

CLASS

UPPER CLASS

PRICE/PERFORMANCE

VERY GOOD

Magnat

Music System 400



- + Harmonious coordination
- + Highly detailed resolution
- + Powerful acceleration

Trio Infernale

"The three-component hi-fi set by Magnat intentionally restricts itself to stereophonic audio qualities. An amplifier with valve preamp, a CD player and an RDS radio – high-quality audio pleasure requires nothing else. At least that's what the manufacturer thinks. AV-Magazin tested how the purist Magnat Trio performs in practice. Yes, they still do exist. Simple things that emphasize the essential while focusing on practical benefits. We're talking about the classical hi-fi chain that in the last century used to be found in almost every home. A pair of loudspeakers, a stereo amplifier, CD player and radio. No more, no less. No MP3 compatibility, no music over the network, no iPod dock. But the audio specialist based in the Rhine region claims that it still sounds particularly good.

Because the emphasis has been placed on the essential, it has been possible to focus on an area that is really important to music lovers. Which is and will always be audio quality. The more technology a manufacturer is forced to accommodate in a unit, the lower the quality of the individual assembly groups. So if you don't want to charge exorbitant prices, you must find the perfect balance between quantity and quality. You need to find the golden middle. So, according to Magnat, it's time to re-awaken the good old hi-fi chain from its slumber and bring it back to life. Magnat's Music System 400 is just the thing for music lovers who can't be bothered with network configurations and format compatibilities because their only wish is to enjoy music in its purest of forms.

Verarbeitung und Design

The three components have been held in the classical hi-fi width of 43 centimetres. The front panels on the amplifier, radio and CD player have been made from a 50 millimetre thick aluminium plate which means that the System-400 units literally make a polished impression. The front edges have been rounded considerably – a fact that underlines the impression of quality that the visual appearance conveys. The milled operating panel is home to precision-fitted buttons and controls whose tactile quality is beyond any doubt. The pressure points have been chosen in such a way as to provide clear feedback to the issued commands. The large volume control on the right front of the amplifier glides smoothly and highly satisfactorily in its potentiometer. All information about station selection, volume and title progress are clearly indicated by easy-to-read display fields. The displays fitted in the front panels present the alphanumeric characters in a light blue. All edges on the cases have been perfectly smoothed and the joins are parallel. In short: The Music System 400 feels just as good as it looks.

A handy remote control has also been provided to allow the system to be comfortably controlled from the sofa. As the hi-fi components are also individually available, purchasers of the Music-System 400 will become the proud owners of three controls of which, however, they will only need one. The 11 millimetre thin remote handles all the system's functions. Be it title control on the CD player, volume setting on the amplifier or station selection on the radio, the remote allows all these to be comfortably operated from a distance.

Magnat MA 400 amplifier: Technology

An analogue stereo amplifier is responsible for powerful signal conversion. The MA 400 weighs 5.8 kilograms which is primarily due to the massive, low-resonance metal case and the large dimensions of the power transformer. The latter has been classically wound as a coil and is responsible for transforming voltage and therefore the amp's effective potency. The idea of using a second considerably smaller copper coil for stand-by is also clever. It means that the MA 400 only uses one watt in stand-by. Which helps the environment and saves money.

The preamp section uses an ECC88 double-triode valve. This classical technology is primarily employed due to its distortion spectrum: Although measurements show that – because of their greater distortion factor – valve amplifiers are not as good as transistor amplifiers, they do generally generate less inter-modulation; the so-called harmonic distortion spectrum is said to be the reason why hybrid designs that employ valve preamps are regarded by hi-fi fans as being exquisite and their sound being interpreted as "warm" and "natural".

Magnat MA 400 amplifier: Connections

Four gold-plated screw terminals coated in clear plastic for connecting the loudspeakers are located on the rear of the 91 millimetre high case. They allow cable shoes, banana plugs or even just cable leads to be connected as required. The low-level interfaces in the shape of gold-plated RCA cinch sockets are located to the left of these. Those who wish to connect such external sources as MP3 Players will find a practical 3.5 millimetre mini jack in the middle of the front panel immediately under the display field. Another speciality is the built-in phono preamp that possesses low-noise operational amplifiers. This is for easily connecting record players with conventional MM pick-up systems. There is also a 6.3 millimetre jack for connecting headphones to Magnat's amplifier. There are no digital audio inputs. But with five stereophonic audio inputs and two outputs, the MA 400 is still more than well-equipped.

Magnat MA 400 amplifier: Operation

As mentioned above, the amplifier comes with a compact remote control. This provides access to the logically structured system menu. Alternatively, pressing the large volume control on the front panel will also do the same. The visual responses to any changes in settings are given immediately via the clearly legible display. Besides treble and bass adjustment, a panorama setting is also possible. A loudness function also permits the volume to be corrected and adapted to listening requirements which may in particular be useful at low levels of reproduction.

The individual volume settings for the input channels are practical. This allows different audio sources such as the television, record player and CD player to be set at the MA400 in such a way that no annoying differences in volumes occur when users switch between them.

Magnat MCD 450 CD player

Magnat's CD player possesses the same case design as the amplifier and the radio. So it constitutes the perfect visual match with the other components in the series. The practical test confirmed the manufacturer's claims. The MCD 450 only plays classical audio CDs. This great looking player also presents itself as being very modest where the type of optical carrier is concerned. Be they mechanically pressed or chemically developed, the Magnat MCD 450 reads the bits and bytes from audio CDs without complaint. But it won't play homemade discs with MP3 and WMA audio files or super audio CDs.

Besides the obligatory playback control on the unit and on the remote control, individual title sequences may be created using the programming function. This makes it possible, for instance, to just play favourite songs on music samplers in specific sequences. A repeat function for individual songs or albums rounds off the features.

An optical drive with a high-quality laser unit by Sanyo has been employed to capture the audio signal in the best way possible from the data carrier. A clever circuit-board design permits short signal routes. The sound-relevant conversion from digital to analogue is handled by a complex Burr Brown processor from Texas Instruments, which captures the audio signal with a depth of 24 bits. The music signal then passes two autonomous filter stages before it is directed through the low-noise operational amplifiers to the analogue output stage.

Users wanting to digitally connect the CD player to amplifiers by other manufacturers may choose between electrical and optical digital outputs.

Magnat MT 420 radio

The MT 420 radio possesses a receiver for frequency-modulated short waves (FM/VHF) and amplitude-modulated medium waves (AM/MW). The radio is accordingly supplied with a typical frame aerial and a thin wire aerial. The latter, however, should only be used as a stopgap as the MT 420 tuner doesn't handle weak signals very well. Better signal qualities may be achieved with indoor aerials available within the accessory range from 15 euros.

The Magnat radio uses the radio-data system, RDS for short, to present additional information from the station on the built-in display. Song lyrics, programme genre and traffic information options may be displayed along with the station name.

Forty freely programmable channels are available to give users spontaneous access to their favourite stations. The comfortable automatic scan and direct scan features using the remote control may be used to search radio frequencies. A separate mains adapter has also been built into the MT 420 radio for lower power consumption in stand-by. The audio signals are delivered through an analogue stereo output. The cinch cables for connecting the radio to the amplifier are – as with the CD player – included.

Sound

We used the brand-new Quantum 1003 speakers that we shall soon be presenting in the AV-Magazin to test the Magnat set's acoustic qualities. The compact boxes in the best and most expensive Magnat range were perfectly suited for assessing the sound-relevant details of the hi-fi chain being reviewed here. The CD player was fed with a music sampler released by Chesky Records to celebrate its 20th anniversary. The very first few minutes of playback confirmed our expectations of the technology employed. The quality of sound on all three hi-fi components was very good throughout. The high-quality Quantum 1003 compact loudspeakers were provided with a flawless audio signal and were so able to deliver their impressive sound potential to the full. Users wishing to adapt the sound to their own individual requirements may make the necessary adjustments using the above mentioned treble and bass controls, which were precise to use and created a surprisingly good sound. The CD player gave the impression that it was able to extract even the most delicate of details from a piece of music. Thanks to the high-resolution digital-analogue converter, the sound always presented a highly detailed and structured picture. Nothing remained hidden here. Without sounding too analytical, the MA 400's amplifier processed the music signal with a very neutral tonality. Bass and key tones appeared very contoured and earthy on the connected Magnat loudspeakers. The glowing valve in the amp's front panel handled its tasks very confidently. This also meant that the symphonic orchestra that performed over a large bandwidth was able to deliver a very expressive presentation without any sense that something had been intentionally added to the overall sound. The amplifier performed with great self-confidence. The Magnat trio also displayed its exemplary audio qualities when asked to handle modern pop music. The frequently very compressed voice recordings separated from the loudspeakers with a pleasant ease and without sounding washed out in any way. Thanks to the potent mains adapter and the lively valve preamp, all music CDs, with voices or just instruments, sounded magnificently vital and powerful.

Clear text

The Music System 400 constitutes the essence of a perfect hi-fi system. Said more succinctly: No-frills music. Magnat has intentionally limited itself to the essential and has focused on uncompromising audio quality. Which produces a powerful and finely drawn sound that guarantees permanent listening joy."