USERS MANUAL FOR PREAMPLIFIER

SnowWhite

CONTENTS

1 Introduction

Valued **TRIGON** - Customer,

We are excited that you have chosen to purchase the **SnowWhite** preamplifier.
This unit was built using the highest quality control to insure utmost precision in manufacturing.
Whether you are a beginner to High-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** is a High-End preamplifier with between four and five high-level inputs.

This preamplifier is completely controlled by a sophisticated Microprocessor. The features of the SnowWhite 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 soundstage 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 un-monitored 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 **SNOWWHITE** power supply is set at the factory to be operated in 115V. 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**, you should also have the following:

- Floor Power Supply
- 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** unmonitored next to heat sources.

2.3 Warranty and Service Information

In choosing the **SNOWWHITE**, 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.
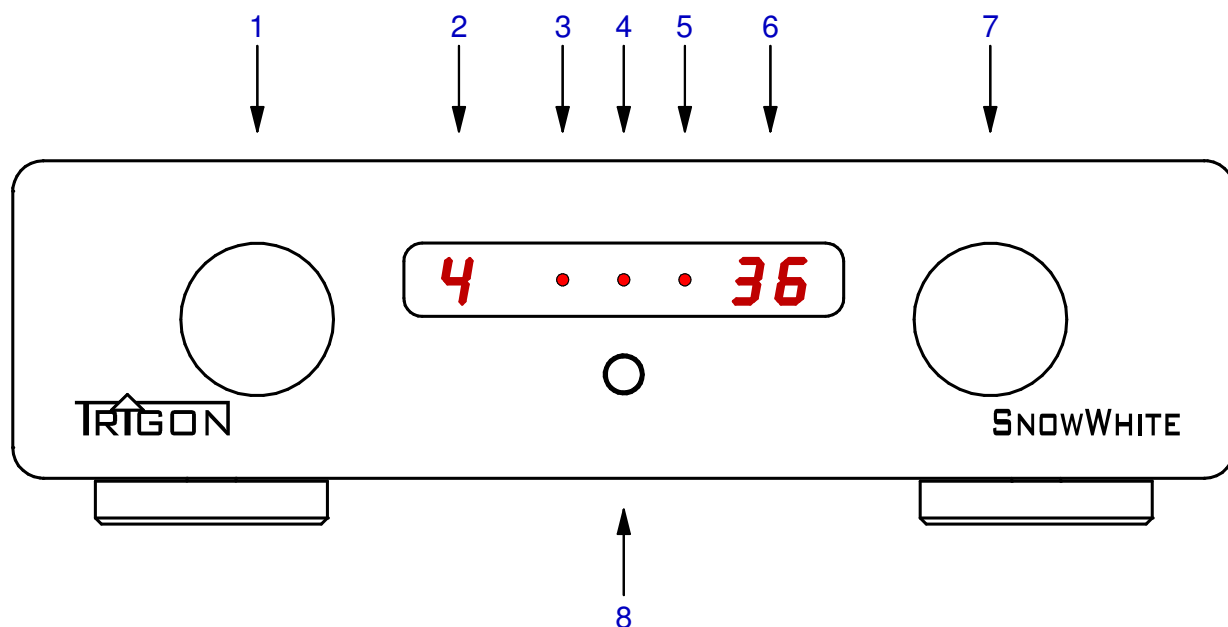
3 Initial Setup

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 Snow White 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 Snow White. 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 - Input Display :
This display shows what input is currently selected and active. A small dot will light up behind the display if the *Display Off* function is selected.

3 – Standby LED :
This LED will glow dimly as soon as the Snow White is set into Stanby mode.

4 – Operate LED :
This LED will light up once the Snow White is switched on.

5 – Mono LED :
This LED will light up when the Snow White is operated in Mono mode.

6 – Volume Display :
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.
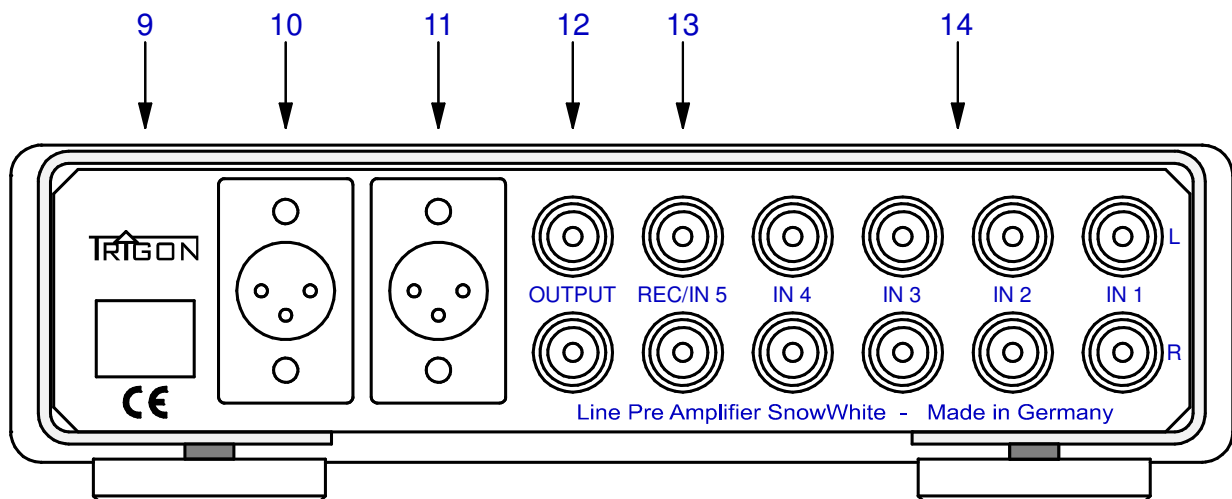
7 – Volume Knob :
This knob is used to set and adjust the volume of the Snow White. If you push the knob, you will engage the MONO operation and the dots behind LED [6] will light up. The preamplifier will switch back to Stereo operation as soon as the Volume knob is pushed or if the unit is switched 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 Power Supply Input:
This input is used to connect the external power supply to the Snow White.

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 addtion, we would not be responsible for any other damage this may cause!

10 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 (-).

11 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 (-).

12 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.

13 – INPUT5 / TAPE OUTPUT :
This set of connections can be configured to be used in two different ways. They can be used as an additional line input or as a record output. In the MODE-Menu, you can select which way you choose to use these connections. More detailed information is listed below in capter 4.6.
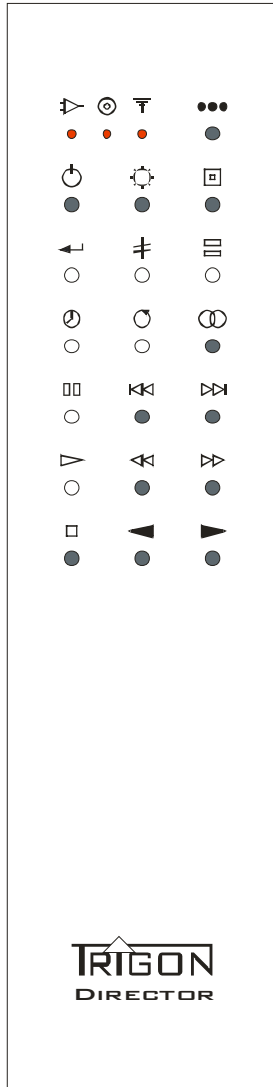
14 - UNBALANCED INPUTS :
The RCA pairs INPUT1 through INPUT4[5] are the unbalanced inputs. The top row of the inputs is the left channel and the bottom row for the right stereo channel. These inputs can be used with all traditional line-level sources such as Tuners, CD Players, Tape Deck, etc.
Turntables will need a separate phonostage (such as the Trigon Vanguard II or Advance) to amplifier the signal of the phono cartridge to a level which the Snow White can accept.

3.3 Remote Control

The Snow White offers and optional IR Remote called the Director.

The Director is a system remote that can control multiple components. It controls the following functions for the Snow White 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[5] 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. When engaged, a small dot will be displayed behind the Mute LED[6].
- 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 highlighed 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
- Adjusting initial volume level
- Adjusting Display brightness
- Setting Input 5 to a record output
- Unity Gain (Home Theater through-put)
- Input level adjustment
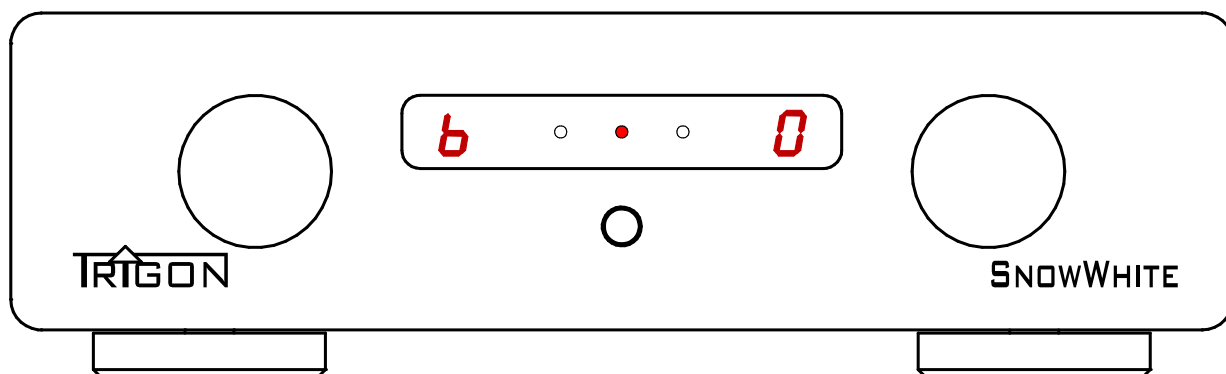- Factory Default Setting

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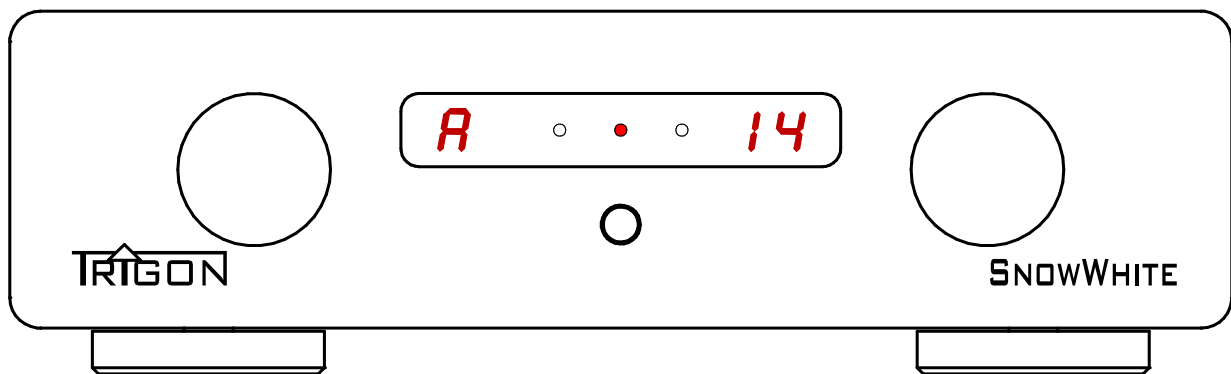
The balance setting will be reset once the unit is turned off. Once turned on again, if another balance setting is desired, please follow the steps above.

9

Turning the input selector knob clockwise will move to the Initial Volume level menu option. Pressing the input selector knob will exit the *MODE* menu.

4.2 Adjusting Initial Volume Level

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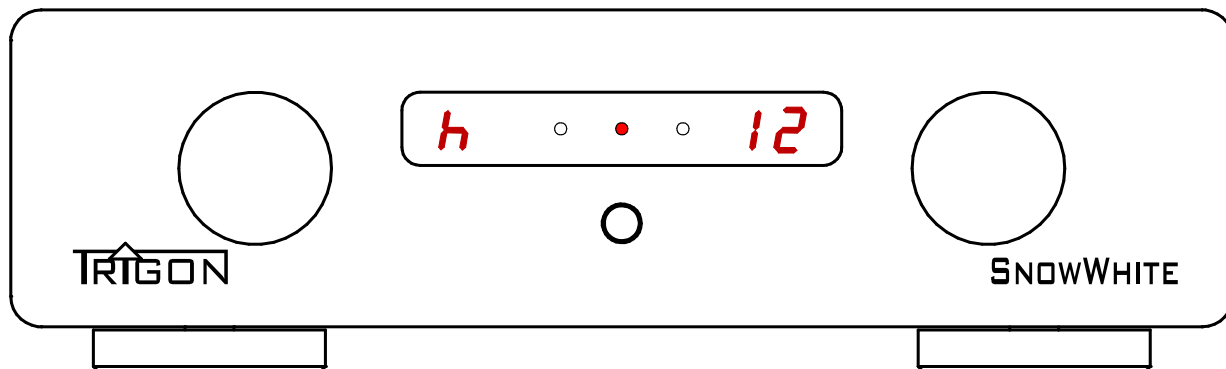
Use the Volume Knob to set the desired initial volume level. The selected value will automatically be saved as soon as another menu option is selected or on exiting the *MODE* menu.

Once finished adjusting initial volume level, the preamplifier will automatically exit the *MODE* menu after approx. 15 seconds or if the Input selector knob [1] is pressed.

4.3 Adjusting Display brightness

The brightness of the complete Display can be adjusted in 100 steps. To do so, press the Input selector knob [1] and move to the third option to adjust the display brightness.
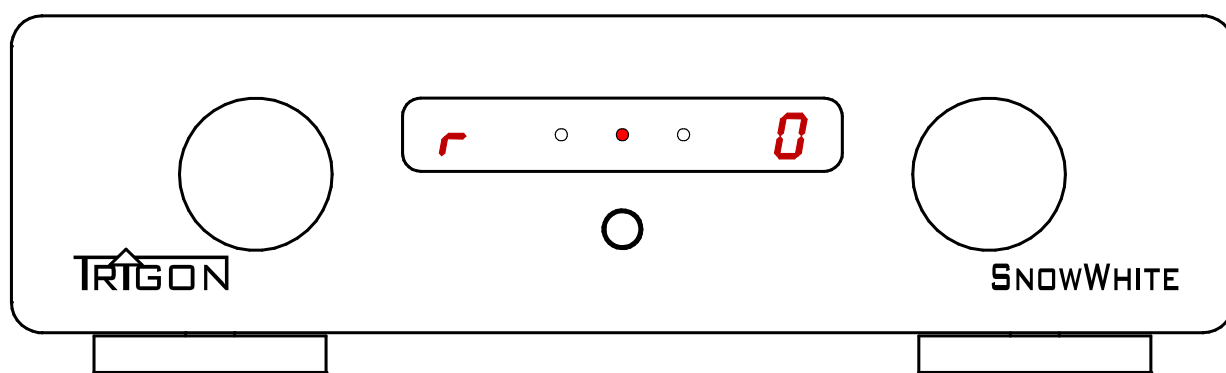

Turning the volume knob will adjust the display brightness in this menu option. The volume display will show the select brightness level.
Turning the input selector knob [1] clockwise will move you to the next item in the *MODE* menu.
If you don't want to change any other options, simply press the input selector knob or wait for approx. 15 seconds to exit the *MODE* menu.

4.4 Activating the Record Output

The SNOWWHITE is shipped from the factory (preset) with five inputs. The fifth input can be converted to a Record Output.
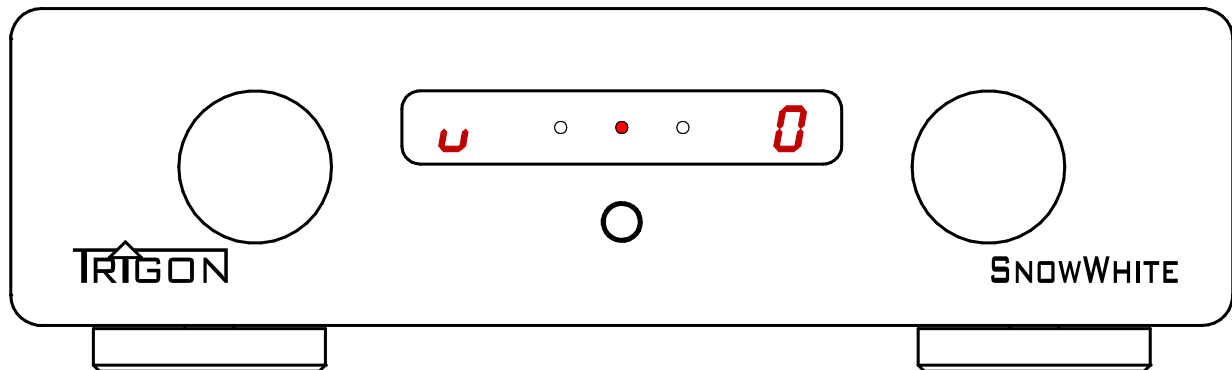

To convert the fifth input, once in the Record Output option, press and hold the volume knob for approx. 3 seconds until the "0" in the volume display changes to "1".
This change is then saved until, using the same sequence, it is reverted back to an input by changing the "1" in the volume display to a "0".
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. 15 seconds to exit the *MODE* menu.
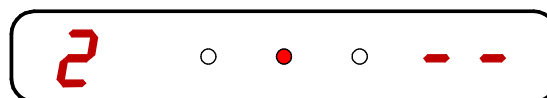
4.5 Unity Gain

This setting option will by-pass the volume control of a choosen input. This feature is useful if integrating the **SnowWhite** into a multichannel system.

The volume selector knob [7] can activate the Unity Gain feature for the input, which was selected by the input selector. Press and hold the volume knob until the volume display changes from "0" to "1", signifying that the volume control is now bypassed. The signal from this input now has no attenuation and volume must be control from the surround processor that is connected to this input.

CAUTION! Be very careful when activating the Unity Gain feature. If selected input has a musical signal at time of activation, it could cause extreme damage to amplifiers and/or loudspeakers.

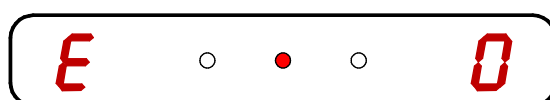All other input are still available as normal inputs with volume control.

Display output with Unity Gain setting on Input 2
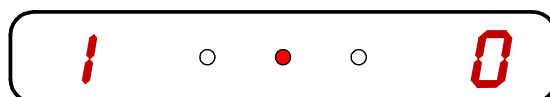
4.6 Input level adjustments

It can be that the various sources connected to the **SnowWhite** have different output levels. This is usually noted when switching inputs and noticing that different sources play at more loudly than others. The **SnowWhite** offers the option to adjust the sensitivity for each input.

In the MODE menu, there is an adjustment for input level. When in the input level adjustment menu, the Input display [2] will alternate showing the letter "E" and a number between 1-5 indicating which input is to be adjusted. Rotate the volume knob to increase (to right) or decrease (to left) the level. An increase in level will light the right LED [5] and a decrease will light the left LED [3]. The volume display [6] will show what level has been selected. Rotating the Input selector knob to the right will move to the next input to be adjusted.

Input level adjustment display …

… alternating with the following for Input 1:

The adjusted input level value will automatically be saved as soon as the next input is selected. This process can be used to set the input level for each individual input.

The total input level can be adjusted to +/- 12dB in 0.5dB steps. There are 24 steps in either direction that can be selected.
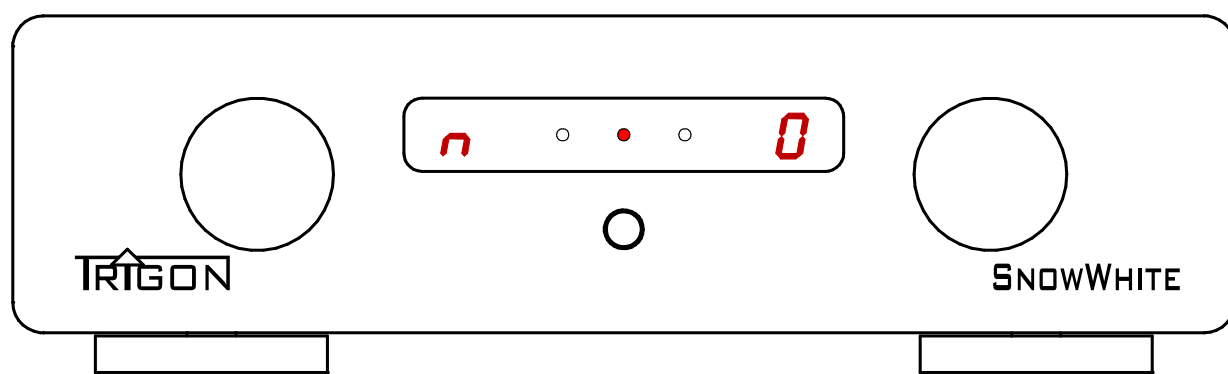
The selected input levels will stayed saved in memory even if the preamplifier is turned off. The selected input levels can only be changed back individually or via the Factory Default reset as described below.

Once finished adjusting input levels, the preamplifier will automatically exit the *MODE* menu after approx. 15 seconds or if the Input selector knob [1] is pressed.

Turn the Input selector knob [1] clockwise to move to the factory default setting menu option.

4.7 Factory Default Setting

The ꜱɴᴏᴡᴡʜɪᴛᴇ 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 preamplifiers settings to the factory default, press the volume knob [7] quickly in this menu (LED [2] shows a "n"). The *MODE* menu is exited and at the same time all the factory default settings are reset (i.e. Stereo Balance = 0, Display Brightness = "99", Initial Volume = "5", Input Level is set to "0" for all inputs and 5 inputs are available).

If you don't want to reset your settings, press the input knob 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*. This is a common problem with many common computers as well. If this happens, the* 𝐒𝐧𝐨𝐰𝐖𝐡𝐢𝐭𝐞 *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 *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.*

Beeinträchtigt zu helles Sonnenlicht die Empfängersonde, geht die Reichweite ebenfalls zurück. - *Direktes Sonnenlicht vermeiden!*

6 Technical Data

Gain	: +20dB
Frequency Response	: 1Hz – 1MHz (+ - 3dB)
Total Harmonic Distortion	: < 0.02 %
Channel Separation	: < 80 dB (1kHz)
Signal-to-Noise ratio	: < 96 dBA
Inputs	: 4x (5x) RCA
Input Impedance	: 47kOhm
Ouputs	: 1x RCA , 1x XLR , 1x RCA for Record
Output Impedance	: Line RCA and XLR connectors @ 33 Ohm
max. Output voltage	: 4.8 V eff
Headphone Output	: 1x ¼" > 200 Ohm
Accessories	: IR-Remote Control
Weight	: 2.1 kg (4.7 lbs)
Size (WxHxD)	: 200 x 58 x 350 mm (7.9 x 2.3 x 13.8 inches)
Warranty	: 3 Years

Specifications subject to change.