# Application and information For calibration tape head azimuth 7 ½ 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 (7 <sup>1</sup>/<sub>2</sub> ips) has:

- 1. track: 1 kHz -10 dB 60 sec. for coarse playbacklevel-adjustment
- 2. track: 3 kHz -10 dB 25 sec.
- 3. track: 5 kHz -10 dB 25 sec.
- 4. track: 10 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)

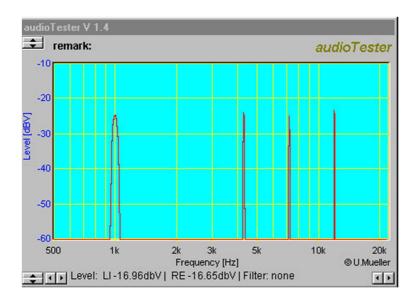
Wipe resisting sediments using a soft cloth (lightly wetted with spirit).

- 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.			
	nalyse Korrektur Ein Frequenzgenerator	istellungen <u>?</u>   Oszilloskop	-1 <sup>8</sup>
FFT-Window C None C Hamming	Flat-Top     Rife-Vinc1     Rife-Vinc1	FFT-Punkte C 2048 C 4096	START
C van Hann C Blackman C Bla/Harris	C Rife-Vinc2 C Rife-Vinc3	C 8192 C 16384	STOP
Input:	100%	Input samples	Betrieb O einzeln
☐ links K1 ✓ rechts K2	Mittelwerte 5	44100 Hz 16 Bit	<ul> <li>fortlaufend</li> <li>Trigger</li> </ul>

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.