

INPUT SELECTOR



VOLUME

K-series

Esule

PHONES

DIRECT



KENWOOD

Listen to the Future



PURE AS CRYSTAL-CLEAR WATER



How would you describe the sound of a guitar or the timbre of a voice? Or the purity of water, the taste of a piece of candy?

There never seem to be words that are adequate enough to describe things that at first sight seem so concrete. Still, these are the things that we encounter almost every day, things that are concrete and rational. What makes it so difficult to describe them, are our emotions that are involved.

It is this crystal clear purity in music that we're looking for and the answer is the Esule.

K-series  

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Esule

CD RECEIVER R-K1 & SPEAKER SYSTEM LS-K1









## THE SOUND OF THE WIND

The subtle variations in the sound of the wind tell us a great deal about the weather. They also affect our mood: from gentle breeze to storm; they evoke very different emotions. Actually, they are a primitive form of music.

CD RECEIVER R-K1





INPUT SELECTOR

VOLUME

KENWOOD

CD T01 0:00

PHONES

DIRECT

CD

SOURCE

COMPACT  
DISC  
TEXT



P.CALL/TUNING

TUNING MODE

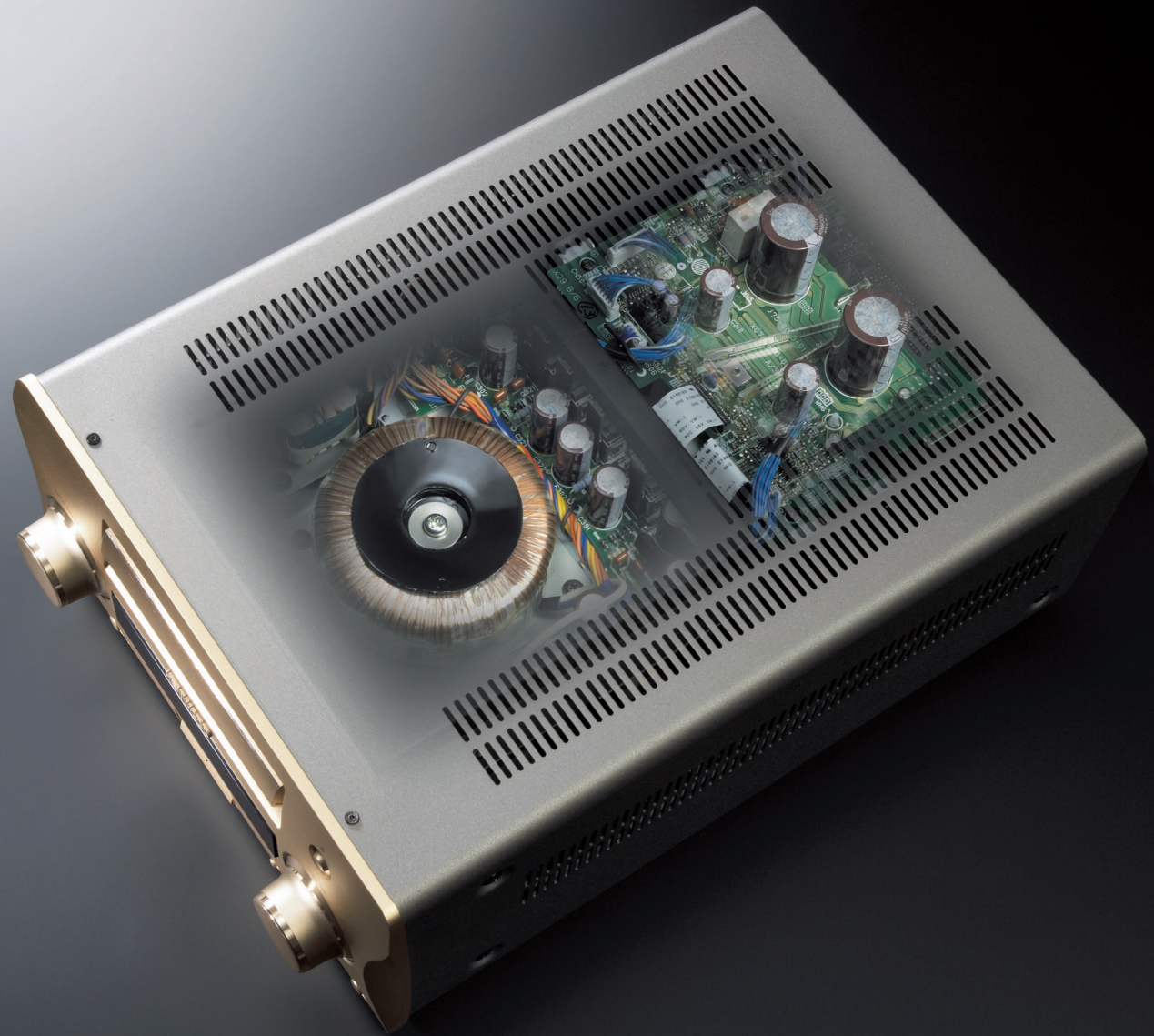
BAND



## THE FASCINATION OF THE ORIGINAL

To keep the musical signals as clear as possible and transmit them to the loudspeakers, the mechanical components are kept separate as far as possible from the electronics; the effects of any interference are thus minimised.

Furthermore, all components are carefully selected for their effect on sound quality to achieve as clear a sound reproduction as possible.





## A LITTLE TECHNOLOGY

### ■ Symmetrical design of the circuits

The completely symmetrical circuits ensure that the digital/analogue converter can transmit analogue signals to the amplifier without any loss of quality.

The use of differential circuits also suppresses external interference more effectively than any other system.

### ■ Electronic volume control

The volume is controlled by two separate controls for left and right by Wolfson (WM8816). By utilising negative feedback, the traditional problems with

channel separation are completely avoided and a high signal-to-noise ratio is achieved.

### ■ CD-Direct / Source Direct

Both serve to keep the path that the signal has to travel as short and clean as possible. This is why the sound control is kept out of the signal path. This is available for CD players and also for other sources.

## SUPREME EX

### ■ Supreme EX

During the production of a CD, all signals above 20 kHz are cut off. 'Supreme EX' is a technology with which the higher harmonic signals above 20 kHz, which would normally be lost, are replaced in order to restore the original sound. Hence, the sound of the CD is restored to what it was at the recording session and the original sounds of the instruments and the atmosphere are evoked.

### ■ Extremely precise Differential D/A converter

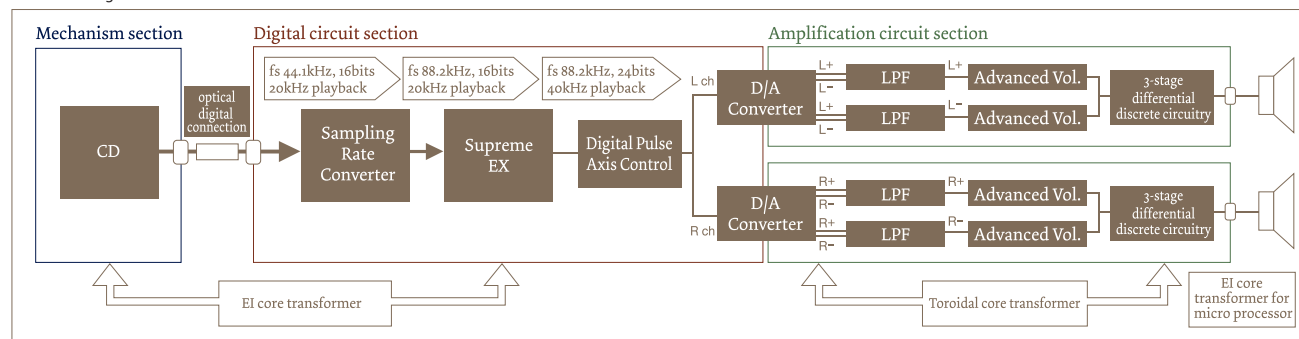
Two separate D/A converters for left and right by

Wolfson (WM8740). Very low broadband noise due to the suppression of interference and induction. Differential outgoing signal to the amplifier.

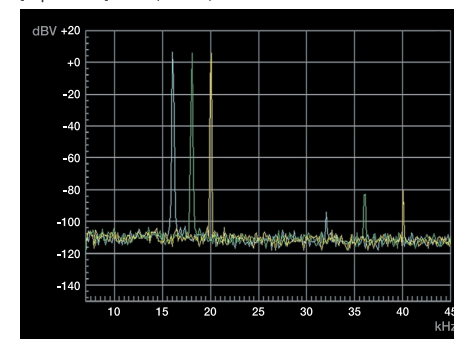
### ■ Extremely accurate Master Clock

The Supreme EX D/A Converter is regulated by an extremely accurate oscillator with extremely low deviations, which is easily able to withstand temperature fluctuations. This prevents jitter and noise and an extremely precise rendition is achieved.

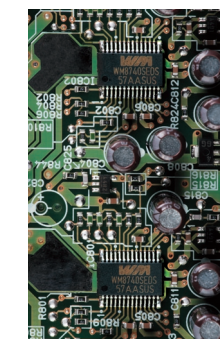
R-K1 Block diagram



[Supreme EX] 16 kHz, 18 kHz, 20 kHz



D/A Converters





## AMPLIFIER OF SUPERB QUALITY

### ■ Independent Power supply

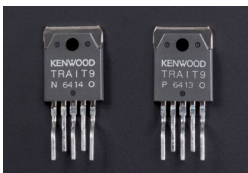
Three-step differential discrete circuits (see the block diagram on page 8) for the pre- and power amplifiers by which reciprocal influences are prevented and each step of the amplifier is stably powered.

### ■ Super C4 Circuit

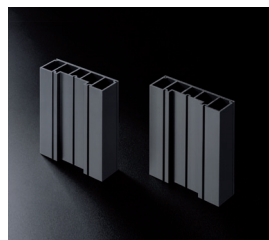
Completely separate and independent first amplifier step to counteract the effects of the power supply and the mains. Makes the application of differential amplifiers possible. Totally eliminates every type of noise.

### ■ New Linear TRAIT

The emitter resistance that is usually built into the final transistor is separately set here. The reaction speed of the final step consequently increases and the reproduction of low frequencies improves. There are two New Linear Trait units on each side, left and right.



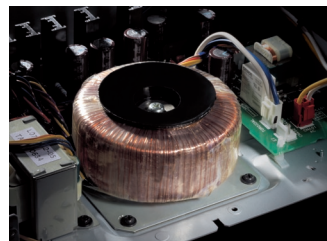
### ■ Separate Cooling Units



The left and right side each has its own cooling unit, due to which here too, reciprocal effects are reduced.

### ■ Large Toroidal Power Transformer

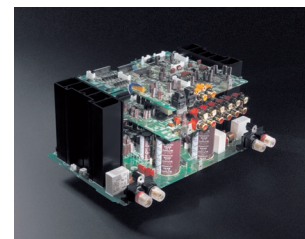
The application of a toroidal or ring-shaped transformer decreases the stray field (magnetic flux). The conversion is also efficient because the windings are much more secure. Ultimately, this leads to dynamic reproduction.



### ■ Three Separate Transformers, 32 Separate Groups

One toroidal transformer is for the analogue unit and two EI transformers are for the mechanism, the digital unit and the PC operating system (see the diagram at the bottom of page 8). The wiring is divided such that there are 32 groups. In this way, especially in the analogue unit, interference due to dynamic current is counteracted and stability is increased.

### ■ Digital/Analogue Circuits Separate from the Analogue Unit



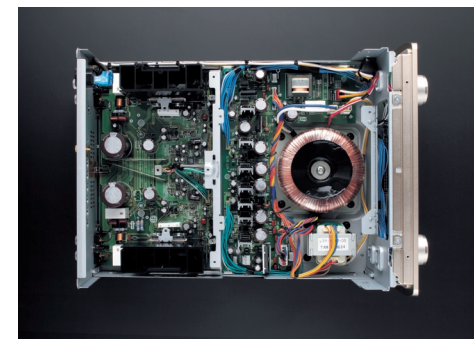
Independent substrates for the digital unit that regulates the signal processing, the choice of source/sound control and the amplifier. Therefore, the reciprocal effects are reduced, partly thanks to the separate power input lines.

### ■ Analogue Inputs – Source Choice/Sound Control

To prevent signals from cassettes and LPs from sounding dull, separate ICs are used for the inlets and the sound control for left and right. Channel separation is improved in this manner.

### ■ Centrally Insulated Chassis for the Power Supply

The power supply has an undesirable effect on the analogue unit due to magnetic fields and vibrations and is therefore mounted on a central frame. Hence, the analogue unit is completely isolated from it.





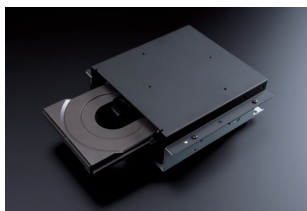
## CD MECHANISM

### ■ Internal Completely Separate CD Mechanism

As far as the CD player is concerned, the operating system, the electronics and the earth are completely separated from the amplifier unit, thereby avoiding interference. For the transmission of dynamic control signals and digital music signals, use is made of 'opto-couplers', optical digital links. The mechanical part is insulated from the earth potential, consequently the audio circuits are completely noise-free.

### ■ Completely insulated mechanics

In order to 'read' the CDs as accurately as possible, the mechanism is located in an exclusive separate housing. This also contributes towards the prevention of malfunctions due to electromagnetic interference.



## SOUND QUALITY – FUNCTIONS AND PROPERTIES

### ■ Sound control – Balance



Separate sound controls for high and low, left and right plus a balance control linked to the 'advanced volume' volume control retains the full sound quality. These adjustments are operated very practically via the remote control unit.

### ■ Moulded metal feet



These absorb external vibrations and prevent them from penetrating the mechanism.

### ■ Aluminium front panel of 11 mm



Strengthens and stiffens the construction.

## OPERATION AND EXTRAS

### ■ PHONO Equalizer (MM)

For the optimal playing of LPs.

### ■ FM/MW Tuner

With channel indication and automatic tuning. Programming for 40 pre-set stations.

### ■ Digital Inputs

Two different digital inputs for connecting to digital equipment. Also suitable for connecting to multi-functional systems and sampling rate converter (32, 44.1, 48, 88.2 and 96 kHz; linear PCM).

### ■ Gold-plated Analogue Inputs

3 pairs of analogue inputs and 2 pairs of analogue outlets.

### ■ Operation of Kenwood Audio Player

If you purchase the optional PNC-150 cable, the Kenwood audio player can also be controlled via the remote control unit.

### ■ Gold-plated Loudspeaker outlets

Loudspeaker outlets suitable for banana plugs

### ■ Programmable for 32 numbers

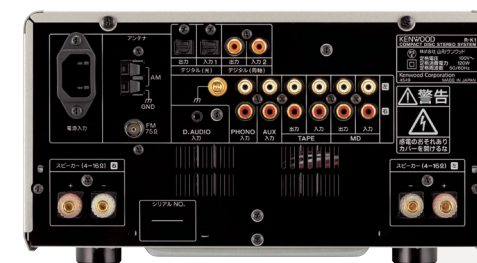
Repeat function (one, all, random, programme)

### ■ CD Text readout

Dimmer with three positions

Automatic energy saving

Timer/snooze function with two settings







## EVEN A WATERFALL STARTS WITH A DROP

Also any sound starts with silence  
Powerful waterfalls are formed by a concentration of spring water  
and drops of water, trickling through the leaves. With our elaborate  
signal integration, the reproduction of this magnificent sound  
makes you feel as if you are actually there, at the source itself.

SPEAKER SYSTEM LS-K1







## LOUDSPEAKER SYSTEM LS-K1

The unparalleled reproduction of a three-way system.  
From the most subtle nuance to the greatest climax, a perfectly  
clear sound.



#### ■ Woofer



Newly developed with a cone of cross-carbon. S-shaped edges for better reproduction of the input signal. Voice coil with square wire for optimal magnetic flux.

#### ■ Loudspeaker chassis

Moulded aluminium chassis to which the heavy magnet is mounted, also conducts away heat.



#### ■ Super tweeters

Newly developed super tweeters with an ultra-broad frequency range and subtle reproduction of all sounds from all instruments. New, ultra-light dome, with built-in voice coil for a direct and subtle sound.

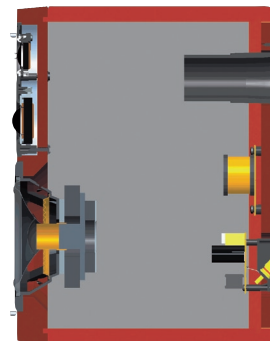
#### ■ Tweeters

Voice coil wound with square wire. Coil body made from light materials to counteract deformation due to heat. Slim construction thanks to the acoustic materials and the magnetic fluid.



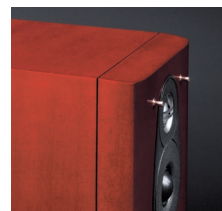
### SEPARATE COMPARTMENTS

#### ■ Separate compartments for super tweeter and tweeter



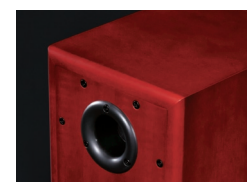
Structurally separated by a partition more than 30 mm thick, which keeps the vibrations and pressure of the woofer away from the super tweeter and the tweeter. Thus protecting the subtle sounds at higher frequencies.

#### ■ Front plate 30 mm thick



By using a front plate 'baffle' of 30 mm thick, the moulded metal loudspeaker chassis is solidly supported and resonance is eliminated.

#### ■ Casing finish



For optimal sound quality, use is made of a high-density MDF. This material is also used for acoustic musical instruments and contributes towards the naturalness of the sound; it is used for the whole casing and the back. The outside is finished in the finest wood veneer.

#### ■ Rounded forms

The corners of both the casing and the buffer are rounded to counteract diffraction.

#### ■ Copper loudspeaker terminals

#### ■ Cleaning cloth





## CD RECEIVER R-K1

<b>Amplifier</b>	
Nominal Power:	2 x 38 W (20 Hz – 20 kHz, 0,07%, 6 ohms) 2 x 45 W (20 Hz – 20 kHz, 0,07%, 4 ohms)
Peak Power:	2 x 55 W (JEITA 6 ohms) 2 x 70 W (JEITA 4 ohms)
Total Harmonic Distortion:	0,015% (20 Hz – 20 kHz, 10 W, 6 ohms) 0,003% (1 kHz, 10 W, 6 ohms)
Signal-to-Noise Ratio:	105 dB (AUX, TAPE, MD, D.AUDIO) 95 dB (PHONO)
Input Sensitivity/Impedance:	520 mV/100 kohms (AUX, MD/TAPE)
Output Level/Impedance:	520 mV/200 kohms (MD/TAPE REC)
<b>Digital Section</b>	
Supreme EX (CD, digital input 1, 2) Reproduction Frequency:	1 Hz – 40 kHz
<b>CD Section</b>	
Frequency Range:	20 Hz – 20 kHz
Dynamic Range:	110 dB
Playable Discs:	CD, CD-R, CD-RD (CD-DA format)
<b>Tuner Section</b>	
FM reception range:	87,50 – 108 MHz
MW reception range:	531 – 1.602 kHz
Power:	AC 230 V 50/60Hz
Power Consumption:	120 W
Power Consumption in Stand by:	< 0,25 W
Dimensions W x H x D:	280 x 151 x 407 mm
Weight:	9,6 kg
Accessoires:	FM antenna, MW loop antenna Remote Control + Batteries



## SPEAKER SYSTEM LS-K1

<b>Threeway Loudspeaker System, Bass-Reflex</b>	
Magnetic Screening:	JEITA
Nominal Impedance:	6 ohms
Max. Power Input:	40 W, Max. Peak Power: 80 W
Woofer:	12 cm
Tweeter:	2,5 cm soft dome
Supertweeter:	2 cm hard dome
Max. Sound Pressure:	85 dB
Frequentie Range:	45 Hz – 40 kHz
Crossover Frequency:	3 kHz, 20 kHz
Dimensions W x H x D:	180 x 330 x 275 mm
Weight:	5,7 kg each
Accessoires:	2 Loudspeaker Cables (2 m) 8 feet Cleaning cloth



## FAITHFUL TO THE ORIGINAL SOUND SOURCE

In audio manufacturing, an interaction between scientific technology and performance leads to the elimination of distortion and signal interference is reduced till the utmost limit.

For musical performance, we have devoted ourselves to produce the purest sound possible. This Esule is the result of our efforts.

Please listen to the sound of voices and instruments you have never been able to hear so pure before.

Soundmeister, MITSUO HAGIWARA



# KENWOOD

Listen to the Future

Kenwood has always connected with people through sound.  
Now we want to expand the world of sound in ways that only Kenwood can,  
listening to our customers and to the pulse of the coming age  
as we head toward a future of shared discovery, inspiration and enjoyment.

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