



5.1 Surround Sound Headphone System PowerMax-HP10

User Manual

To ensure the smooth handling of your warranty please write the serial number of your device into the box. In the case of warranty you are expected to send it together with a copy of your invoice to your nearest TEAC sales representative.

--

- Changes in specifications and features may be made without notice or obligation.

- Copyright © 2004, TEAC Corporation. All rights reserved. First Edition: May 2004
- Company and product names provided herein are trademarks of their respective companies.

Contents

CE DECLARATION	26
CONTENT OF PACKAGE	26
FEATURES	26
INSTRUCTIONS	27
CONTROL BUTTONS DEFINITION AND FUNCTION	28
5.1 HOME THEATER HEADPHONE CONNECTING CABLES	29
CONNECTING THE MICROPHONE	30
PLAYBACK OPERATION	30
CONNECTING THE POWERMAX-HP10	32
1. Connecting DVD players	32
2. Connecting Computers (5.1 Sound Cards)	34
3. Connecting CD players	36
4. Connecting VCD player devices	37
5. Connecting Computers (Stereo Sound Cards)	38
6. Connecting Computers (Stereo Sound Cards)	39
SPECIFICATION 5.1-CHANNELS AMPLIFIER	40
SPECIFICATION 5.1-CHANNELS HEADPHONE	40
SPECIFICATION MICROPHONE	40
WARRANTY	41

CE DECLARATION

We declare the product PowerMax-HP/PowerMax-HP10M complies with the following standards and directives:

EMC Directive 89/336/EEC

LVD Directive 73/23/EEC

EN 55022/1998 EN 60000-3-2/-3-3

EN 55024/1998 EN 60000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11

EN 60950

CONTENT OF PACKAGE

PowerMax-HP10 existing of

5.1 channel amplifier

6 channel 5.1 headphone

In-line controller

Power adapter

PC connecting cable

AMP connecting cable

DVD connecting cable

TV connecting cable

USB connecting cable

Microphone and microphone cable

Adapter cable

FEATURES

The 5.1 surround sound headphone system incorporates a home theatre 5.1 channel amplifier with 6 independent amplified sound channels. The independence enables to perform different sounds that together achieve perfect home theater leisure enjoyment. Stereo surround sound provides full 360 degree soundscape which comes impressively close to real theater feeling. Therefore it presents real 5.1 channel surround sound effects

for DVD movies or music. This makes it possible to enjoy theater feeling at home.

Compatible to AC-3/DTS decoders for 5.1-channel playback the front, rear, center, and subwoofer speaker units in the special headphone are controlled separately by a volume controller applied to the headphone connection cable. For conventional 2-channel stereo sources like TV, CD, VCD, MP3 etc., an AUX input is installed: through 5.1 headphone 6 channel speaker drive, the stereo-soundscape is extended, by 3D space surround sound field a virtual surround scene opens, that impressively enhances the spacious impression of all stereo signals.

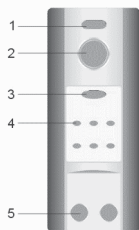
INSTRUCTIONS

1. Please make sure local AC power and frequency are compatible with the equipped AC adaptor.
2. If the product is not being used for a long period of time, please disconnect AC power plug from mains socket.
3. Before switching on the power, please make sure the connecting cables and power cables are correctly connected.
4. Before switching on the power of 5.1 amplifier box, please turn the master volume button to the position where minimum is indicated. Adjust to desired volume after the product is working properly. Doing so will prevent damage to 5.1 speaker units and also prevent of shock by unexpected volumes.
5. Please operate the product in a ventilated area and away from high temperature, do not expose it to direct sunlight, or damply or dusty environment. Also avoid placing on top of heat radiating objects.

By strong electromagnetic fields (e.g. wireless phones) noisy sound may be caused. As long as the distortions may last we recommend to reduce the volume of the unit with the "master volume knob".

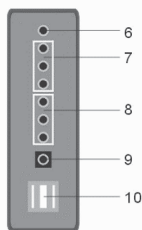
CONTROL BUTTONS DEFINITION AND FUNCTION

Front Plate



1. Power On/Off (On/Standby) Button
2. Master Volume Knob
3. DVD/AUX source selector switch
4. Channel Indication Light
5. 5.1 Channel Headphone outputs

Back Plate



6. AUX (Stereo) Audio Input
7. DVD (5.1 channel) Audio Input
8. Audio Extension Output
9. DC Power Source (7.5 V adaptor) Input
10. USB Power Source (5V) Input/extension

In-line Controller



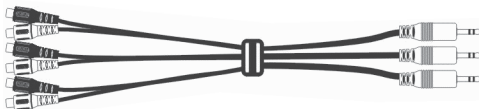
11. Front level control knob
12. Rear level control knob
13. Center level control knob
14. Vibration (subwoofer 5.1 channel) level control knob

5.1 HOME THEATER HEADPHONE CONNECTING CABLES

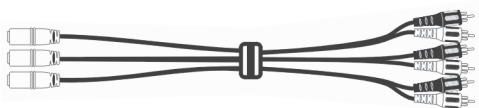
- A PC signal connecting cable with 3.5mm stereo plugs on both ends.



- B AMP connection cable with 3.5mm stereo plugs & RCA jacks.



- C DVD connection cable with RCA jacks and 3.5mm stereo phono plugs.



- D TV connection cable with 3.5mm stereo phono plug & RCA plugs.



- E USB extension cable.



- F Microphone extension cable with 3.5mm jack & 3.5mm stereo phono plugs.



- G Adaptor cable for the headphone from G9 to 3.5mm stereo plug to operate as conventional stereo headphones.



CONNECTING THE MICROPHONE

The microphone is connected to the microphone input (3.5 stereo jack) of your sound card respectively of your computer.

PLAYBACK OPERATION

When operating this product with DVD or 5.1 sound cards please connect the six channel audio cable to the front, rear, center and subwoofer 5.1 channel inputs. Set the source selector to DVD. At the same time, the 6 sound channel indicator lights will be turned on. Play back your DVD movies or music and sit back to enjoy the home theater digital surround sound effects. The master volume button on 5.1 amplifier box controls the output volume of each of the six sound channels simultaneously. The selections Front, Rear, Center, Sub/Vibration on the volume controller separately control all six surround sound channels, voice dialog, X bass volume, and vibration to satisfy your personal desires.

If your sound source is stereo, e.g. TV, VCD, CD, MP3, PC etc. please connect the signal to the AUX input. The source selector has to be set to AUX. At the same time the indicator lights associated with the channels L, R, and Sub are turned on. Adjust volume to the desired position according to environment and preferences. Front, Rear, Center, Sub/Vibration selections on the

volume controller allow to control the volume of the six speaker units individually. Sound environment and vibration effects are the same as on 5.1 source playback.

Important:

Please follow the instructions given by the labels on the device which are shown below.



CAUTION



Unless by professional technicians, do not dis-assemble product to avoid the danger of electric shock



**This symbol is to remind users that the product contains "hazardous voltage".
Improper operation may cause the danger of fire or electric shock.**



This symbol is to remind users that the product provides important instruction. Please carefully read instruction manual before using product to prevent improper operations.



Please do not expose product to rain or moisturized influences to avoid product malfunction or fire incident.

Notes:

This product is protected by national patent.
Please don't use it under maximum volume for a long period time, and protect product from the dust, moisture, and dirt.
Tenderly take care of product. Avoid contact with high temperature and keen articles to prevent destroying product structures and functions.

F (OUTPUT)
R (OUTPUT)
C (OUTPUT)
F (FRONT)
R (REAR)
C (CENTER)
F (INPUT)
R (INPUT)
C (INPUT)
AUX (INPUT)

CONNECTING THE POWERMAX-HP10

Caution!

Before connecting the system, switch off the power of the PowerMax-HP10 and other equipments power sources.

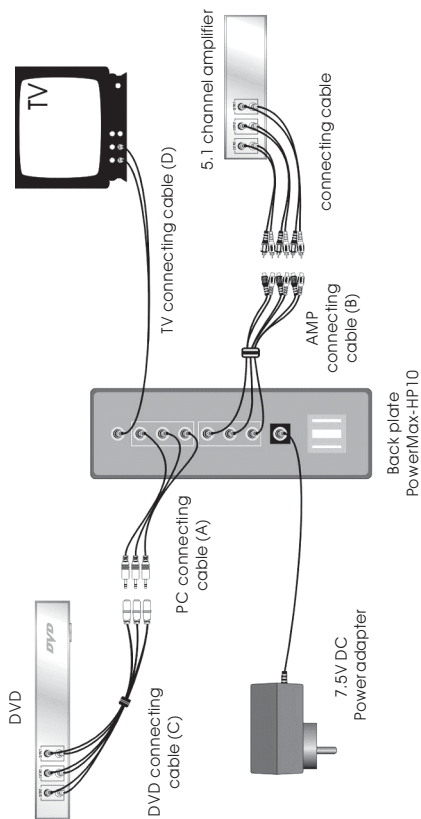
1. Connecting DVD players

An external DC power supply is required. Connect a 7.5V DC power supply to the 7.5V DC input jack on the back of the 5.1 amplifier box.

DVD players are connected to the input jacks Front, Rear, Sub/Center over the 6 RCA output jacks. The connection is provided by a DVD and a PC cable.

Optionally a 5.1 amplifier/speaker system can be connected to the pass-through 5.1-output connectors of the headphone amplifier. It provides the DVD signal for further playback devices. TV sound can be connected to the input AUX using a TV cable.

For power and signal connection method, please refer to the following picture.



2. Connecting Computers (5.1 Sound Cards)

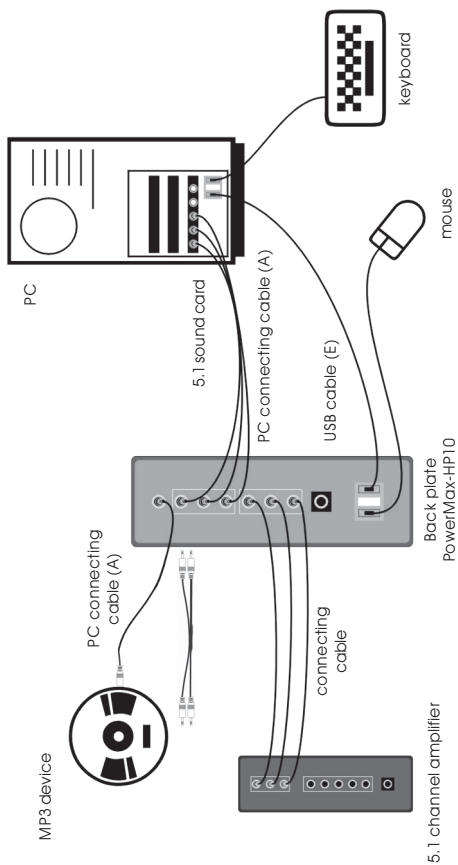
Utilize an USB cable to connect power to the system. The USB 5V power source is connected to the back of the 5.1 amplifier box (USB1). The second USB connector USB2 is intended to replace the occupied USB connector of your computer for other USB devices. In case of audible interference noise (e.g. with notebooks) disconnect the USB cable and install the external power supply.

PC 5.1 sound cards and the 3.5mm mini phono stereo input jacks of the headphone amplifier are connected together with the PC cable.

Optionally a 5.1 amplifier/speaker system can be connected to the pass-through 5.1 output connectors of the headphone amplifier. It provides the DVD signal for further playback devices.

MP3 devices can be connected to AUX with the PC connecting cable.

For power and signal connection method, please refer to the following picture.

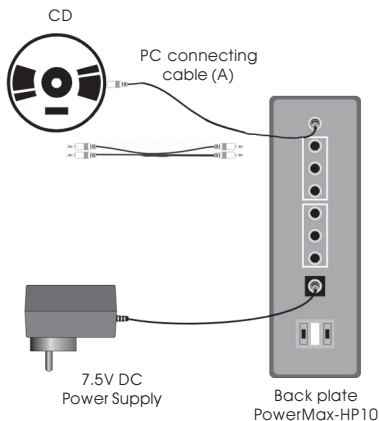


3. Connecting CD players

An external DC power supply is required. Connect the 7.5V DC power supply to the 7.5V DC input jack on the back of the 5.1 amplifier box.

CD devices can be connected to the input AUX with the PC connecting cable.

For power and signal connection method, please refer to the picture below.



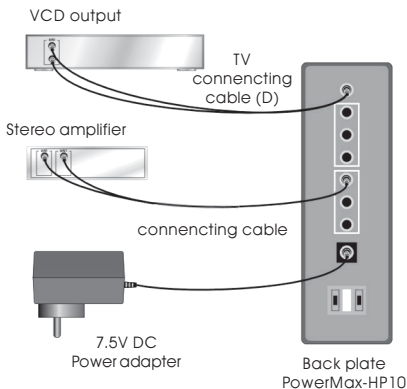
4. Connecting VCD player devices

An external DC power supply is required. Connect the 7.5V DC power supply to the 7.5V DC input jack on the back of the 5.1 amplifier box.

VCD players can be connected to the input AUX with the TV cable.

Optionally a stereo amplifier/speaker system can be connected to the pass-through 5.1 front output connectors of the headphone amplifier. It provides the AUX signal for further play-back devices.

For power and signal connection method, please refer to the picture below.



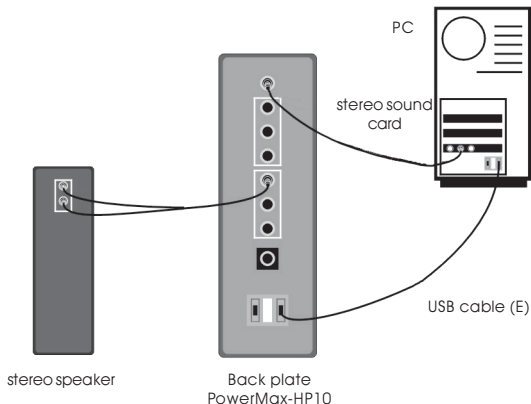
5. Connecting Computers (Stereo Sound Cards)

Utilize an USB cable for power source. Connect the USB 5V power source to the jack USB1 on the back of the 5.1 amplifier box. The second USB connector USB2 can extend the occupied USB connector of your computer for other USB devices. In case of audible interference noise (e.g. with Notebooks) disconnect the USB cable and install the external power supply.

PC stereo sound cards can be connected to the input AUX of the amplifier box by a PC audio cable with 3.5mm mini phono plugs at both ends.

Optionally a stereo amplifier/speaker system can be connected to the pass-through 5.1 front output connectors of the headphone amplifier.

For power and signal connection method, please refer to the picture below.



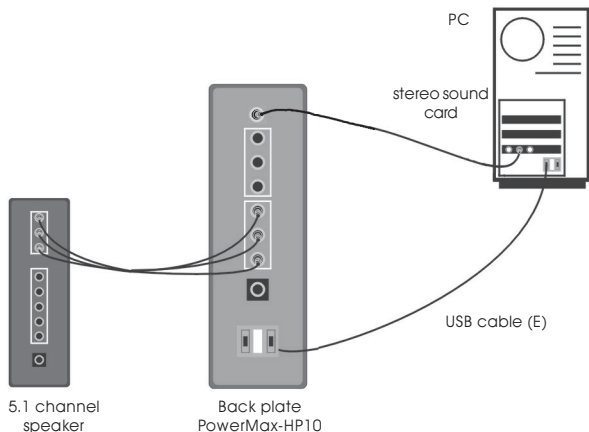
6. Connecting Computers (Stereo Sound Cards)

Utilize an USB cable for power source. Connect the USB 5V power source to the jack USB1 on the back of the 5.1 amplifier box. The second USB connector USB2 can replace the occupied USB connector of your computer for other USB devices. In case of audible interference noise (e.g. with Notebooks) disconnect the USB cable and install the external power supply.

PC stereo sound cards can be connected to the input AUX of the amplifier box by a PC audio cable with 3.5mm mini phono plugs at both ends.

Optionally a 5.1 amplifier/speaker system can be connected to the pass-through 5.1 front output connectors of the headphone amplifier. It provides the AUX signal for further playback devices.

For power and signal connection method, please refer to the picture below.



SPECIFICATION 5.1-CHANNELS AMPLIFIER

Compatible to	DVD, PC, VCD, CD, TV, MP3, CD-R, CD-DA	
Audio Inputs	AUX (Stereo)	1 Set
	DVD (5.1-channel)	1 Set
Audio Outputs	6 Channels	1 Set
Audio Specifications	Front, Rear, Center.	20Hz-20kHz
	Subwoofer	20Hz-120Hz
	Signal/Noise ratio	>=80dB
	Selection	>-60dB
	Distortion	<0.5%
Power supply	AC/DC power supply	230/7.5V, 500mA, 3.75W
	USB power	5.0V, 500mA, 2.5W
Dimensions (W x D x H)	90 x 155 x 143 mm	
Weight amplifier	approx. 450g	
Operation Temperature	0-40 °C	
Operation Humidity rel.	<90%	
Weight cables	approx. 100g	

SPECIFICATION 5.1-CHANNELS HEADPHONE

Power capacity		500mW x 6
Weight		approx. 300g
Speaker Driver Front	Diameter	40 mm (x 2)
	Impedance	64 Ohms
	Frequency Range	20Hz-20k Hz
Speaker Driver Rear	Diameter	30 mm (x 2)
	Impedance	32 Ohms
	Frequency Range	20Hz-20k Hz
Speaker Driver Center	Diameter	30 mm (x 2)
	Impedance	32 Ohms
	Frequency Range	20Hz-20 k Hz
Speaker Driver Vibration	Diameter	30 mm (x 2)
	Impedance	8 Ohms
	Frequency Range	20Hz-120 Hz

SPECIFICATION MICROPHONE

Type	Electret-Capsule	9.7mm
Weight		approx. 30g
Directivity		Omnidirektional
Impedance		2200 Ohms +/- 15%
Sensitivity		60dB +/- 2dB
Frequency Range		30Hz- 16,000Hz
Operation Voltage	nominal	4.5V

WARRANTY

Model

Serial No.

PowerMax-HP10

Owner's name _____

Address _____

Dealer's name _____ Date of purchase _____

Dealer's address _____

Warranty Period

TEAC Corporation, hereinafter called TEAC, warrants this product against any defect in material and workmanship for two (2) years from the date of purchase by the original retail purchaser. According to the following terms this TEAC product will be repaired without charge of labor and materials by the authorized TEAC service stations, by the authorized TEAC dealers and/or their authorized service stations. TEAC, the authorized TEAC service stations, the authorized TEAC dealers and/or their authorized service stations may decide whether the defective product will be repaired or replaced as a whole or partially. The TEAC dependancies, the authorized TEAC service stations, the authorized TEAC dealers and/or their authorized service stations will also honour this warranty in the other EC and EFTA member states based on the terms in this warranty conditions.

What is Covered and What is Not Covered.

Except as specified below, this warranty covers any defects in materials and workmanship of this product. The following are not covered by the warranty:

1. Damage to or deterioration of the external cabinet.
2. Any unit that has been altered or on which the serial number has been defaced, modified, or removed.

3. Damage, deterioration or malfunction resulting from:
 - (a) accident, misuse, abuse or neglect;
 - (b) failure to follow instructions supplied with the product;
 - (c) any shipment of the product. Any damage arising of transportation is the liability of the freight company. Any damage arising of transportation and any implicit and explicit risks are the liability of the freight company. This is expressly not a liability of TEAC;
 - (d) repair or attempted repair by anyone not authorized by TEAC to repair this product;
 - (e) causes other than product defects, including lack of technical skill, competence or experience of the user. Especially damages which may arise of incidental use respectively by improper ventilation,
 - (f) damages caused by improper or incorrect installation of software,
 - (g) periodic check-ups,
 - (h) maintenance respectively repair of parts due to normal wear and tear,
 - (i) adoptions or adjustments to the product in order to conform to different national technical or safety standards of any country other than the one for which the product was originally designed and manufactured.

Who May Enforce the Warranty

This warranty may be enforced only by the original retail purchaser.

What We Will Pay For

We will pay all labor and material expenses for items covered by the warranty. Payment of shipping and insurance charge is discussed in the next section of this warranty.

How You Can Get Warranty Service

1. If your unit needs service during the warranty period, please contact the local authorized distributor for this product. If you are unable to locate such a distributor, please contact your TEAC facility at the address indicated below.

2. After identifying the nearest authorized service station for this product the product or any parts believed to be defective must be shipped freight and insurance prepaid to such service station, together with a copy of this warranty certificate and a copy of your sales receipt, showing the date of purchase. Please ensure to fill out the warranty certificate correctly (do not forget the serial number of the product). TEAC reserves the right to refuse the guarantee service if the documents are missing or incomplete in the understanding of this terms.

If the necessary repairs are covered by the warranty, and if you have sent the product or parts of it to the nearest authorized service station, the return freight and insurance charges will be prepaid.

Please do not return your unit to the TEAC factory without our prior authorization (see also RMA form)!

Limitations of Liability and Exclusion of Implied Warranties

Unless considered unenforceable or unlawful under the applicable national law:

1. TEAC's liability for any defective product is limited to repair or replacement of the product, at TEAC's option and the option of authorized service stations, authorized dealers and their authorized service stations. No one is authorized to assume any greater liability on TEACs behalf. TEAC shall not be liable for any damage to any other properties independent of their virtual or real nature especially there is no liability for any damage to any kind of software and/or any kind of databases caused by TEAC products. Furthermore TEAC is not liable for damages arising out of loss of use, loss of revenue or profits, or any other damages, whether incidental, consequential, or otherwise.
2. All implied warranties or conditions, including but not limited to warranties or conditions of merchantability and fitness for a particular purpose, hereby are excluded.

These warranty terms do not affect any statutory rights of consumers which were granted by the respective national laws.

TEAC Europe GmbH, DSPD:

Bahnstraße 12, 65205 Wiesbaden-Erbenheim, Germany

Internet: www.teac.de

TEAC Service Center:

TEAC Service Centre Europe

Hessenring 25

64546 Mörfelden-Walldorf, Germany

www.teac.de/rma

WARRANTY

Model

Serial No.

PowerMax-HP10

Owner's name _____

Address _____

Dealer's name _____

Date of purchase _____

Dealer's address _____

Warranty Period

TEAC Corporation, hereinafter called "TEAC," warrants this product against any defect in material and workmanship for two (2) years from the date of purchase by the original retail purchaser. According to the following terms this TEAC product will be repaired without charge of labor and materials by the authorized TEAC service stations, by the authorized TEAC dealers and/or their authorized service stations. The authorized TEAC service stations, the authorized TEAC dealers and/or their authorized service stations may decide whether the defective product will be repaired or replaced as a whole or partially. The TEAC dependences, the authorized TEAC service stations, the authorized TEAC dealers and/or their authorized service stations will also honour this warranty in the other EC and EFTA member states based on the terms in this warranty conditions.

What is Covered and What is Not Covered.

Except as specified below, this warranty covers any defects in materials and workmanship of this product. The following are not covered by the warranty:

1. Damage to or deterioration of the external cabinet.
2. Any unit that has been altered or on which the serial number has been defaced, modified, or removed.
3. Damage, deterioration or malfunction resulting from:
 - (a) accident, misuse, abuse or neglect;
 - (b) failure to follow instructions supplied with the product;
 - (c) any shipment of the product. Any damage arising of transportation and any implicit and explicit risks are the liability of the freight company. This is expressly not a liability of TEAC;
 - (d) repair or attempted repair by anyone not authorized by TEAC to repair this product;
 - (e) causes other than product defects, including lack of technical skill, competence or experience of the user. Especially damages which may arise of incidental use respectively by improper ventilation,
 - (f) damages caused by improper or incorrect installation of software,
 - (g) periodic check-ups,
 - (h) maintenance respectively repair of parts due to normal wear and tear,
 - (i) adaptations or adjustments to the product in order to conform to different national technical or safety standards of any country other than the one for which the product was originally designed and manufactured.

Who May Enforce the Warranty

This warranty may be enforced only by the original retail purchaser.

What We Will Pay For

We will pay all labor and material expenses for items covered by the warranty. Payment of shipping and insurance charge is discussed in the next section of this warranty.

How You Can Get Warranty Service

1. If your unit needs service during the warranty period, please contact the local authorized distributor for this product. If you are unable to locate such a distributor, please contact your TEAC facility at the address indicated below.
2. After identifying the nearest authorized service station for this product the product or any parts believed to be defective must be shipped freight and insurance prepaid to such service station, together with a copy of this warranty certificate and a copy of your sales receipt, showing the date of purchase. Please ensure to fill out the warranty certificate correctly (do not forget the serial number of the product). TEAC reserves the right to refuse the guarantee service if the documents are missing or incomplete in the understanding of its terms.

If the necessary repairs are covered by the warranty, and if you have sent the product or parts of it to the nearest authorized service station, the return freight and insurance charges will be prepaid.

Please do not return your unit to the TEAC factory without our prior authorization (see also RMA form)

Limitations of Liability and Exclusion of Implied Warranties

Unless considered unenforceable or unlawful under the applicable national law:

1. TEAC's liability for any defective product is limited to repair or replacement of the product, at TEAC's option and the option of authorized service stations, authorized dealers and their authorized service stations. No one is authorized to assume any greater liability on TEAC's behalf. TEAC shall not be liable for any damage to any other properties independent of their virtual or real nature especially there is no liability for any damage to any kind of software and/or any kind of databases caused by TEAC products. Furthermore TEAC is not liable for damages arising out of loss of use, loss of revenue or profits, or any other damages, whether incidental, consequential, or otherwise.
 2. All implied warranties or conditions, including but not limited to warranties or conditions of merchantability and fitness for a particular purpose, hereby are excluded.
- These warranty terms do not affect any statutory rights of consumers which were granted by the respective national laws.

TEAC Europe GmbH

DSPD

Bahnstraße 12

65205 Wiesbaden-Erbenheim

Germany

TEAC Europe GmbH, DSPD:

Bahnstraße 12, 65205 Wiesbaden-Erbenheim, Germany

Internet: www.teac.de

TEAC Service Center:

TEAC Service Centre Europe

Hessentling 25

64546 Mörfelden-Walldorf, Germany

www.teac.de/rma