



Linestage Preamplifier

Operating Manual

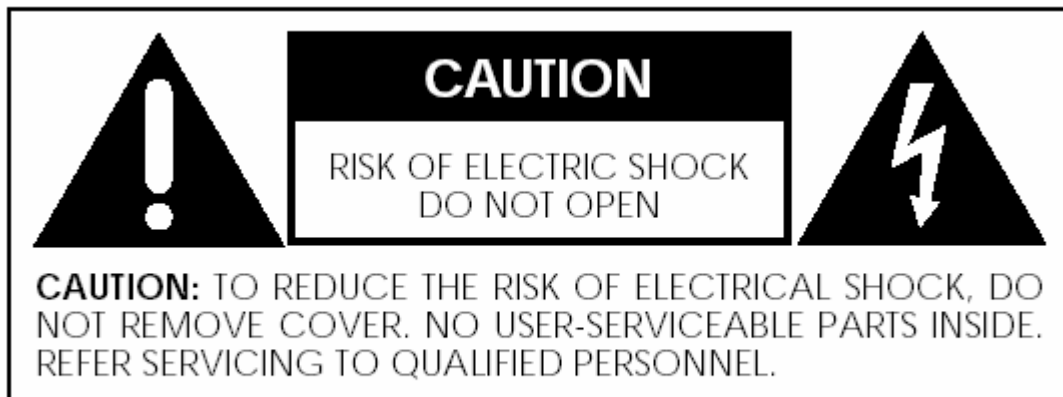
North Star Design®

Linestage

Line Preamplifier

Rev. 1.0 June 03

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Marking by the “CE” symbol (shown left) indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community.

Important Safety Instructions

Please read all instructions and precautions carefully and completely before operating your North Star Design® preamplifier.

1. **ALWAYS** disconnect your entire system from the AC mains before connecting or disconnecting any cables, or when cleaning any component.
2. This product must be terminated with a three-conductor AC mains power cord which includes an earth ground connection. To prevent shock hazard, all three connections must **ALWAYS** be used.
3. AC extension cords are **not** recommended for use with this product.
4. **NEVER** use flammable or combustible chemicals for cleaning audio components.
5. **NEVER** operate this product with any covers removed.
6. **NEVER** wet the inside of this product with any liquid.
7. **NEVER** pour or spill liquids directly onto this unit.
8. **NEVER** block air flow through heatsinks.
9. **NEVER** bypass any fuse.
10. **NEVER** replace any fuse with a value or type other than those specified.
11. **NEVER** attempt to repair this product. If a problem occurs, contact your North Star Design® retailer.
12. **NEVER** expose this product to extremely high or low temperatures.
13. **NEVER** operate this product in an explosive atmosphere.
14. **ALWAYS** keep electrical equipment out of the reach of children.
15. **ALWAYS** unplug sensitive electronic equipment during lightning storms.

Introduction

Welcome to the North Star Design “family” and congratulations on your purchase of what is unquestionably one of the world’s finest audio preamplifier. With its combination of features, precision electronic circuitry and accurately machined chassis components throughout, your Linstage Preamplifier will offer you many years of musically satisfying enjoyment. Please take a few moments to read the remainder of this Operating Manual. A thorough understanding of the operational features will allow you to gain the maximum performance and ease of use for which this Preamplifier was designed.

Enjoy the music!

North Star Design s.r.l.
Via Lenin, 132
56010 San Martino Ulmiano (PI)
ITALY
Phone: +39-050-859945
Fax: +39-050-859166
e-mail: info@northstar.it
website: www.northstar.it

Initial Inspection

Inspect the shipping container for damage. If the shipping container, packing material, Preamplifier or accessories are damaged or missing, notify your dealer and the shipper (if a claim is to be made). Note: Many shippers require notification and an inspection within twenty-four (24) hours of delivery to ascertain the nature of damages incurred.

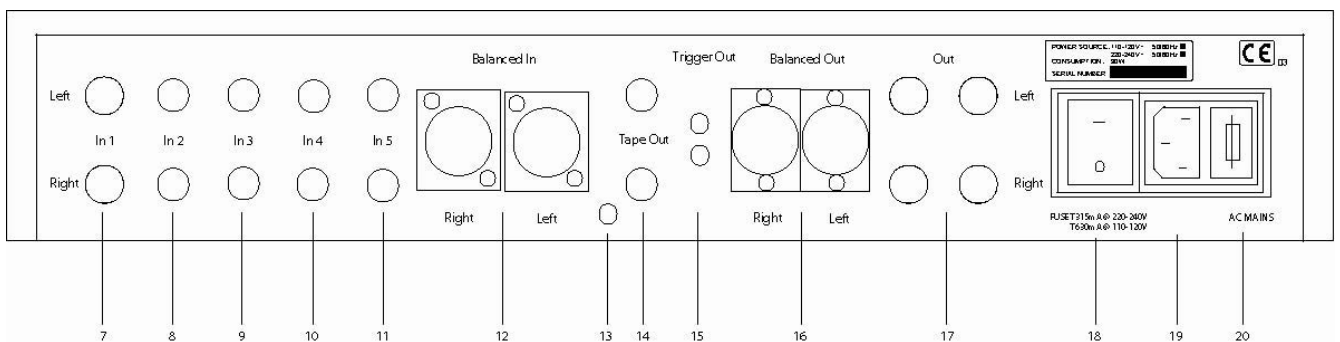
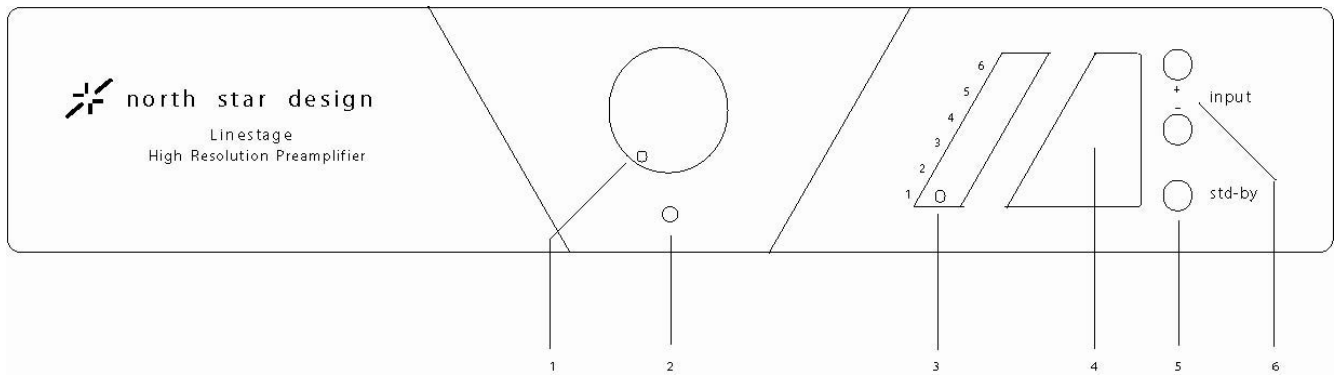
Your Linstage Preamplifier has undergone extensive performance evaluations, listening tests, quality control inspections and a minimum forty-eight (48) hour burn-in period prior to shipment and should be in a perfect operational condition upon receipt. If the Preamplifier does not operate correctly, please notify your dealer immediately.

We strongly suggest that you save all packing materials. If the Preamplifier is returned to your dealer the original packing materials must be used for shipment. Neither North Star Design nor the shipper can be held responsible for damages incurred during transit if the original factory packing is not used. All factory returns require that a Return Authorization number be issued by North Star Design prior to shipment.

Contents

Ensure that all of the auxiliary components listed below are enclosed into the box.

- 1** One (1) Operating Manual
- 2** One (1) AC power cable
- 3** One (1) warranty card (in some countries warranties are provided by the respective importer)
- 4** One (1) remote control
- 5** Two (2) link cable (Monoblock Amplifier connection)



Installation

Locate the Preamplifier as close as possible to its final installation point. Allow access to the rear panel for making connections.

Front & Rear Panel Function Controls

Before attempting any system interconnection, please familiarize yourself with the front and rear panel controls of the Linstage Preamplifier. The descriptions below refer to the numbers and letters associated with the features in the diagram above.

Front Panel

1 VOLUME KNOB

This control is normally used to adjust the listening volume, and does not effect the level of the signal being sent to the Record Outputs. The Volume knob is remoted controlled.

2 INDICATOR LED

The **indicator led** shows the operational status of your Linestage Preamplifier:

Blue brightness indicates that the Preamplifier is **on** and ready to be used.

Red brightness indicates that the Monoblock is in **standby**.

Completely off indicates that the **rear panel AC mains switch** has been turned off.

If the Preamplifier will not turn on, you may want to check the **rear panel AC mains switch**, your AC connections, or have your dealer inspect the rear panel fuses.

3 INPUT INDICATOR LED

The **input led** shows the active input. The same input is sent to tape output and volume controlled output.

4 INFRARED SENSOR

An **Infrared Sensor** for the Remote Control is present rear the window.

5 STANDBY BUTTON

When power is applied to the Preamplifier, and assuming the **rear panel AC mains switch** is set to its **on** position, the amplifier remains in standby. You need to press the stand-by button to for switch on the Preamplifier. If a North Star Design Monoblock Amplifier is connected to Linestage Preamplifier with the trigger connection (**15**) you can switch on-off the entire system from the Preamplifier Standby button.

Subsequent pressing of the Standby button will toggle the Linestage between **standby** mode and fully **on**.

6 INPUT BUTTONS

You can change the active input source pressing the Input+ Input- buttons. If you press the Input+ button the input number will increase; If you press the Input- button the Input number will decrease.

Rear Panel

Caution!

Switch Off the Preamplifier when you need to connect or disconnect any cables.

7-11 UNBALANCED INPUT

The RCA connectors accepts five unbalanced input from a line level source with single-ended (RCA) outputs.

Select the Unbalanced inputs with the front panel input button.

12 BALANCED AUDIO INPUT

Accepts a signal from a line level source with balanced outputs via a high quality XLR connector. Select the Balanced input with the front panel input button.

The pin assignments of this XLR-type female input connector is:

Pin 1: Signal ground

Pin 2: Signal + (non-inverting)

Pin 3: Signal – (inverting)

These pin assignments are consistent with the standards adopted by the Audio Engineering Society. Refer to the operating manual of your balanced output source to verify that the pin assignments of its output connectors correspond to your Linstage Preamplifier. If not, wire the cables so that the appropriate output pin connects to the equivalent input pin.

13 TAPE SWITCH

The Tape Switch allows to connect RCA Tape Out connectors to the active input. Switch off the Tape Out to preserve the quality of output signal.

14 TAPE OUT

At this output you can connect the input of a Tape Recorder. The output signal is not affected by the volume level.

15 TRIGGER OUT

The Linstage Preamplifier can control a pair of “linked” North Star Design “Monoblock” Amplifier when the **trigger** communication port of Preamplifier is connected to the **trigger input** port of the Monoblock.

For the proper operation you need to:

- power off the Linstage Preamplifier and the two Monoblock Amplifier
- connect the two trigger cables (supplied with the Linstage) between the Linstage and the two Monoblock
- Power On the Linstage (now the Linstage is in Standby and send the Standby signal to Monoblock)
- Power On the two Monoblock (now the Monoblock receive the Standby signal from Linstage)
- Now the system is ready to be controlled by the Linstage (front panel or Remote control). The Monoblock Standby button functionality is not available. You can use the Linstage Preamplifier Stand-by button to control the complete system.

16 BALANCED OUT

The Linstage Preamplifier is equipped with a pair of original Neutrik balanced connectors. To take full advantage of the Linstage sonic quality, we recommend using high-quality interconnection cables; ask your North Star Design dealer.

17 UNBALANCED OUT

The Linstage Preamplifier is equipped with two pair of original WBT single ended connectors. The presence of two pair of output connectors allows the passive bi-amplification of your loudspeaker system. To take full advantage of the Linstage sonic quality, we recommend using high-quality interconnection cables; ask your North Star Design dealer.

18 AC MAINS INLET AND AC MAINS SWITCH

Standard IEC power cords is provided with the Linstage Preamplifier. High quality power cords will improve the sonic performances; ask your North Star Design dealer.

The North Star Design Linstage Preamplifier has been safety-tested and is designed for operation with a three-conductor power cord. Do not defeat the “third pin” or earth ground of the AC power cord.

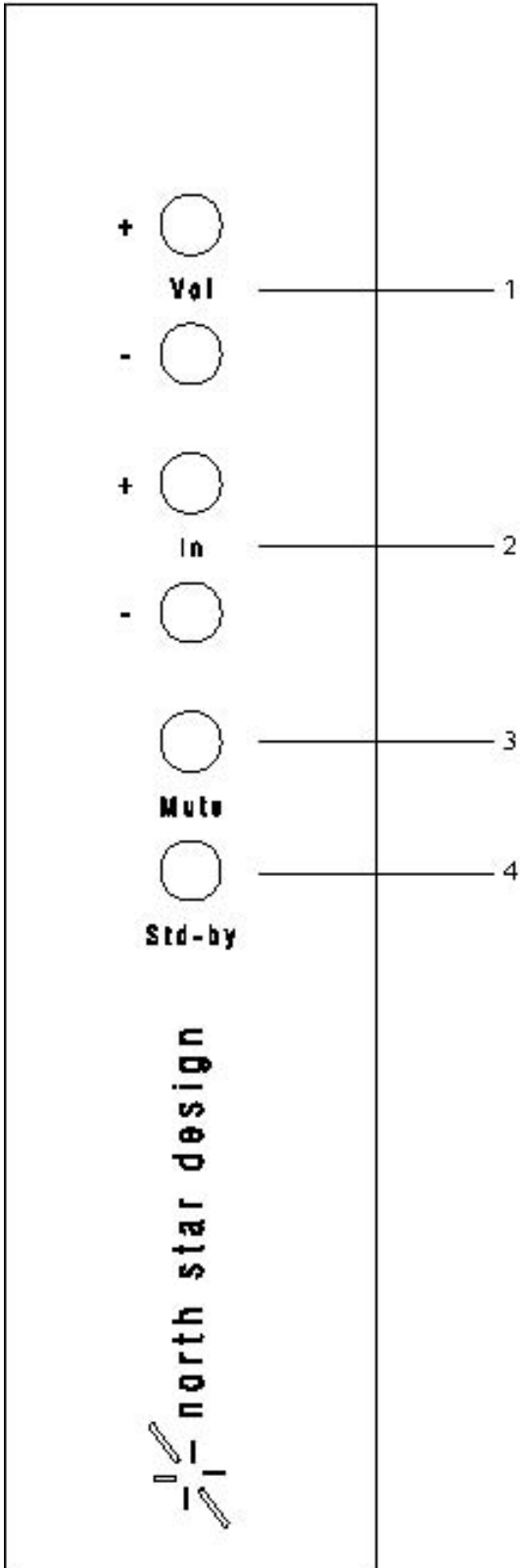
An **AC mains switch** is located adjacent to the power cord on the rear panel of the amplifier. This switch may be used to disconnect the power supply from the AC mains without having to actually unplug the amplifier from the wall outlet. If you plan to be away for an extended period, or have any other reason to turn the amplifier completely off, you may use the **AC mains switch**.

Two slo-blow 315mA (220-240V), 630mA (100-120V) fuses are located inside a small drawer in the AC main inlet. If you suspect that your AC fuses have blown, disconnect the Linestage from the AC mains and contact your North Star Design dealer for assistance.

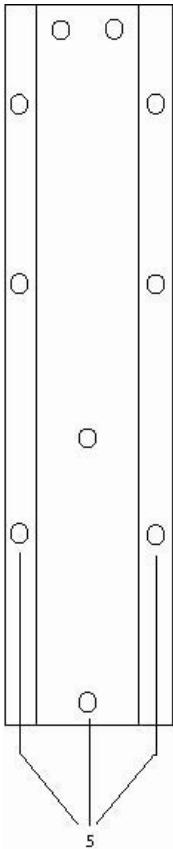
Danger! Potentially dangerous voltages and current capabilities exist within the Linestage preamplifier, when connected to the AC mains. Do not attempt to open any portion of the Linestage cabinet.

There are no user-serviceable parts inside the Linestage preamplifier. All service of this product must be referred to a qualified North Star Design dealer or distributor.

REMOTE CONTROL



1. Volume UP/DOWN; use the +/- Volume button to change the output level of Linestage
2. Input UP/DOWN; use the +/- Input button to change the input source.
3. Mute button; use this button to mute (output disconnection) the Linestage output. The muting state don't allows any other function (volume or input change). Press newly the Mute button to restore the normal operation.
4. Standby button; use this button to toggle the Linestage between the standby and operation state. If a North Star Design pair of Monoblock Amplifier is connected to Linestage Preamplifier with the trigger connection (**15**) you can switch on-off the entire system from the Preamplifier Standby button.
- 5 Replacing remote control batteries. Unscrew the 3 screws indicated in the figure. Gently pull the battery holder and insert a fresh set of batteries. Be careful to follow the + and – polarity indications at the bottom of the battery compartment. Battery: 2 x LR03 / AAA: 1.5Volts.



TECHNICAL SPECIFICATIONS

BANDWIDTH	2 Hz to 700 kHz, -3 dB
THD	less than 0.05% at 1Vrms/47kOhm 1kHz
MAXIMUM OUTPUT VOLTAGE	7.5Vrms (47KOhm load)
OVERALL GAIN	20dB
INPUT IMPEDANCE BALANCED UNBALANCED	50k 47k
POWER CONSUMPTION	30 watts
INPUTS BALANCED UNBALANCED	1 pair per channel (XLR) 5 pair per channel (RCA)
OUTPUT BALANCED UNBALANCED	1 pair per channel (XLR) 2 pair per channel (RCA)
SIGNAL TO NOISE RATIO	> 80dB Unweighted
CHANNEL SEPARATION	> 80dB @1kHz L-R and R-L (other inputs shorted)
DIMENSIONS	17 in (W) x 15.5 in (D) x 3.35 in (H) 43.5 cm (W) x 35 cm (D) x 8.5 cm (H)
WEIGHT	22 lbs. (10 Kg)

NOTES



NORTH STAR DESIGN s.r.l.
VIA LENIN, 132
56010 S.MARTINO ULMIANO (PI)
ITALY

PHONE: +39-050-859945
FAX: +39-050-859166
E-MAIL: info@northstar.it
WEB: www.northstar.it