Resolution Series®
711-MKII Precision Power Amplifier

- Music reproduction to dream of
- Proprietary discrete circuitry using special curve-tracer analysed and hand selected semiconductors
- Superb balanced discrete Class A input stage. Unbalanced and pseudo-balanced signals are automatically balanced right at input
- Tremendous headroom and reserves
- Superb rejection of noise, hum and interference thanks to perfectly balanced inputs (interference rejection is 20-1000 times better than other so-called "balanced" equipment)
- Multiple safeguarding systems for both amplifier and speakers. They reset automatically once the error disappears.
- No signal compression, limiting nor any other negative influence on the audio signal is possible. The protection circuits are totally separate from all audio stages.
- Mains transient suppression (>5000V)
- Unique dynamic damping of speakers
- Outputs drive any speaker load perfectly even very low impedance or highly capacitive transducers
- Proprietary enhanced Class A circuitry providing unmatched musicality
- Precision zero noise level controls avoid change in tonal characteristics when adjusting the volume level
- Peak output current is absolutely unlimited
- Lowest-loss FORCEPLUG 200 output connectors.
- Internal transformer is completely shielded; special techniques prevent stray fields
- Lowest impedance power supply
- Mechanical resonance elimination
- Hand-selected and perfectly matched components of DIN, IEC & MIL standard
- Handcrafted in Switzerland to highest performance standards
It is rather exciting to be able to announce the "MK-II" version of the FM 711.

The original FM 711 was exclusively made for Japanese music aficionados. In 2008 the exclusivity commitment has been completed. As the FM 711 is such an outstanding amplifier it was decided to continue crafting this marvel. Included in the MKII version are all recent developments and refinements which are found in the FM 1811, FM 115 and the FM 411-MKII.

The FM 711-MKII embodies everything that we have learnt in 35 years about the "real world" requirements of power amplifiers (which are distinctly different than what the conventional textbooks say).

Incorporated are all characteristics that made FM ACOUSTICS amplifiers world renown: proprietary selection procedures for high precision component matching, use of semiconductors that have passed 5 different selection procedures, unmatched, discrete fine-tuned Resolution Series analog circuitry etc.

Dozens of refinements of FM ACOUSTICS’ unique circuits have been combined with new features.

The output stages have 50% higher capability than the renown FM 611X (which it replaces) and provide unmatched linearity at highest power and ultra-high current delivery requirements.

The astounding inter-transient silence is unique to the MKII version.

The FM 711-MKII will perfectly fill the gap left by the FM 611X and this with higher resolution, higher drive capability and higher power.

Further ameliorations and refinements over the MKI version result in some smaller modifications but also some rather substantial improvements:

The new HR modules are used on the inputs. They help to achieve an astounding 100dB of rejection of Common Mode signals (such as interference, hum, noise etc. - which must be cancelled out before the amplification stages!). They rend the FM 711-MKII immune against interferences. This CMRR rejection is achieved not with cheap op amps but with individually fine-tuned discrete Class A circuits guaranteeing the singular resolution FM ACOUSTICS power amplifier are esteemed for.

Hand-selected, sealed long-life level controls use conductive plastic tracks rather than the usual carbon or cermet track. In addition to much longer life-expectancy this provides better resolution and guarantees no noise.

Every little detail matters...
Superb hand-craftsmanship is evident, even where it is not visible: here the underside of the internal chassis.
Each connector is hand-pressed and individually inspected before assembly. Outstanding standard of hand-soldering.
The massive power supply is helped by linearized double rectifiers which feature high speed at the same time as very high current capability.
A number of ameliorations are not visible but help the performance, amongst them:

- The new FM 711-MKII employs circuit technology that is pioneered in the FM 115 (the winner of the prestigious “Grand Prix”), the FM 411-MKII and FM 1811. Total absence of any form of distortion - be it dynamic or static - and this even even at the lowest signal levels results in a rather remarkable improvement. The results are incomparable to any other power amplifier.

- An even better suppression of interchannel crosstalk

- Multiple layout refinements achieve some rather noticeable improvements over the MKI version

- Superb Common Mode Rejection on input stage guarantees unmatched interference rejection and signal symmetry

- New high reliability components

- Power supply refinements

   and more
Specifications are often misused, misunderstood, or utilized only to sell a product instead of indicating its actual performance capabilities. “Typical” specifications will not tell much about the true value of a certain component. Only guaranteed minimum data as specified for all FM ACOUSTICS products, together with carefully controlled listening tests, will provide accurate information. Please observe these distinctions if you make comparisons with data sheets of other products. All specifications are guaranteed minimum figures for every single FM 711-MKII that leaves the factory.

Hum and Noise:
Below full power typically: -110 dB (20Hz-20kHz). Minimal unweighted: better than -100 dB

Input:
Proprietary electronically balanced discrete enhanced class A circuitry, floating ground, non-inverting or inverting mode. Optimal performance with either balanced or unbalanced (single-ended) sources. Unbalanced sources are automatically balanced right at the input of the FM 711-MKII.

Input Sensitivity:
1.3 V RMS for full output

Input Impedance:
At all level settings from balanced and unbalanced sources: 40 kOhm

Input Stage Common Mode Rejection:
100 dB typically, better than 90 dB at 50 Hz, even better at other frequencies.

Maximum Input Level:
+20 dBm (7.75 V RMS)

Load Impedance:
No minimum impedance. Designed for 1 Ohm to 10'000 Ohm systems. Can drive any speaker impedance (even below 1 Ohm) with dynamic (music) signals without any limiting, compression or other negative effects on the audio signal. Despite this, the amplifier is fully protected against short circuits, open circuits and other adverse conditions via unique onboard circuitry that continuously surveys all important parameters.
Protection:
Unique protection systems proprietary to FM ACOUSTICS safeguard against adverse conditions such as short-circuit, HF oscillation, RF interference, + DC and - DC offset, high temperature, damage to the protection system itself, etc. Open circuit stability protection assures that the amplifier remains absolutely stable even when no load or source is connected.

Chassis Resonance Damping:
Special chassis design effectively isolates all sensitive electronic components from possible negative influences such as induced resonance. In addition, mechanical resonance of panels are damped and the whole chassis, cover, plates, transformer mounting, side panels, etc. are all supported in FM ACOUSTICS’ anti-resonance technology.

Average Life Expectancy:
36 years at 25°C ambient, medium power, 10 hours per day, 365 days per year

AC Voltage: fixed at 115 V or 230 V, 50 - 60Hz

Maximum Mains Overvoltage:
Short-term, not on switch-on: 160% \( V_{\text{nominal}} \)
Long-term, incl. switch-on: 115% \( V_{\text{nominal}} \)

Power Consumption:
At idle: 150 W\( _{\text{RMS}} \)
At 30% power: 100 W\( _{\text{RMS}} \)
At full power: 2300 W\( _{\text{RMS}} \)

Mains Supply Requirement:
No mains voltage drop when supplying:
30A peak at 230 V, 6.3A continuous
60A peak at 115 V, 12A continuous

Operating Temperature:
0°C to +40°C

Ambient and Operating Humidity:
Short-term: 0 to 95%
Long-term: 0 to 85%
Amplifier works perfectly in high humidity areas but continuous high humidity may shorten lifetime of certain components somewhat.

Back Panel:
Output connectors:
FORCEPLUG 200, proprietary ultra low loss precision connectors.
Continuous current handling = 200A, 1200A\( _{pk} \)

Burn-in Time at Factory:
Minimum 100 hours (500 thermal cycles)

Vibration Test:
Minimum 60 minutes (50’000 vibration cycles)

Spare Parts Availability:
Guaranteed available for a minimum of 10 years. Guaranteed ex stock availability: 98% of all individual parts.

Weight:
25 kg net / 28 kg packed

Dimensions:
430 mm wide
200 mm high
450 mm deep

IEC, DIN and MIL (Military)
Standards of components used:
IEC 68 = 55/155/56 DIN 384-4
IEC 68 = 55/085/21 DIN 40040
IEC 144/IP 65 DIN 40046
IEC 40/100/56 DIN 44061
IEC 115-1 DIN 41332 TYPE IIA
IEC 384-9 DIN 44112
IEC 384-8 IB DIN 44356
IEC 68: 55/085/056 DIN 45910 PART 1201
IEC 68: 55/200/56 DIN 45921-107
MIL-R-STD 202 method 101, 103, 106, 204, 213, 301
MIL-R-11804/2B/G
MIL-R-22097
MIL-R-10509
MIL-R-55182
MIL-R-22684
MIL-R-45204 TYPE 2
MIL-R-23285
MIL-C-19978 B
MIL-VG-95-295
MIL-S-23190 R.I.N.A. Nr. 5/206/85

"You've never heard it so good!"

FM ACOUSTICS LTD.
Gewerbestrasse 16
CH-8132 Eggb. Zürich
Switzerland
Telephone: ..41/44/725 77 77
Facsimile: ..41/44/725 77 90

S.E.& O. excepted Copyright: FM ACOUSTICS LTD., April 18, 2011
Due to continuous research, FM ACOUSTICS LTD. reserves the right to change specifications without further notice.