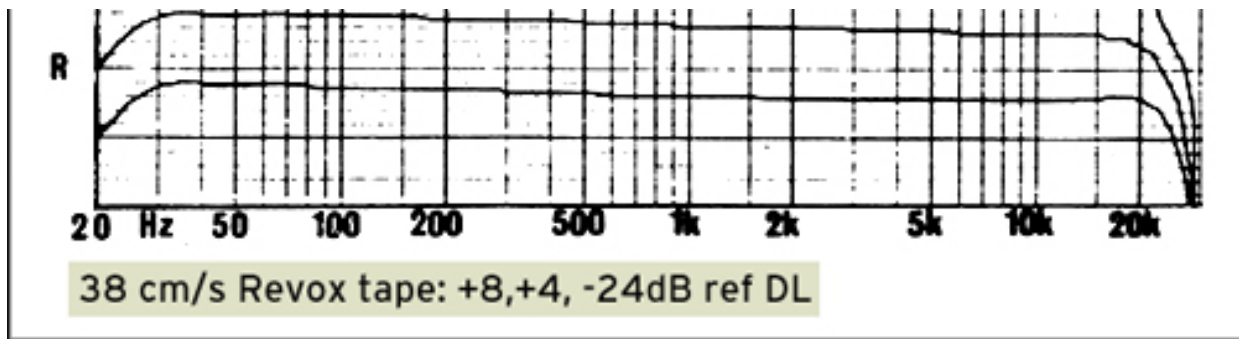
The microphone inputs were very sensitive; quiet and yet with a good clipping margin. The DIN input showed no noise degradation, and again had a wide dynamic range, although the impedance was high. The line inputs were again sensitive but clipped at 4.5V input (annoying for professional applications). The record circuitry has much less distortion than before, and independent adjustment on internal presets is fitted for RF bias and equalisation at both speeds and tracks. Relay amplifier noise measured very well, and clipping margins were very good. Replay responses were very accurately set on both low and high speed versions, and a maximum output level of 5.2V is available before clipping, DL being set normally at around 710mV (preset adjusters for this).

Revox 621 tape was stipulated for the tests, and at 38cm/s very high levels can be accommodated across the audio range, distortion at DL, 1kHz being only 0.07%! Responses were very flat overall at both speeds, at +8dB ref DL the response being only -1dB at 16kHz. Overall weighted noise was creditably very low at all speeds on both models, and all overall distortion measurements virtually depended upon tape types. The 19cm/s speed was only -1dB at 20kHz at low levels and -1dB, 14kHz at DL, which is excellent. Source/tape levels were very accurate indeed at both speeds. Erasure was generally excellent although at 38cm/s on the

right channel the figure was -67.5dB, other figures being better still. Whilst stability was very good, phase jitter was average but adequate, crosstalk was very good up to HF, but EHF measured 43dB at 15kHz. Wow and flutter measured better with the machine vertical, the figures being regarded as good, although 19cm/s measured better still on the low speed version. Speed accuracy was within 0.15% which is incredible, and spooling was fast for a LP NAB at 2m 12s, and neater than of old.

I am very happy to recommend highly both low and high-speed models, although it is a pity that each has only two speeds. All presets were set very accurately at the factory, and both models checked were very reliable and much liked ergonomically. Note that variations in mains voltage are accommodated, and 50 or 60Hz mains frequency alternatives present no problem since the motor speed is electronically controlled. Other variants include speed combinations of 2.4/4.8cm/s, 4.8/9.5cm/sec, professional balanced line in/out socket version, and a version incorporating loudspeaker amplifiers and internal speakers. Almost every version is available as rack mounting or portable. Three forms of slide sync having an extra head can be supplied, and a sel-sync model allows one channel to be brought up from the record head whilst the other channel is recording for adding a synchronised new track recording.





GENERAL DATA

Mike i/p: sens/clipping/noise 250uV/340mV/-60dB
 Line i/p: sens/clipping 54mV/4.5V
 DIN i/p: sens/clipping/impedance -22dB/25dB/20kohm
 DIN i/p noise ref DL+4dB (CCIR/ARM)..... -76dB
 Meter quality..... v. good
 Worst replay hum component..... -65.5dB [50Hz]
 Replay hiss (CCIR/ARM ref DL) 9.5/19/38cm/s..... -/-70/-70dB
 Replay amp clipping (ref DL)/distortion..... +17dB/v. good
 Max line output (DL) 710mV
 Dist point (333Hz 3 3rd MOL ref DL)
 9.5/19/38cm/s.....-/+11.4/+12.7dB
 Overall noise (CCIR/ARM ref DL) 9.5/19/38cm/s . . .-/-59/-58.5dB
 Worst erase Figure..... -67.5dB
 Overall wow and flutter (DIN) av/worst 19cm/s 0.05%/0.056%
 38cm/s 0.03%/0.042%
 Speed accuracy (worst) -0.15%
 Approx dimensions (W/H/D). 45/41/21cm
 Approx weight..... 17kg
 Approx typical price £700