

Technical Specifications M 003 P

Type of device:

playback stereo tape deck

Tape transport:

processor-controlled 3-motor
direct drive with 1/4" tape width
and international layering

Reel motors: 2 BLDC pancake motors
with rotor angle controlled
sinusoidal commutation

Capstan motor: 1 BLDC pancake
motor with rotor angle controlled
sinusoidal commutation

Electric brakes controlled by tape
tension control

BLDC servo drive pinch roller

Operating position: all angles
between horizontal and vertical

Tape path:

Tape tension scales mechanically
damped with deflection rollers
left and right with ball bearings
above the head assembly

Tape speed:

19.05 cm/s and 38.1 cm/s

Tolerance of set speed: < 0.3 %

Reel size:

up to a maximum of 300 mm reels,
fastening via screw clamps.
Minimum core diameter of reel: 60
mm

Wow & Flutter (weighted):

19.05 cm/s < 0.06 %
38.1 cm/s < 0.04 %

Tape slip (at every reel size):

1/4": < 0.05 %

Spooling time:

1 speed 8.2 m/s

Tape tension:

Playback: 0.8 N
(measured at left reel)

Spooling:
High speed: 0.7 N
(measured at the undriven reel)

Edit: 1.1 N

Head assembly:

one ball bearing to the left, one
flutter roller, 2 tape guides, one
playback head + 2 head
substitutes (erase and recording).
Playback stereo head with 2.75 mm
track width.

Head assembly cover with
ferromagnetic shielding

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Tape transport electronics:

processor-controlled, 2 sensors
for tape tension

Real-time counter via high-
resolution incremental encoder in
time format hrs / min / sec /
100/sec

Audio electronics:

separate PCB for right and left
channel. Equalization switching
via solid state relays. Playback
amplifier to calibrate level,
treble and bass via conductive
plastic trimmers separately for
each equalization.

Automatic changeover when changing
the speed. NAB/CCIR via manual
switch

Outputs:

XLR outputs electronically
balanced. To calibrate from - 10
to + 12 dB, default setting + 6 dB
Output impedance: 50 Ω

Equalizing:

19.05 cm/s: CCIR (IEC 1) 70 μ s
19.05 cm/s: NAB (IEC 2) 50-3180 μ s
38.1 cm/s: CCIR (IEC 1) 35 μ s
38.1 cm/s: NAB (IEC 2) 50-3180 μ s

Frequency response:

19 cm/s: 30 Hz - 14000 Hz +/- 1 dB
19 cm/s: 30 Hz - 18000 Hz +/- 2 dB
38 cm/s: 30 Hz - 20000 Hz +/- 1 dB
38 cm/s: 30 Hz - 22000 Hz +/- 2 dB

Signal to noise ratio

(RMS weighted, measured with blank
RTM SM900):

19.05 cm/s 320 nWb/m > 62 dB
38.1 cm/s 510 nWb/m > 70 dB

Crosstalk:

1/4" (0.75 mm sep. track) > 62 dB
at 1000 Hz

Power supply:

PSU with 28 V/100 W DC switching
converter for tape transport. 1 x
+/- 18 V precision audio power
supply with toroidal transformer.
Separate housing,
electromagnetically shielded

Connection via IEC connector 3-
pole, Protection class 1
240 V / 50 Hz European standard
115 W maximum power consumption

Operating ambient conditions:

Air humidity: 30 - 80 % relative
humidity (non-condensing)
Ambient temperature: 5 - 45°C

Weight and dimensions:

460 mm x 487 mm x 206 mm (W x H x
D) Weight: 25 KG

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