

# MUSICAL FIDELITY



## A1

### Integrated Class A Amplifier

#### A1 In Brief

#### Amplifier

- Discrete symmetrical topology for unique sound and dynamics
- 25W Pure Class A power @ 8 Ohm
- Planar Audio transistors with 25A maximum output
- Dynamic class A, if class A standing current is exceeded, it will automatically allow more
- It therefore "slides" (NOT "switches") smoothly into class B style operation, temporarily allowing further current draw needed
- Output stage therefore drives difficult speakers with no problems

#### Power Supply

- Updated transformer from shared (1985 original) to more efficient "dual mono split rail" windings
- Fully independent left and right power supplies for better power handling and stereo imaging
- Each power amplifier now has double supply capacity resulting in reduced ripple and noise with improved performance
- Transformer noise and heat dissipation reduced due to better efficiency and updated components

- Filtered main supplies for better regulation and reduced switch on surge

#### Preamplifier

- Gain block before volume control totally bypassable using "direct" switch (-10dB)
- High quality and updated ALPS RK series potentiometer as volume control
- Low noise TL071 JFET preamplifier circuitry, same as original 1985 design
- Fully smoothed and regulated supplies for lowest noise possible

#### Phono stage

- Discrete current-mode input stage for lowest noise MC and MM amplification
- Low noise current to voltage converter for further amplification and RIAA equalisation
- Automatic input impedance matching (1K nominal) for MC along with increased gain

#### Features

- Original (1985) A1 appearance and circuits with modern improvements
- Remote control added for volume
- Modern updated low noise components

## General Description

In Hi-Fi, the Musical Fidelity A1 has become one of the most classic designs – inside and out. First released back in 1985, it quickly made waves for being an absolute beast when it came down to driving some of the most difficult speakers of that time, even though it was actually a rather low powered integrated amplifier. But: it was all done in pure Class A with excellent and expertly laid out discrete symmetrical circuitry topology and using only highest quality components. The A1 showed people that there was more to amplifiers than just high power.

Based on its huge success, the A1 has gone through multiple reissues and new versions over the years.

Now for 2023, for the first time since its initial release we have actually kept all specifications, the appearance and circuits of the 1985 rendition for those who missed out the first time. With an updated transformer, power supplies and modern low noise components we've revitalized the formula and are proud to reintroduce the fresh original – three decades later.



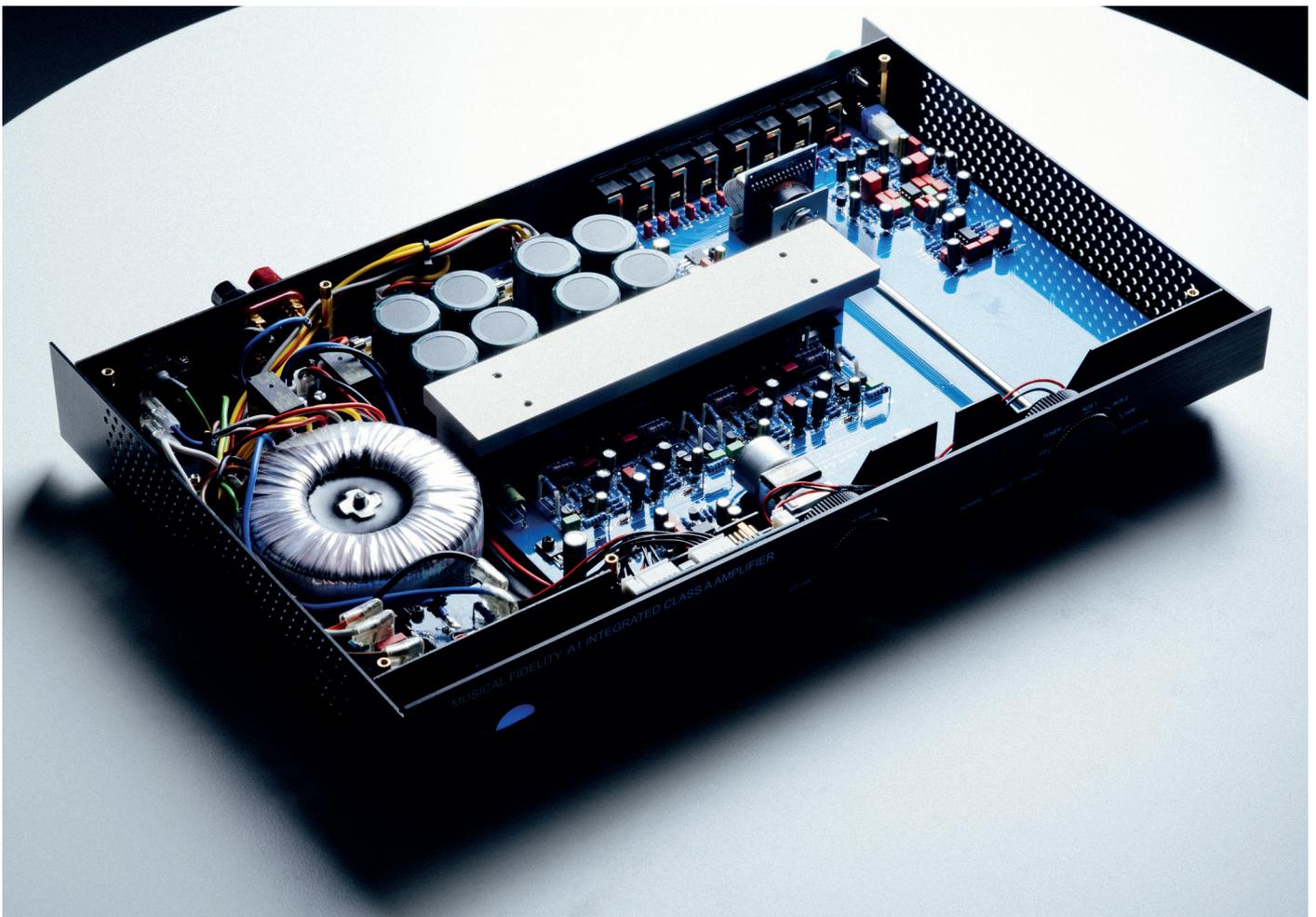
## Technical Talk

The A1 is built around a completely discrete and symmetrical Class A topology. It's able to output 25W of pure Class A power @ 8 ohms load with 25A of maximum output. While the numbers here might seem rather low, the ability for the output stage to drive difficult speakers is a small miracle in itself. The amp design being dynamic class A, and if Class A standing current is exceeded, it will automatically allow more. It therefore "slides" (NOT "switches") smoothly into class B style operation, temporarily allowing the further current draw needed.

## Power Supply

The new A1 has received an updated transformer from shared (1985 original) to more efficient "dual mono split rail" windings. The amp stages are supplied by fully independent left and right power supplies for better power handling and stereo imaging and each power amplifier now has double supply capacity resulting in reduced ripple and noise.

The transformer's noise and heat dissipation are reduced due to better efficiency and updated components. The main supplies are filtered for better regulation and reduced switch on surge.



## A AMPLIFIER



### Preamplifier

The low noise preamplifier circuitry is the same as the original 1985 design and, as we have highlighted above, greatly benefits from the improved, fully smoothed and regulated power supplies.

Among the discernible alterations, one that immediately catches the eye is the addition of a new „direct“ switch at the preamp stage. With this switch you can totally bypass the gain block before the volume control, resulting in roughly 10dB less gain. This feature proves particularly advantageous when working with modern or high-output digital sources, enabling fine tuning the range of your volume potentiometer and accommodating sensitive loudspeakers.

Furthermore, a notable upgrade has been made to the volume potentiometer itself, now replaced by a premium ALPS RK series potentiometer. This high-quality component ensures superior performance and enhanced precision. Additionally, the potentiometer is now motorized, granting you the convenience of adjusting the volume from the comfort of your couch, courtesy of the new included remote control.



## MUSICAL FIDELITY

### Phono Stage

The A1 employs a discrete current-mode input stage for lowest noise amplification of MC and MM cartridges. A low noise current to voltage conversion stage is used for further amplification and RIAA equalization. Automatic input impedance matching for the selected MC input, along with increased gain increases the versatility of the A1's phono stage.

### The return of a true Hi-Fi classic

The A1 has one secret. This secret is simple: it makes music. It sounds sweet and fluid and creates a beautiful atmosphere around natural instruments. Especially in small to mid-sized rooms, carefully set up with a pair of great two-way speakers. It is not a powerhouse, but music lovers will cherish its abilities.

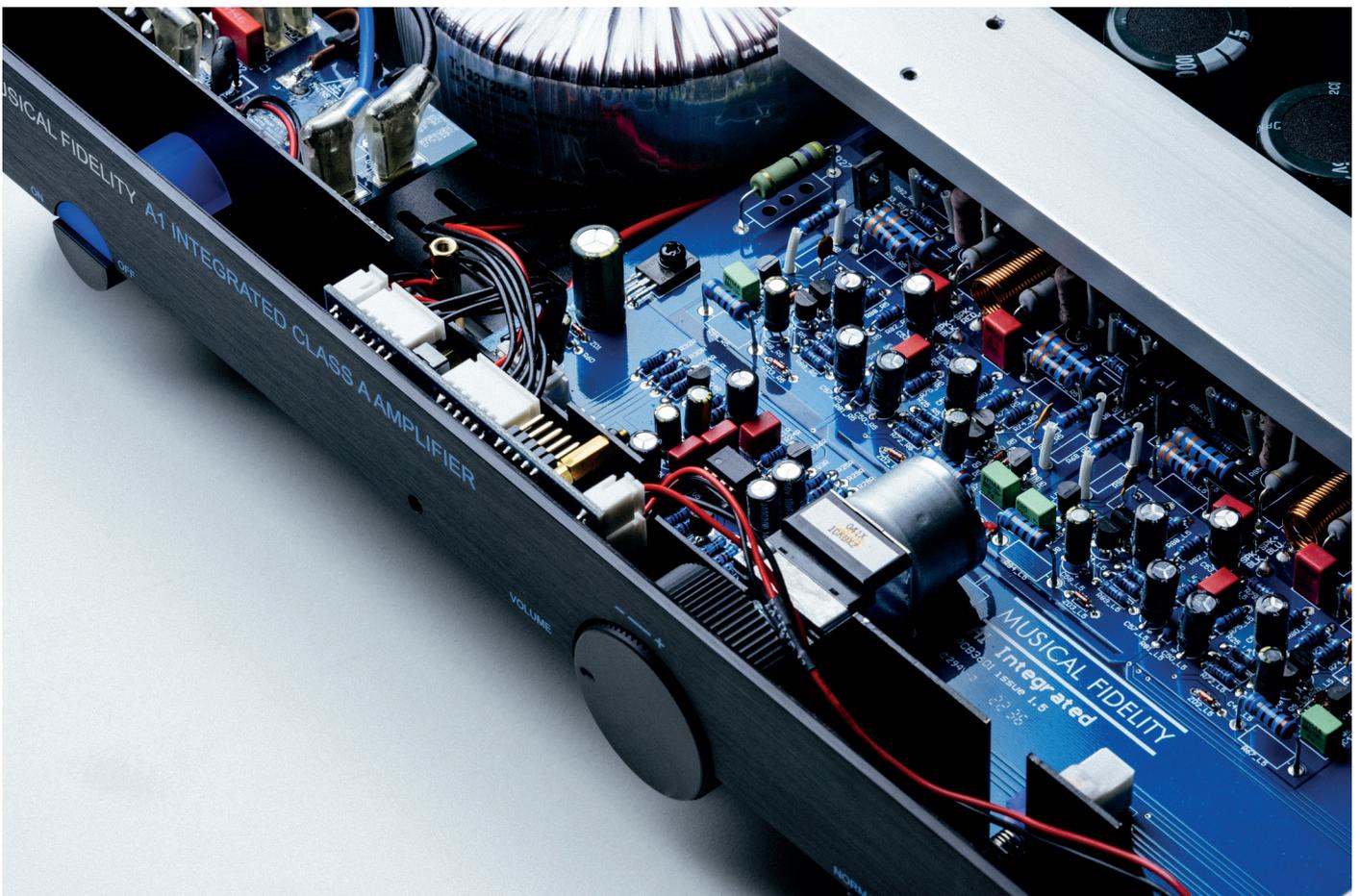
It's also not a product that you'll want to hide. A perfect example of form follows function. The oversized heatsinks define the A1's look, but they are essential for its operation. Truly unique, from the outside and inside.

The A1 has a sweet, warm, full and exciting sound. No harshness. No grain. Just pure music. It doesn't get muddy, and despite its lower power, drives difficult speakers with ease. It remains clean right up to its power limit. To hear what the A1 does is to hear what Hi-Fi is supposed to do: it makes music, pure and simple.



## The A1 through time - Improvements to the original

- Updated transformer to more efficient "dual mono split rail" windings
- High quality and updated ALPS RK series potentiometer as volume control
- IR remote control added for volume
- Gain block before volume control totally bypassable using "direct" switch (-10dB)
- All transistors including output devices are carefully selected modern equivalents
- All capacitors in signal path are polypropylene (PP) type
- Resistors are modern low noise metal film types
- Care and attention made to not change any component specification from original but to update them to modern equivalent with long lifespan
- Layout faithfully follows original within circuit sections on circuit board
- Circuit sections better laid out, in particular the separate supplies and power amplifiers
- Phono stage and preamplifier improved for less noise and hum





A1

## SPECIFICATION

### Amplifier:

- Power: 25 Watts per channel into 8 Ohms
- Voltage: 42.5 Volts peak to peak
- Current: 25 Amps peak to peak
- Damping Factor: 150
- Gain (volume max): 32dB (Direct Mode), 42dB (Normal Mode)
- Output devices: 2 per channel
- Signal / noise ratio: 82dB
- Channel separation: 85dB
- Frequency response: + 0, -1dB, 10Hz to 40 kHz
- Line level sensitivity: 300mV rms nominal, 8V rms max
- Line level inputs impedance: 25k Ohms
- Tape Out impedance: 220 Ohms
- Pre Out impedance: 100 Ohms

### Phono Preamp:

- Phono RIAA response: +/- 1dB
- MM sensitivity: 5mV nominal
- MM capacitance / impedance / gain: 100pF /

50k Ohms / 40dB

- MM signal / noise ratio: 75dB
- MC sensitivity: 450µV nominal
- MC impedance / gain: 1k Ohm / 60dB
- MC signal / noise ratio: 70dB

### Inputs

- 1x phono RCA MM/MC, 5x line RCA

### Outputs

- 1 x line level RCA fix TAPE OUT
- 1 x line level RCA var PRE OUT
- 1 x 4mm banana/binding posts SPEAKER OUT

### General Information

- Dimensions (WxHxD): 440 x 68.3 x 283.3 mm
- Main voltages: 230V/115V Internally set or 100V optional
- Max. Consumption: 130W, 0W in standby (=Power Switch OFF)
- Weight: 10.5kg