

analogue
tube

AT-3 Mono tube mic pre

User Manual

Serial No _____

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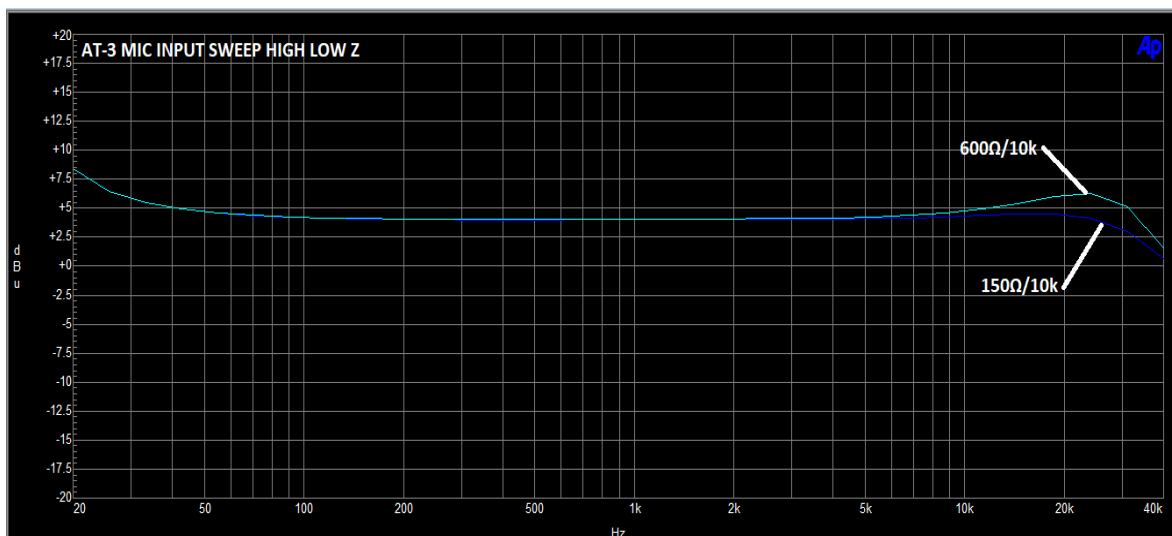
Thank you for purchasing the AT-3. The AT-3 is a tube Mic/Line/DI preamp that uses a combination of different audio transformers and a traditional 3 stage tube pre amp design to achieve a unique tonal balance with the shortest possible signal path for today's modern recording. The front end input features a custom Sowter hi/low impedance microphone transformer and specially selected low noise Electro Harmonix 7025 triodes for minimum THD+n with a standard gain control between both sections and a 12bh7 double triode driving the output stage. The AT-3 uses a simple double triode gain amplifier and a cathode follower current drive stage feeding an output transformer delivering approximately 50db of clean gain at the output.

The AT-3 has 3 inputs: Mic, Line and DI. The DI switch over-rides the other 2 balanced inputs and accepts a 1/4" unbalanced jack at -20dbu instrument level straight into the front end of the EH7025 input for a super clean broadband output. All the front panel switches activate micro switching relays for the cleanest path signal path. Phantom switches the 48v in with a slow rise time. The power supply is all Linear with adjustable and regulated heater power up. B+ supply is linear.

Audio transformers

- Mic IN Custom Sowter TX (high low z)
- Line IN Lunhadal LL1935
- Line OUT Lundahl LL1940

The AT-3 Mic input transformer is a customised Sowter type and has a high low Z input: 600 Ω or 150 Ω



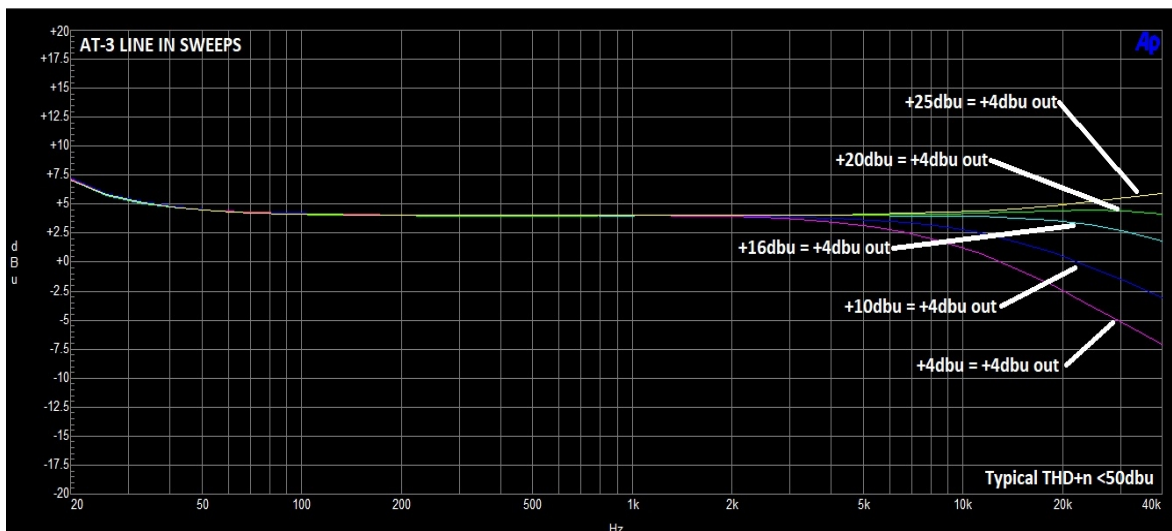
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In addition to the above features, the AT-3 has a switched balanced line input giving you a program dependant HF tilt which is great for tonal applications adding colour and texture to your program when the Line input is driven. This is done by a combination of gain adjustment when increasing or decreasing the input level. When Line IN is selected the gain in its self is not high (around 4dbu) but allows the user to drive the input stage up to +25 dbu helping to gently extending the HF upto 40khz region. In application you simply drive the input level whilst decreasing the gain control to maintain an output level +4dbu when running your unprocessed dynamic music into the unit.

Line input Set-up

Select line input, feed in a +4dbu program line level then adjust the gain control to pos 8 or unity output for +4dbu. Followed by feeding in a +10dbu signal level and decrease the AT-3 gain control again for an approximate +4dbu output level and so on.

To experiment more; feed in a +16dbu signal backing off further the gain control to an approx. +4dbu output and then a +20dbu signal followed by (and up to) a +25dbu signal backing off again the gain control each time to an approx +4dbu output. With unprocessed music program this maybe a little be a little tricky to do at first so a little experimentation may be needed. The HF tilt range is between input levels +4 to +25dbu



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SPECIFICATIONS

Mic Input	Balanced Hi/Low Z
Mic Input impedance	150/10K or 600/10K
Mic input gain	Approx 50db of gain with a -30db input for a better than -50db THD+n output.
Mic input pad	15dbu
Max line input level	Balanced 25dbu headroom
Line input gain	8dbu
DI i/p	High Z unbalanced
DI input gain	46db of gain with a -20db input with a better than -50db THD+n output.
High pass filter	75hz
Frequency response	20hz to 20khz <0.5 db
Thd+N vs Freq	<50db @ 1khz
XLR in and out	Pin 2 Hot
Dimensions	Dims: H90 x W216 x D420 2u half 19" width space
Power	120/240v 50/60hz 20w IEC fused 350ma
Weight	Approximately 7kg.
Tube complement	1x 7025 / ECC83 input tube 1x 12bh7 / 6414 output tube
Power Supply	Linear

Dims H90xW216xD300

2u half 19" width space.

Racking kit available for mounting 2 units side by side into 19" rack slot

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Safety first!

The AT-3 is conservatively rated but like all tube equipment is subject to heat, please be aware that your unit will become warm during operation. Additionally extremely high voltages and potentials are present inside this equipment, no attempt should be made to adjust the unit internally without the help of a properly qualified service engineer. If in the unlikely event adjustments need to be made please contact simon@analoguetube.com first.

Looking after your AT-3

Your AT-3 tube mic pre amplifier should give you many years of uninterrupted service when observing the following simple guidelines:

Operational Guidance.

- Do not move the unit whilst ON
- Do not move the unit whilst hot
- Do not operate in small un-ventilated spaces
- Allow the unit to cool down before moving
- Allow free cool air to flow over unit when ON
- Operate at the correct voltage!
- Always fit correct tubes to your unit 7025/ECC83/12BH7 or equivalent
- Always switch unit OFF when not in use

Additional information

Your choice of mics! The AT-3 has a broad range of microphones tested and here is a list used and tested with it so far..

Neumann U87
Neumann Fet 47
Neumann Kmi84
Lucas CS-1
Telefunken U47
Royer 121 ribbon
Neumann M49

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