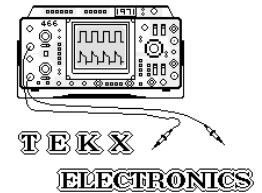


STUDER B67 mechanical & electronic evaluation

Date:

Location: @ Tekx Electronics
 Destination:
 Broker:



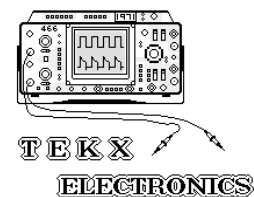
Serial number: 004585 MKI														
Speeds: 30 ✓ 15 ✓ 7.5 ✓ 3.75 -														
Options: DB50 Remote ✓		DB25 Capstan Speed Control ✓				VU meter bridge -								
Repro	1.167.710/715	715/715	Sync	1.167.714	714/714	O'Load	1.067.721/722	722						
Record	1.167.711/716	716/716	Osc	1.067.712/137.712	712	Stabilizer	1.167.713	713						
Input primary voltage set 120VAC ✓ 100VAC -														
Secondary voltages		+24	✓	+20	✓	-20	✓	+12	✓	-12	✓	+5	✓	✓
Heads (1.316.xxx)		2mm = Rep 526, Rec 520				Repro 526 ✓				Rec 520 ✓				
		0.75mm = Rep 536, Rec 530 (Butterfly)				Repro 536				Rec 530				
Relapping / Zenith / Wrap; confirm heights, rotate guide pin						relapped ! + Zenith, Head-Wrap; conf.heights relapped ! + Zenith, Head-Wrap; conf.heights								
Azimuth & alignment optimized														
Tape Transport PCB 1.167.xxx - 790 (ext.adj), 761 / 759 (int.adj)						761								
Capstan 1.021.320 (2pole hi-spd), 1.021.310 (4pole low-spd)						320								
shaft condition / oil						OK, oiled								
Pinch roller 1.167.178 condition						replaced								
Supply Motor bearings 41.99.0105 condition, shims						OK								
Take up Motor bearings 41.99.0105 condition, shims						OK								
Supply brake-hub 1.067.242 & band 1.167.866 condition, noise						OK								
Take up brake-hub 1.067.242 & band 1.167.866 condition, noise						OK								
Left Guide roller bearing 41.99.0106 condition, shims						OK								
Right MSI roller bearing 41.99.0106 condition, shims						OK								
TT Sensor left guide roller 1.167.832 condition, tension springs						OK								
TT Sensor right guide roller 1.167.832 condition, tension springs						OK								
Jumpers set (rear meter bridge) Level set						0dB	-	4dB	✓	6dB	-	8dB	-	
Impedance set						600Ω	-	ω	✓					
front panels, head block covers, guides covers, reel hubs						excellent overall condition								
VU meters / lamps (51.02.0140, 28V)						working								
overall condition, sides, rear, missing parts						excellent overall condition								
calibration sticker						added								

Serial number: 004585		
Recaping:		Capacitors: (light background = out of tolerance; dark background = severe leakage) Marked as dash "-" existing component either SAL or Tant, not requiring replacement
PSU/Stabilizer	167.746	1 2 4 [4,700µ/40 multipin] 3 [10,000µ/25 multipin] (ESR measurement well within spec) ✓ ✓ - - 5 9 11 [220µ/25 rad] ✓ ✓ ✓
TT Cntl	167.759/761	2 [1µ/63 rad] 19 [100µ/25 rad] 25 [470µ/16 ax] 26 27 [100µ/25 ax] ✓ ✓ ✓ ✓
Capstan Mtr Cntl	167.770/771 15/30ips	18 20 [100µ/25 ax] 19 [470µ/16 ax] ✓ ✓ ✓
Capstan Mtr Cntl	067.133/136	1 [µ47/250 rad] ✓
SMC	067.135/764	1 2 3 [µ47/250 rad] Supply 1 2 3 [µ47/250 rad] Take-up ✓ ✓ ✓ ✓ ✓ ✓
Counter	167.765	13 14 [220µ/25 ax] ✓ ✓
Stabilizer	167.713	4 5 [10µ/100 ax] ✓ ✓
Oscillator	067.712	4 [47µ/63 rad] ✓
Repro Amp	167.710/715 Slo/Hi	1 7 13 [1,000µ/25 ax] Ch-1 1 7 13 [1,000µ/25 ax] Ch-2 ✓ ✓ ✓ ✓ ✓ ✓
Monitor Amp	081.908	2 3 [1,000µ/25 rad] ✓ ✓

Heads (2mm)			Inductance = 10 mH & 250 mH @ 1kHz		<200 ohms max.	
P/N	Function	Track #	Inductances		Head Pole resistances	
			Primary	Secondary	L	R
1.316.520	Record	1	10.3 mH	7.75 Ω	11.5 Ω	2.5 Ω
		2	9.2 mH	7.75 Ω	1.2 Ω	2.0 Ω
1.316.526	Repro	1	167.5 mH	61.3 Ω	2.3 Ω	6.5 Ω
		2	156.5 mH	61.1 Ω	1.4 Ω	0.6 Ω

FAULTS	BRACKETS INDICATE OTHER DEFECTS
Summary comments:	

UPGRADES	COMPONENTS
Heads relapped April 2017	1.316.526, 520; 2mm,
Upgraded RADIAL foil electrolytic capacitors	Panasonic FC series 105deg-C -see Capacitor list
Upgraded AXIAL foil electrolytic capacitors	Vishay-BC Components AHT118 125deg-C & AML138 105deg-C -see Capacitor list



Studer B67 alignment

Machine	B67	S/N =	004585	Optimiz e	15ips	Tape =	RMG-900
Speed	EQ	Fluxivity	Function			Ch.1	Ch.2
15ips	NAB	396 nWb/m	Repro Lev			1k	1k
		(+4/250)	Repro EQ			10k	10k
					Overbias		
			Bias		3.5dB		
			Rec Lev			1k	1k
			Rec EQ			10k	10k
			Repro LF			100	100
Speed	EQ	Fluxivity	Function			Ch.1	Ch.2
30ips	AES (NAB)	396 nWb/m	Repro Lev			1k	1k
		(+4/250)	Repro EQ			10k	10k
					Overbias		
			Bias		1.5dB		
			Rec Lev			1k	1k
			Rec EQ			10k	10k
			Repro LF			100	100
Speed	EQ	Fluxivity	Function			Ch.1	Ch.2
7.5ips	NAB	320 nWb/m	Repro Lev			1k	1k
		(+2/250)	Repro EQ			10k	10k
					Overbias		
			Bias		5.5dB		
			Rec Lev			1k	1k
			Rec EQ			10k	10k
			Repro LF			100	100