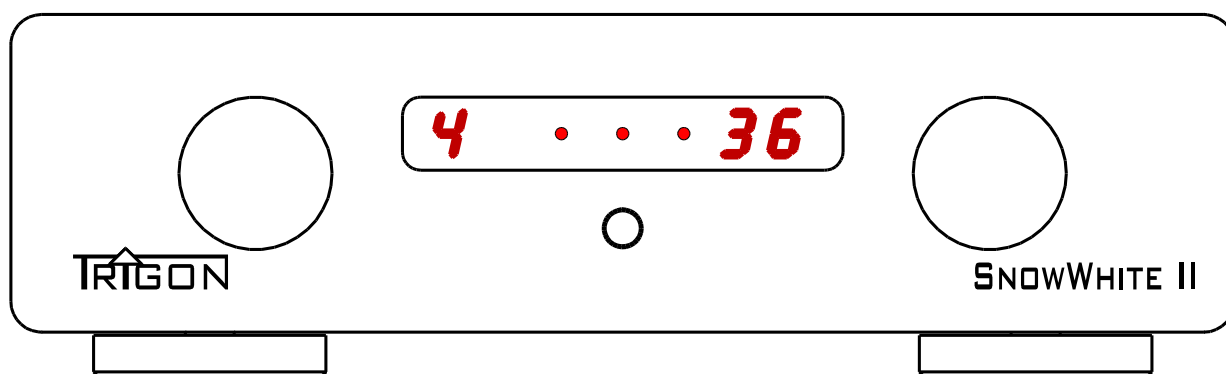




USERS MANUAL FOR PREAMPLIFIER

SNOWWHITE II



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1 Introduction

Valued **TRIGON** - Customer

We are excited that you have chosen to purchase the **SNOWWHITE II** preamplifier. This unit was built using the highest quality control to insure utmost precision in manufacturing.

Whether you are a beginner to Hi-Fi or advanced user, it is highly recommended that you read and understand this User's Manual thoroughly before using your new preamplifier.

Be sure to keep this manual easily accessible as it could come in handy during normal use of this preamplifier.

We hope that you enjoy your new preamplifier and thank you for choosing **TRIGON**

2 General Description

The **SNOWWHITE II** is a High-End preamplifier with three analogue high-level inputs and four digital SPDIF inputs.

This preamplifier is completely controlled by a sophisticated microprocessor. The features of the **SNOWWHITE II** are both accessible via the front panel or via the **DIRECTOR** remote control. The front panel features a dimming Display that informs users of the active in-use configuration. The unit can also be turned off or on via the remote control when in stand-by mode.

The volume setting is controlled through a special D/A Converter and as such is both technically and sonically far superior to a traditional volume pot (potentiometer). This method of volume control allows for a channel output that is exact at low volume as well as high volume settings, insuring that the sound stage doesn't wander or lose focus with each change of the volume setting.

The power supply also boasts noteworthy features in its design. The external power supply delivers the preamplifier with controlled even voltage. Inside the preamplifier itself, is housed the current regulation for all the gain stages. This power supply design helps reduce the possibility of inducing hum into the system.

2.1 Safety Information

TRIGON ELEKTRONIK GMBH will not assume any responsibility for damages occurred from unsafe handling of the product or from not adhering to the recommend safety instructions below.

- The preamplifier should not be used unmonitored in close proximity to heat producing devices such as Water heaters, Fireplaces or Flammable materials.
- The preamplifier is not designed to withstand heavy impacts or severe vibrations.
- The preamplifier should not be used un-monitored when being transported from a

cold environment into a warm room.

- The preamplifier should not be used when placed out in direct contact with the Sun.
- Insure that the installation location for this product has adequate ventilation.
- The preamplifier should not be doused with any type of liquid. It is imperative that no liquid get inside the unit.
- Never use this product without the shielded top cover installed.
- Before removing the top cover always insure that the AC cord has been removed from the AC outlet and that the product has sat to drain any residual current.
- Never short any of the fuses. Replace broken fuses only with original fuses of the same value and type.
- Do not attempt to service this unit. Repairs are only to be done by authorized service centers or through the factory direct. Any such unauthorized repairs will result in a voided warranty.
- Always make sure that your complete audio system is shut off before changing any cables or connecting any other components.

The floor power supply of **SNOWWHITE II** is a switch mode version and operate at main voltages between 100V to 250V AC 50/60Hz. Contact your local dealer or **TRIGON** directly if you should need a different voltage version.

2.2 Installation Information

During unpacking, please inspect the unit for any potential transportation damage. If you notice any damage, please get in contact with your dealer.

Confirm the contents of the box. In addition to the **SNOWWHITE II**, you should also have the following:

- Floor Power Supply
- Power Cord
- User's Manual
- Warranty Card

Place the unit on a dry, level surface. Be sure that the unit has good ventilation around it. Strong magnetic fields commonly found in amplifier transformers and halogen light transformers can induce hum into a system. Because of this, it is best to place the unit a reasonable distance from such devices. Also, the audio interconnects should not be run in parallel to AC power cables as this can also induce noise.

Hum is also produced from light bulbs. It is best to place audio equipment at least 3 feet away from them.

Try to utilize natural light and make sure not to use the **SNOWWHITE II** unmonitored next to heat sources.

2.3 Warranty and Service Information

In choosing the **SNOWWHITE II**, you have selected a valuable and technologically advance product. We at **TRIGON** are trying to improve our quality control through all steps in the production cycle to insure that all **TRIGON** products meet our quality expectations. If a problem is experienced, **TRIGON ELEKTRONIK GMBH** offers a three-year warranty. This warranty covers repairs for any manufacturing defects.

It does not cover damages that are the result of neglect or misuse. It also is considered void if unauthorized personnel do any repairs or modifications. Any alterations to the serial number, or transportation damage are not covered as part of this warranty.

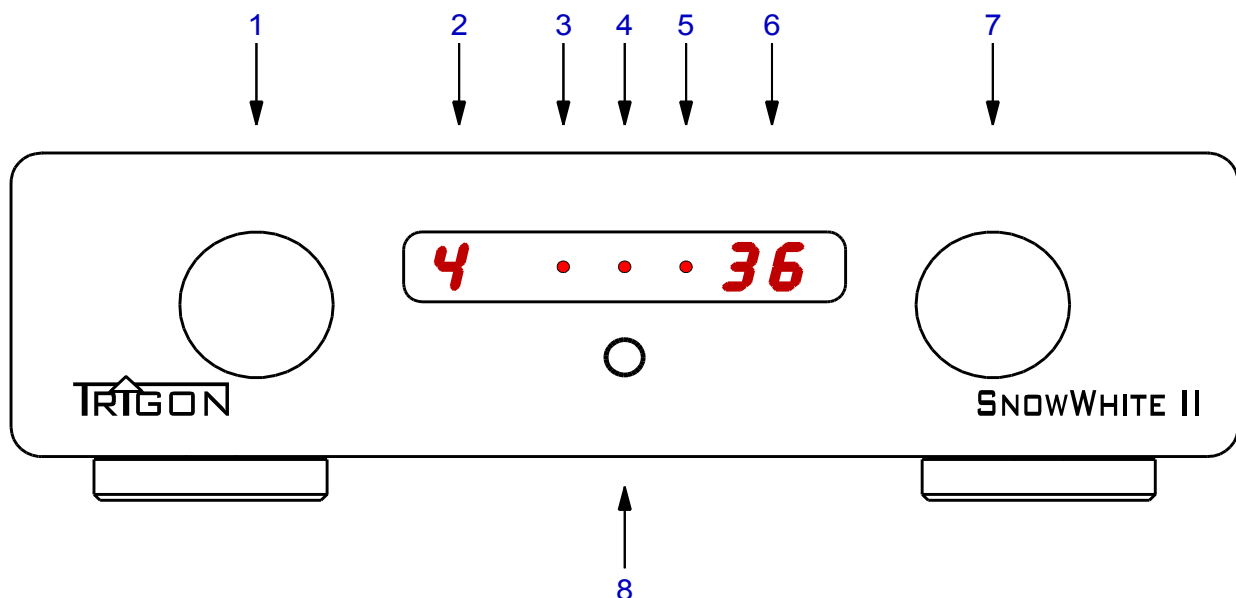
3 Initial Setup

After you have unpacked the preamplifier, you should first connect the unit to the power supply and plug it into the AC outlet. Before you have connected any of your other components turn the unit on to test that it powers up properly.

After a short warm-up period, you will hear a quiet “clicking” sound from Relays within the **SNOWWHITE II** signaling that the unit is ready to be operated. At this time you should become more familiar with the proper usage and connection possibilities of the **SNOWWHITE II**. Test the various controls (i.e. input selection, volume, etc..) at this time for functionality, while none of your sources are connected. This will insure that no damage can occur. After you have tested all the functions and understand how to control the Snow White, you can begin to connect your other audio components.

When connecting cables between components, be sure that both the Snow White and other components are powered OFF!

3.1 Front Panel Controls



1 - INPUT SELECTOR KNOB :

With this knob you can select which input is to be activated for listening. The selected input can be seen on the Display [2].

Pushing the knob will engage the MODE menu. While in the MODE menu, turning the knob will scroll through the individual Menus. To exit the MODE menu, simply push the knob once again.

2 –Display Input :

This display shows what input is currently selected and active. A small dot will light up behind the display if the cinch-output [13] is set to a record output (see #4.4).

3 - LED :

This LED will light up once the stereo balance is turned more left.

4 – LED Power Indicator :

This LED will glow dimly as soon as the Snow White is set into Standby mode. Receives the preamplifier a signal from the remote control, this LED flashes to the beat of the received signal.

5 – LED :

This LED will light up once the stereo balance is turned more right.

6 – Display Volume and MONO-Indicator :

This display shows the select volume level. It also displays other values when in the *MODE Menu*. This is more fully described in the MODE-Menu section (Chapter 4) below. A small dot will light up behind the display if the MONO function is switches on.

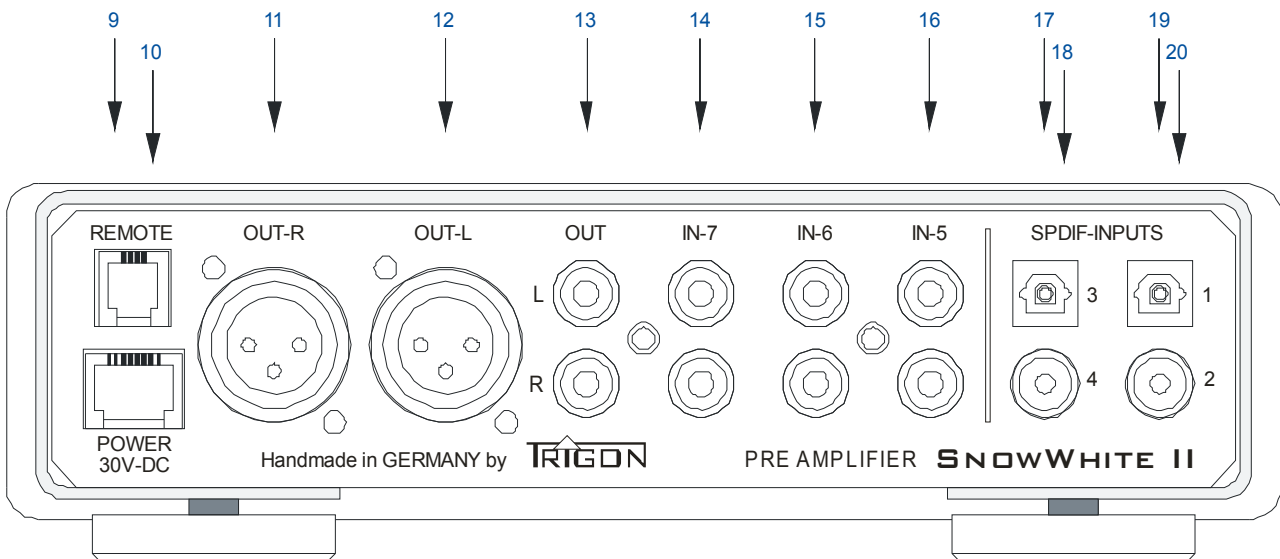
7 – Volume Knob :

This knob is used to set and adjust the volume of the Snow White. If you push the knob, you will engage the MONO operation and a small dot will light up behind the display [6]. The preamplifier will switch back to Stereo operation as soon as the Volume knob is pushed or if the unit is switched into Standby.

8 – On/Off (Standby) Button :

This button is used to switch the unit On or Off (Standby). Once switched On, the LED [4] will light up.

3.2 Rear Panel Connections



9 REMOTE:

Once the **SNOWWHITE II** is turned on there is a control voltage at this jack to powered on prepared power amps or prepared active speakers simultaneously with the pre amplifier.

10 Power Supply Input:

This input is used to connect the external power supply to the Snow White (30V DC).

CAUTION!!! Please never try to connect a similar cable from a Telephone or Computer network! This could damage the Snow White which would not be covered by our warranty. In addition, we would not be responsible for any other damage this may cause!

11 Balanced Output R :

This is the balanced XLR output for the right channel. This output can be used with either an amplifier or active loudspeaker that has a balanced XLR input. Pin configuration is as follows:

Pin 1 - Ground

Pin 2 - Positive Signal (+).

Pin 3 - Negative Signal (-).

12 Balanced Output L :

This is the balanced XLR output for the left channel. This output can be used with either an amplifier or active loudspeaker that has a balanced XLR input. Pin configuration is as follows:

Pin 1 - Ground

Pin 2 - Positive Signal (+).

Pin 3 - Negative Signal (-).

13 Unbalanced Output :

These are the unbalanced RCA outputs to be used with amplifiers and active loudspeakers that have unbalanced RCA inputs. You'll find the left channel output on top and the right channel output on the bottom. The Snow White does not invert phase over these outputs.

14 – 16 Unbalanced Inputs :

The RCA pairs INPUT 5 through INPUT 7 are the unbalanced analogue line inputs . The top row of the inputs is the left channel and the bottom row for the right stereo channel. These inputs can be used with all traditional line-level sources such as Tuners, CD Players, Tape Deck, etc.

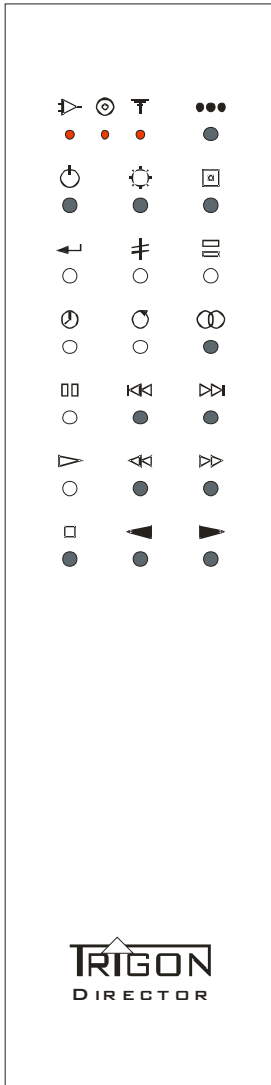
Turntables will need a separate phono stage (such as the **TRIGON VANGUARD II** or **ADVANCE**) to amplify the signal of the phono cartridge to a level which the **SNOWWHITE II** can accept.

17 – 20 SPDIF-Inputs :

To these jacks digital audio devices can be connected, which emit an output signal in accordance with the SPDIF standard. The amplifier can work up to 24 bit 192kHz.

3.3 Remote Control

The **SNOWWHITE II** offers an optional IR Remote called the Director .



The Director is a system remote that can control multiple components. It controls the following functions for the **SNOWWHITE II** preamplifier :

- **On/Off (Standby)** : used to turn the preamp on or off
- **Display On/Off** : used to turn the display on or off.. When switched off, a small dot will be displayed behind the Input LED [2]. Also when switched off, the display will come on for a few seconds if the preamp is used in order to show any changes made .
- **Mode Menu** : used to engage the MODE-Menu. More information can be found in Chapter 4 .
- **Mono/Stereo** : used to engage Mono operation. Once engaged, the Mono LED [6] will light up
- **Input +** : each press will select the next input .
- **Input -** : each press will select the previous input.
- **Volume +10** : the volume will increase by 10.
- **Volume -10** : the volume will decrease by 10.
- **Mute** : used to mute the outputs.
- **Volume +** : Increase volume
- **Volume -** : Decrease volume

The buttons used for these functions are described in the User Manual for the **DIRECTOR** remote control.

(The image to the left has the relevant buttons for the Snow White high lighted in bold .)

4 The *MODE* Function

We have included many additional features in this preamplifier that can be accessed via the *MODE* menu .

The following functions are available in order of access in the *MODE* menu :

- Balance control
- Input level adjustment

- Adjusting Display brightness
- Setting Input 7 to a record output
- Unity Gain (Home Theater through-put)
- Input level adjustment
- Factory Default Setting

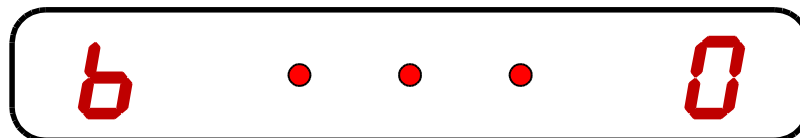
To access the *MODE* menu, push the input selector knob. Once in the *MODE* menu, rotate the input selector knob right or left to scroll through the menu options. If nothing is done within approx. 12 seconds, the unit will automatically switch back to “normal” operation mode .

All changes in are automatically saved once the input selector knob is used to move to the next menu option. The input selector knob can be turned either right or left to scroll either forward or back within the *MODE* menu. Turning the knob left when at the “Balance Control” option will exit the *MODE* menu as will turning the knob to the right when at the “Factory Default” option. You can also escape from the *MODE* menu at any time by simply pressing the input selector knob.

The individual options in the *MODE* menu are described in further detail below.

4.1 Balance Control

The following should be seen on the display to adjust balance:



The volume control knob [7] is used to adjust the channel balance. When adjusting channel balance, please note that either the left LED [3] or right LED [5] will be lit to indicate which channel is receiving more signal. The volume display [6] will indicate exactly how much more signal is being sent to an individual channel. Each number represents a difference of 1 dB of gain. The maximum difference is 100 dB. All changes in are automatically saved once the input selector knob is used to move to the next menu option, or it is pressed to escape the *MODE* menu.

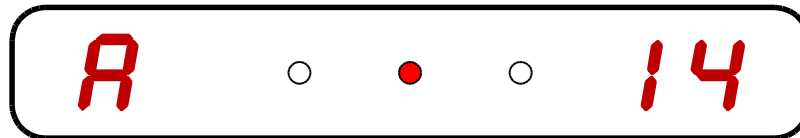
The balance setting will be reset once the unit is turned off. Once turned on again, if another balance setting is desired, please follow the steps above.

Turning the input selector knob clockwise will move to the Unity Gain option, and turning it counter-clockwise will exit the *MODE* menu .

4.2 Initial Volume Level

SNOWWHITE II uses an electronic volume control system. In addition to offering better performance (over the conventional Potentiometer), it also allows for special

features that have previously not been available. One of these features is the ability to adjust the Initial volume level. This is the volume level in which the preamplifier is set to any time it is turned on. This design insures that if a high volume level was last used before the preamplifier was turned off, that this level is not automatically selected when next turned on in an effort to protect your loudspeaker from potential damage. The initial volume level can be set in the *MODE* menu. To do so, press the Input selector knob [1] and move to the fifth option to adjust the initial volume level .

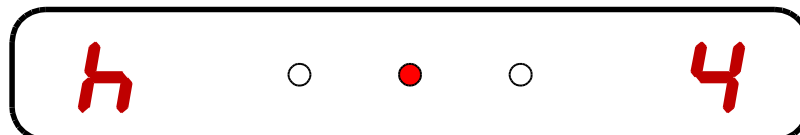


Use the Volume Knob to set the desired initial volume level. The selected value will automatically be saved as soon as another menu option is selected or on exiting the *MODE* menu .

Once finished adjusting initial volume level, the preamplifier will automatically exit the *MODE* menu after approx. 12 seconds or if the Input selector knob [1] is pressed .

4.3 Display Brightness

The brightness of the complete Display can be adjusted in 8 steps .



Turning the volume knob will adjust the display brightness in this menu option. The volume display will show the select brightness level.

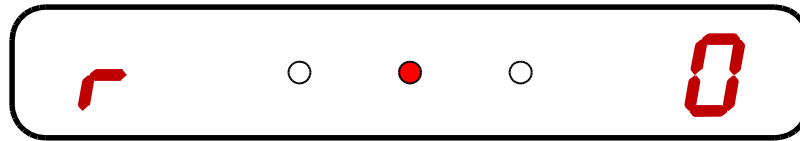
Turning the input selector knob [1] clockwise will move you to the next item in the *MODE* menu.

If you don't want to change any other options, simply press the input selector knob or wait for approx. 12 seconds to exit the *MODE* menu .

4.4 Record Output Activation

Output [13] of **SNOWWHITE II** has two modes. It can be wired as a preamp with volume fader or without control as a record output. In the factory setting (factory setting) it is connected as a controlled preamp and a "0" is displayed. Press the Volume button [6],

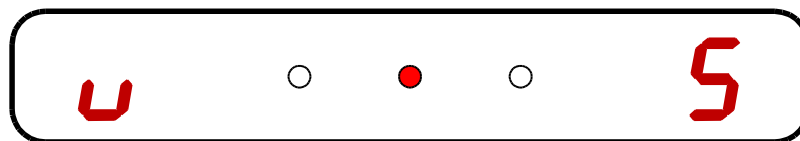
output [13] is used to record output, ie adjusting the volume is turned off for this output and it is independent from the volume setting signal. The display now shows "1".



CAUTION! Go to wisely with this adjustment and make sure that no power amplifier or active speakers is connected to the output [13], if you switch this output to record output !!! Go to the next menu item is accessed by turning the input knob [1] clockwise. The MODE menu can be exited by pressing the input knob [1] or it is automatically changed after about 12 seconds in normal mode.

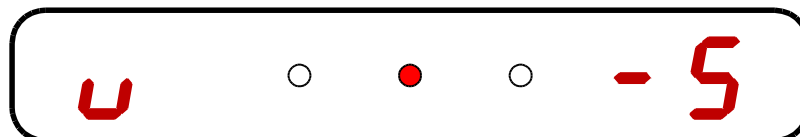
4.5 Unity Gain – Home Theater Through-put

This setting option will by-pass the volume control of a chosen input. This feature is useful if integrating the **SNOWWHITE II** into a multichannel system. Only the analogue inputs 5 to 7 are used for this feature .



Once you are in unity gain mode the input display shows a "u" and right of the currently selected input, eg "5" on. Use the volume knob [7] to select the input to be switched to unity gain.

Long press the volume knob [7] is now slowly building a "0" and once it is fully displayed showing the digit "-" and the volume control is now bypassed for this input.



The input signal is now performed without attenuation or amplification directly at the output stage. The volume setting must now be made to the surround processor.

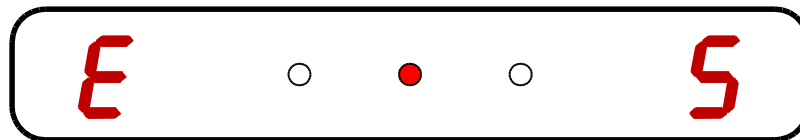
CAUTION! Please be careful when enabling this setting as unintentional switching this feature during the current music program at a fairly high volume jump leads !!!

The unity gain setting remains preset in the memory until it is canceled within this menu by

pressing the volume button. The unity gain setting is only enabled for the input, in which it has been switched on. All other inputs are in the "normal" mode. It can only be assigned **one** input connected to the Unity Gain function.

4.6 Input Levels

It can be that the various sources connected to the **SNOWWHITE II** have different output levels. This is usually noted when switching inputs and noticing that different sources play at more loudly than others. The **SNOWWHITE II** offers the option to adjust the sensitivity for each input . In *MODE* mode, the function appears in fourth position input level. With the volume knob [7] you now can select that input you like to adjust.



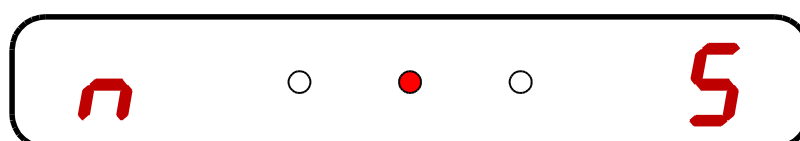
Now press the volume knob [7] again and you can now raise the level (to the right) or the lower level (to the left). The volume display [6] shows you the amount of boost / cut. When adjusting channel balance, please note that either the left LED [3] or right LED [5] will be lit to indicate which channel is receiving more signal. The set value is automatically set once is switched on to the next input. Thus, the input level can be set separately for each input. The setting has a range of + - 12dB in 0.5dB increments, ie 24 digits (Displaying steps) to the "top" and 24 digits after "below".

The level settings are retained even after turning off the amplifier in the memory stored permanently and can only be changed by overwriting or as will be described below, are reset to factory settings "zero".

Do you want to make any other level settings more, the amplifier will automatically exit after a few seconds the *MODE* menu or press again and release the Input knob [1]. To move to the next menu item, turn the input knob [1] clockwise.

4.7 Werksgrundeinstellung

SNOWWHITE II can be reset to the factory default settings in this menu option .



If you are unhappy with the changes you have made in the *MODE* menu and would like to reset the pre amplifiers settings to the factory default, so pressing in this menu (digit [2] shows an "n") as long volume knob [7] until the "Count Down" has counted down to 0 out of 5.

The factory setting is restored, ie the stereo balance is zero, the display brightness is set to the brightest value "8", the basic volume takes the value "10" on all INPUT volume settings are set to "zero", "" unity gain "settings are canceled and the RCA output [13] is connected as a preamp.

--- All of your settings will be lost! The **SNOWWHITE II** will be reset to the Factory Default settings. ---

If you don't want to reset your settings, turn the Volume knob clockwise to exit the *MODE* menu.

5 What to do, if ...

This chapter is designed to help diagnose and trouble-shoot some of the most common errors.

5.1 ... unit doesn't turn on?

Is the AC plug from the Power supply connected properly to the AC outlet? – *Secure connection.*

Does the AC outlet that you have the power supply connected to have current, or is it possible that the fuse for that outlet has been blown? – *Test the fuse for that AC outlet at the house fuse box.*

Is the internal fuse blown? – *Contact your dealer.*

Is the power supply connected to the preamplifier? – *Secure connection.*

5.2 ... no sound is produced?

Do you have the correct input selected? – *Select the intended input.*

Is the selected source even sending a signal? – *Select a different input with another connected source to test if it works. If this source works, then you should test the first source to be sure that it is functioning properly.*

Is the *MUTE* function activated? – *Press the MUTE button on the remote, or simply turn the volume knob.*

Has the unit encountered a static electric charge? – *Sometimes it can occur, especially during winter months, when humidity is higher, that your clothing will carry a slight static electric charge. This charge can be transmitted to the preamplifier during normal use and may confuse the microprocessor used to control the **SNOWWHITE II**. This is a common problem with many common computers as well. If this happens, the **SNOWWHITE II** will turn off the output relays to protect the rest of the system. To fix, first try to change the selected input, which should reset the output relays. If this doesn't seem to work, disconnect the AC cord from the wall outlet for approx. 30-60*

seconds. Reconnect the AC cord and the preamplifier should work without any problems.

5.3 ... there is a hum?

Are all the connections fastened securely? – Test all cable connections.

Sometimes multiple problems can contribute to a magnetic reception, which will result in a system hum. To fix these types of problems, it is recommend that you contact your local dealer who has many years of experience in trouble shooting such issues.

It hums only when connected to a Tuner, VCR or Television? – All of these components are also connected to some type of grounded Antenna. This problem can also be related to a magnetic reception. In this case however, the resolution is quite simple. Use of a shielded power filter on the antenna can reduce or eliminate this hum. These types of shielded power filters are readily available at most HiFi or Radio stores.

5.4 ... the remote control doesn't seem to work?

Does the remote work when set into the Preamplifier mode? – Press the PREAMP button on the remote control. It is now set to control the SNOWWHITE II preamplifier.

Are the batteries empty? – Install new batteries.

Are you using the remote too far from the preamplifier? – Get closer to the preamplifier. IR-remote controls do have an ideal use distance. With full batteries, the unit will only function with in 8 meters from the preamplifier.

6 Technical Data

Amplification	: +20dB
Bandwidth	: 1Hz – 1MHz (+ - 3dB)
Distortion	: < 0.02 %
Channel Separation	: < 80 dB (1kHz)
Signal Noise	: < 96 dBA
Inputs	: 3x RCA analogue, 2x Coax and 2x optical SPDIF 24bit 192kHz
Input Impedance	: 47kOhm (analogue)
Outputs	: 1x RCA , 1x XLR , (1x RCA für Record)
Output Impedance	: Line RCA and XLR = 33 Ohm
max. Output level	: 4.8 V eff
Accessories	: IR-Remote Controller DIRECTOR (optional)
Weight	: 2.1 kg
Dimensions	: 200 x 58 x 350 mm (WxHxD)
Warranty Period	: 3 Years

subject to modifications

Manufacture and design :

TRIGON ELEKTRONIK GMBH

Crumacher Straße 60

D-34277 Fuldabrück-Bergshausen

Tel. +49 (0) 561/47 44 62

Fax +49 (0) 561/47 44 63

E mail trigon@trigon-audio.de

Web www.trigon-audio.de

Trigon, 10th Feb 2015