## NAGRA MSA Stereo power amplifier with MOSFET transistors







## Compact, rational, refined, rigorous An amplifier so authentically Nagra



For more than half a century, Nagra has designed and built electronics that are un-paralleled elsewhere. An innovative engineering approach, strict development procedures, manufacturing quality and traditional Swiss finishing: Each Nagra unit represents a new step in audio history.

The Nagra MSA amplifier reflects the Nagra spirit down to the finest detail. Firstly, its aspect: Its compact form finished in beautifully brushed aluminium, the layout of the front panel controls and the modulometer are all typical characteristics of the brand. An indication of a design that is not driven by fashion but by traditions of excellence. A design resulting of the Nagra engineers' desire to make a concise, ergonomic and timeless piece of electronic, giving to the user as much pleasure years on as the first day.



From an electronic standpoint, the Nagra MSA amplifier adopts a very original approach. It incorporates technology allowing it to go to the limits, in terms of pure audio reproduction, available today. In terms of musicality, transparency, and neutrality, the MSA behaves itself in a very refined manner.

The MSA owes the success of its behaviour, to the control the company has over elegant electronic architecture design. That is to say, highly evolved yet, devoid of artefacts to better concentrate on the operational precision of the unit. The goal is to produce a signal, perfectly amplified in its entirety, on the outputs, without any alteration of its integrity throughout the signal path. This opens the door to reproduction with the highest possible realism, thanks to incomparable know-how.



### Power and stability For a free and clear musical expression

The Nagra MSA stereo amplifier, offers a power output of 60 watts RMS per channel into 8 ohms. A value that shows its true dimension under real operating situations, because the manner in which the power is delivered is the most important.

Thanks to its active feedback power supply and its unprecedented conception of the output stages, the Nagra MSA behaves flawlessly under all circumstances. It reacts instantaneously and remaining perfectly stable even under difficult loading situations. The amplifier is thus able to easily and reliably reproduce the most subtle and violent dynamic changes with which music, by its very nature, is constituted. This is the key to a natural nimble melody, free from any constrictions and any electronic twitching.



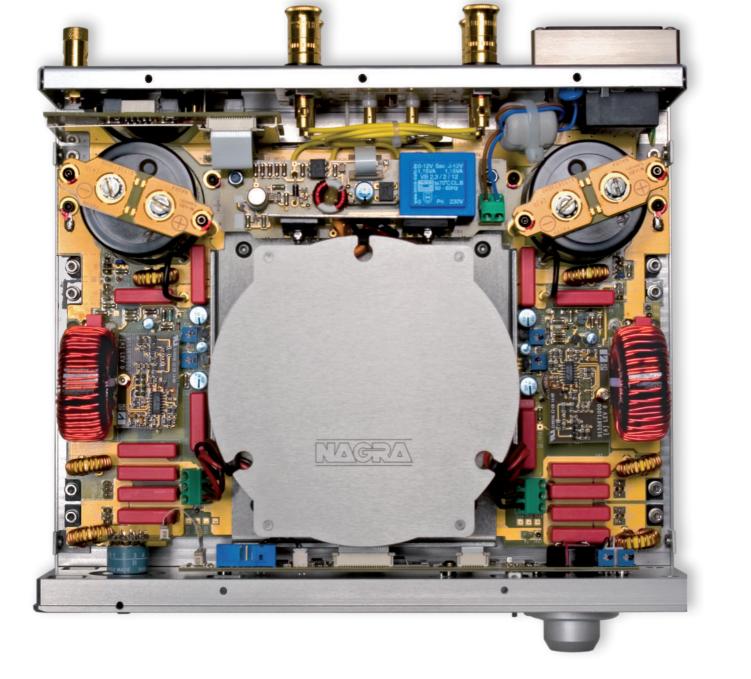
The Nagra MSA feels subjectively that it has power to spare, reserves going beyond the specifications. The imperturbable stability of its circuits allows it to drive all speaker types with ease, even those with a difficult impedance structure.

However, in certain installations, superior power may be desired. The Nagra MSA offers the possibility to bridge the two channels in order to work in monophonic. The amplifier thus doubles its power. In an installation based around two Nagra MSA operating in the bridged mode, 120 watts into 4 ohms per channel is thus possible.

The Nagra MSA also lends itself to bi-amplified installations; its two channels can in fact be decoupled by means of a simple switch.



## Like a time piece The idea of perfection to the slightest detail



From many aspects, Nagra chooses paths often different to those followed by the rest of the audio world. Inventor of the portable audio recorder in the mid 20th century, the company hasn't stopped introducing innovative solutions, giving it a pioneering role in the industry.

The circuits of the Nagra MSA have several original solutions. They distinguish themselves mainly by their power stages designed around a pair of MOSFET transistors mounted in a push-pull configuration and, peculiarly, connected in a common source mode. This design provides great operational precision, and contributes to the stability of the unit. The transistors are mounted on a large heat-sink on the top of the unit. This complex 3 kg piece is milled from a solid aluminium block. Thanks to the inertia it imposes on thermal peaks of the transistors, it serves as a true energy regulator.



with, among other awards, three Oscars® and one Emmy®.

The switching mode power supply featuring PFC (Power Factor Correction) circuits is also unusual in such equipment. Nagra has perfected this technology over the years in its amplifiers and has adapted it in a particularly advanced way in the Nagra MSA. This highly efficient supply ensures an optimal transport of energy and does not collapse when the load increases. It favours a minimal consumption and it is thus environmentally friendly.

The Nagra MSA is equipped with a convenient automatic start-up and stand-by system which reacts to the presence or absence of an audio signal.

As shown in the cover photograph, the amplifier is deliverable with an optional double plate platform, the Nagra VFS, as well as a set of conical feet. Both options serve to better isolate the chassis from external vibrations.

Nagra is one of the most recognized brands in the world

# Technical specifications

#### Electronic

Amplification class: Power:

Bandwidth: Channel separation: Signal-to-noise ratio: Harmonic distortion: Input impedance: Automatic start Security circuits

Monitoring Power consumption Mains power

### Mechanical

Input connectors Loudspeaker terminals

Dimensions: Weight:

### AB

60 watts RMS stereo 8Ω input 1 or 2 V 120 watts RMS bridged into 4Ω 10 Hz – 75 kHz +0/-0.3 dB Typically 70 dB at 10 kHz 109 dB ASA-A weighted <0.1% 50 kΩ Input signal >10 mV Disconnect power stages if temperature >60°C (140°F) D.C. Speaker protection if DC >2.5 V Front LED blinks if output current >9 A Max 232 W, in stand-by (auto position) 1 W 100 V, 120 V, 230 V at 50/60 Hz

XLR (Symmetrical) Binding posts (Cables up to 4.2mm, banana plugs 4 mm, spade 6.35 mm) 280 x 230 x 118 mm (11 x 9 x 4.6 inches) L x D x H 9.5 kg (20.9 lbs)

The Nagra MSA amplifier is built by the same teams as the Nagra professional range and meets the same standards of quality. It is delivered with a test measurement protocol certifying its performance. The specifications above represent a minimum guaranteed level. Due to the policy of constant improvement by Nagra, the above specifications may be modified without notice.





Nagra MSA MOSFET Nagra VPA mo transistor stereo amplifier tube amplifiers

Nagra VPA monoblock Nagra 300p (power) and 300i (integrated) triode tube amplifiers

Nagra PMA (mono) and PSA (stereo) MOSFET transistor amplifiers

