

ENGSTROM  ENGSTROM

THE LARS TYPE 2™

**User Manual
and
Warranty**

Thank you

Engström & Engström would like to thank you for choosing THE LARS TYPE 2. We hope that you will enjoy your amplifier for many years to come.

Please read the information in this manual carefully before you install THE LARS TYPE 2. We recommend that you also speak to the technical staff at the dealer where you purchased the THE LARS TYPE 2. They can many times help you install your system to secure that you get the best out of it.

You can read more about Engström & Engström and our products on our website: www.thelars.se.

THE LARS TYPE 2

THE LARS TYPE 2 is a fully balanced power amplifier that operates in class A. It has a linear construction throughout the amplifier. No negative feedback is used. THE LARS TYPE 2 is configured as two monoblock amplifiers. Each amplifier has two inputs, one balanced XLR and one unbalanced RCA connector. The XLR and RCA connectors and the output speaker connectors are located on the back of each amplifier. There is a power switch on the back of each amplifier. More details can be found in the text below.

Technical specification

- Power output at 1% THD, 1 kHz: 36W
- Amplification: 26dB or 18dB (switch on the back)
- Sensitivity: 400mV for full output power
- Input impedance: 40kohm
- Loudspeaker impedance: 4, 8 or 16 ohm
- Frequency response +0dB -1dB: 10Hz – 40 kHz
- THD (BW 70kHz) 100 Hz to 10 kHz, 32W less than 0,5%
- IMD (DIN) 250 Hz / 8 kHz 4:1, 24W: less than 0.3%
- Hum and noise: 70dB below full output voltage
- Tubes: 2 x 300B-XLS, 2 x 6V6GT, 1 x 6188, 2 x GZ34
- Mains power: 115V / 230V selectable, 50Hz – 60Hz, 200W
- Dimensions (W x H x D): 300 x 500 x 380mm each
- Weight per monoblock: 30 kg

Important safety instructions

When using an electrical appliance, basic precautions must always be followed. Read these safety instructions carefully before installing THE LARS TYPE 2 and connecting it to your system and an electrical supply.

Danger! Always make sure that you only use tubes for which THE LARS TYPE 2 has been configured. If you are uncertain contact your dealer before installing the tubes. If the tubes and the amplifier configuration are not matched, the tubes will be seriously damaged. The amplifiers may also be seriously damaged. Using the wrong set of tubes will void the warranty.

Danger! Risk of electric shock. Do not remove the top, back and/or the wood cover from the amplifiers. Only authorized service personnel should open the amplifiers for repairs and maintenance work. Not following these safety precautions may be lethal. Any repair and maintenance work carried out by non-authorized service personnel will void the warranty.

Danger! The tubes operate at high temperatures and can cause burns if touched! Do not touch the tubes and/or surrounding areas while the amplifiers are in use and for some time after they have been turned off. Always let the tubes cool down thoroughly and disconnect the power cords before touching or removing the tubes. Always keep the amplifiers out of reach of children and animals.

Danger! The amplifiers generate much heat! Adequate ventilation must be provided for. Do not place anything on top of and/or too close to the amplifiers that may restrict the airflow through the ventilation.

Danger! Risk of electric shock! Do not expose the amplifiers to any kind of liquid.

Important! Always turn off the amplifiers, disconnect the power cords and let the tubes cool down thoroughly before cleaning or dusting off the outside of the amplifiers.

Important! If the amplifiers are moved to a new location, they should be left off for some time in order to adjust to the temperature in the new environment, before further use of the amplifiers.

Unpacking

THE LARS TYPE 2 is shipped in two packages, one for each amplifier. Be careful when unpacking the amplifiers and the other items included. Use gloves (included) when removing the amplifiers and the outer panels from the boxes to avoid leaving fingerprints on the surfaces. Be aware that the amplifiers are quite heavy and that they have a high centre of gravity. Lift each amplifier by holding it on the underside in order to relieve the wood cover from the load.

What's included in the packaging?

- 2 Amplifiers
- 4 Glass panels – 2 for each amplifier
- 2 Set of tubes – 1 set of 7 tubes for each amplifier
- 2 Power cords – 1 for each amplifier
- 1 Pair of gloves
- 4 Fuses
- 1 Hex key
- 1 Polishing cloth
- 1 User manual and warranty

If any of the above items are missing, contact the dealer from whom you bought THE LARS TYPE 2. We recommend that you keep the original packaging, if you should need to transport the amplifiers.

Assembling THE LARS TYPE 2

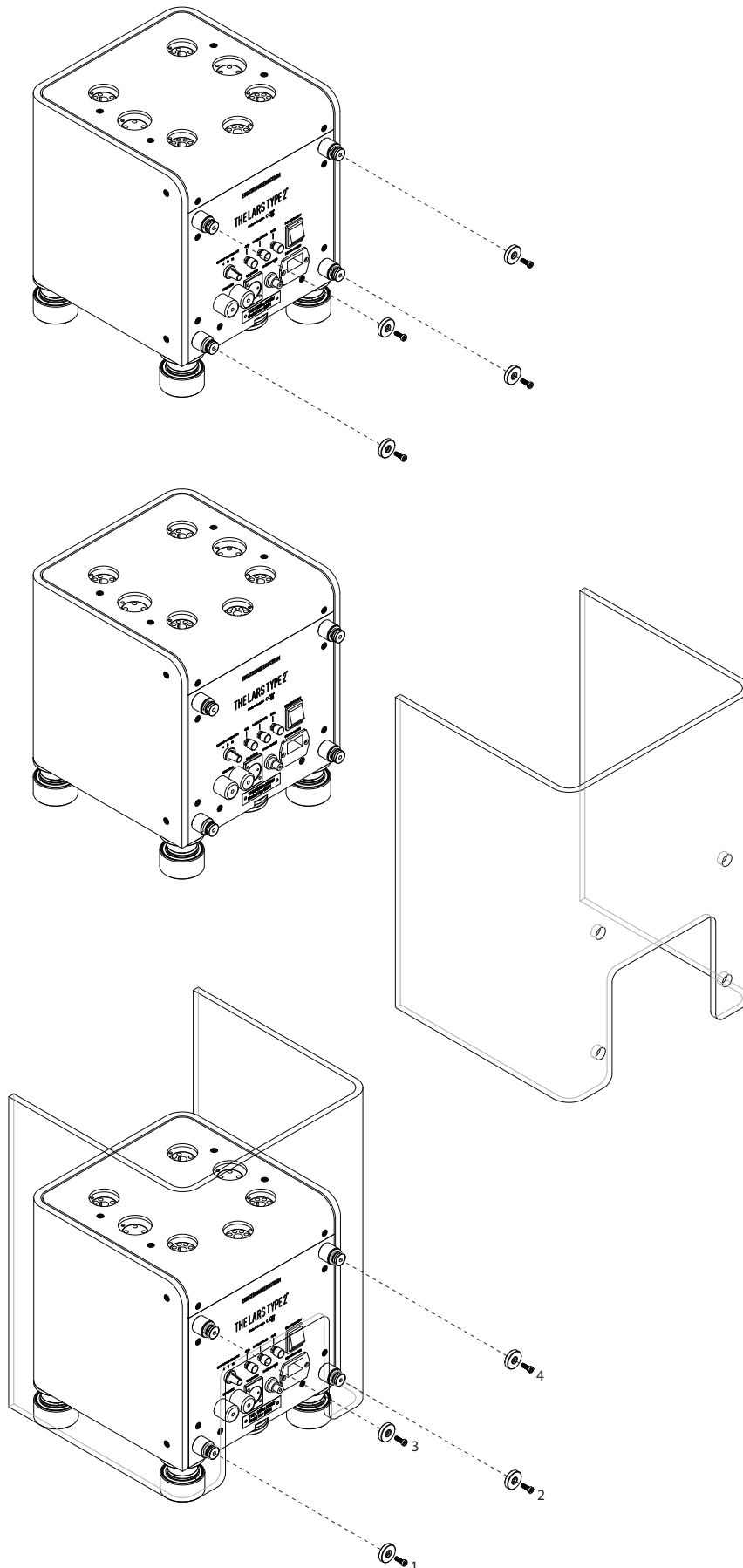
Before mounting the panels and installing the tubes, move the amplifiers to the place where you plan to set up your system. Make sure that the area is properly ventilated and that the airflow around the amplifiers is not prevented. Do not place the amplifiers in a humid environment or close to a heat source, e.g. a radiator or a fireplace. Do not expose the amplifiers to direct sunlight.

Unpack the panels carefully. Use gloves to avoid leaving fingerprints on the surface. We recommend that you ask for assistance when mounting the back panel.

Mounting the back panel

The back panel should be mounted before the tubes are installed.

1. Start by removing the 4 screws and washers as shown in the picture below.
2. Mount the back panel and fix it with the screws and washers.



Installing the tubes

THE LARS TYPE 2 is shipped without the tubes installed. Each amplifier is operated by seven tubes. All tubes must be installed to operate the amplifiers. THE LARS TYPE 2 comes with the following tubes:

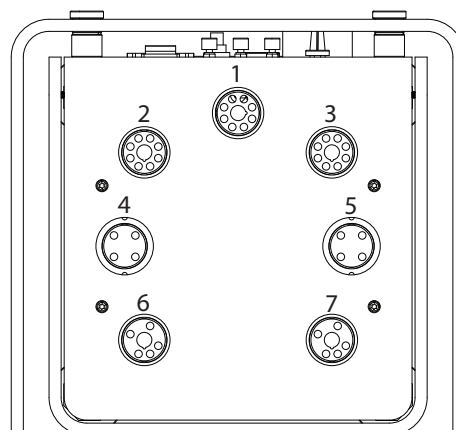
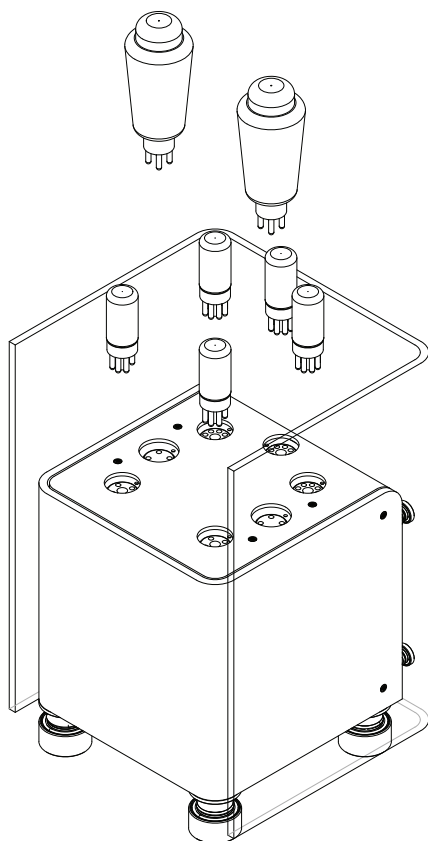
- 2 x 300B-XLS
- 2 x 6V6GT
- 1 x 6188
- 2 x GZ34 (or 5AR4)

The tube packages are numbered and the corresponding sockets on the amplifiers are marked on the illustration below. Install the tubes with a gentle but firm pressure in their respective socket. Be aware that it is possible to install the tubes incorrectly. Doing so may seriously damage the amplifiers and the tubes, and will void the warranty.

Danger! Always make sure that you only use tubes for which THE LARS TYPE 2 has been configured. If you are uncertain contact your dealer before installing the tubes. If the tubes and the amplifier configuration are not matched, the tubes will be seriously damaged. The amplifiers may also be seriously damaged. Using the wrong set of tubes will void the warranty.

Important! Read the safety instructions before installing the tubes.

1. Unwrap the tubes carefully from their packaging. Use gloves to avoid leaving fingerprints on the glass envelopes.
2. Install the tubes in the order shown in the illustration below.
3. When all tubes are installed, check carefully that they are positioned correctly.



1. Tube details: 6188
2. Tube details: 6V6GT
3. Tube details: 6V6GT
4. Tube details: 300B-XLS
5. Tube details: 300B-XLS
6. Tube details: GZ34 (or 5AR4)
7. Tube details: GZ34 (or 5AR4)

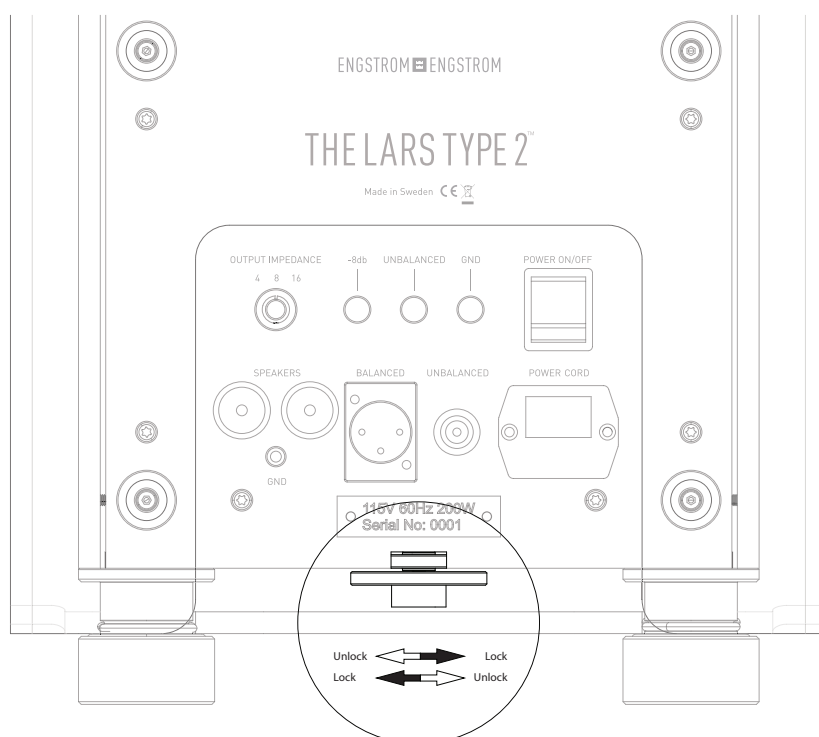
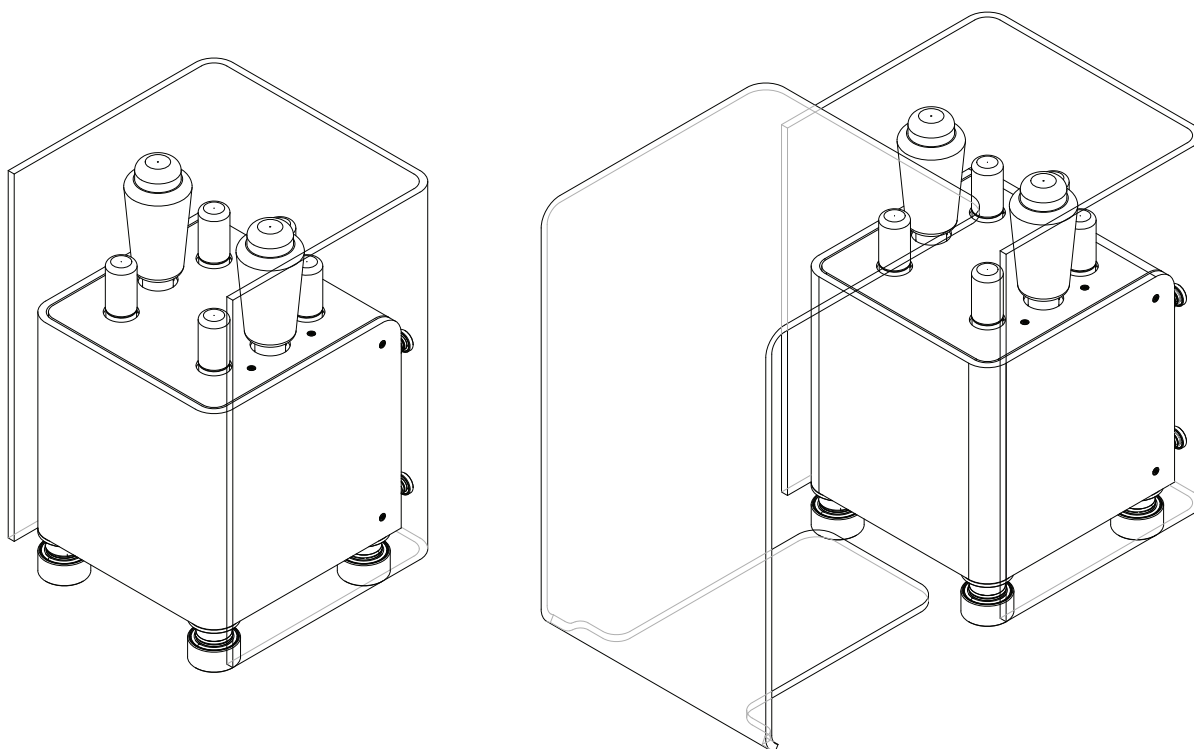
Tube break-in

The tubes, similar to components inside a tube amplifier, work better after a break-in time. At Engström & Engström we burn in the tubes before we ship THE LARS TYPE 2. We do this to give you the best experience from the start. However, you will almost certainly notice even further improvement of the tubes after you have used THE LARS TYPE 2 for some time.

Mounting the front panel

Be careful when mounting the front panel to avoid damaging the tubes.

1. Mount the front panel by sliding it in from the front of the amplifiers as shown in the illustration below.
2. Make sure that the panel rests on all four feet.
3. Fix the front panel with the lock screw found on the back of the amplifier, see illustration below.
 - Turn the upper screw clockwise until the panel is safely fixed against the feet.
 - Turn the lower screw anti-clockwise to lock the screw.



Connections

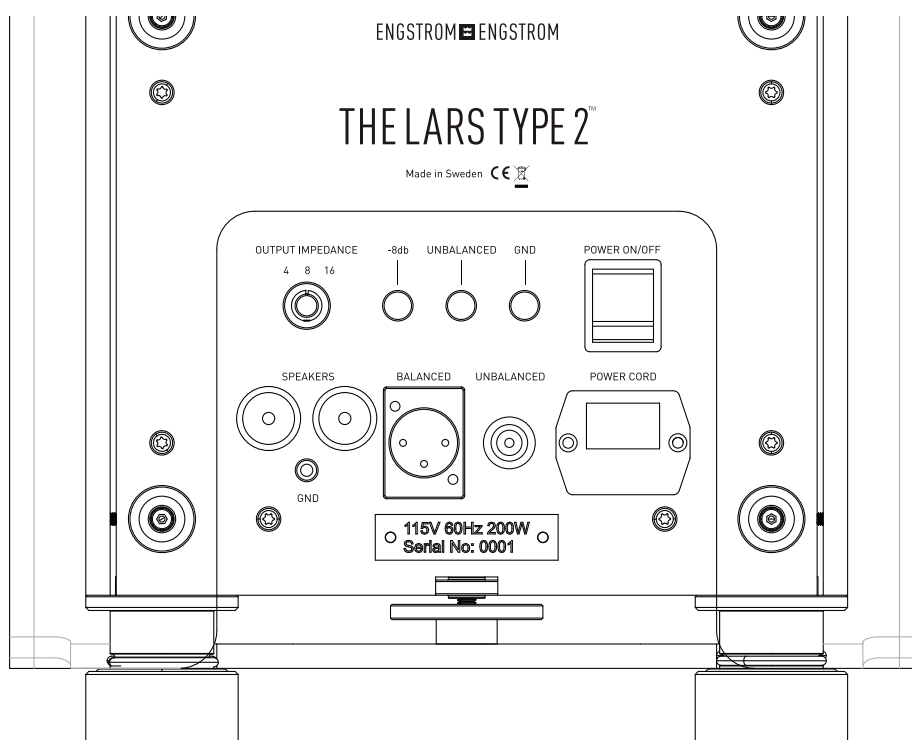
All connectors are located on the backside of each amplifier. See illustration below.

How to connect

1. Connect the loudspeakers and make sure that the polarity is correct. Connect the loudspeakers before the power cords are connected, to secure that the amplifiers are turned on with the correct load.
2. Connect the power cords, one for each amplifier, and then connect the power cords to a wall socket. THE LARS TYPE 2 must be connected to a grounded outlet in order for filters and screening to work correctly.
3. Connect the signal cords. Each amplifier has two line inputs. One balanced XLR connector and one unbalanced RCA connector. If the signal cord has an unbalanced RCA connector, push the **Unbalanced** button on the back of each amplifier.

The signal source should preferably have low output impedance. 600 ohms gives the lowest distortion.

Important! Always turn off the power before connecting or disconnecting any sources to the amplifiers.



The Unbalanced button

The unbalanced button activates the balanced XLR or the unbalanced RCA input connectors. If no sound comes from your system, the reason may be that the input connector that you are using is not activated. Activate it by pushing the Unbalanced button once.

Loudspeaker impedance

To get the best performance, check the impedance of the speakers and use the Output impedance selector on the back of each amplifier to select the setting for **4**, **8** or **16** ohm speakers. If the speaker impedance falls between the fixed settings of THE LARS TYPE 2, the lower impedance should be selected. Example, if the speaker impedance is 6, select 4 on THE LARS TYPE 2.

The GND (Ground) switch

The GND switch is used to diminish the hum that may occur when a source is connected to the unbalanced RCA connector and the source's power cord is not connected to a grounded outlet. Push the switch upwards to its GND position if this is the case.

High voltage output sources

If a source, e.g. a CD player, has a high output voltage, more than 1-2V, push the **-8db** button on the back of each amplifier to dampen the sensitivity and the hum and noise that may come from the source. Most sources have a low output voltage, but some brands have a 5-voltage output or more.

The GND (Ground) connector

If a source has a separate ground cord, it can be connected to the **GND** connector.

Turning the amplifier on/off

Check that all connections are correct before turning on the power. Each amplifier has a power switch located on the back. The amplifiers need a couple of minutes to warm up before they are ready to run.

If the amplifiers have been turned off, they should be left off for a few minutes before turning on the power again. This ensures that the tubes warm up in the correct sequence.

Maintenance

Important! Always turn off the amplifiers, disconnect the power cords and let the tubes cool down thoroughly before cleaning or dusting off the outside of the amplifiers.

The outer panels can be removed to be cleaned, or to remove dust from the amplifier. The panels can be washed in warm water with a mild detergent. The wooden case is finished with normal furniture lacquer, and can be wiped off with polish when required. Fingerprints on the metal-plated surfaces can be removed using a soft non-fluffy cloth.

Danger! Risk of electric shock. Do not remove the top, back and/or the wood cover from the amplifiers. Only authorized service personnel should open the amplifiers for repairs and maintenance work. Not following these safety precautions may be lethal. Any repair and maintenance work carried out by non-authorized service personnel will void the warranty.

Mains fuses

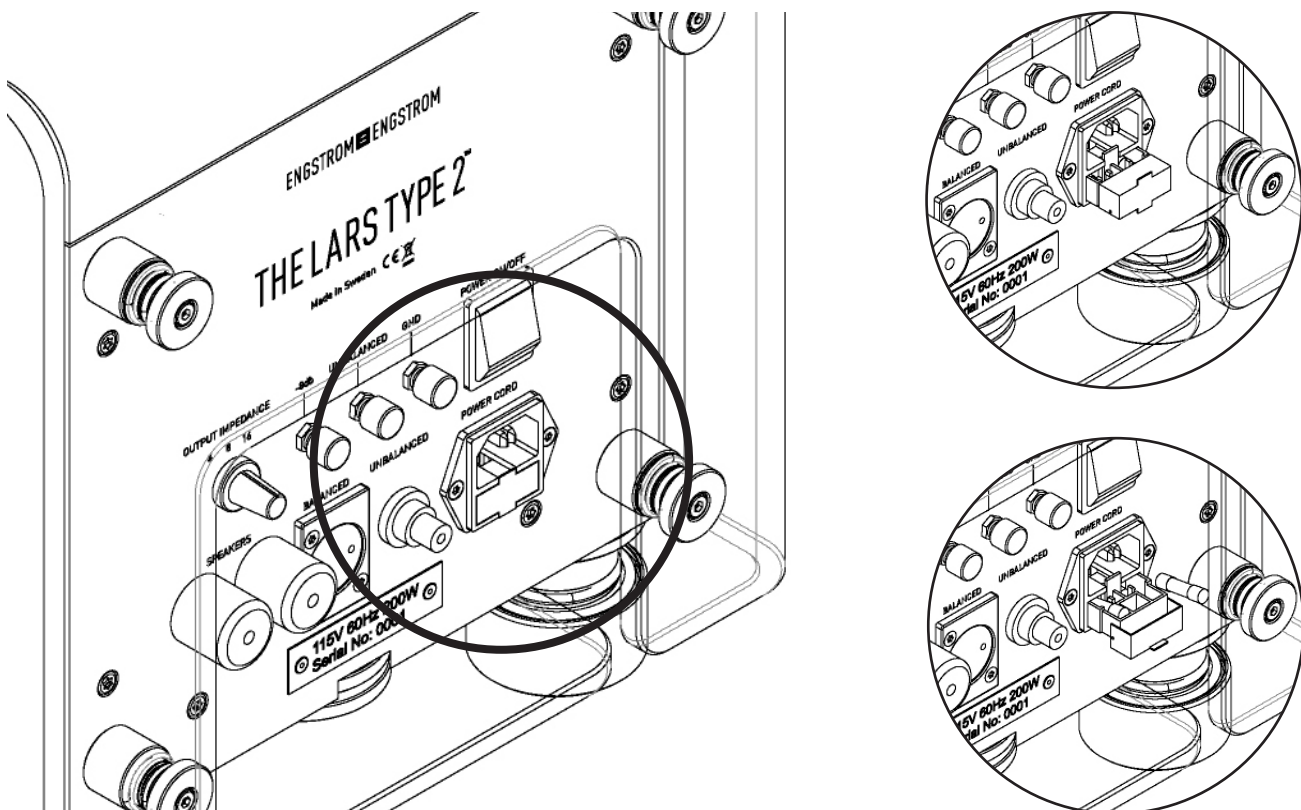
The two mains fuses are located close to the power switches and can easily be replaced if needed.

Important! Only use 250V fuses.

Important! Always turn off the amplifiers, disconnect the power cords and let the amplifiers cool down thoroughly before replacing the tubes, cleaning or dusting off the outside of the amplifiers.

Removing and replacing the fuses

1. Turn off the amplifiers, disconnect the power cords and let the amplifiers cool down thoroughly.
2. Open the fuse box gently by pulling it straight out (see illustration below).
3. Remove the old fuses and check if they are broken.
4. Replace the broken fuse and insert the new fuse and close the box.



Tube replacement

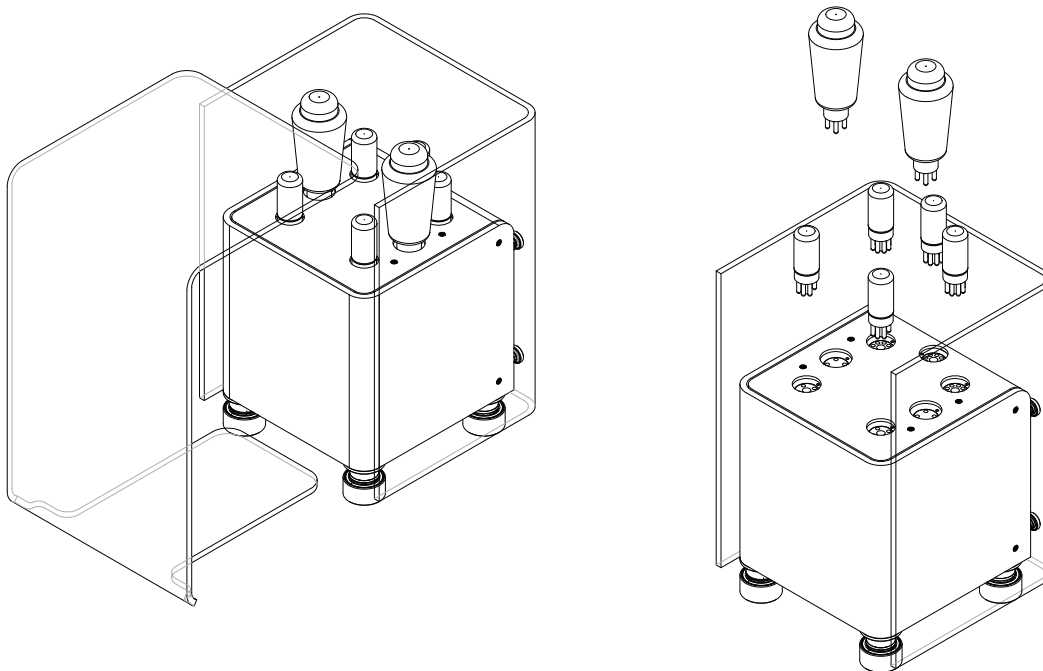
The tubes have a lifetime of 5 to 10 years when the amplifiers are used a few hours per day. When replacing the tubes, all tubes of the same type should be replaced at the same time.

Important! Read the safety instructions before replacing the tubes.

Danger! Always make sure that you only use tubes for which THE LARS TYPE 2 has been configured. If you are uncertain contact your dealer before installing the tubes. If the tubes and the amplifier configuration are not matched, the tubes will be seriously damaged. The amplifiers may also be seriously damaged. Using the wrong set of tubes will void the warranty.

Removing and replacing the tubes

1. Turn off the amplifiers, disconnect the power cords and let the tubes cool down thoroughly.
2. Remove the front panel.
3. Remove the tubes by pulling them straight up gently but firmly.
4. To install the new tubes and to mount the front panel, follow the descriptions under the headings “Installing the tubes” and “Mounting the front panel” above.




EU Declaration of conformity

CE Engström & Engström declares under our sole responsibility that this product is in conformity with the following standards or standardized documents:

The product complies with the requirements of the Low Voltage Directive 2006/95/EC and the EMC Directive 2004/108/EC. This product is carrying the CE-Mark in accordance with the related European Directives.

Disposal and recycling information

 This symbol indicates that this product should not be treated as normal household waste. It must be disposed of properly according to local laws and regulations.

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The information in this manual is subject to change without prior notice. We have done our best to avoid errors and misspellings. You can find the latest version of this manual on the Engström & Engström website: www.thelars.se

ENGSTRÖM & ENGSTRÖM AB

LIMITED WARRANTY

SUMMARY OF THE WARRANTY AND THE WARRANTY PERIOD

This product has been manufactured under the absolute highest standards of quality and workmanship. Therefore, Engström & Engström AB (hereinafter “Engström”) warrants this product against defects in material or workmanship as follows:

With the exception of the vacuum tubes, Engström warrants to the consumer all parts of this product against defects in materials and workmanship for a period of three (3) years from the date of retail purchase.

Engström warrants the vacuum tubes for a period of twelve (12) months from the date of retail purchase.

During the warranty period, any defective parts will be replaced free of charge (including freight).

Proof of purchase (POP) in the form of a bill of sale or receipted invoice which indicates that the product is within the warranty period must be presented to obtain warranty service. Also, the name of the original customer must be authenticated.

This warranty applies only to the original owner when purchased from an authorized Engström dealer. This warranty is not transferable.

The only location authorized to make warranty repairs is our factory or an authorized Engström distributor or service workshop.

WHAT’S COVERED BY THE WARRANTY

Equipment under warranty is considered as Engström equipment, and thus subject to this warranty, when it is sold by

1. an authorized Engström distributor/dealer in his designated country (countries) to dealers/residents of his respective country or countries
2. an authorized Engström U.S. distributor/dealer within the U.S. to U.S. residents

WHAT’S NOT COVERED BY THE WARRANTY

The warranty does not apply to any product that has been purchased contrary to the conditions indicated in points 1) and 2) of “What’s covered by the warranty”. If the customer has acquired the Engström equipment according to the conditions in points 1) and 2) above and relocated to another country and the Engström equipment fails, then the customer need to contact the original distributor for a proof of purchase (POP).

This warranty does not cover cosmetic damage or any damage that results from product misuse (has not been used in accordance with the instructions found elsewhere in this manual), product abuse, installation error, connection to an improper voltage supply, accident, improper maintenance, alterations, and modifications not authorized in writing by Engström, lightning, power surges, or acts of God. The product must not have been stored in humid environment; nor subjected to weather, water, or salt spray. Use of any other than Engström factory parts will void this warranty. The recommended surrounding temperature when using the Engström equipment should be within the interval 0 to +40 degrees Celsius. The warranty is not valid if the Engström equipment is used in other surrounding temperatures.

The warranty does not apply to any Engström product to which repair on warranted items has been attempted or made by an unauthorized repair shop or individual.

This warranty does not cover the cost of parts and labor which would be otherwise provided without charge under this warranty, obtained from any source other than Engström.

This warranty applies only to the consumer use of this product and does not cover any product that is used in any trade or business, or in an industrial or commercial application.

The warranty is automatically voided and service of equipment terminated in the following circumstances:

- if a resident of the country that has an authorized Engström distributor purchases Engström equipment (whether brand-new or pre-owned) from another country that has a different authorized Engström dealer/distributor
- if a resident of any country purchases Engström equipment (whether brand-new or pre-owned) through any dealers/distributors that are not included in the Engström list of authorized sellers (see our web page for a complete list)
- if a resident of any country purchases Engström equipment (whether brand-new or pre-owned) through web-based dealers/distributors that are not included in the Engström list of authorized sellers

LEGAL REMEDIES OF PURCHASER

ENGSTRÖM LIMITS ITS OBLIGATIONS UNDER ANY IMPLIED WARRANTIES UNDER US STATE OR NATIONAL LAWS TO A PERIOD NOT TO EXCEED THE WARRANTY PERIOD. SOME NATIONS OR US STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, AND SOME NATIONS AND US STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH MAY VARY FROM NATION TO NATION OR FROM US STATE TO US STATE.

THE ENGSTRÖM OBLIGATIONS UNDER THE WARRANTY

During the warranty period stated above, any Engström product exhibiting defects in materials and/or workmanship will be repaired or replaced, at our option, without charge for either parts or labor or freight, at our factory or at our authorized dealer. During the warranty period Engström will repair the product to working order, or, at Engström's option, replace the defective equipment with a similar available product.

All repairs performed after the warranty period has expired will be billed to the owner and will carry a 90 day warranty on parts and labor.

OBTAINING SERVICE UNDER THE WARRANTY

Any product not performing satisfactorily may be returned to the Engström authorized dealer for evaluation. A return authorization number (RAN) must first be obtained by the Engström authorized dealer from whom this unit was originally purchased prior to shipping the product. The problem being experienced with the product must be clearly described in writing. The product must be packaged either in its original packing material, or in replacement packing material that the authorized dealer can supply to the customer for a fee. The customer is responsible for paying shipping charges to the dealer, and is also responsible for any damages to the product caused during shipment. Engström recommend insuring the shipment for the amount paid for the Engström equipment. The Engström dealer will pay for the initial shipment + return shipment if the product is found to be defective in a way that is covered by this warranty. Engström reserve the right to repackage any unit for shipment at the customer's expense.

DISCLAIMER OF INCIDENTAL AND CONSEQUENTIAL DAMAGES

Engström does not assume any responsibility for any incidental or consequential damages. This includes any damage to another product or products resulting from such a defect. Specifically, Engström will not pay for damage caused to other audio components because of the failure of an Engström product within the limits allowed by country or state Law.

Design change

Engström reserve the right to modify products or change specifications at any time without obligation or liability to previous purchasers.

Maximum warranty

Our liability will be no more than the amount you paid for the product that is the subject of a claim.

WARRANTY ON PRE-OWNED EQUIPMENT AND DEALER DEMO EQUIPMENT

Pre-owned Engström equipment:

Engström provide a three-year (3) warranty on all parts of this product against defects in materials and workmanship to the original purchaser of Engström products obtained through an authorized Engström dealer.

Pre-owned equipment does not carry the warranty.

Dealer Demos

Under the terms of our contract, Engström dealers commit to keeping their demos for at least one year. Dealer demos carry the following warranty to the first buyer depending on the age of the equipment:

1. a 2-year warranty if the demos are less than 1 (one) or 1 (one) year of age,
2. a 1-year warranty if the demos are 1+ (one+) through 2 (two) years of age, and
3. no warranty if dealer demos are 2+ (two+) years of age

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