

INSTALLATION



Software Version V 2.7

Contents

Connections, using the system for the first time

Basic settings of the K8	6
System settings (System configuration menu)	6
Setup-Menu (Settings), BluRay disc player settings	18
Network Configuration	27
The vTuner Premium Service	30
Connections	32
Listening zones, sound in adjacent rooms	39
Special operation modes	40
FD 100 Radio Remote Control	42
Installation and wiring	44
Safety notes	46
FCC Information to the user	47

Miscellaneous

Trouble shooting	48
Glossary	53
Network Terminology	54
Supported Audio/Video files	57
Notes on Energy Saving	58
<i>o, o</i>	

Appendix

Wiring diagram	60
Specification	66

About these instructions

The section entitled 'Installation' describes all those controls and settings which are not often required, and are generally only needed when you are setting up and using the system for the first time. This section also contains the network settings for the K8 which are required when you first use the system.

These 'Operating Instructions' describe all the controls and functions of the K8 which are used frequently.

Symbols used in these instructions



Caution!

Text passages marked with this symbol contain important information which must be observed if the machine is to operate safely and without problems.



his symbol

This symbol marks text passages which provide supplementary notes and background information; they are intended to help the user understand how to get the best out of the machine.

Welcome.

We are delighted that you have decided to purchase a **T-A** product. With your new **K8** you have acquired a top-quality piece of equipment which caters for the latest developments in the field of high-resolution HD surround sound and HD video formats, without neglecting the requirements of the audiophile music lover.

This system represents our very best efforts at designing practical electronic equipment incorporating solid quality, userfriendly operation and a specification and performance which leaves nothing to be desired.

All these factors contribute to a piece of equipment which will satisfy your highest demands and your most searching requirements for a period of many years. All the components we use meet the German and European safety norms and standards which are currently valid. All the materials we use are subject to painstaking quality monitoring.

Our robust all-metal cases exclude any possibility of external sources of interference affecting the quality of reproduction. From the opposite point of view our products' electro-magnetic radiation (electro-smog) is reduced to an absolute minimum by the outstandingly effective screening provided by the metal case.

All sub-assemblies and mains sections are designed to be extremely efficient. A European EUP directive will come into force in future, relating to energy efficiency and the avoidance of greenhouse gases which are harmful to the climate; the directive's requirements will be very stringent, but our equipment satisfies them in full even today.

Our range of accessories includes high-quality cables and connectors.

We would like to take this opportunity to thank you for the faith you have shown in our company by purchasing this product, and wish you many hours of enjoyment and sheer listening pleasure with your **K8**.

T+A elektroakustik GmbH & Co KG



The operation instructions, the connection guidance and the safety notes are for your own good - please read them carefully and observe them at all times. The operating instructions are an integral part of this device. If you ever transfer the product to a new owner please be sure to pass them on to the purchaser to guard against incorrect operation and possible hazards.

CE

All the components we use meet the German and European safety norms and standards which are currently valid. This product complies with the EU directives. The declaration of conformity can be downloaded from www.ta-hifi.com/DoC.

IMPORTANT! CAUTION!

This device contains a laser diode classed as higher than 1. To ensure constant safe operation, it is essential not to remove any covers, nor to attempt to access the interior of the machine in any way.

All maintenance work should be entrusted to qualified Customer Service staff.

The following warning labels are attached to the device:

On the back panel of the case



On the internal shielding cover of the disc mechanism

CAUTION:	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM
VORSICHT:	SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN
ATTENTION	RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU
DANGER:	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM

DIGITAL PLUS	
	Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.
PRO LOGIC IIX	
Digital Surround ES Neo:6 96/24	Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535; 7,003467 & other U.S. and worldwide patents issued & pending. DTS, The Symbol, and Neo:6 are registered trademarks, & DTS Digital Surround, DTS 96/24 and the DTS logos are trademarks of DTS, Inc. Product includes software, © DTS, Inc. All Rights Reserved.
Master Audio	Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535; 7,212,872; 7,333,929; 7,392,195; 7,272,567 & other U.S. and worldwide patents issued & pending. DTS and the Symbol are registered trademarks, &DTS-HD, DTS-HD Master Audio, and the DTS logos are trademarks of DTS, Inc. Product includes software, © DTS, Inc. All Rights Reserved.

License Notice

This product contains software in form of object code that is partially based on free software under different licenses, especially the GNU General Public License. You can find details on this in the License Information which you should have received with this product.

If you have not received a copy of the GNU General Public License, please see http://www.gnu.org/licenses/.

For a period of three years after last distribution of this product or its firmware, T+A offer the right to any third party to obtain a complete machine-readable copy of the corresponding source code on physical storage medium (DVD-ROM or USB stick) for a charge of 20€. To obtain such copy of the source code, please write to the following address including information about product model and firmware version: **T+A elektroakustik, Planckstr. 9-11, 32052 Herford, Germany**. The GPL license and further information about Licenses can be found on the internet under this link: http://www.ta-hifi.com/license-information

Basic settings of the K8

System settings (System configuration menu)

The System Configuration menu is used to enter general basic settings for the device. This menu is described in detail in the following Chapter.

• Briefly press the sys button on the front panel or on the remote control

Calling up and operating

the menu handset to call up the menu. • When you open the menu, the following Select points appear on the screen: Adjustment facility Tone Settings Picture Configuration Source Names Configuration Audio Inputs Configuration Video Inputs Configuration Speaker Configuration Language English Francaise further languages Deutsch Display Brightness Comfort Standby Off On Use the) / $(\mathbf{\nabla})$ buttons to select a point in the menu. • If you wish to change a selected menu point, first press the OK button, and then use the \frown / \triangleright buttons to alter it. • After making the change, press the (ok) button again to accept the new settina. • You can press the **b**utton at any time to interrupt the process; the change is then abandoned. • Press the sys button again to leave the menu. **Tone controls** Calls up the tone settings menu (Tone menu). menu point The tone control menu can also be called up directly using the () button **(î**) on the remote control handset. For details see the chapter 'Tone settings (Tone menu)' **Picture settings** This menu point calls up the picture settings menu (only displayed when a video source is selected). menu point This menu can also be called up directly using the vib button on the FM100 (i) hand-set. For details see the chapter 'Picture settings (Video settings)' Source names At this menu point you can activate and disable external sources, and assign a menu point plain text name to each source; this name then appears in the screen displays. When you call up this menu point using the (OK) button, a list of all the external sources of the K8 appears. Each source is followed by the assigned name, or - if you have disabled the source concerned - the note 'disabled'. If you want to activate / disable a source, or change the plain text name, navigate to the appropriate line. To activate a source, press the green button; pressing the red button disables the source. To change the plain text name, press the ok button once more. Change the name as you wish, then press (ok) to confirm your choice. This action stores the settings for the source. When you call up Source Select using (ATTAUD) or the source button (:) on the front panel, any disabled sources are suppressed. This makes it easier to select sources, and we recommend that you disable any sources not in use.

Audio inputs menu point

Some audio and video source devices feature digital electrical (co-axial) or optical (TOSLINK) outputs instead of analogue sound outputs. If you wish to use the **K8** with such source devices, you can assign an optical or electrical digital input to the external audio and video sources instead of the analogue sound input. In this case the **K8** accepts and processes the digital stereo or surround signal from the source, instead of the analogue signal.

HDMI OUTTV/user-selected plain text rIN 1Audio 1/user-selected plain text rIN 2Audio 2/user-selected plain text rIN 3Audio 3/user-selected plain text rAV IN 1AV-1/user-selected plain text rAV IN 2AV-2/user-selected plain text rAV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name name name name name name
IN 1Audio 1/user-selected plain text rIN 2Audio 2/user-selected plain text rIN 3Audio 3/user-selected plain text rAV IN 1AV-1/user-selected plain text rAV IN 2AV-2/user-selected plain text rAV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name name name name name
IN 2Audio 2/user-selected plain text rIN 3Audio 3/user-selected plain text rAV IN 1AV-1/user-selected plain text rAV IN 2AV-2/user-selected plain text rAV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name name name name name
IN 3Audio 3/user-selected plain text rAV IN 1AV-1/user-selected plain text rAV IN 2AV-2/user-selected plain text rAV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name name name name
AV IN 1AV-1/user-selected plain text rAV IN 2AV-2/user-selected plain text rAV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name name name
AV IN 2AV-2/user-selected plain text rAV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name name
AV IN 3AV-3/user-selected plain text rAV IN 4AV-4/user-selected plain text r	name name name
AV IN 4 AV-4 / user-selected plain text r	name name
	name
HDMI IN 1 HDMI-1 / user-selected plain text r	
HDMI IN 2 HDMI-2 / user-selected plain text r	name
HDMI IN 3 HDMI-3 / user-selected plain text r	name
Adjustment facility	
TV IN 3 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial) HDMI	OUT (ARC)
Audio-1 IN 1 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
Audio-2 Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
Audio-3 IN 3 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
AV-1 AV IN 1 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
AV-2 AV IN 2 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
AV-3 AV IN 3 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
AV-4 AV IN 4 (analog) Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
HDMI-1 Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
HDMI-2 Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	
HDMI-3 Dig-In-1 (optical) Dig-In-2 (coaxial) Dig-In-3 (coaxial)	

On the left of the picture of the menu can be seen a list of the alternative coaxial and optical inputs of the **K8** (DIG-1, DIG-2, DIG-3). Each of these alternative inputs can be assigned to an audio or AV input.

The option of Video sockets (Composite Video) or S-Video socket is available for the AV inputs AV IN1 and AV IN2.

You can select the appropriate input socket at this menu point, according to the specification of the source device to be connected to the system.

AV-1	Video	S-Video	
AV-2	Video	S-Video	

Adjustment facility



If your device features S-Video outputs, we recommend that you use S-Video, as this provides better picture quality.

This menu point is used to call up the Loudspeaker Configuration menu (see following Chapter), where you can enter the basic settings for your surround loudspeaker set.

In this menu point you define the language to be used for the displays on the screen of the front panel of the ${\bf K8}$.

The language used for data transferred to the machine, e.g. from an Internet radio station, is determined by the supplying device or the radio station; you cannot define the language on the $\mathbf{K8}$.

At this point you can adjust the brightness of the integral screen to suit your personal preference for normal use; seven levels are available.

menu point Loudspeaker menu point Language menu point Brightness

Video inputs

menu point (screen brightness) **Comfort Standby** (Stand-by mode) menu point The K8 features two stand-by modes: ECO Standby with reduced stand-by current drain, and Comfort Standby with additional functions, but slightly higher current drain. You can select your preferred stand-by mode in this menu point:

Off (ECO Standby): Active functions in ECO Standby mode: can be switched on by remote control, alarm timer

On (Comfort-Standby): The following expanded functions are available: LAN switch (see Chapter Glossary), Clock display.



(i)

For information on energy-saving operation, and accurate information on current drain in the various operating modes, please refer to the Chapter entitled 'Economical use of energy' and the Specification in the Appendix

If you wish the network function of the LAN, HDMI and UPLINK sockets to be maintained even when the K8 is on stand-by (i.e. in order to keep the system's games console or TV set constantly connected to the Internet), you must select Standby mode 'On (Comfort Standby)'.

In order to fulfil the European regulations for stand-by current drain, the default setting is "ECO Standby".

Loudspeaker configuration menu (Loudspeaker menu)

Loudspeaker

sub-menu

The Loudspeaker menu is used to allocate the output signals to the loudspeakers present in your system in the optimum manner. At the same time the speakers can also be adjusted accurately to match the acoustic and spatial characteristics of your listening room.

Aujustment la
Configuration

.

facility

The **K8** features automatic loudspeaker detection, which enables it to detect which loudspeakers are connected every time it is switched on.

Certain points in the Tone menu only appear if the associated loudspeakers are actually connected to the system and switched on. If the speakers concerned are not present, then the set-up points affecting them are not displayed. This greatly simplifies the procedure by restricting the facilities to the speakers which are actually present.

If some menu points are not displayed, even though the associated loudspeakers are correctly connected, please refer to the notes in the Chapter entitled 'Trouble shooting'.

Activating this menu point takes you to a menu where you can define the size of the loudspeakers and the mode of operation of the sub-woofer. You can also set the cross-over frequency for satellite / sub-woofer systems at this point.

This sub-menu is also used to select whether the surround channels of 5.1 input signals are to be reproduced only by the surround speakers, or the rear speakers, or both.

	Adjustment facility				
Front SPK	2 Small	2 Large			
Center SPK	None	1 Small	1 Large		
Surround SPK	None	1 Small	2 Small	1 Large	2 Large
Back SPK	None	1 Small	2 Small	1 Large	2 Large
Subwoofer	Off	On	Permanent		
x-over freq.	50 Hz	60 Hz		140 Hz	170 Hz
2nd Zone	Off	Separate	Linked	Fixed	
3rd Zone	Off	Separate	Linked	Fixed	
4th Zone	Off	Separate	Linked	Fixed	

In the 'Loudspeaker menu' the first procedure is to allocate the output signals correctly to the various loudspeakers present in the system.

To ensure that no sound information is lost if your system does not encompass all the possible loudspeakers (Centre, Rear and sub-woofer), it is essential to mark the missing components as "None" in the 'Loudspeaker menu'. The corresponding sound signal is then mixed down onto the channels which are actually present (Downmix).

Front LS:

At this point you can define the size and bass response of the primary loudspeakers situated at front left and right. The following options are available:

- 2 small for small speakers whose bass response by their nature is not optimum. The low-frequency bass signals (below the set cross-over frequency) of the main channels are mixed onto the sub-woofer, if it is present in the system.
- 2 large for larger speakers. The whole frequency range is reproduced via the main channels without restriction.

Centre LS:

At this point you can define the size and bass response of the Centre loudspeaker. The following options are available:

Small(r) if no Centre speaker is present. The Centre channel is mixed down onto the left and right main loudspeakers.
 1 small for small Centre speakers. The low-frequency bass signals of the Centre channel (below the set cross-over frequency) are mixed down onto other suitable loudspeakers and - if present - the sub-woofer.
 1 large if the Centre speaker is approximately the same size as the main speakers. The whole frequency range is reproduced via



the Centre channel, without restriction. If your system does not include a Centre speaker, it is important not to situate the main loudspeakers too far from the television set; they should also be set up in a symmetrical arrangement relative to the TV. If you neglect this, the localisation of dialogue on the screen will be very poor.

Surround LS:

At this point you can define the size and bass response of the Surround loud-speakers.

- Small(r) no Surround speakers present.
- 1 small one small Surround speaker present
- 2 small two small Surround speakers present
- 1 large one large full-range speaker present
- 2 large two large full-range speakers present



At the "Small" setting the bass manager mixes the low-frequency bass signals of the surround channels (below the set cross-over frequency) onto the front loudspeakers and - if present - the sub-woofer.

At the "Full" setting the whole frequency range is reproduced by the surround speakers without restriction. In this case the speakers must be capable of reproducing low-frequency bass signals at full level.

Genuine surround sound is not possible without two surround speakers! A single surround speaker located at the rear can provide a limited surround effect; it should be positioned centrally behind the listening point. In this case select "1 small" or "1 full", according to the size of the loudspeaker.

Back LS:

At this point you can define the size and bass response of the rear speakers. The following settings are possible for systems with one (6.1 mode) and two (7.1 mode) rear speakers:

	Off	no rear speakers present
	1 small	1 small rear speaker
	2 small	2 small rear speakers
	1 full	1 large rear speaker
	2 full	2 large rear speakers
1	If your system de are mixed down front speakers.	bes not include rear speakers, the rear channels - if present - onto the left and right surround speakers; otherwise onto the

If you select the 'none' setting in the menu point 'Surround loudspeakers', the rear speakers are automatically switched off.

To avoid the risk of accidentally setting senseless speaker arrangements, the system does not allow you to select all combinations.

Subwoofer:

In this menu point you can define whether your loudspeaker system includes a sub-woofer, and which signals it is required to reproduce. The following options are available:

On Recommended setting for sub-woofer / satellite systems The signals from the bass effect channel (LFE) and all other low-frequency bass signals (below the set cross-over frequency), which are not reproduced by the full-range loudspeakers, are assigned to the sub-woofer. In this mode it may occur that the sub-woofer has no signal to reproduce in certain surround modes, or in the case of multi-channel input signals without an LFE channel. If you decide to use the bass manager, you should switch off the low-pass filter on the sub-woofer, as the bass manager carries out the filtering. Off This setting should only be selected if at least the main loudspeakers are of the full-range type. Your system does not include a sub-woofer. The signals of the bass effect channel (LFE) and all other low-frequency bass signals (below the set cross-over frequency) are assigned to the main loudspeakers. Permanent recommended setting for full-range loudspeakers and subwoofer. If a sub-woofer is present and you wish it to operate constantly. In addition to bass management the signals of all channels are mixed together and reproduced by the sub-

If the sub-woofer is switched on in the 'Loudspeaker menu', its level can be altered within the range -20 (dB) und +10 (dB) in the 'Loudspeaker level' menu. This enables you to match the volume of the sub-woofer to the volume of the other channels.

Cross-over frequency:

At this point you can select the lower limit frequency for satellite loudspeakers. For all loudspeakers whose size is ranked as 'satellite', the bass manager mixes the bass signals (below the frequency set at this point) onto the subwoofer and other loudspeakers with a suitable frequency range.

170

The following values (Hz) can be set: 50 60 70 80 90 110 140

woofer.

Zone 2:

If your system does not include rear loudspeakers, the output stages for the rear channels can be used to provide sound in an adjacent room (listening zone 2). In this menu point you can enter the settings required for listening zone 2:

Off

Zone 2 switched off.

Select this setting if listening zone 2 is not in use.

At this setting the rear channel output stages of the $\mathbf{K8}$ are switched off. This saves energy, and the K8 develops less heat in use.

Separate

Zone 2 switched on - separate volume control.

Volume is controlled separately from that of the main loudspeakers.

This setting should be selected if the loudspeakers in zone 2 are set up in a separate room, and their volume is controlled using their own remote control handset. This arrangement requires an E2000 remote control receiver for the adjacent room.

Linked

Zone 2 switched on - volume control in parallel with main room.

Volume is controlled in parallel with that of the main loudspeakers. This is a sensible setting if the speakers in zone 2 provide sound in a listening zone which forms a unit with the main space.

Fixed

Zone 2 switched on - fixed level.

Volume control for zone 2 is disabled; a fixed volume level is set.

This option can be used if the level is controlled by a volume control installed locally in the adjacent room, or if active loudspeakers or audio radio transmission systems with their own volume control are operated from the zone 2 pre-amplifier output.

This menu point only appears if no rear loudspeakers are present, and you have selected the "OFF" setting under the menu point "Rear loudspeakers".

Zone 3:

If no surround loudspeakers are present in your system, the output stages for the surround channels can be used to provide sound in an adjacent room (listening zone 3). In this menu point you can enter the settings required for listening zone 3.

The set-up options (OFF / Separate / Linked / Fixed) are the same as those described above for zone 2.



This menu point only appears if no surround loudspeakers are present, and you have selected the "OFF" setting under the menu point "Surround loudspeakers".

Zone 4

The K8 features a pre-amplifier output (Zone 4) which can be used to provide sound in a listening zone using active loudspeakers or an audio radio transmission system. This listening zone is always available - i.e. even if you have installed a full 7.1 channel surround system in the main room.

The set-up options (OFF / Separate / Linked / Fixed) for zone 4 are the same as those described above for Zone 2.

With the Speaker automatic–calibration **T+A** offers you an effective aid to obtaining the correct level and sound settings for your surround system. If you carry out the procedure outlined below, the **K8** will automatically calibrate your loudspeakers with the help of the measuring microphone supplied in the set; under normal listening room conditions this process delivers excellent results.

If the result of the calibration process is to be correct, the following criteria need to be satisfied:

The appropriate loudspeaker sizes should be selected in the 'Loudspeaker' menu point, and any speakers not actually present should be disabled. Furthermore the correct speaker distances should be selected in the 'Speaker position' menu point.

The measuring microphone should be set up in an unobstructed position close to your preferred listening position (e.g. on the living room table, or the armrest of an armchair), and there should be direct line-of-sight contact between the microphone and each loudspeaker.

If you wish to use the automatic calibration system, please carry out the following procedure:

- First connect the calibration microphone (supplied in the set) to the socket on the underside of the machine, and set it up at the listening position.
- Call up the System menu by pressing the sys button.
- Now select the 'Automatic calibration' point in the 'Loudspeaker configuration' menu. You will hear a hissing sound from the front left loudspeaker.
- At this point you may be requested to increase or reduce the volume, depending on the volume you have currently set on the K8. If this should happen, adjust the volume using the <u>vol+</u> / <u>vol-</u> buttons until the message 'Press OK to continue' appears. Now press the <u>ok</u> button.
- The K8 now starts the automatic calibration process. During the procedure you will hear various test signals from your loudspeakers. It is important that no loud noises should occur during the calibration period, as these could falsify the results.
- The screen will inform you when the process is complete. If you wish to save the calibration values, select 'yes' with the
 Image: proceeding of the process is complete. If you wish to save the calibration values, select 'yes' with the
 Image: proceeding of the process is complete. If you wish to save the calibration values, select 'yes' with the

If necessary, the stored settings (e.g. bass, treble, etc.) can be adjusted at any time to suit your personal preference. Changes are made in the Loudspeaker menu.



In order to protect the loudspeakers against damage due to high measurement noises the automatic calibration uses a maximum permissible level (-20dB). In huge rooms and / or difficult acoustic conditions the automatic calibration

process may deliver false results.

In this case you can still carry out the corrections required manually via the 'Loudspeaker menu'.

If the calibration process should be adversely affected by accidental noise or disturbance, or if the system returns implausible results for any other reason, the calibration process can simply be re-started at any time.

The volume level of the individual channels must be matched very carefully to ensure that the **K8** delivers a balanced sound image.

The purpose of the 'level menu' is to calibrate the levels accurately for all channels.

Adjustment facility				
- 20 (dB)		00 (dB)		+ 10 (dB)
- 20 (dB)		00 (dB)		+ 10 (dB)
- 20 (dB)		00 (dB)		+ 10 (dB)
- 20 (dB)		00 (dB)		+ 10 (dB)
- 20 (dB)		00 (dB)		+ 10 (dB)
- 20 (dB)		00 (dB)		+ 10 (dB)
- 20 (dB)		00 (dB)		+ 10 (dB)
	Adjustment facility - 20 (dB)	Adjustment facility - 20 (dB) - 20 (dB)	Adjustment facility - 20 (dB) 00 (dB) - 20 (dB) 00 (dB)	Adjustment facility - 20 (dB) - 20 (dB)

When you activate the 'level menu', you will hear a hissing sound lasting two seconds from the left-hand main loudspeaker. The data input field is located after the first menu point.

e.g. 'Front left: 00 '.

(i)

The hiss is now reproduced through the other channels in turn, in each case for a period of about two seconds.

Output channels which are not in use (see 'Loudspeaker menu') are skipped.

While the hiss is generated on one channel, the associated data input field is displayed on the screen. You can adjust the value within the range -20 to +10 using the Change buttons; any alteration you make is immediately audible.

After any correction to the volume, the same channel continues to generate the hissing sound for a further two seconds, after which it moves on to the next channel. The data input field position changes with it.

If you prefer to change the channels manually instead of automatically, you can select the input position to be corrected using the Select buttons.

Your aim should be to set all the channels to the same perceived volume, working as accurately as you can.

Since the hissing sound is not suitable for assessing bass volume, you should use the **'Subwoofer'** menu point in the **'Tone control settings (Tone menu)'** to adjust the volume of the sub-woofer channel.

The level for each channel is stored for surround reproduction, and applies to all surround modes.

In the 'LS position menu' you can enter the actual distance of each loudspeaker relative to the listening position (in 0.3 m increments).

	-	
Front Left	0,30 m	 2,40 m
Center	0,30 m	 2,40 m
Front Right	0,30 m	 2,40 m
Surround Right	0,30 m	 2,40 m
Back Right	0,30 m	 2,40 m
Back Left	0,30 m	 2,40 m
Surround Left	0,30 m	 2,40 m
Subwoofer	0,30 m	 2,40 m

This procedure is designed to compensate for timing discrepancies caused by differing distances between the speakers and the listening position. The purpose of entering the speaker distances is to ensure that all the sound elements reach the listener simultaneously and in correct phase. The correct setting of the speaker distances is very important if you are aiming at optimum surround effects.



Measure the distance between the listening position and the loudspeakers in your room.

The maximum distance you can set between one loudspeaker and the listening position is 12 m. For acoustic reasons greater distances are not recommended, and for this reason the system cannot compensate for timing problems over such distances.

As the diagram shows, you can use the Select buttons to move to the input positions in turn; the order is stated below.

Enter the measured distance in increments of 0.3 m using the Change buttons. Output channels not in use (see 'Loudspeaker menu') cannot be edited.

- Main loudspeaker, front left
- Centre loudspeaker, front centre
- Main loudspeaker, front right
- Surround loudspeaker, right
- Rear loudspeaker, right

(i)

- Rear loudspeaker, left
- or rear loudspeaker, centre
- Surround loudspeaker, left
- Active sub-woofer (any position) (Sub)

(front left) (front centre) (front right) (Surnd right) (Rear right)

(Rear left) (Rear centre) (Surnd left)

Tone sub-menu

The **K8** is equipped with active tone controls which are designed to compensate for acoustic influences in the listening room, or unfavourable loudspeaker locations.

	Adjustment facility			
	1			
Front Left Treble	- 12 (dB)	 00 (dB)		+ 12 (dB)
Front Left Bass	- 12 (dB)	 00 (dB)		+ 12 (dB)
Center Treble	- 12 (dB)	 00 (dB)]	+ 12 (dB)
Center Bass	- 12 (dB)	 00 (dB)		+ 12 (dB)
Front Right Treble	- 12 (dB)	 00 (dB)		+ 12 (dB)
Front Right Bass	- 12 (dB)	 00 (dB)		+ 12 (dB)
Surround Right Treble	- 12 (dB)	 00 (dB)		+ 12 (dB)
Surround Right Bass	- 12 (dB)	 00 (dB)		+ 12 (dB)
Back Right Treble	- 12 (dB)	 00 (dB)		+ 12 (dB)
Back Right Bass	- 12 (dB)	 00 (dB)		+ 12 (dB)
Back Left Treble	- 12 (dB)	 00 (dB)		+ 12 (dB)
Back Left Bass	- 12 (dB)	 00 (dB)]	+ 12 (dB)
Surround Left Treble	- 12 (dB)	 00 (dB)		+ 12 (dB)
Surround Left Bass	- 12 (dB)	 00 (dB)		+ 12 (dB)

First select a sound source which forms a suitable subject for adjusting the tone. The sound source should be active on all channels, so that you can immediately hear the effect of any change in tone settings in as realistic a sound image as possible.

Use the \checkmark / \checkmark buttons to select the menu point which you wish to change. The value can now be altered using the Change buttons \checkmark / \checkmark . Any alteration you make is immediately audible.

Tone adjustments are carried out separately for each of the output channels in use, as this allows you to take into account different speaker locations and their effects. Set values for treble (H) and bass (B) on all channels with the aim of obtaining a finely balanced sound image.

Output channels not in use (see 'Loudspeaker menu') cannot be edited.

(i)

When you have completed the tone adjustments we recommend that you call up the 'LS balance menu' again in order to check the level and balance of all the channels, and correct them where necessary.

Setup-Menu (Settings)

BluRay disc player settings

To open the Settings menu, stop playback.



Navigating to the Settings menu point

Use the \checkmark / \checkmark buttons to select the Settings entry in the main menu. You will now see the various sub-categories of the 'Settings' menu. The selected category is highlighted, and the current settings in this category are displayed:



In this example the Language category is selected, with the current settings displayed on the right.

You can select a different category (e.g. Network, System, ...) by pressing

Opening and operating the Settings menu

If you wish to change settings within the selected category, please press (\frown) again.

The various options in the selected category are now displayed, and you can select the setting you wish to alter using the \bigcirc / \bigcirc buttons.



In this example the option 'OSD' is selected, and 'Deutsch' (German) selected as a possible setting.

If you wish to change the set value for the selected option, please press the or button. The available options are displayed in the Settings window.



You can now select a different setting (e.g. English) by pressing the ▼ / ▲ button, followed by • to accept and store the value.

The Setup menu contains the following categories:

- Display
- Language
- Parental control
- System
- Network
- Info
- BD-Live

These categories are described in greater detail in the following sections.

Display category

Overview

Please select the 'Display' category if you wish to set the optimum values for the video outputs.



For optimum picture reproduction the K8's internal video processor is bypassed. The Video menu cannot be called up when a disc is playing.



Colour system

Please set the video norm for your display device at this point.NTSC:Video output at 60 HzPAL:Video output at 50 Hz

Incorrect settings may result in a jerky and incorrect display.

Resolution

At this point you should set the maximum resolution of the display device connected to your system. For accurate information on the maximum resolution of your display device please refer to the operating instructions supplied with the unit.

The following resolutions are available:

Resolution	Display devices e
HDMI auto	The K8 automatically selects the optimum setting for the display
	device connected to the system.
	This is the recommended setting, which should always be
	used if possible.
	You can try out one of the other settings to see if it suits your
	television, but only if the AUTO setting causes picture problems
	with your TV.
1080p	Your display device is capable of full HDTV resolution (full HD).
1080i	The display device connected to the system is a high-definition
	device (HDTV) which can only be used at 1080i resolution.
720p	The display device connected to the system is a high-definition
	device (HDTV) such as an LCD or Plasma flat screen designated
	'HD-ready'.
576p	The display device connected to the system is a standard-definition
-	device which can also process progressive signals (SDTV).
576i	The display device connected to the system is a standard-definition
	device (SDTV) for NTSC / PAL (e.g. conventional CRT television)



At any setting apart from AUTO you must also set the frame rate under "Colour system" to match the disc in use. PAL-DVD := PAL (50 Hz).

PAL-DVD .=	$FAL(50 \Pi Z),$
NTSC-DVD :=	NTSC (60 Hz)

BluRay := PAL or NTSC - according to the disc.

If you set the wrong frame rate, picture reproduction may be jerky.

At this point you can determine the aspect ratio (16:9 / 4:3) of the display device connected to your system.

The possible formats are:

- 16:9 widescreen
- 16:9 pillar-box
- 4:3 letterbox
- 4:3 pan & scan

Please select the appropriate setting from the table below:

	Aspect ratio of the display device				
	16:9		4:3		
	16:9 widescreen	16:9 pillar-box	4:3 letterbox	4:3 pan & scan	
Disc content					
Film in widescreen format (16:9)	The picture is unchanged, and is displayed filling the screen	No effect – the picture is unchanged, and is displayed filling the screen	The picture is unchanged, and displayed full-width, leaving horizontal black bars above and below the picture.	The picture is unchanged, and displayed full-height. The right and left- hand edges of the picture are not shown.	
Film in 4:3 format	The picture is stretched horizontally, and displayed filling the screen	The picture is unchanged, and is displayed centrally, leaving vertical black stripes on both sides of the picture.	No effect – the picture is unchanged, and is displayed filling the screen.	No effect – the picture is unchanged, and is displayed filling the screen.	

If you select the 16:9 setting when the display device connected to the system is a 4:3 type, you may find that no picture is displayed at all.

Film mode	This set cessing	ting allows you to define whether your display device is capable of pro- film material directly at 24 frames per second.
	Cinema many m display o the corre	films are usually recorded at a speed of 24 frames per second, and ovies are also present on Blu-ray discs in this format. However, not all devices can process this format directly. It is important that you select setting for your display device:
	On:	Your display device is connected via HDMI, and can process film material directly in the 24 fps (frames per second) format.
	Off:	Your display device cannot directly process film material in the 24 fps (frames per second) format (e.g. conversion to 25 / 30 fps or 50 / 60 fps is required).
		g an incorrect setting may result in no picture on your display device!
	The sett	ing selected here is only effective:
	↓ If the	e resolution is set to 1080p / HDMI auto,
	and	
	- if the	film material was recorded at 24 fps.
Deep Colour	This set HDMI o colour ra turn perr	ting enables you to decide whether the picture to be transferred via the utput features expanded colour range (Deep Colour). The expanded ange allows for finer graduations in the colours to be displayed, which in mits higher contrast values and better colour blends.
	Please s	select the appropriate setting to suit your display device:
	On: processi	your display device is connected via HDMI and is capable of ing Deep Colour.
	Off:	your display device cannot process Deep Colour.
CEC support	The CE basic fur	C function enables your TV set's remote control handset to operate the nctions of the K8 's disc mechanism.
	D If you we connected the since may lif you find the second secon	wish to make use of this function, please ensure that the TV set ed to the system supports the CEC function. possible to guarantee that the system works perfectly with all TV sets, anufacturers' implementations of the CEC function vary. nd that the system malfunctions due to incompatibility problems, we end that you switch this function off.
Leaving the category	When yo by press	bu have entered all the correct settings in the category, you can leave it sing the button.

Overview Language OSD Menu Audio Subtitle English BD-Live Auto Auto None Display Audio Settings Language System Network Info OSD Here you can change the language used for the on-screen menus. Please set your preferred language. Menu This setting defines the language in which the BluRay or DVD main menu is displayed. If you select the 'AUTO' setting, the default language for the particular BluRay / DVD disc is used. Please note that not all languages are present on every disc. \bigcirc Audio Setting for the film soundtrack. If you select the 'AUTO' setting, the default language for the particular BluRay / DVD disc is used. Please note that not all languages are present on every disc. (i) Some discs do not allow the language to be selected using the Setup menu of **()** the K8. In this case the language can only be changed using the main menu present on the disc itself. Sub-titles Setting for the language used for sub-titles. If you set 'OFF', no sub-titles are shown. Please note that not all languages are present on every disc. **(i)** Some discs do not allow the language to be selected using the Setup menu of (i) the K8. In this case the language can only be changed using the main menu present on the disc itself. Leaving the category When you have entered all the correct settings in the category, you can leave it by pressing the **()** button.

At this point you can select the language settings for the K8.

System category

network access, USB, Play mode, ...: Overview System Optical Disc Auroplay Screen Saver Duration Auto Power Down Reset Settings Erase Blu-ray Storage Legal Enable Display Audio Reload Default Settings Language Settings System Network Info BD-Live **Optical discs** At this point you can determine whether playback starts automatically when a medium is inserted, i.e. without the need to press the Play button. Activate: when you insert a disc, playback starts automatically without the need to press (I►) / (OK). Disable[.] when you insert a disc, playback only starts after you press (I▶)/(ок). The 'Activate' setting does not mean that the film starts immediately; the copy-(i) right warning and any previews present on the disc are not skipped! The K8 features a screen-saver designed to prevent static images causing Screen-saver damage ("screen-burn") to the display device connected to the system. The screen-saver is activated after a user-selectable time when playing music, or if the main menu of a DVD / Blu-ray disc is displayed constantly; it simply switches the screen dark. Please use this option to define the time after which the screen-saver is triggered. Possible settings are: 5 minutes 10 minutes 20 minutes 30 minutes _ off Automatic power-down Please use this option to define the time after which the K8 disc mechanism switches itself off. Possible settings are: 30 minutes 45 minutes 60 minutes off _ Erase Blu-ray storage This option is used to erase the external storage medium. **Reset settings** If you activate this function, the player is reset to the factory default settings, i.e. all the settings you have entered are lost. This function also resets the Parental control settings. **(i)** Leaving the category When you have entered all the correct settings in this category, you can leave it by pressing the <a>button.

This category contains various system settings of the K8 such as options for

BD-Live category

BD-Live Internet access

BD-Live storage (USB)

(Erase BD-Live storage)

Overview



The **K8** is capable of accessing content (trailers, previews, supplementary information ...) from the Internet. At this menu point you can define the conditions under which the player is allowed access. Possible settings are:

Always allow access:

This setting allows the BluRay disc in the **K8** to access all requested content.

Limit access:

This setting allows the BluRay disc in the **K8** to access only those Internet sites which have a valid on-line certificate.

Prohibit access:

This setting forbids the BluRay disc in the K8 to access any Internet sites

The **K8** can store Internet content requested by the BluRay disc; to use this facility an external storage medium is required in the form of a USB memory stick.

These two options are used to manage and erase the external storage medium.

Leaving the category When you have entered all the correct settings in this category, you can leave it by pressing the

Network category (wired network connection)

Please connect the UPLINK socket on the back of the machine to your network. Overview Network Interface Link Status MAC Address IP Mode IP Address Subnetz Mask Gateway Primary DNS Secondary DNS Wired Wired Acquiring IP Address 00:16:FE:01:13:16 Dynamic 192.6.2.185 255:255:255.0 192.6.2.3 192.6.2.3 0.0.0.0 Audio Language System Settings Network Info BD-Live Display Interface, connection status The first three entries in the network menu are Status messages, i.e. they are and MAC address for information purposes only, and cannot be altered. Their function is as follows: Interface: (in this case always Cable) indicates that the K8 is connected to the Internet by a wired connection. **Connection status:** indicates whether the K8 can currently access the Internet (Link up). If 'Link down' is displayed at this point, please check the connection to your network, and / or your network settings. MAC address: this is a method of identifying your machine, and is required for Internet communication. IP mode. At this point please state whether the K8 is to obtain the data required for **IP address** Internet communication (IP address, sub-net mask, Gateway, DNS) auto-Sub-net mask, matically, or whether you wish to configure these data manually. Gateway, **Dynamic: Primary DNS** the K8 obtains its IP address, sub-net mask, Gateway and DNS address Secondary DNS automatically. For this setting a DHCP-capable device must be present in your network. Manual: in this case you have to enter the IP address, sub-net mask, Gateway and DNS address manually. Selecting this setting activates the appropriate fields. Network test When you have completed the network configuration, you can check the network settings here. Please contact your network administrator if network access is not set up correctly. Info category In this menu you will find information about the current version of your machine.

To be able to display BD-Live content, the K8 must have Internet access.

Audio category

This menu cannot be accessed, as the audio settings are entered in the 'System configuration' menu of the **K8**.

	Network Configuration
General Information	The K8 can be used in a wired LAN network (Ethernet LAN or Powerline LAN), or a wireless radio network (WLAN) if an external "WLAN bridge" is installed.
	If you wish to use your K8 in your home network, you must first complete the necessary network settings on the K8 . This involves entering the network parameters such as the IP address, etc.
	Please refer to the Chapter 'Glossary / Additional Information' and 'Network Terms' for additional explanations of terminology relating to network technology.
	In the following sections we assume that a functioning home network with router and (DSL) Internet access already exists.
	If you are unclear about some aspect of installing, setting up and configuring your network, please address your queries to your network administrator or a network specialist.
Compatible hardware and UPnP servers	The market offers a vast number of routers, NAS devices and USB hard discs made by a huge variety of manufacturers. T+A devices are generally compatible with other makes of machine which bear the UPnP label. A list of units which T+A has checked for compatibility can be found on the Internet under http://www.ta-hifi.com \rightarrow Support \rightarrow Hardware/Software.
Network Configuration Menu	All network settings are carried out in the network configuration menu.

Network settings for the Streaming Client

Opening the Network Configuration Menu	First select the K8 Streaming Client function by pressing the
	Open the configuration menu with a long press on the src button. You should now see the configuration menu on the front panel screen.
Operating the Menu,	Use the \frown / \bigtriangledown buttons in the menu to select the network parameter
Changing and Storing	to be changed, and activate the entry with the $(-\kappa)$ button.
IF AUUIESSES	You can now change the setting using the following buttons, depending on the type of setting:
	Image: A state of the selection (ON / OFF)
	Numeric buttons output to for entering IP addresses
	(remote control handset only)
	Alpha-numeric input for entering text
	(remote control handset only)
	When the setting process is complete, or when you have entered the complete address, press the ok button to confirm your action.
	Alpha-numeric entry (remote control handset only)
	At certain points, e.g. for entering server names or passwords, it is necessary to input series of characters (strings). At such points you can enter letters, numbers and special characters by repeatedly pressing the numeric buttons on the F100 / FM100 remote control handset, as when writing SMS news. The assignment of letters to the buttons is printed below the buttons. Special characters can be accessed using the \bigcirc and \bigcirc buttons: \bigcirc \bigcirc \bigcirc \bigcirc 0 + - * / ^ = { } () [] < >
	Use the blue () button for toggling between numbers, capitals and lower- case letters. The bottom line of the screen shows which input mode is currently selected
	At certain points (e.g. DNS server name) it is possible to enter both an alpha- numeric string and an IP address. At these points an IP address should be entered like a string (with separating dots as special characters). In this case an automatic check for valid address ranges (0 255) is not carried out.
Closing the Menu	Once you have correctly set all the parameters, select the menu point 'Save and Restart' , then press the <u>ok</u> button. This action causes the K8 to accept the settings, and the machine restarts with the new network settings. After the restart you should see the available network media sources (Internet radio, UPnP-AV server, etc.) displayed in the main menu.
Interrupting the Menu without Storing the Settings	At any time you can leave the network configuration menu without making any changes to the network settings: this is done by pressing the button, which takes you to the menu point 'Exit without saving'. Pressing the button at this juncture interrupts and closes the menu.

The Configuration for a Wired Ethernet LAN or Power-Line LAN connection

Setting the Parameters for a Wired Network

- Connect the **K8** to an operational network or Power-Line modem using the LAN socket on the back panel.
- Switch the **K8** on, and select the Streaming Client function by pressing the Streaming Lient function by pressing the streaming client function by pressin
- Call up the Configuration menu as described above. You should now see the menu reproduced below, displaying the network parameters. In the title line the message **'LAN'** should appear, indicating that the machine is connected to a wired LAN.
- You can now select the individual menu points and adjust them to match your network conditions. The illustration below shows the possible button inputs after each menu point.

	after each menu point.	
		Possible entries
	Network Parameter (LAN) → MAC 00:0e:9b:cc:a4:35 DHCP Off Device IP 192.168.0.10 IP mask 255.255.255.0 Gateway 192.168.0.1 DNS 1 192.168.0.1 DNS 2 0.0.0.0 Proxy On Proxy IP 192.168.0.1 Proxy port 8080 Dev. Name XXXXX Save Apply Exit Apply C / ►:Switching ON / OFF (09): Numeric input, separating dots are autor limited to valid addresses (09, AZ): Alpha-numeric input and special characor IP - separating dots must be entered as	mone $(0 \dots 9)$ $(0 \dots 9)$ $(0 \dots 9)$ $(0 \dots 9, A \dots Z)$ $(0 \dots 9)$ $(0 \dots 9)$ (0
	Addresses and settings may require different values for	es. or your network.
Menu Point	Description	
MAC	The MAC address is a hardware address which machine. The address displayed is determined by the be altered.	uniquely identifies your manufacturer, and cannot
DHCP	 ON If your network includes a DHCP server, please sel point. In this mode an IP address is automatically a router. The screen shows only the MAC address and ON. In this case the address input fields shown in the in the menu. OFF If your network does not include a DHCP server, plead In this mode you must configure the following network administrator for the address 	ect the ON setting at this issigned to the K8 by the the message DHCP state illustration do not appear ase select the OFF setting. etwork settings manually. ses to be entered for your
Device IP IP mask Gateway DNS 1 DNS 2 Proxy Proxy IP Proxy port Dev. Name Save Exit	network. IP address of the K8 Network mask IP address of the router Name / IP of the name server (optional) Alternative name server (optional) ON if a proxy server (optional) ON if a proxy server is present, otherwise OFF Address of the proxy server Port number of the proxy server User-selected name under which the device appears is Stores the network parameters, and restarts the K8 w Closes the menu: data already entered is discarded.	in the network ith the new settings.

The vTuner Premium Service

The list of radio stations displayed by your **K8** is prepared by an Internet Service Provider, and transferred to your machine by data transfer. You can expand and edit the 'Favourite Groups' and 'Added Stations' list to suit your preferences via the Internet portal of your service provider, using the main menu point 'Internet Radio'. This is the procedure:

Open your Internet browser and call up the following web address: http://ta.vtuner.com

The first time you register you should enter the MAC address of your K2; the MAC address provides unique identification of your machine. The MAC address can be found in the Configuration menu (hold the <u>src</u> button pressed in), and consists of six pairs of characters, e.g.: 00:0e:9b:cc:a4:35. You do not need to enter the separating colons when you enter this data. MAC addresses are in hexadecimal format, i.e. the address consists only of the letters a to f, and the numbers 0 to 9.

Confirm your entry.

VT	uner		
V			Logout
100	S		STATUS
			STATUS
A ASSA			9754 Statio
XXX		19	9649 Podca
12 2 1		EM S	New Station
2	144		
My Favourite Gro	oups		
Trance			
My Added Statio			
	Station Name	Location	Genre Si
Edit	Stellar Attraction	Great Britain	Rock (Progressive Rock)
	Add A	nother Station ->	
Cascoli	Add A	nother Station 🤿	
Search	Add A	nother Station →	
Search	Add A	nother Station →	
Search Browse by Form	Add A	nother Station →	
Search Browse by Form <u>Browse St</u>	Add A	nother Station → Browse Stations by Location	Browse Stations b
Search Browse by Form <u>Browse St</u>	Add A	Browse Stations by Location Stations by Location Browse Pode	Browse Stations b
Search Browse by Form <u>Browse St</u> Music	Add A	nother Station Browse Stations by Location ts by Format Browse Podc	Browse Stations b asts by Location
Search Browse by Form Browse St Music Adult Contempora	Add A © Stations C Podcasts at. Location or Language ations by Format Browse Podcast ny (1328)	nother Station Browse Stations by Location to by Format Electronica (188)	Browse Stations I asts by Location Show Tunes (3)
Search Browse by Form Browse St Music Adult Contempora Alternative (196)	Add A © Stations C Podcasts at, Location or Language ations by Format Browse Podcast sty(11328)	nother Station	Browse Stations I aasts by Location Show Tunes (3) Smooth Jazz (69)
Search Browse by Form <u>Browse St</u> Music Adult Contempora Alternative (196) Ambient (32)	Add A G Stations C Podcasts at. Location or Language ations by Format Browse Podcase sty (11328)	nother Station Browse Stations by Location ts by Format Electronics (159) East.(59) East.(59	Browse Stations I asts by Location Show Tunes (1) Smooth Jaz (19) Soft Rod. (10)
Search Browse by Form Browse St Music Adult Contempora Alternative (196) Ambient (32) Big Band (7)	Add A © Stations C Podcasts at, Location or Language ations by Format Browse Podcas try(1328)	Browse Station Browse Stations by Location ts by Format Electronica (188) Fok.(69) Gospel (34) Hard Rock.(39)	Browse Stations I aasts by Location Show Tunes (3) Smothol. Jazz (69) Soft Rock (70) Soundtracks (15)
Search Browse by Form Browse St Music Adult Contempora Alternative (196) Ambient (32) Bills Band (7) Bluegrass (7)	Add A © Stations © Podcasts at, Location or Language ations by Format Browse Podcase ny (1328)	Browse Stations by Location Browse Stations by Location ts by Format Electronica (188) Fork (69) Gospel (94) Hard Rock (39) His Hos (119)	Browse Stations I asts by Location Show Tures (3) Smoth Jazz (69) Soundmacks (15) Tope 40 (101)
Search Browse by Form Browse St Music Adult Contempora Adult Contempora Alternative (196) Ambient (32) Biluegrass (7) Biluegrass (7) Bilueg (30)	Add A © Stations C Podcasts at, Location or Language ations by Format Browse Podcas: ry(11328)	Browse Station Browse Stations by Location by Format Electronica (188) Fok.(69) Gospel (94) Hard Rock.(39) Hig Hop (115) Holday.(4)	Browse Stations I aasts by Location Smow Tunes (3) Smoth Jazz (69) Soft Rock (T0) Soundmarkh (15) Top 40 (1011) Variety (776)
Search Browse by Form Browse St Music Adult Contempora Alternative (196) Ambient (32) Big Band (7) Bluegrass (7) Bluegrass (7) Blues (30) Cettic (4)	Add A © Stations © Podcasts at, Location or Language ations by Format Browse Podcas ry(1328)	Browse Stations by Location to by Format Browse Pode Electronica (18) Fork. (8) Gospel (94) Hard Rock (39) Hig Hop (119) Holday (6) Jazz (115)	Browse Stations I asts by Location Show Tunes (3) Smoth.uaz (89) Soft Rock (70) Soft Rock (70) Top 40 (1011) Variety (778) Wedd (146)
Search Browse by Form Browse St Music Adder Contempora Adder Contempora Adder (196) Ambient (32) Bia Band (7) Biuegrass (7) Biue	Add A © Stations © Podcasts at, Location or Language ations by Format Browss Podcast ny (1328) 2009ry (205)	Territoria Station Territoria Station Territoria Stations by Location Territoria (188) Fok.(69) Gospel (94) Hard Rock.(39) Hig-Hop (119) Holday.(4) Jazz.(115) Latin His (312)	Browse Stations I stats by Location Smooth Jazz (59) Southtacks (15) Top 40 (1011) Variety (776) World (146) World Sais (53)
Search Browse by Form Browse St Music Adult Contempora Atternative (196) Ambient (32) Bite Band (7) Bitegrass (7) Bitegrass (7) Bitegrass (30) Cettic (4) Christian Contemp Christian Contemp	Add A © Stations © Podcasts at, Location or Language ations by Format Browse Podcast ny (1328) commy (205) b)	Browse Station Browse Stations by Location ts by Format Electronica (18) Folk (69) Gospel (94) Hard Rock (39) Hig Hoo(115) Holday (4) Jazz (115) Lafin Hits (312) New Aac (17)	Browse Stations I asts by Location Show Tunes (3) Smoth Jusz (69) Soft Rock (70) Sandtracks (15) Toe 40 (1011) Variety (775) World (146 (3)) World Surope (314)
Search Browse by Form Browse St Music Adduit Contemporta Alternative (196) Ambient (32) Blue Band (7) Blues (30) Christian Rock (24) Zhristian Rock (24) Lassie Rock (175)	Add A © Stations © Podcasts at. Location or Language ations by Format Browse Podcast ory (1328) pomary (205) 0		Browse Stations I stats by Location Show Tunes (3) Smoth.Jazz (89) South Rock (70) Southtracks (15) Tos-40 (101) Variet (776) World Twissian (5) World Seurges (314) World Seurges (314)
Search Browse by Form Browse St Music Adult Contempora Adultantike (196) Anthenin (12) Bing Band (17) Bing Band (17) Bing Band (17) Celfis (1 Contempora Christian Contempor Christian Bock (195 Classic Rock (195	Add A © Stations © Podcasts at. Location or Language ations by Format Browse Podcas try(1328) pomary (205) p	Browse Station Browse Stations by Location Is by Format Electronica (188) Fak.(60) Goscel (94) Hard Rock.(39) Hip Hose (119) Hard(119)	Browse Stations I asts by Location Show Tunes (3) Smoth.Jaz, (89) Soft Rock (70) Soundtracks (15) To 4.01.0111 Variety (776) World (140) World Sina (53) World Hawaian (5) World Hawaian (5)
Search Browse by Form Erowse St Music Adult Contempora Manative (156) Ambient (32) Biog Band (7) Biograss (7) Biograss (7) Biograss (7) Christian Occherge (7) Christian Contempora Christian	Add A Control of Language att. Location of Language attors by Format Browse Podcase ny (1328) 200007 (205) 2	The second seco	Browse Stations I assts by Location Show Tunes (3) Smooth.Jazz (69) SouthTeak (15) Tose 40 (101) Variet (146) World (146) World Asia (53) World Harvaian (5) World Harvaian (5) World Made East (54)
Search Browse by Form Browse St Music Addit Contempora Addit Contempora Addit Contempora Addit Contempora Contempora Diritian Rock (145 Diritian Rock (145 Diritian Rock (165 Diritian R	Add A G Stations C Podcasts at. Location or Language ations by Format Browse Podcase (y(11328))	Browse Stations by Location Browse Stations by Location ts by Format Browse Pode Electronica (188) Folk.(69) Gospel (94) Hard Rock.(39) Ho Hoor (119) Halt Pice (119) Latin His (312) New Aar (17) Odies (420) Public (421) R&B (173) Respace (28)	Browse Stations I asts by Locations Show Tunes (3) Smoth.azz (89) Soft Rock (70) Soft Rock (70) To 4 0 (1011) Yaridy (775) Yaridy (145) Yarida (145)
Search Browse by Form Browse St Music Adult Contempora Adult Contempora Adult Contempora Manalite (198 Band (2) Dinistan Contemp Catitic (4) Catitic (4) Catitic (409) Bance (409) Catitic (409) Bance (409) Catitic (400) Catitic	Add A	Browse Station Browse Stations by Location Is by Format Electronica (188) Folk.(69) Gospel (94) Hard Rock.(39) Hig Hoo(119) Holday.(4) Jazz.(115) Lafin His (312) New Aac.(17) Odios.(420) Public.(621) R&B.(173) Reguae.(28) Book.(458)	Browse Stations b sats by Location Show Tunes (3) Smooth Jazz (69) Soft Rock (70) Soundtracks (15) Top 40 (1011) Variety (776) World Java (15) World Java (15) World Java (15) World Java (15) World Middle East (54) World Middle East (54) World Middle East (54) World Middle East (54)
Search Browse by Form Browse St Music Aduit Contempora Addatit Contempora Malemative (198) Balenatas (1) Balenatas (1) Balenatas (1) Celtic (4) Christian Rock (195 Catasical (191) Collesic (409) Control (201) Collesic (409) Control (201) Control (409) Dance (403) Taik	Add A Cashing C Podcasts at, Location or Language ations by Format Browse Podcast ry(1328) comary (205) b	Browse Station Browse Stations by Location ts by Format Electronica (188) Electronica (188) Electronica (189) Hard Rock (199) Holday (1) Jazz (115) Holday (1) Jazz (115) Holday (1) Rescae (17) Odies (420) Book (489)	Browse Stations I: asts by Location Smooth.uaz.(59) Soft Rock.(70) Soft Rock.(70) Jariety.(776) World Linds (3) World Hawaian (5) World Hawaian (5) World Hawaian (5) World Middle East (54) World Middle East (55)
Search Browse by Form Browse St Music Adult Contempora Minerative (196) Manulate (196) Christian Rock (195 Classical (191) Collegia (400) Cantry (192) Dance (493) Taik Business Nevs (12	Add A Stations C Podcasts at Location or Language ations by Format Browse Podcast ny (1328) Domary (205) D	Browse Station Source Station Browse Stations by Location by Format Browse Podce Electronica (189) Folk (69) Googel (04) Hard Rock (39) Rock (49) Rock (49) Rock (49) Rock (49) Rock (49)	Browse Stations b asts by Location Smooth Jazz (69) Soft Rock (70) Soundtracks (15) Top 40 (101) Variety (776) World Asia (53) World Asia (53) World Hawaiian (5) World Hawaiian (5) World Hawaiian (5) World Hawaiian (5) World Hawaiian (5) World Made East (54) World Mative American (1) World Mative American (1)
Search Browse by Form Browse St Music Adult Contempora Memative (196) Member (132) Bitegrass (1) Bit	Add A	Browse Station Browse Stations by Location Browse Stations by Location Browse Stations by Location Browse Pode Electronica (189) Folds (18) Hard Rock (39) Hip Hose (119) Holdsy (4) Jazz (115) Lafin His (312) New Aac (17) Oddas (420) Public (621) R&B (173) Rescae (28) Rock (458) News Tak (334) News Lipdates (55)	Browse Stations b sats by Location Show Tunes (3) Soft Rock (70) Soundtracks (15) Top 40 (1011) Variety (776) World Late (3) World Late (3) World Havpa (34) World Middle East (54) World M
Search Browse by Form Browse St Music Adult Contempora Manative (196) Manative (1	Add A Construction of Language ations by Format Browse Podcase rry (1328) D D D D D D D	Browse Station Browse Station Browse Stations by Location bs by Format Browse Podc	Browse Stations I: asts by Location Smooth.Jazz. (89) Sand Rod. (70) Sand Rod. (70) Sand Rod. (70) Sand Rod. (70) Varid (140) World Livaolian (5) World Hawaian (5) World Hawaian (5) World Hawaian (5) World Marke East (54) World Marke East (54) World Native American (1) World Native American (1) World Native American (1) World Native American (1) World Native American (1) Scanner (99) Scotta (204)

You must register with vTuner in order to be able to use the service; you can register via your e-Mail address and a password. Please follow the instructions stated by the service provider.

Now you can select radio stations from the comprehensive inventory provided by vTuner, and store them in lists. The lists are transferred to your K2 automatically via your Internet connection. Shortly after you have edited lists on the vTuner page, or stored new stations, you will find that they are available on your **K8**.



Notes regarding Internet Radio:

- Not all stations are always accessible
 - Not all stations transmit 24 hours
- Stations are no longer accessible
- Capacity exhausted
- Transmission breaks off
 - (Internet) network problems
- Server capacity exhausted

On the vTuner Internet site you can also set up new stations which are not (yet) included in the Select lists. This is accomplished by registering with vTuner and logging on. Click on the point 'My Added Stations'. An input mask appears in which you can enter the data for your station. After a brief period you will be able to access the newly set-up station via the menu system of your **K8**. You will find the station under Internet Radio / Added Stations.

Finding a Station URL

You require the URL (Internet address) of any radio station you wish to set up on the vTuner service. You will generally find the URL on the station's website. Another method of finding the URL is to search for it using an Internet searching service such as Shoutcast (www.shoutcast.com). Once you have found your station, click on the 'Tune In' switch: this will normally open your media player, and the station should play. In most cases you can set Media Player to display the 'Streaming Properties'. For example, using the popular Winamp Player, simply right-click on the entry for the currently playing station in the player's Playlist window. A menu now opens, and clicking on the point 'View File Info' opens an information box which displays the streaming properties including the URL.

Connections



1 Audio IN

LINE OUT Analogue audio output (line output), e.g. for analogue recording equipment (TAPE recorder) IN1 Analogue stereo audio input. Select the Audio 1 source in order to hear the source device connected here. IN2 Analogue stereo audio input. Select the Audio 2 source in order to hear the source device connected here. IN3 Analogue stereo audio input. Select the Audio 3/TV source in order to hear the source device connected here. Connecting a TV set for sound reproduction through the K8 **(i)** If you wish to have the audio signals from your TV reproduced via the K8, connect the stereo sound output of your TV set to the IN3 input. If your TV set features a digital stereo or surround sound output, connect this to a digital input (DIG_IN1...DIG_IN3) instead of the analogue input IN3. In this

a digital input (DIG_IN1...DIG_IN3) instead of the analogue input IN3. In this case you need to assign the appropriate digital input to the source device TV in the menu 'System Configuration'.

(2) USB IN (AUDIO USB)		USB sockets for playing AUDIO files stored on USB memory sticks.
USB-A1 USB-A2		Socket for a USB memory stick or an external hard disc Audio files from a storage medium connected to this socket are played back using the Streaming Client (SCL). Select the Streaming Client as source to play the files. The USB stick appears in the main menu of the Streaming Client, where it can be selected for playback.
	(The memory stick must be formatted using the FAT16 or FAT32 file system. It is not possible to play video files via the USB-A1 input. Please use the USB socket on the front panel for reproducing video files, and play the files via the USB playback function of the Blu-ray disc player.
	(i)	The USB memory stick can be powered through the USB socket, provided that the device's current drain meets the USB norm (<500 mA). USB hard discs with a higher current drain require their own mains PSU if they are to be connected to this socket. The power supply at this socket is switched off in stand-by mode. Memory sticks and hard discs powered from this socket can therefore be left connected even in stand-by mode.

3 Digital inputs and outputs IN

DIG IN 1 / DIG IN 2 / DIG IN 3	Inputs for digital source devices with optical or co-axial digital output (SP/DIF). Sample rates supported: 44.1 and 48 kHz, 96 kHz, 192 kHz, 16-bit and 24-bit. To use these inputs, assign the appropriate input to a source device (AUX13,
	AV_IN 14) in the menu 'System-Configuration / Audio-Inputs'.
DIG OUT	Digital SP/DIF co-axial output for connecting an external digital / analogue converter or digital recorder.
	The output delivers two-channel PCM stereo signals.

(4) AV IN

AV IN 1

(CVBS socket, DC-coupled)

AV IN 2 (AC-coupled)

(CVBS socket, AC-coupled)

(Composite, S-Video)

Sockets for connecting analogue AV devices with composite (FBAS) or S-Video outputs



- CVBS = Composite video input
- L/R = Analogue stereo input

The CVBS input socket of the **AV IN 1** input is DC-coupled. This gives the best possible reproduction quality.

Any device connected here must supply a CVBS video signal with D.C. component (0.5 \dots 2 V), otherwise it will not be possible to process the video signal.

If the video signal has no D.C. offset, the TV monitor displays no picture. Please use the AC-coupled CVBS input **AV IN 2** for such signals.

Only one of the S-Video and CVBS sockets may be used. You must set up the socket you have selected in the 'System Configuration / Video-Inputs' menu.

If the AV device connected to the system features a digital audio output, one of the digital inputs of the K8 (DIG_IN 1...3) can be used instead of the analogue (L/R) audio inputs. Assign the digital input to the appropriate AV input in the 'System-Configuration / Audio-Inputs' menu.



For connecting analogue AV devices with YUV component output



The HDMI IN 3 socket is equipped with the **HEC** (HDMI Ethernet Channel) function, i.e. a device connected to this socket can be connected to the network (Internet) via the K8. This also requires the source device to support the HEC function. The K8 must be connected to your network via the UPLINK socket.

AV IN 3 AV IN 4



5 TV OUT

HDMI OUT

HDMI output for Plasma / LCD TV panel or beamer The video signals from the internal BD player, or the HDMI and analogue AV sources connected to the system, can be played back via this output. If necessary, enter the appropriate settings in the Video Setup menu.

If the TV set connected to the system features the **ARC** (Audio Return Channel) function, audio signals from the TV set can be passed to the K8 via the HDMI lead. This function makes very good sense if the TV set features an integral TV receiver. Surround programmes (Dolby Surround, Dolby Digital+ etc.) can then be passed to the K8 for decoding without requiring additional cables.

If the TV set connected to the system features the **HEC** (HDMI Ethernet Channel) function, the TV set can be connected to the Internet via the **K8** and the HDMI lead. This requires the K8 to be connected to an Internet router (see UPLINK socket).

6 Loudspeaker outputs and sub-woofer



	Pre-amplifier outputs
ZONE 4	Pre-amplifier output for providing sound in an additional listening zone using ac- tive loudspeakers or an audio radio module.
SURROUND (ZONE3)	Pre-amplifier output for connecting active loudspeakers or an audio radio module for the SURROUND channels.
	If the SURROUND channels are not used for a 5.1 or 7.1 channel surround system in the main room, active speakers or an audio radio module can be connected here to provide sound in an additional listening zone.
BACK (ZONE2)	Pre-amplifier output for connecting active loudspeakers or an audio radio module for the BACK channels.
	If the BACK channels are not used for a 7.1 channel surround system in the main room, active speakers or an audio radio module can be connected here to provide sound in an additional listening zone.
RC	The RC sockets in each connector field can be used to connect an E2000 ex- ternal infra-red remote control receiver. The K8 can be controlled remotely from the associated listening zone using receivers connected here.
PWR	The PWR sockets function as the power supply for a T+A audio radio module.
	 The PWR sockets deliver +5 V / 500 mA. Please use these sockets only for the recommended genuine T+A supplementary devices. If you wish to connect other makes of equipment, you must ensure that they conform to the connection data attach above.
8 System control ELINK	Control output socket for the T+A E LINK system.
RS 232	Software update interface, also used to control external devices.
	The K8 can be used to control particular METZ and LOEWE TV sets with specific features, using the appropriate T+A control lead which is available as an optional accessory. For more information please contact your specialist T+A dealer.
	This interface can also be employed for computer-controlled operation of device functions, making it possible to control the K8 remotely using home automation systems such as those made by CRESTRON, AMX, etc.
	The K8 must have special software installed if you wish to control it externally. For detailed information on the RS 232 interface, the protocol required and command lists please refer to the Technology and Download areas of the T+A website http://www.ta-hifi.com.
E2000 MAIN	Input socket for the T+A E 2000 remote control receiver.
	This socket can be used if the K8 is to be set up in a concealed location (e.g. in a cabinet, behind glass doors, etc.), and the remote control receiver installed in the front panel does not respond to the infra-red signals generated by the remote control handset.

(9) Remote aerial	Radio aerial socket
	Socket for retro-fitting the K8 with a radio gateway module for the T+A FD100 graphic radio remote control system (under development).
1 FM aerial	 75 Ω VHF / FM aerial input This socket is suitable for the standard domestic aerial and also for a cable connection. If you wish to obtain first-class reception quality, a competently installed high-performance aerial system is a fundamental requirement.
1 Network	
LAN	Sockets for a wired network (LAN) LAN output sockets for other devices (TV, games console, etc.) The K8 can provide an Internet network connection to other devices via these sockets, provided that it is itself connected to your network router using its UPLINK socket.
UPLINK (LAN input)	Socket for a network connection to your network router or Internet access point.
Ũ	Connect this socket to your network router if you wish to be able to exploit Internet radio and audio streaming from a UPnP server, or the BD-Live func- tions of the K8's integral Blu-ray player.
Û	If there is no wired LAN network available at the system's location, we recommend using a Power-Line modem rated at a minimum of 85 Mbps, which transmits the data over the mains cables. An alternative is to employ what is known as a WLAN bridge, which converts WLAN signals into LAN signals.
12 Mains input	The mains cable is plugged into this socket.
	Please read the notes in the Chapters entitled 'Using the machine for the first time, Wiring' and 'Safety Notes' to be sure of connecting the unit to the mains in the required manner.

Listening zones, sound in adjacent rooms

In addition to the primary speakers in the main room, the **K8** can provide a signal to loudspeakers in other listening zones or adjacent rooms. The number of additional listening zones varies according to the speaker configuration in the main room:

Main room with 7.1 channel surround configuration

Sound can be provided in one additional zone. This zone is connected to the pre-amplifier outputs marked "ZONE 4". The actual sound can be provided by any of the following: active speakers, radio transmission modules or passive speakers with an additional (external) power amplifier.

Main room with 5.1 channel surround configuration

In this case the rear channels are available in addition to zone 4, as they are not used for a 5.1 surround system. Sound can be provided in a further listening zone (Zone2) using these channels. The following wiring variants are available:

- BACK loudspeaker outputs / Zone 2 for passive loudspeakers
- ZONE 2 pre-amplifier outputs for active speakers or radio transmission modules

Main room with stereo (2.1 / 2.0) or 3-channel (3.1 / 3.0) loudspeaker configuration

In this case the surround channels are available in addition to zones 2 and 4, as they are not used for a stereo or three-channel configuration. Sound can be provided in a third additional listening zone (Zone3) using these channels. The following wiring variants are available:

- SURROUND loudspeaker outputs / Zone 3 for passive loudspeakers
- ZONE 3 pre-amplifier outputs for active speakers or radio transmission modules

Volume control for additional listening zones and adjacent rooms

In the **'System Configuration / Loudspeakerconfiguration / Loudspeaker'** menu you can determine individually for each of the listening zones 2, 3 and 4 whether the volume is to be variable independently (SEPARATE), whether it is to alter in parallel with the main room volume (LINKED), or whether a fixed level is to be set at the listening zone output (FIXED).

Zone volume coupled to main room (LINKED)

The volume in the listening zone varies in parallel with that of the main room loudspeakers. This mode of operation is suitable, for example, where sound is to be provided in a second listening zone within the same room (e.g. dining area). If you wish the volume to be slightly damped in one of the areas, you can set a difference in level between the main speakers and the listening zone in the menu 'System Configuration / Loudspeakerconfiguration / Loudspeaker'.

Zone volume separately variable (SEPARATE)

The volume in the listening zone is adjusted independently of the main room loudspeakers. In this case the E2000 external remote control receiver (included in the accessory pack) must be connected to the RC input of the listening zone concerned, and installed in the adjacent room. If you now alter the volume in the adjacent room by remote control, then the change only affects the volume of the listening zone concerned, i.e. the volume in the main room remains unchanged. The listening zone output can only be switched on and off using the remote control handset in the adjacent room.

Non-variable zone volume, fixed level (FIXED)

This mode of operation is suitable when using loudspeakers or radio modules which feature their own volume control system. In this mode the volume level cannot be adjusted using the T+A remote control system. To vary the volume in the zone, use the volume control of the loudspeakers connected to the system, or the radio module.

Note: even in fixed level mode the remaining functions of the K8 (station change, track skip, etc.) can still be operated using an E2000 remote control receiver connected to the RC input for the zone.

General

Bi-Amping

Special operation modes

For special applications which are not covered by the range of configurations listed in the chapter entitled **'Listening zones, sound in adjacent rooms'**, two optional special modes of operation are available: Bi-Amping for the main loudspeakers, and the option of using the Zone 4 output as Pre-Out for the front channels. Since these special modes are configured by means of jumpers inside the K8, the machine's case must be opened. This work must be carried out by a qualified technician exclusively; please contact your specialist **T+A** dealer for details.

This special modes of operation are available since K8 serial number

The **K8** is equipped with seven identical power amplifiers. If used in a 5.1 setup the power amps of the BACK channels can be used for Bi-Amping in conjunction with the main FRONT_L and FRONT_R amps instead of using them for a second zone.





(i)

2111 3230 00152.

*only for speakers having bi-amping terminals with electrical isolation between Bass and Mid/Treble sections (do not connect the amplifier outputs in parallel !)

you have to activate the BACK speakers in the speaker-menu. (These speaker outputs now function as Bi-Amping front outputs)

Settings

Zone 4 as Pre-Output

(Operation with active speakers or external amplifiers for the front channels)

(i)

Instead using the internal power-amps, active speakers or external amplifiers can be used for the FRONT_L and FRONT_R channels. For this purpose the ZONE_4 Pre-Output can be re-configured as Pre-Amp out for the main channels.



Please be aware that in this configuration ZONE 4 cannot be used for an additional room.

If a head phone is connected, the ZONE 4 (now Pre Out) sockets won't be muted!

FD 100 Radio Remote Control

The K8 can be controlled remotely using the FD 100 bi-directional radio remote control handset if a Gateway module is installed; this is available as an optional extra. The FD 100 features an integral full-colour screen which provides a convenient means of controlling virtually all the K8's functions, even when there is no direct line-of-sight contact with it. The handset can also display information relating to the selected source or the medium currently playing.

Since the FD 100 operates by a radio link, an aerial must be connected to the K8. This is plugged into the socket on the K8 marked 'Remote ANT'. The aerial should be free-standing in order to obtain maximum effective range.





Pairing the FD 100

Before the **K8** can be controlled using the FD 100, the remote control handset must first be registered to the **K8**. This process is known as pairing, and only has to be carried out once. The procedure is as follows:

- Press the sys button on the K8 to call up the Configuration menu, then select the 'FD 100 pairing' menu point using the v button.
- To confirm the pairing process of the FD 100, press the ок button until the menu entry changes to 'waiting for FD 100'. (the function remains active for thirty seconds).
- Locate the <u>svs</u> button on the FD 100 and hold it pressed in to open the FD 100's System Settings menu.
- Now select the 'Start pairing' point, and press the <u>ok</u> button: the remote control handset automatically seeks the **K8**.
- Once the device is found, you will see in the display header the onscreen message 'Pairing successful'. At the same time changes the menu entry of the **K8** to 'Done'. If you wish, you can change the name of the device at this point (eg. 'Living room').
- Confirm the name with the OK button.
- For faster access the **K8** can also be assigned to a Hotkey; this is the next step (see **FD 100** operating instructions).
- Select one or optionally none of the 'F' buttons, and confirm your choice by pressing the ok button.

The FD 100 is now paired with the K8, and is ready for use.

For detailed information on using the FD 100 please refer to the operating instructions supplied with the remote control handset.

Connecting the radio aerial

Selecting the listening zone in zone – operation

If the FD 100 is used to control the system, you can use the $\boxed{F3}$ button on the handset to switch between the listening zones.

The selected zone, the set volume of the active zone and the status of the loudspeaker output are displayed in the status line of the screen.

- ① Selecting listening zones
- ② Current volume for the selected listening zone
- ③ Display of the selected listening zone
- ④ The loudspeaker symbol indicates that the loudspeaker output is switched on.



The **K8** can be controlled by the **T+A** App 'TA Control' too. For further information please visit our homepage www.ta-hifi.com/app

Installation and wiring

Carefully unpack the unit and store the original packing material carefully. The carton and packing are specially designed for this unit and will be needed again if you wish to move the equipment at any time.

If you have to transport the device, it must always be carried or sent in its original packaging in order to prevent damage and defects.

If the unit gets very cold (e. g. when being transported), condensation may form inside it. Please do not switch it on until it has had plenty of time to warm up to room temperature, so that any condensation evaporates completely.

If the device has been in storage, or has not been used for a protracted period (> two years), it is essential to have it checked by a specialist technician before re-use.

Before placing the unit on sensitive laquer or wood surfaces please check the compatibility of the surface and the unit's feet on a non visible point and if necessary use an underlay. We recommend a surface of stone, glass, metal or the like.

The unit should be placed on a rigid, level base (See also chapter "**Safety notes**"). When placing the unit on resonance absorbers or anti-resonant components make sure that the stability of the unit is not reduced.

The unit should be set up in a well ventilated dry site, out of direct sunlight and away from radiators.

The unit must not be located close to heat-producing objects or devices, or anything which is heat-sensitive or highly flammable.

Mains and loudspeaker cables, and also remote control leads must be kept as far away as possible from signal leads and antenna cables. Never run them over or under the unit.

Notes on connections:

A complete connection diagram is shown in 'Appendix A'.

- Be sure to push all plugs firmly into their sockets. Loose connections can cause hum and other unwanted noises.
- When you connect the output sockets of the source device to the input sockets of the **K8** always connect like to like, i. e. **'R'** to **'R'** and **'L'** to **'L'**. If you fail to heed this then the stereo channels will be reversed.
- The device is intended to be connected to mains outlet with protective earth connector. Please connect it only with the mains cable supplied to a properly installed mains outlet with protective earth connector.
- To achieve maximum possible interference rejection the mains plug should be connected to the mains socket in such a way that phase is connected to the mains socket contact marked with a dot (●). The phase of the mains socket can be determined using a special meter. If you are not sure about this, please ask your specialist dealer.

We recommend the use of the **T+A 'POWER THREE'** ready-to-use mains lead in conjunction with the **'POWER BAR'** mains distribution panel, which is fitted with a phase indicator as standard.

When you have completed the wiring of the system please set the volume control to a very low level before switching the system on.

The screen on the ${\bf K8}$ should now light up, and the unit should respond to the controls.

If you encounter problems when setting up and using the amplifier for the first time please remember that the cause is often simple, and equally simple to eliminate. Please refer to the section of these instructions entitled **'Trouble shooting'**.

Loudspeaker cables and signal cables (inter-connects) have a significant Loudspeaker and signal influence on the overall reproduction quality of your sound system, and their cables importance should not be under-estimated. For this reason T+A recommends the use of high-quality cables and connectors. Our accessory range includes a series of excellent cables and connectors whose properties are carefully matched to our speakers and electronic units, and which harmonise outstandingly well with them. For difficult and cramped situations the **T+A** range also includes special-length cables and special-purpose connectors (e.g. right-angled versions) which can be used to solve almost any problem concerning connections and system location. Mains cables and mains The mains power supply provides the energy which your sound system filters equipment needs, but it also tends to carry interference from remote devices such as radio and computer systems. Our accessory range includes the specially shielded 'POWER THREE' mains cable and the 'POWER BAR' mains filter distribution board which prevent electro-magnetic interference from entering your Hi-Fi system. The reproduction quality of our systems can often be further improved by using these items. If you have any questions regarding cabling please refer to your specialist T+A dealer who will gladly give you comprehensive expert advice without obligation. We would also be happy to send you our comprehensive information pack on this subject. Changing the batteries Locate the point indicated by the arrow in the left picture, and open the battery compartment by pressing it in and simultaneously sliding back the battery cover. Insert three batteries of the LR 03 (MICRO) type in the battery compartment, as shown in the engraved diagram. Please note: it is essential to replace all three batteries at the same time. Caution! Batteries shout not be exposed to excessive heat like sunshine, fire or the like. Disposing of exhausted batteries: Exhausted batteries must never be thrown into the household waste! They should be returned to the battery vendor (specialist dealer) or your local toxic waste collection point, so that they can be recycled or disposed in a proper way. Most local authorities provide collection centres for such waste, and some provide pick-up vehicles for old batteries. Care of the unit Disconnect the mains plug at the wall socket before cleaning the case. The surfaces of the case should be wiped clean with a soft, dry cloth only. Never use solvent-based or abrasive cleaners! Before switching the unit on again, check that there are no short-circuits at the connections, and that all cables are plugged in correctly. Storing the unit If the device has to be stored, place it in its original packaging and store it in a dry, frost-free location. Storage temperature range 0...40 °C

Safety notes

	For your own safety please consider it essential to read these operating instructions right through, and observe in particular the notes regarding setting up, operation and safety.
Installation	 Please consider the weight of the device. Never place the device on an unstable surface; the machine could fall off, causing serious or even fatal injury. Many injuries, especially to children, can be avoided if the following simple safety precautions are observed: Use only such items of furniture which can safely bear the weight of the device. Ensure that the device does not project beyond the edges of the supporting furniture. Do not place the device on tall furniture (e.g. bookshelves) without securely anchoring both items, i.e. furniture and device. Explain to children the hazards involved in climbing on furniture to reach the device or its controls.
	When installing the unit on a shelf or in a cupboard it is essential to provide an adequate flow of cooling air, to ensure that the heat produced by the unit is dissipated effectively. Any heat build-up will shorten the life of the unit and could be a source of danger. Be sure to leave free space of 10 cm around the unit for ventilation.
	unit. Do not place any object on the top cover. The unit must be set up in such a way that none of the connections can be touched directly (especially by children). Be sure to observe the notes and information in the section 'Installation and Wiring' .
Connection	The terminals (marked with the A-symbol) can carry high voltages. Always avoid touching terminals and sockets and the conductors of cables connected to them. Unless ready-made cables are used, all cables connected to these terminals and sockets must always be deployed by a trained person.
Power supply	The device is intended to be connected to mains outlet with protective earth connector. Please connect it only with the mains cable supplied to a properly installed mains outlet with protective earth connector. The power supply required for this unit is printed on the mains supply socket. The unit must never be connected to a power supply which does not meet these specifications. If the unit is not to be used for a long period disconnect it from the mains supply at the wall socket.
Mains leads / Mains plug	Mains leads must be deployed in such a way that there is no danger of damage to them (e. g. through persons treading on them or from furniture). Take particular care with plugs, distribution panels and connections at the device. Unplugging the mains plug will disconnect the device from the mains for service and repair. Please make sure that the mains plug is easily accessible.
Enclosure openings	Liquid or particles must never be allowed to get inside the unit through the ventilation slots. Mains voltage is present inside the unit, and any electric shock could cause serious injury or death. Never exert undue force on mains connectors. Protect the unit from drips and splashes of water; never place flower vases or fluid containers on the unit. Do not place naked flame sources, such as candle lights on the device.
Supervision of device operation	Like any other electrical appliance this device should never be used without proper supervision. Take care to keep the unit out of the reach of small children.
Service, Damage	The case should only be opened by a qualified specialist technician. Repairs and fuse replacements should be entrusted to an authorised T+A specialist workshop. With the exception of the connections and measures described in these instructions, no work of any kind may be carried out on the device by unqualified persons.
	If the unit is damaged, or if you suspect that it is not functioning correctly, immediately disconnect the mains plug at the wall socket, and ask an authorised T+A specialist workshop to check it.

Over voltage	The unit may be damaged by excess voltage in the power supply, the mains circuit or in aerial systems, as may occur during thunderstorms (lightning strikes) or due to static discharges. Special power supply units and excess voltage protectors such as the T+A 'Power Bar' mains distribution panel offer some degree of protection from damage to equipment due to the hazards described above. However, if you require absolute security from damage due to excess voltage, the only solution is to disconnect the unit from the mains power supply and any aerial systems. To avoid the risk of damage by overvoltages we recommend to disconnect all cables from this device and your HiFi system during thunderstorms. All mains power supply and aerial systems to which the unit is connected must meet all applicable safety regulations and must be installed by an approved electrical installer.
Approved usage	The device is designed to operate in a temperate climate and altitudes up to 2000 m above sea level. The range of permissible operating temperatures is $+10 \dots +35^{\circ}$ C. This device is designed exclusively for reproducing sound and/or pictures in the domestic environment. It is to be used in a dry indoor room which meets all the recommendations stated in these instructions. Where the equipment is to be used for other purposes, especially in the medical field or any field in which safety is an issue, it is essential to establish the unit's suitability for this purpose with the manufacturer, and to obtain prior written approval for this usage.
Approval and conformity with EC directives	In its original condition the unit meets all currently valid European regulations. It is approved for use as stipulated within the EC. By attaching the CE symbol to the unit T+A declares its conformity the EC directives and the national laws based on those directives. The declaration of conformity can be downloaded from www.ta-hifi.com/DoC . The original, unaltered factory serial number must be present on the outside of the unit and must be clearly legible! The serial number is a constituent part of our conformity declaration and therefore of the approval for operation of the device. The serial numbers on the unit and in the original T+A documentation supplied with it (in particular the inspection and guarantee certificates), must not be removed or modified, and must correspond. Infringing any of these conditions invalidates T+A conformity and approval, and the unit may not be operated within the EC. Improper use of the equipment makes the user liable to penalty under current EC and national laws. Any modifications or repairs to the unit, or any other intervention by a workshop or other third party not authorised by T+A , invalidates the approval and operational permit for the equipment. Only genuine T+A accessories may be connected to the unit, or such auxiliary devices which are themselves approved and fulfil all currently valid legal requirements. When used in conjunction with auxiliary devices or as part of a system this unit may only be used for the purposes stated in the section 'Approved usage' .
Disposing of this product	The only permissible method of disposing of this product is to take it to your local collection centre for electrical waste.
FCC Information to the user	Class B digital device – instructions:
FOR HOME OR OFFICE USE (for use in the United States of America only)	Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio on, the user is encouraged to try to correct the interference by one or more of the following measures:
	 Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different form that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

Trouble shooting

Many problems have a simple cause and a correspondingly simple solution. The following section describes a few difficulties you may encounter, and the measures you need to take to cure them. If you find it impossible to solve a problem with the help of these notes please disconnect the unit from the mains and ask your authorised **T+A** specialist dealer for advice.

General:

Machine does not switch on (the screen remains dark).	Cause 1: Mains lead not plugged in correctly.		
· · · · · · · · · · · · · · · · · · ·	Remedy:		
	Check connection, push connector in firmly.		
	Cause 2: Mains fuse burned out.		
	Remedy: Have the mains fuse replaced by an authorised specialist workshop. The rating of the replacement fuse must agree with the specification printed on the unit.		
Machine responds correctly to manual operation of the	Cause 1: Incorrectly inserted batteries or flat batteries in the remote control handset.		
buttons, but can not be controlled by IR remote	Remedy: Re-install batteries correctly or fit new ones.		
control.	Cause 2: The remote control transmitter has no direct line-of-sight with the unit.		
	Remedy: Make sure that the remote control transmitter has direct line-of-sight contact with the receiver - note that glass doors can interrupt the connection.		
	Maximum range between transmitter and receiver: approx. 8 metres.		
	Be sure to position the receiver where it is not subjected to direct sunlight or very bright artificial light. Fluorescent tubes and energy-saving lamps are powerful sources of interference.		
Diss drower doos not open			
Disc drawer does not open.	Cause: Mechanical blockage, jammed disc, faulty disc mechanism.		
	Remedy: Open the disc drawer manually.		
	First switch the machine off (disconnect the mains plug). You will find an opening in the bottom through which you can disengage the disc drawer by pushing the white disengagement slider fully to the left using a suitable screw- driver. This will cause the drawer to open by a few millimetres, and you can then extend it fully by hand.		

Very weak bass response	Cause 1: The loudspeakers are connected out of phase.
	Remedy: Check that the positive terminal of each loudspeaker is connected to the appropriate positive loudspeaker terminal on the K8 .
	There are also Test-CDs which provide a simple means of determining correct loudspeaker phase. Please ask your local specialist dealer about this.
	Cause 2: You have set a cross-over frequency for the loudspeakers (and perhaps also for the Centre speaker) in the System configuration menu / Loudspeaker configuration / Loudspeaker, even though no sub-woofer is present in the system.
	Remedy: Either connect a sub-woofer to the system, or select the "Full-range" setting in the Loudspeaker configuration menu for the L / R front loudspeakers (and also for the Centre, if present). If you are using small loudspeakers, select the "Large" setting.
	Cause 3: Unfavourable loudspeaker position, or loudspeakers too small for the size of room.
	Remedy: Use loudspeakers of adequate size, matched to the size of the listening room. You may wish to try different locations in order to obtain a more favourable dis- persion pattern.

Picture:

No picture from the DVD player.	Cause 1: Video lead not connected, or defective. Remedy: Connect the video lead properly; have the lead checked by an expert.				
	Cause 2: Video monitor not set to the correct picture input, or an incorrect video nor selected for the input.				
	Remedy: Select the picture input (AV input) on the video monitor to which your K2 is connected.				
	If you are using a SCART input, please check whether the video norm (FBAS, S-Video, RGB, YUV) is set to match the output of the K8 which is in use.				
No picture at AV input AV IN 1	Cause: The CVBS input socket of the AV IN 1 input is DC-coupled. Any device connected here must supply a CVBS video signal with D.C. component (0.52 V), otherwise it will not be possible to process the video signal. If the CVBS video signal has no D.C. offset, the TV monitor displays no picture. Remedy: Please use the AC-coupled CVBS input AV IN 2 for CVBS signals without D.C.				
	offset.				
Jerky picture with BluRay or DVD reproduction	Cause: The set frame rate does not match the disc being played. Remedy: Wherever possible, select the "AUTO" setting In the Display Resolution point the BluRay setup menu. The K8's BluRay player will then automatically set its up correctly to suit the capabilities of your monitor and the requirements of th disc.				
	If you select a setting other than AUTO, then you must also enter the correct setting under "Colour system" to suit the disc you wish to play. Select for PAL-DVD := PAL (50 Hz), NTSC-DVD := NTSC (60 Hz) BluRay:= PAL or NTSC - according to the disc. If no information is stated on the BluRay disc, you can only establish the correct frame rate by practical testing.				
	When you change the disc, you may need to adjust the frame rate again to suit the requirements of the new disc.				

Streaming Client

The streaming client can not connect to a network.	Cause 1 (cable LAN): Network cable not properly connected				
On the display the indication	Remedy: Connect network cable, check connection to router				
'SCL Connecting' is displayed.	Cause 2: Network parameters not properly configured.				
	Remedy: Configure the network parameters correctly (see chapter 'Network configuration').				
	Cause 3 (operation without network connection): For proper operation the K8 needs at least one properly connected network device. This can be a LAN or WLAN network or a USB storage device.				
	Remedy: If the K8 shall be operated without network (LAN / WLAN) please connect at least a USB stick.				
The message 'Track not found' is displayed	Cause: The music file on the storage device or on the music server was deleted or the internet radio station is not available at the moment.				
	Remedy: Choose an other music title or radio station. If the station or title is not available any more it should be deleted from the Favourites List (if stored there).				
	•				
The message 'Format Error' is displayed	Cause: The title is stored / the radio station is transmitting in a format that can not be decoded by the K2.				
	Remedy: Choose an other title or station.				
The message 'network problems – restarting'	Cause: Network problems in your home network or on the internet occurred; the connection was interrupted.				
is displayed	Remedy: When encountering a network problem or interruption the K2 will re-start the network communication. After re-start please choose a music title or internet radio station and start playback.				
Transmission interruptions occur when listening to	Cause 1: The capacity of the internet radio station's server is at its limit.				
internet radio stations.	Remedy: Select a different station, or try to tune in to the station at a later time.				
	Cause 2: Network problems occurred. Remedy: Check your network (see above).				
Some internet radio stations can not be received	Cause: The internet radio station has been switched off, it transmits only at certain hours of the day or it has changed its internet address.				
	Remedy: Try to get information from the website of the station regarding transmission hours and internet address (URL).				

Bad sound quality be certain internet radio stations	Cause: The station transmits with a low audio bandwidth (low bitrate). Remedy: Use stations transmitting at least at 128 kBit/s. This is the lowest recommended bitrate for adequate sound quality. For good sound quality we recommend high bitrates like 320 kBit/s
USB Storage device is not recognised	Cause 1: The storage device (especially USB hard discs without separate power supply) draws more electrical current from the USB interface than is permitted by the USB standard.
Interruptions and / or jerky reproduction of audio or film material	Remedy: Only use USB storage devices that conform to the USB standard or use storage devices with own power supplies.
	Cause 2: The storage device is not formatted with an appropriate file system.
	Remedy: The K8 accepts storage devices with FAT16 or FAT32 file systems.
	Note: For big music archives we recommend to use a NAS (network attached storage) device with a UPnP-AV server to which the K8 will connect via your home network.
	Cause 3: The data transfer rate of the memory unit is too low, or the memory unit is not compatible with the K8 's USB port.
	Remedy: It is not possible to guarantee general compatibility with all devices on the market due to the wide variety of USB memory media available.
	If you encounter a persistent problem, we suggest that you try a different type of USB memory unit.
	Cause 4: The USB memory unit is connected to the USB socket using a lead, rather than directly.
	Remedy: Many USB extension leads are not suitable for the high data transfer rates which occur during the Streaming process. Use only high-quality certified cables, and ensure that the wire length is as short as possible (<50cm).

Glossary

ARC (Audio Return Channel)	The Audio Return Channel can be used to transfer audio signals from the TV set to the K8 via the HDMI connection. To make use of this function the TV set must also support the ARC function. The ARC function is particularly useful if the TV set connected to the K8 features an integral TV receiver whose sound is to be reproduced via the K8. If the HDMI ARC function is used, there is no need for an audio lead between the TV and the K8, which is otherwise required for sound transfer. If the TV set does not feature the ARC function, an alternative means of transferring sound is to use an analogue audio lead $-$ connected to the K8's IN-3 (TV) input - or a digital audio connection (DIG-IN 1 3 at the K8).
Dolby Headphone	A process designed to generate surround sound via normal stereo headphones. The K8's Dolby Headphone System can be switched on and activated in the Tone Control menu. Dolby Headphone can only be activated if headphones are plugged into the headphone socket on the machine's front panel. Although the Dolby Headphone process does work with stereo audio material and material encoded with Dolby Pro Logic, the surround effect is particularly natural with audio recordings encoded using 5.1 or 7.1.
Dolby Pro Logic	A process in which surround information is encoded to produce a two-channel audio format. Material encoded with Pro Logic can be reproduced both in stereo and via a surround system. Pro Logic provides genuine surround effects, but they are not comparable in quality and naturalness with genuine 5.1 or 7.1 encoded surround formats.
Dolby Volume	The K8's Dolby Volume function compensates for major jumps in volume, as can occur, for example, when TV advertisement breaks occur. Dolby Volume also improves the reproduction quality and comprehensibility of dialogue, especially at low volume levels.
dts Neo:6	Working in a similar manner to Dolby Pro Logic, the dts Neo:6 process uses the two channels of a stereo recording to carry surround information. As with the Pro Logic process, recordings encoded using Neo:6 are compatible with normal stereo playback systems. The K8's integral Neo:6 matrix decoder can restore the spatial information encoded in the recording, and reproduce it as surround sound using a 5.1 or 7.1 loudspeaker system.
HEC (Ethernet over HDMI)	The K8 features a LAN switch which can supply network data to the TV and source devices connected to the system (see below: LAN switch). The network connection can either be based on separate LAN leads between the K8 and the TV or source device, or exploit the HEC function of the HDMI 3 and HDMI OUT HDMI sockets. To make use of HEC the TV or source device connected to the system must also feature the HEC function. The HDMI lead used must correspond to the HDMI 1.4 standard, and also be approved for HEC use (this will be stated in the lead's Specification). Normal HDMI 1.3 leads or HDMI 1.4 leads without HEC specification are not suitable for HDMI-HEC data transfer.
LAN Switch	The integral LAN switch of the K8 distributes network data (e.g. the Internet data from your central network router) received via the LAN input socket (UPLINK socket) to the K8's integral source devices, including the Streaming Client (Internet Radio) or BluRay Player (BD-Live function). The K8 can also pass the network data to a maximum of four external devices. The data is passed on via the LAN sockets (LAN1 / LAN2) and the HDMI sockets with HEC function (HDMI 3 and HDMI OUT).

Network Terminology

General information	The Switch ensures that the individual components within a network are
	connected correctly. This is only possible if it can identify each device within the network unambiguously; this is the reason why every component is assigned a form of "house number" (IP address). The IP address consists of four blocks of digits with numbers in the range 0 to 255, separated by dots (e.g. 192.168.1.1).
	Each of the individual number blocks may contain values between 1 and 254 (the values 0 and 255 are reserved for certain special functions, and should therefore not be used). However, if the network is to operate reliably, the network owner should only select addresses designed for home network use - i.e.: the first two number blocks should always be 192.168.xxx.xxx; the third block can be selected without restriction within the above limits (but should be the same for all devices on the network), and the fourth block must distinguish each device uniquely (e.g.: K8 192.168.001.001, NAS: 192.186.001.002, PC: 192.168.001.003,).
	If this local network is to include Internet music sources (Internet radio) as well as physical devices, then the T+A K8 must have access to the Internet. This facility is provided by a device such as a router with connection to the DSL network. This router is also a constituent part of the network, and is assigned its own IP address. The T+A K8 must also be informed of the address of the router (Gateway) to enable it to gain access to the outside world.
(Î)	Please ensure that the first three blocks of the Device IP, Gateway IP and DNS 1 share the same address space (e.g. 192.168.0.xxx). The fourth block assigns a unique address (house number) to the components in the local network. This number must not be present more than once in the local network.
	The Device IP mask should always be assigned the address 255.255.255.0.
DNS	The Domain Name System (DNS) is one of the most important services on the Internet. Its primary task is to convert "Internet addresses", such as www.taelektroakustik.de, into the associated IP address. In most home networks the router carries out the DNS function.
	If you decide to configure your network manually (without DHCP), then simply enter the address of your router as the DNS address when configuring the network.
Ethernet-LAN	Wired network. Interference-free network technology, with the drawback of having to deploy a network cable.
Gateway	The computer or router in your network which is responsible for managing data traffic between your home network and the outside world (i.e. the Internet).
Client	Network device which obtains data from the network, decodes it and converts it into, for example, analogue music signals which can then be reproduced via an amplifier and loudspeakers. Streaming Clients also contain functions for displaying media content, and for navigating on the Internet or servers.
DHCP	DHCP is an abbreviation of D ynamic H ost C onfiguration P rotocol. The primary purpose of DHCP is to enable Clients to obtain your network configuration automatically from a server or router.
IP-Adress	Network address. Each device in the network requires an IP address at which it can be accessed, and by which it is unambiguously identifiable. No individual network address may be present more than once. This is important if you are entering network addresses manually. If the addresses in your network are assigned by DHCP, you do not need to worry about IP addresses at all, as the DHCP server manages the addresses automatically without your intervention.

NAS (Network Attached Storage)	Network storage facility. This is generally a very large-capacity (> 200 GB) storage device to which other devices have access. If the NAS server includes a UPnP-AV server service, then the K8 has access to media files stored on the NAS, and can play them back.				
Powerline-LAN	In a Power-Line LAN data is transferred via the existing mains power cabling. Devices known as "Power-Line modems" are required at the transmitting and receiving end. In most cases Power-Line offers relatively problem-free data transfer with adequate data rates for audio streaming. We recommend Power-Line modems with bit rates of 85 or 200 Mbit/s.				
Proxy server	A Proxy or Proxy server is a computer in the network which is capable of carrying out data transfers faster and more efficiently, and can increase security through the use of access control mechanisms. Most home networks do not include a proxy server. In this case there is no need to enter a Proxy address when configuring the K8 network.				
Router	Central network device which creates and manages the connections between the network devices. In most networks the router also assumes the function of Gateway to the outside world.				
Server	Network device which provides data and services for other devices in the network. For example, a UPnP-AV server typically stores audio / video data, and makes it available to other devices (the Streaming Clients). Many UPnP-AV servers also offer functions such as cataloguing, and easy identification of media content using criteria such as artiste, album name, genre, etc.				
UPnP-AV	Network protocol that makes media files available on the home network				
	On PCs and NAS storage devices a UPnP-AV server software must be installed to enable the K8 to access media files stored on these devices.				
	Examples for UPnP-AV server software compatible with the K8:				
	Windows:				
	 Twonky Media Server http://www.twonkvvision.de/ 				
	- Windows Media Player 11				
	http://www.microsoft.com/windows/windowsmedia/de/default.aspx				
	Linux: - Mediatomb http://mediatomb.cc/				
	- GmediaServer http://www.gnu.org/software/gmediaserver/				
WLAN (also W-LAN, Wireless LAN)	Radio network. The network is connected by means of radio waves operating in the 2.4 GHz frequency band. Radio networks are easy to install as no cables have to be deployed, but they are often problematic and unreliable - especially when the transmission distances are substantial. Power-Line networks, which can also be installed without separate cabling, are a better choice in many situations. In every case the deployment of a network cable is the most reliable and problem-free technology for data transfer.				

Aspect ratio - choosing the correct matching factor

Today's picture sources deliver pictures with widely varying formats and aspect ratios. In many cases the format delivered by the source device does not match the geometry of your video monitor. The video signals coming from the source must therefore be adjusted to suit the geometry of your monitor (4:3 or 16:9). Different conversion factors are required for this according to the source signal and the monitor. The table printed below is intended to help you establish the most suitable conversion factor (no conversion, -33V, +33V, etc.) for each combination of source signal (see "Video signal format" columns) and monitor.

The illustrations in the table show the picture formats produced by each combination.

	Video signal format				
For LCD- or	4:3 (1,33:1)	16:9 (1,85:1)	16:9 (1,85:1)	21:9 (2,35:1)	21:9 (2,35:1)
Plasma screens		letterbox	anomorphic	letterbox	anomorphic
4:3 format	no conversion	no conversion	-33 V	no conversion	-33 V
16:9 format	-33 H	+33 V	no conversion	+33 V	no conversion
4:3 projectors	4:3 (1,33:1)	16:9 (1,85:1) Letterbox	16:9 (1,85:1) anomorphic	21:9 (2,35:1) Letterbox	21:9 (2,35:1) anomorphic
With 4:3 projec- tor screen	no conversion	no conversion	-33 V	no conversion	-33 V
With 16:9 projec- tor screen	-33 H&V	no conversion	-33 V	no conversion	-33 V
r					
16:9 projectors	4:3 (1,33:1)	16:9 (1,85:1) Letterbox	16:9 (1,85:1) anomorphic	21:9 (2,35:1) Letterbox	21:9 (2,35:1) anomorphic
With 4:3 projec- tor screen	-33 H	+33 V	no conversion	+33 V	no conversion
With 16:9 projec- tor screen	-33 H	+33 V	no conversion	+33 V	no conversion

Supported Audio / Video files



It is impossible to guarantee general compatibility due to the huge number of different blank media, disc recorders (burners) and burning programs.

If you encounter compatibility problems, we recommend that you try using different blank discs and / or a different disc burner and software.

Supported video types and encoders

The K8 is capable of reproducing the following types of digital video files from a Disc or USB memory stick connected to the front USB socket 'USB-BD'. .avi files encoded in one of the following format combinations: DivX 5 720x480 @ up to 30fps 1844 kbps - video: DivX 5 720x576 @ up to 25fps 2014 kbps Divx 3 640x480 @ up to 24fps, 1824 kbps MP4 320x480 @ up to 15fps 269 kbps Xvid 576x432 @ up to 30fps 1271 kbps AC3 6ch 48Khz; 448kbps max sample rate audio: DTS 5ch 48khz, 754kbps (DTS-ES-Matrix) DTS 5ch 48khz, 1509kbps (DTS-ES-Discrete) mp3 2ch 48khz 128kbps WMA 2ch 22khz 32kbps PCM 2ch 48khz 1536kbps mpeg audio 2ch 48khz 320kbps .wmv files encoded in the following formats: video: WMV9 up to 320x132 at 30fps WVC1 up to 1280x720 at 24fps (5300 kbps) audio: wma 2ch 48khz .mkv files encoded in the following formats: Mpeg4(h.264) 1280x720 30fps video: Mpeg2 320x240 24fps mp3 2ch 48khz 1536kbps audio: dts 6ch 48khz ac3 6ch 48khz aac 2ch 48khz .mp4 and .m4v files encoded with: Mpeg4(h.264) 1280x720 30fps - video: - audio: AAC 48kHz stereo 1536Kbps .mpeg files encoded with: - video: Mpeg1 video 640x360 25fps - audio: MPEG Audio 2ch 44.1 khz 224kbps

Supported audio types and codecs

- MP3 files (up to 44.1kHz stereo)
- WMA files (up to 48.0kHz stereo)
- m4a files (AAC up to 44.1kHz stereo)

Supported photo types

- JPEG files: 4:2:2 encoded, up to 24 Mpixels
- JPEG files: 4:4:4 encoded, up to 12 Mpixels
- PNG files: up to 12 Mpixels

Notes on Energy Saving				
	The K8 fulfils the requirements of on the use of energy (EuP directive and the highly efficient design of th portant role in this. The internal micro-processor consta not required for the current task are In stand-by mode the current drain are still active. Please refer to the ta	The K8 fulfils the requirements of the latest directives designed to economise on the use of energy (EuP directive). The modern construction of its mains PSU and the highly efficient design of the T+A switch-mode output stage play an im- portant role in this. The internal micro-processor constantly ensures that sub-assemblies which are not required for the current task are switched off automatically. In stand-by mode the current drain depends on the functions of the K8 which are still active. Please refer to the table below for more details.		
	Energy-saver enabled	Energy saver disabled		
	(ECO standby)	(Comfort standby)		
Screen brightness	Screen off	Screen brightness Screen brightness min max		
Functions available in stand- by mode	 * Alarm timer without display * Can be switched on using remote control (except FD 100) 	 * Alarm timer * Can be switched on by remote control including FD100 * Ethernet switch + HDMI HEC function * Clock display * Automatic clock setting (VHF-RDS) * Sleep timer 		
Automatic power-down function.	enabled	disabled		
Stand-by current drain	0,4 W	< 3 W up to 6 W < 4 W up to 6 W		
	In accordance with EU regulations default factory setting for the K8 is t If you wish to use the additional f switch the energy-saver off in the m	designed to limit stand-by consumption, the the energy-saver mode enabled. Functions of the Comfort stand-by you must thenu System Configuration / Energy saver.		
Switching off unused output stages	Audio output stages consume ener to them and no signal is present. switching off output stages not c calling up the menu System config all loudspeakers which are not need This measure also reduces the hea	Audio output stages consume energy even when no loudspeaker is connected to them and no signal is present. The K8 offers the facility to save energy by switching off output stages not currently required. This is accomplished by calling up the menu System configuration / loudspeaker and switching "None" all loudspeakers which are not needed for the main room or adjacent rooms. This measure also reduces the heat developed by the K8 .		

Anhang Appendix

Appendix A

Wiring diagram: Main room 3.1 loudspeaker wiring, additional listening zone 2, 3 and 4



Wiring diagram: Main room 5.1 loudspeaker wiring, additional listening zone 2 and 4



Wiring diagram: Main room 7.1 loudspeaker wiring, additional listening zone 4





Attention!

/N

A properly set up home network with router must be installed and in operation to use the K8.

For the use of internet radio a DSL access to the internet is needed.

For questions regarding setting up your network and internet connection please ask your system administrator or any network specialist.

- *1 Music Server with UPnP-AV server software installed
- *2 If the TV set features a network connection (Internet), it can be connected to the network via the **K8**. Connect the Ethernet output of the TV set to the LAN output of the **K8** and carry out the appropriate configuration.
- *3 HDMI TV connection with Ethernet over HDMI (HEC) and Audio Return Channel (ARC)
- *4a Connection of a network-capable source device to the K8's network switch using a LAN lead
- *4b for connection HDMI IN 3: Connection of a network-capable source device to the K8's network switch via Ethernet over HDMI (HEC).
- *5 Audio connection TV → K8 (if TV sound is to be reproduced via the K8). Connection either digital (5a) or analogue (5b). Please assign the "TV" input appropriately using the System settings / Audio inputs menu.

Wiring diagram: AUDIO-Video-connection



with analogue output

with digital output

- *1 If the TV set features an analogue audio output, connect it to the Audio input.
- Please enter the appropriate settings in the Audio Inputs menu. *2 If the TV set features a digital audio output, connect it to one of the digital sound inputs.
- Please enter the appropriate settings in the Audio Inputs menu. *3 Devices with an S-Video output should be connected to the S-Video socket of the AV IN input. Please enter the appropriate settings in the Video Inputs menu.

Appendix B

BluRay Player

Drive		3-laser BluRay linear drive on vibration dampening subchassis
Playable media	Video	BluRay Disc, DVD, VCD, SVCD
•	Photo	JPEG, Picture Disc
	Audio	CDDA (Audio CD), MP3 CD, CD-R, CD/RW, Hybrid SACD CD Layer
	Container + other formats	MKV, MPG, AVI, VOB, MP4, WMV

other features

BD-Live (with external USB memory stick) Movie mode 1080p/24 Hz, extended colour space (xvYCC)

Streaming Client

Formats Bit rates other bit rates Media server, Network mem Web radio Interfaces	all formats WAV, FLAC ory (PC, NAS) LAN USB	MP3, WAV, FLAC, AAC, OGG-Vorbis, WMA (WMDRM 10), AIFF 8 48 kSps/16Bit, variable bit rate (VBR) 96 kSps / 24Bit UPnP AV + DLNA compatible streaming servers Web radio with vTuner internet radio service Ethernet 10/100 Mbit 2x USB 2.0 for memory stick or harddisc drive (HDD)
other features		Favourite lists, station memory for web radio stations
FM-Tuner		
HE bandwidth Sensitivity Strong signal immunity Stereo crosstalk suppression RDS functions other features	ı	87,5 – 108 MHz 2 2V > 125 dB > 40 dB Station name, Program type, Radio text, Time Presets
Video Processor		
HDMI inputs Analogue A/V inputs	Features	3 x HDMI 1.4 HDMI Ethernet Channel (HEC) on HDMI IN 3 2 x YUV
HDMI output	Features	HDMI 1.4 Audio return channel (ARC) HDMI Ethernet Channel (HEC)
Functions	A/D conversion Scaling Picture adjustment	Conversion of analogue AV signals to HDMI All digital (HDMI) or analogue AV input signals to 576, 720, 1080 interlaced or progressive output format Colour, contrast, sharpness, aspect ratio, overscan, zoom
other features		Scaler bypass 3D pass through (3D ready) Auto mode (automatic image size adaptation to monitor)

Surround decoder

Туре		7.1 HighDefinition (HD) surround decoder with 2 freely programmable		
Formats		Stereo	ocessors (DC DSP)	
		Dolby Pro Logic IIx, Dolb Dolby TrueHD dts, dts-96/24, NEO:6, dt	y Digital (AC3), Dolby EX, Dolby Digital Plus s-ES, dts-ES discrete, dts-HighResolution,	
Loudspeaker configuration other features	าร	dts-HD Master Audio 2.0, 2.1, 3.0, 3.1, 4.0, Dolby Volume Dolby Headphone Downmix function for line Automatic calibration fun	4.1, 5.0, 5.1, 7.0, 7.1 e out and stereo sound for side rooms ction for loudspeakers	
Preamplifier / DA Co	onverter			
Audio inputs (analogue)		3 x stereo line input	2 V / 20 kΩ	
Audio inputs (digital)		4 x stereo input (as part of the analogue 2x SP/DIF coax	2 V / 20 kΩ AV inputs) Stereo up to 192 kSps / 24 Bit Dolby + dts surround formats (IEC 1937)	
		1x SP/DIF optisch	Stereo up to 96 kSps / 24 Bit Dolby + dts surround formats (IEC 1937)	
Audio outputs analogue	Fixed level	1x stereo line out	2 V, 200 ohms e. g. for tape recorder	
	Variable (with volume control)	1x subwoofer 1x stereo out 1x stereo out 1x stereo out	2 V, 100 ohms e. g. for acoustic supply of side rooms for active surround speakers or side room for active rear speakers or side room	
other features		3 audio outputs with 5 V power supply e.g. for wireless audio transmission modules, rometa turn on of active levelopackers etc.		
Audio output digital		1x SP/DIF coax		
D/A conversion		High-class 24 Bit / 192 k channels	Sps Burr-Brown D/A converters for all 7.1	
Volume control		Loss-free, high-precision volume regulation with professional studio- grade volume controls		
Frequency response		2 Hz - 60 kHz 2 Hz - 44 kHz 2 Hz - 22 kHz	(1) (2) (3)	
THD / Intermodulation		< 0.002 % / <0.004%	(1), (2) / (3)	
S/N ratio		110 dB 110 dB / 08 dB	(1), (2), (3) (1), (2), (-(3))	
Channel separation		100 dB	(1), (2), (3)	
		 SP/DIF 192/24 Digital_In or HD-BluRay SP/DIF 96/24 Digital_In or 96/24 HD Streaming SP/DIF 48/16 Digital_In or 48/16 Streaming 		
		(J) JF/DIF 40/10 D	igital_iii UI 40/ IU Stiedillilly	

design)

each measured on the stereo preamp outputs

for dynamic headphones > 30 $\Omega,$ with automatic speaker muting and Dolby-Headphone

7 high performance switching power modules (T+A Linear-PWM

95 W / 150 W 130 W / 230 W

Headphone output

Power Amplifiers

Nominal output power / ch. (Stereo)	8 Ω / 4 Ω
Transient output power	8 Ω / 4 Ω
Distortion (THD)	< 0,005 %
Intermodulation	< 0,005 %
Frequency response	1 Hz – 60 kHz

Additional Features	Ethernet-switch	Wake-up timer distribution of an Ethernet uplink connection to BluRay player, streaming-client TV monitor (via HDMI / HEC), up to 3 HDMI source devices (via HDMI / HEC) up to 2 more external devices (via LAN cable) (e.g. playing console)		
	RS 232 control interface	e for controlling suitably equipped Metz or Loewe TV sets		
General Mains connection:		EU version: US version	220-230 V / 50 - 110-117 V / 50 -	60 Hz 60 Hz
Power consumption	max. Eco standby	650 W 0,4 W	active functions:	IR remote control, wake-up timer,
	Network-Standby (Comfort Standby)	 3 - 4 W (depending on dispay brightness) supplementary active functions: Ethernet router 		Ethernet router
The set includes:		FM100 remote control handset, mains lead, HDMI lead, network lead, calibration microphone, E2000 external remote control receiver, operating instructions, guarantee request card ED100 bidirectional wireleas remote control with display.		
Optional accessories		(FBS FD100-K8)		
		E 2000 external remote control receiver		

We reserve the right to introduce technically-founded modifications.



T+A elektroakustik GmbH & Co. KG Planckstraße 9 – 11 D - 32052 Herford

T +49 (0) 5221 / 7676-0 F +49 (0) 5221 / 7676-76

info@ta-hifi.com www.ta-hifi.com