










5.1 DVD-Surround-Receiver K6

-  [Internal view](#)
-  [Connection elements](#)
-  [Output stages](#)
-  [DVD](#)
-  [Screen](#)
-  [Signal processing](#)
-  [Tuner](#)
-  [Specifications](#)



A finely proportioned case made of solid, three-dimensionally sculpted aluminium accommodates everything required to form the basis of a perfect digital surround system.

-  **Signal-processor controlled 5.1 Digitaldecoder**
-  **Five 60 W output-stages for Surroundmode**
-  **Two 15 W output-stages for a second room**
-  **UKW-RDS Tuner**
-  **Scart-input for TV, VCR, STB, etc.**
-  **Two high level inputs**
-  **Analogue and digital input for tape**
-  **Zwei digital inputs**
-  **Subwoofer-output**

This unit can boast an enormous wealth of features, but lacks the usual incomprehensible jumble of little buttons on the front panel. The secret behind this is a carefully structured operating system which is context-sensitive, making it possible to control this sophisticated piece of equipment using no more than a small remote control handset. The newly developed multi-function screen extends smoothly when the K 6 is switched on, and its bitingly sharp, clearly legible display supplies all the information you need. The case cover incorporates a refined cooling system based on an intelligently controlled fan; without this the K 6's enormous total power would not be possible.

[top](#) 

K6 - Internal view



Every millimetre of internal space is exploited in order to house the large number of circuit boards required, but they are arranged in an ingenious way aimed at eliminating mutual influence effects between the various sub-assemblies, or at least reducing them to a negligible minimum. Efficient sheet metal shields protect sensitive areas, and ensure excellent results in terms of both lab measurements and sound quality.

[top](#) 

K6 - Screen



The screen was developed specifically for the **K 6** and displays all the functions logically and in a clearly legible form. Although a wealth of information is available, the operating mode of the unit can always be recognised immediately. The system is controlled via the F6 remote control handset, and that is why there are no other controls on the front panel. The drawer is moved by means of a photo-sensor, and a set of knobs for operating the unit in an emergency are concealed under the left-hand front edge of the case.

[top](#)

K6 - Connection elements



Connection elements component-version (CV)



Connection elements eu-version (scart)

The **K 6** can be connected to a maximum of 8 external units in addition to the integral tuner and DVD. 3 Scart and 1 Cinch input are provided for AV units, and RGB, FBAS or S-VHS equipment can be connected to the Scart inputs, although we naturally recommend RGB mode as it guarantees the highest quality.

2 analogue stereo inputs are also available, one of which can be converted to an MM or MC input simply by installing our high-quality PHE phono module. The unit also features inputs for one analogue and one digital tape recorder. To cater for external stereo or surround sources the **K 6** is fitted with one co-axial and one optical input.

[top](#)

K6 - Signal processing

At the heart of the **K 6** lies the digital signal processor (DSP). It is the processor which plays the role of pre-amplifier, and is responsible for signal processing, tone control and surround decoding. This digital pre-amplifier stage features 8 independent channels, of which 6 (5.1) are designed to provide surround sound in the main listening room while 2 feed an additional pair of loudspeakers, supplying independent stereo sound to an adjacent room. For the latter a stereo downmix is generated automatically when multi-channel program material is to be reproduced. An additional pre-amplifier output is also provided for connecting active loudspeakers.

The D/A conversion system is of crucial significance to the K 6's sound quality, and that is why each individual channel features a 192 kHz/24-bit Sigma-Delta converter of superb quality. In the interests of good dynamics the volume control follows the D/A conversion stage, and takes the classic form of accurate, low-noise, low-distortion analogue volume adjustors. These high-quality level adjustors are also used to adjust the level of the analogue inputs precisely to the optimum value for A/D conversion, which is carried out at a resolution of 20 bits. The digital sources, one internal source (DVD) and up to 3 external sources are fed directly into the digital pre-amplifier.

[top](#) 

K6 - Output stages

The "Overture" output stages take the form of monolithic integrated power OPs. They are manufactured from a single mono-crystal of silicon using a complex process, and that is the key to their outstanding characteristics in terms of both power and measured values. The high performance of the **K 6** from such a small cabinet is due in no small part to the compact format of these components. The unit includes five output stages for surround operation, each rated at 60 W continuous output. For an adjacent room the K 6 provides a stereo output stage with a continuous output of 2 x 15 Watts.

The high overall power level naturally makes heavy demands on the power supply, and for this reason a conventional mains PSU was never considered for the K 6. Instead T + A has broken entirely new ground, and developed a forward-looking, intelligent, regulated mains section which self-adjusts its power absorption to meet the actual requirement, and this approach not only saves a great deal of energy, but also avoids unnecessary heat build-up. However, it is capable of providing up to 500 W of power at its peak.

[top](#) 

K6 - Tuner

The tuner is based on our [T 1210 R](#) and is of exceptional quality. It includes a quadruple tuned front end with regulated Dual Gate MOS input stage which helps it to achieve very high reception sensitivity and excellent selectivity. It is ideally suited to both long-distance reception with a rotary aerial and also the closely packed cable networks. The RDS module stores the station names which it finds, and displays them on the screen. Of course, Radiotext can also be shown on the multi-function screen. 60 memory spots are available, and a well designed Autostore program makes it an easy matter to store a large number of stations.

[top](#) 

K6 - DVD

Using its sophisticated twin-laser DVD mechanism the K 6 is able to play CD-R and CD-RW media as well as any type of video DVD and CD. The drive's precision optics and the latest control servos constitute one of the most accurate sensing systems on the market, and the unit has no problem playing PAL and NTSC DVDs.

The picture output is generated in high-quality RGB, S-VHS or standard video (FBAS) form as required. The mechanism is completely shielded electro-magnetically, is mounted on a de-coupled sub-chassis and features an elegant pushrod guide system for the disc drawer.

top ▲

Specifications

<i>Principle</i>	DVD-Surround-receiver
<i>AV-inputs scart</i>	3, RGB, S-VHS, FBAS
<i>AV-inputs cinch</i>	1
<i>Audio inputs stereo</i>	2 cinch (Phono aufrüstbar)
<i>Digital inputs</i>	3 x SP/DIF, 44.1 kHz und 48 kHz 1 x optisch, 2 x koaxial
<i>AV outputs scart</i>	1 x TV, 1 x VCR
<i>Audio Recoderausgänge</i>	1 x analogue, 1 x digital
<i>Output f. active subwoofer</i>	1

Digital unit

<i>A/D converter</i>	2 Kanal, 20 Bit, 48 kHz
<i>D/A converter</i>	192 kHz / 24 Bit
<i>Analogue filter</i>	3rd order, 60 kHz, Bessel
<i>Decodertype</i>	56 Bit signalprozessor
<i>Frequency response</i>	1 Hz ... 22 kHz
<i>Total harmonic distortion</i>	< 0,008 %
<i>Signal : noise ratio (A-weighted)</i>	> 102 dB
<i>Signal : noise ratio (un-weighted)</i>	> 97 dB
<i>eff system dynamic range</i>	> 94 dB
<i>Channel seperation</i>	> 80 dB
<i>Volume control</i>	analogue, 1 dB increments
<i>Tone controls</i>	fully digital, channel-separatet
<i>Operating modes</i>	Dolby Prologic, Dolby Digital (AC 3), dts Digital Surround, Stereo, Mono, TV- Zweikanalton <small>* Manufactured under licence to Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential, unpublished documents. © 1992- 1997 Dolby Laboratories. All rights reserved. "dts" is a trademark of Digital Theater Systems, Inc.</small>
<i>Sound fields</i>	Stadion, Club, Kirche, Theater, Halle, Disco
Output stage	5 Main 2 Second room
<i>Nominal power per chanel 4 ohm</i>	80 W 15 W

8 ohm 45 W 10 W
Peak power per channel 4 ohm 90 W 20 W
8 ohm 50 W 15 W

Power bandwidth (+0 -3dB) 5 Hz - 100 kHz

Frequency response (+0 -3dB) 2 Hz - 150 kHz

Slew rate 30 V / us

Damping factor > 300

Signal : noise ratio (A-weighted) > 110 dB

Total harmonic distortion < 0.002 %

Tuner

Sensitivity mono 1.5 uV

Sensitivity stereo 45 uV

Signal noise (St/Mo) 68 / 73 dB

Frequency response 5 Hz - 15 kHz

Total harmonic distortion (St/Mo) 0.2 / 0.15 %

RDS Function Station name, radiotext

DVD

Mechanism Precision aluminium diecast linear drive

GaAlAs semiconductor laser:

785 nm / 10mW (VCD / CD)

650 nm / 7mW (DVD)

Formats CD-DA, Video-CD (1.0, 1.1, 2,0), D-VCD, CD-R single session, CD-RW single session, S-VCD (Chaoji, Shinco, CVD), D-SVCD, DVD Video (SL, DL, DS), DVD-R, DVD+R, DVD+RW 4.7GB Video, Hybrid SACD (CD-Layer only)

Frequency response 20 Hz - 20 KHz

Distortion / intermodulation < 0,0015 %

Effective System dynamics 97 dB

Signal-noise ratio 109 dB

Signal-noise ratio (unweighted) 106 dB

Channel separation 1 kHz / 10 kHz 106 dB / 100 dB

Power 110 V or 220/240V / 50 Hz, 550 VA

Timer mit Weckfunktion

Anschluss für Aktivboxen

Kopfhöreranschluss

Automatische Einpegelfunktion für Analogeingänge

Dimensions (H x W x D) 12,5 x 56 x 33 cm (Display inside)

15 x 56 x 33 cm (Display outside)

Weight 12 kg

Colours Silber aluminium

Black aluminium

Remote control incl. F6

We reserve the right to alter technical specifications