Application and information For calibration tape head azimuth 15 ips

Caution: listen only to a moderately low audio level – a too high level may cause damage to your sense of hearing!!

General tips for handling of tapes:

- Careful handling prolongs life duration of the tape.
- Control first the correct function of tape drive mechanics before applying a a test tape (tape tension and wind torque).
- Important: always degausse the tape heads and tape guides before using a tape!
- Store your tapes in played state ("tail out" position), don't reel them back, keep clear of magnetic fields, (transformers, loudspeakers, etc.)
- Use degaussed or unmagnetic tools for working.

This tape (15 ips) has:

- 1. track: 1 kHz -10 dB 60 sec. for coarse playbacklevel-adjustment
- 2. track: 5 kHz -10 dB 25 sec.
- 3. track: 8 kHz -10 dB 25 sec.
- 4. track: 15 kHz -10 dB 120 sec. for finest adjustment of lissajaous figures on scope
- 5. track: 4-frequency-signal 120 sec. for using with PC-spectrum analyser

Preparations:

 Clean the tape path of your tape recorder, clean the heads, the tape guides, the Capstan shaft and – very important – the pinchroller. Don't use any force, danger of ruining the azimuth!

I use a Q-tip (dipped in spirit) for cleaning the tape path- (it can be bent to reach hidden parts easier)

Wipe resisting sediments using a soft cloth (lightly wetted with spirit).

- 2. Let the machine warm up. The settings will be more exact.
- 3. Wind up the head azimuth calibration tape together with an almost full reel tape when using large reels, (\emptyset 18 -26,5 cm).

Using this tape with a PC based spectrum analyser I.E. Audiotester – any other program is o.k. too:

| 📶 audioTester 🕅 | / 1.4 | | |
|--------------------------|-------------------------|-----------------|-------------|
| <u>Datei B</u> earbeiten | Analyse Korrektur | Einstellungen ? | |
| Spektrumanaly | ser Frequenzgenera | tor Oszilloskoj | |
| FFT-Window | | FFT-Punkte | |
| C None | Flat-Top | C 2048 | START |
| C Hamming | C Rife-Vinc1 | • 4096 | |
| 🔿 van Hann | C Rife-Vinc2 | C 8192 | |
| 🔿 Blackman | C Rife-Vinc3 | | STOP |
| C Bla/Harris | | C 16384 | 0.01 |
| Input: | | Input samples | Betrieb |
| . E | 1002 | In-Para | C einzeln |
| | 1004 | 44100 Hz | fortlaufend |
| 🔲 links K1 | | 7 16 Bit | C T . |
| rechts K2 | Mittelwerte 5 | 1 | C Trigger |
| 0.4 | (D 400) / CD 4 | | |
| s Audigy 2 Audio | [B400] / SB Audigy 2 Au | alo (6400) | |

Set analyser parameters -for example Audiotester



The frequency spectrum looks as depicted if the adjustment is correct. The tape deck is switched to "mono" !

Use Help of your software for further function/features e.g. measuring cursors in display screens.

Lissajou's - figure:



In this screenshot Lissajou's figure is shown if the playback head is accidently to a false maximum. With this tape it is easy to calibrate the playback head to it's main correct position without mistake.