Nagra
PREAMP II-S

User manual

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Safety warning

- Read this manual carefully before operating the PREAMP II-S.

- Should you have any questions on how to set up or use your PREAMP II-S, please contact your Nagra dealer.

- Audio Technology Switzerland SA declines any responsibility in the event of an accident caused by the non-observance of these instructions or any other form of user negligence.

- The PREAMP II-S must not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, should be placed on it.

- To prevent the risk of electric shock and burns, never attempt to open your PREAMP II-S. For tube replacement, please contact your Nagra dealer.

Warranty

Please refer to the addendum enclosed in this User manual.

Congratulations

Welcome to the World of Nagra

Congratulations. You have acquired a masterpiece of audio engineering — the Nagra PREAMP II-S.

Each PREAMP II-S is the culmination of over seven decades of Swiss innovation, conceived and perfected by a team whose expertise has shaped legendary instruments in the worlds of music, science and culture.

Since 1951, Nagra has pursued a singular vision: to capture and reproduce sound with absolute fidelity. This unwavering dedication has been recognized with the industry's highest honors — including two Oscars® and two Emmys® — celebrating both our technical excellence and our artistry in design and craftsmanship.

Within our Research and Development center in Switzerland, every Nagra creation is meticulously refined to reflect our uncompromising standards. The Hi-Fi range, born from our experience in creating professional machines, invites discerning listeners to experience the same precision and emotion that have defined our ethos for generations.

The PREAMP II-S exists for one purpose: to serve the purity of music. It reveals every nuance, every texture, every breath of life within your recordings — transforming listening into a profoundly personal encounter.

We welcome you to the world of Nagra — where engineering meets emotion, and music becomes timeless.

Thank you for placing your trust in us.

Package contents

Besides the manual and the PREAMP II-S itself, the box contains:

- Nagra RCU III IR Remote Control Unit with 2x AAA-Dry cells
- Pair of "Haute Horlogerie" grade microfiber gloves

Please contact your Nagra dealer should anything be missing.

Installation

Positioning

The PREAMP II-S is designed exclusively for indoor use in a moderate climate.

There must be enough space all around the chassis for adequate ventilation. Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths, curtains, etc.

The PREAMP II-S must rest on a stable support. We recommend that you use the Nagra CLASSIC VFS FOR SOURCE. The Vibration Free Support for source, developed by Nagra, consists of isolated solid aluminum plates using the same silicone base damping material as the Nagra CD mechanics.

Powering the PREAMP II-S

To prevent the mains from polluting the sound quality, the PREAMP II-S uses an external DC power supply. It is delivered either with a Compact PSU or without a power supply if you already own a Nagra Classic PSU or a Nagra MPS.
Please refer to your Nagra power supply's manual for instructions.
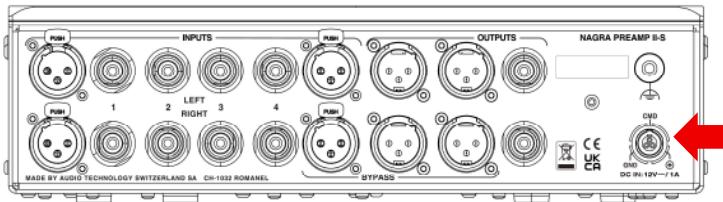
The PREAMP II-S features the legendary Lemo connector found on Nagra recorders for decades.

If you are using a Nagra Classic PSU: the BLACK-sleeved Lemo plug should be connected to the CLASSIC PSU, the brown-sleeved Lemo to the preamplifier.

To disconnect the LEMO plug, hold the fluted section of the connector and pull it backwards.

CMD signal from the CLASSIC PSU

The PREAMP II-S possesses a new feature on the LEMO DC power supply socket. A command signal (**CMD**) has been added on the third contact to communicate with the CLASSIC PSU power supply. This is used by the CLASSIC PSU to perform a clean power on and power off sequence for the PREAMP II-S.

Rear panel connections

1		2	3 4
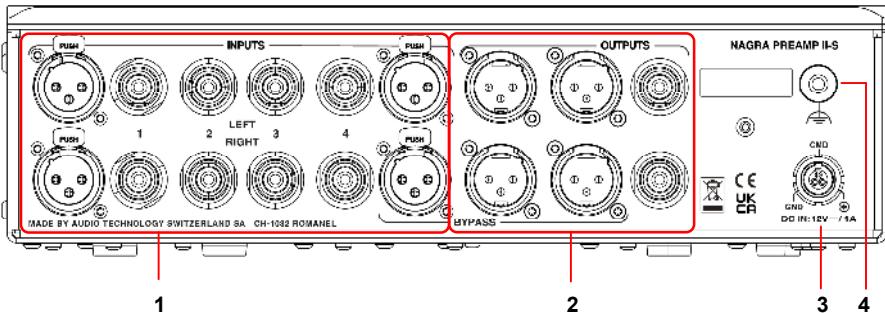
1   Input block with XLR 1, RCA 1 to 4
        XLR BYPASS: this is a special input, see **BYPASS input** on page 8
2   Output block with 2x XLR in parallel and 1x RCA
3   DC power input on LEMO socket
4   Ground post

Please note that the XLR inputs and outputs are unbalanced. Should you need balanced inputs or outputs, please contact your Nagra dealer. There is one set for the inputs and one for the outputs. The transformers are different; the input transformers are much more complex to manufacture and thus are more expensive. All our audio transfomers are custom designed and hand-wound by Nagra in Romanel-sur-Lausanne, Switzerland.

We do not recommend using transformers unless you really need a true balanced signal. Most Nagra units do not require one and we highly recommend using RCA plugs instead of XLR.

To obtain optimal performance from the PREAMP II-S, it is preferable to leave the device switched on for about 15 minutes before use, so that the internal components can reach their optimum operating temperature.

Like all tube electronic devices, the PREAMP II-S requires a running-in period. It will reach peak performance after a few hundred hours' operation.

Note about the Ground post
Use of this feature is handy to solve specific setup issues. Your Nagra dealer will assist you on when and how to use this connector.

Front panel

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
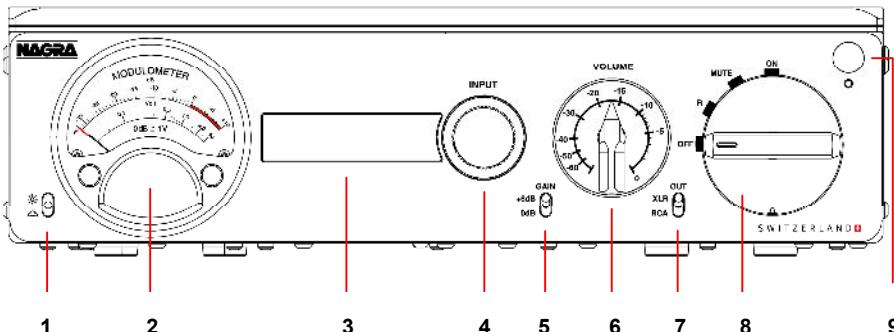
**1** Display and Modulometer backlight intensity switch. Pushing it up increases the intensity, down reduces it. There are 5 intensity levels.

2 Nagra Modulometer indicates the output level in dB, reference 0 dB = 1 V rms

3 Display

4 Input selector

5 Gain selection: standard position 0 dB, upper position +6 dB

6 Volume level control

7 Line out selection, RCA or XLR

8 Rotary selector

9 IR window and remote control LED

When turned **ON**, the PREAMP II-S will go through a 60 second preheating sequence. This is to optimize the warming-up of tubes and critical components which will allow your PREAMP II-S to perform optimally for a longer period, since the components are properly managed.

Please note that you can change input and adjust balance while the unit is warming up.

Operation

Basic operation
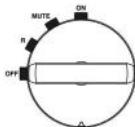
The classic Nagra front rotary selector offers 4 positions. It is a very familiar piece of gear that is cherished by sound engineers around the globe and is unique to Nagra devices. Here is how it works:

Selector	Action
OFF	The unit is in STANDBY. The device is powered but consumption is very low
R	The unit can be triggered **ON** and **OFF** by the remote control
MUTE	The unit is **ON** but muted
ON	The unit is fully operational

NB: When the selector is turned to **ON,** you can use the remote control to mute the unit - the display will show "MUTE":

You can unmute by pressing the "MUTE" button.

BYPASS input

The BYPASS input is a feature that allows a second system, such as a home cinema, to be linked to the main amplifier connected to your PREAMP II-S.

The BYPASS is activated when the PREAMP II-S is turned to the **OFF** position. **The BYPASS input will be directly connected to both the XLR outputs.**

All BYPASS input connectors are connected to the output XLR, so if the source is balanced, the connection will be balanced all the way through.

> ⚠️ **Warning**
> Please note that the PREAMP II-S volume control will be bypassed too. The signal is directly routed to the XLR outputs. Be careful to use a source with volume control. To avoid any damage to the loudspeakers, adjust the volume to the minimum on the source before turning the PREAMP II-S **OFF**.

Nagra Modulometer
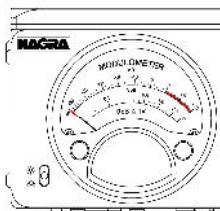
The Nagra Modulometer is inherited from the second recorder developed by Nagra back in 1952, the Nagra II. The Modulometer is a classic Nagra precision instrument that displays the necessary information to perform the best possible recording on that machine. The Nagra PREAMP II-S features a Modulometer that takes its design from the legendary Nagra IV-S reel-to-reel recorder.

Here the Modulometer displays the output level. The 0 dB corresponds to a 1 V rms signal on the output.

Left channel - black needle
Right channel - red needle

The Modulometer enables you to ensure that you are adjusting the volume in a consistent manner with the source and the amplifier you are using.

Input selection

You can select the input by turning the "INPUT" knob clockwise to go from XLR to RCA 1 to 4.
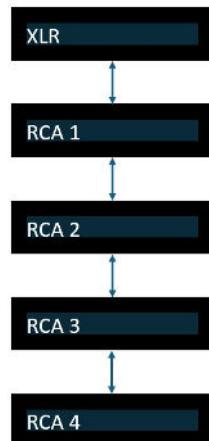
You can also rotate the "INPUT" knob anti-clockwise to go from RCA 4 to XLR.

Gain selection

To accommodate a wide range of amplifier/speaker combinations, the PREAMP II-S's internal gain can be adjusted by a switch on the front panel.

The gain can be changed while the unit is **ON** and playing. +6 dB amplification is a 2x multiplication, so be aware of the sound level when you change gain.

Display and Modulometer intensity adjustment
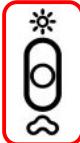
 This two-way toggle switch allows you to adjust the display and the Modulometer backlight intensity. Pushing the toggle UP will increase the intensity, pushing it down will lower the intensity, all the way to no illumination. There are 5 different levels in total.

Balance fine adjustment

The PREAMP II-S balance setting is intended for fine adjustments that will affect Left / Right balance by a few dB. It covers a range from 0.8 to 4.8 dB. Consequently, it is perfectly normal that the volume does not go to either the left or the right channel completely.

The balance is adjusted with the Remote Control Unit.

BAL: L = R

By default, the balance is set to zero and L and R levels are identical.
When you change from one input to the other, the balance will automatically reset. The same occurs when the unit is turned off and back on.

You can adjust the balance by very small increments.

If you press on the **–**, the sound will be reduced by 0.8 dB on the R:

BAL: R-0.8dB

If you now press the **+**

the sound will return to center; pressing the **+** again, it will shift to the right.

BAL: L = R

BAL: L-0.8dB
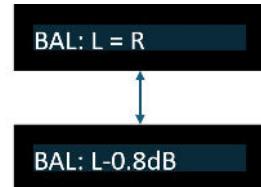
Note that the level is displayed for a few seconds after you press on **–** or **+**, following which it shows the selected input.

MUTE function

When the PREAMP II-S is in the ON position, pressing the central button will MUTE or unmute the preamplifier.

The display will then show **MUTE** on the righthand side.

RCA 1

RCA 1   MUTE
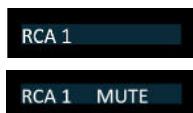
IR Remote Control Unit

⚠	The Remote Control Unit, when equipped with batteries, must not be exposed to excessive heat such as direct sunlight, fire, or other heat sources.	⚠

The PREAMP II-S currently comes with the RCU-III IR Remote Control Unit with Philips RC-5 format encoding.

Volume control
Right balance
Mute
Operation LED
(will blink when a key is pressed)
Left balance

Input block A to E
A=XLR
B=RCA1
C=RCA2
D=RCA3
E=RCA4

Opening screw to access the battery drawer

Power OFF - ON
(Only if the PREAMP II-S front rotary selector is turned to the « R » position)
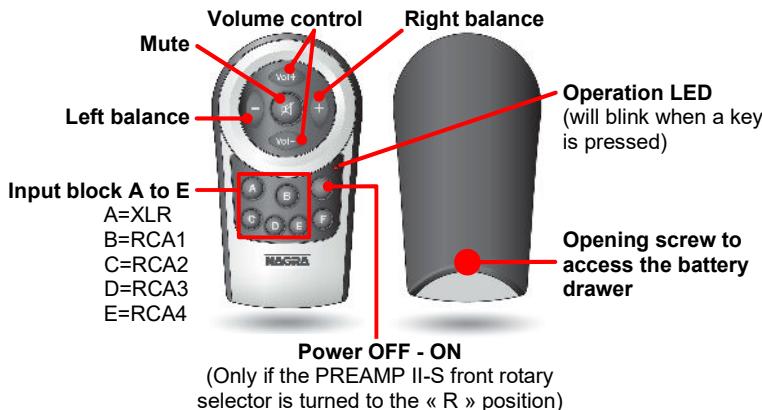
Note: *The « F » key is not assigned for the PREAMP II-S.*

Battery installation/exchange

Open the battery drawer by removing the screw located on the back of the remote control with a small Phillips screwdriver. Replace with 2x AAA-Dry cell batteries.

[recycling symbol]	By ensuring battery is disposed of correctly, you will help prevent potential negative consequences for the environment and human health. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of batteries, please contact your local authority, your household waste disposal service, or the shop where you purchased them.

Using a "universal remote"

The PREAMP II-S responds to IR (Infra Red) signals encoded in Philips RC-5 format. A default device ID code 16 has been allocated to the PREAMP II-S as a preamplifier. Should you wish to program your universal Remote Control Unit, please use the following table:

Code	Function
1 to 5	Input **A** to **E** (code 6/input **F** is not active for the PREAMP II-S)
12	Power ON - OFF
13	Mute
16	Volume up
17	Volume down
20	Balance Reset
26	Balance Right
27	Balance Left
32	Change input - next
33	Change Input - previous

Tube ageing

The PREAMP II-S tubes are selected by Nagra according to exacting criteria. Their theoretical minimum useful life is 5'000 hours. In reality, some tubes will operate consistently for more than 10'000 hours.

Thus, the useful life of the tubes is somewhat unpredictable. Rather than replacing the tubes arbitrarily after 5'000 hours, we suggest that you identify the signs of ageing:

- The distortion gently increases to an audible level
- Presence of clicks, short noises, like dead wood snapping
- Presence of pops, short noises in the low frequencies
- Presence of hiss, higher background noise

As soon as one of these signs appears, please contact your Nagra dealer to order a PREAMP II-S replacement tube kit, reference no. 7055764000.

Case cleaning

Clean the PREAMP II-S casing using a soft, lint-free, slightly damp cloth. Do not use any cleaning products which could have a corrosive effect.

Technical specifications

Input impedance (without sym. input transformers)	31 kΩ	Balance setting in the menu L=R
Output impedance (without sym. output transformers)	18 Ω 9 Ω	Gain selection switch @ +6 dB Gain selection switch @ 0 dB
Frequency response	10 Hz - 50 kHz	+0 / -0.5 dB
Dynamic range	> 125 dB	Gain selection switch @ +6 dB
Input level to reach 0 dB (Modulometer)	1 V rms	Gain selection switch @ 0 dB, volume potentiometer @ 0 dB
Total harmonic distortion (THD + N)	< 0.01 %	@ 1 kHz, 1 V rms out, no load
Crosstalk	> 85 dB	@ 1 kHz, 1 V rms out, no load
Vacuum tubes	2x 12AX7/ECC83 1x 12AT7/ECC81	Genalex Gold Lion
Power supply	12 – 12.6 V DC / 1 A	
Power consumption	P_{MAX} 12.6 W	
Operating temperature	+15°C to +35°C +59°F to +95°F	Standby < 1 W
Operating environment	Indoor only	Moderate climate
Dimensions L x W x H	380 x 280 x 76 mm 15 x 11 x 3 in	IP30
Weight (net)	4.8 kg / 10.6 lb	Overall

Specifications may change without notice

Accessories and options

Part number	Description	Comment
7055026060	*Input symmetrical transformers kit*	
7055026070	*Output symmetrical transformers kit*	
7055328000	*Remote Control Unit*	*Spare unit*
7155302030	*Tubes kit*	*Spare tubes*

Disposal of old electrical & electronic equipment (Applicable in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that it should be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local authority, your household waste disposal service or the shop where you purchased the product.

Applicable to the following devices:
Nagra PREAMP II-S and all the package contents