

LINN TUKAN
O W N E R S M A N U A L

Year 2000 Compliance

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IMPORTANT SAFETY INFORMATION

Explanation of symbols used in this manual and on the product :



This symbol is intended to alert the user to the presence of uninsulated dangerous voltages within the enclosure of sufficient magnitude to cause electric shock.



This symbol is intended to alert the user to the presence of important maintenance and servicing information in the instruction and service manuals.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE THE COVER.
NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: SHOCK HAZARD. DO NOT OPEN.
AVIS: RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR.

CAUTION: REPLACE FUSE WITH SAME TYPE AND RATING.
ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.

CAUTION: DISCONNECT SUPPLY CORD BEFORE CHANGING FUSE.
ATTENTION: DEBRANCHER AVANT DE REMPLACER LE FUSIBLE.

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

General Safety Instructions :

1. Read Instructions. Read the safety and operating instructions before operating the appliance.
2. Retain Instructions. Retain the safety and operating instructions for future reference.
3. Heed Warnings. Observe all warnings on the appliance and in the operating instructions.
4. Follow Instructions. Follow all operating and use instructions.
5. Water and Moisture. Do not use the appliance near water, for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool and the like.
6. Carts and Stands. Use only with a cart or stand that is recommended by the manufacturer.
- 6a. An appliance and cart combination should be used with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.
7. Wall or Ceiling Mounting. Mount to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation. Site the appliance so that its location or position does not interfere with its proper ventilation. For example the appliance should not be situated on a bed, sofa, rug or similar surface that may block the ventilation openings; or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat. Site the appliance away from heat sources such as radiators, heaters, stoves or other appliances (including amplifiers) that produce heat.
10. Power Sources. Connect the appliance to a power supply only of the type described in the operating instructions or marked on the appliance.
11. Grounding or Polarisation. Do not defeat the precautions taken to ground or polarise the supply to the appliance.
12. Power Cord Protection. Route power cords so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, power sockets and at the point where they exit from the appliance.
13. Protective Attachment Plug. As a safety feature the product is equipped with an attachment plug containing overload protection. See the instruction manual about resetting or replacing the plug. Should the plug need replacing ensure that a replacement is used which has the same overload protection as the original.
14. Cleaning The product should be cleaned only as recommended by the manufacturer.
15. Power lines. An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding. If an outdoor antenna is connected to the tuner/receiver ensure that the antenna system is grounded to provide some protection against voltage surges and static build up.
In the USA see article 810 of the National Electrical Code ANSI/NFPA 70 concerning installation requirements.
17. Non use periods. Unplug the power cord from the outlet if the product will be unused for a long period of time.
18. Objects and liquid entry. Take care not to let objects or liquids fall into the product.
19. Damage requiring Service. The product should be serviced by qualified personnel if :
 - a. the power cord or plug has been damaged.
 - b. objects or liquid have fallen into the product.
 - c. the product has been exposed to rain.
 - d. the product does not appear to operate normally or exhibits a marked change in operation.
 - e. the product has been dropped or the enclosure damaged.
20. Servicing. Don't attempt to service the product beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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WARRANTY AND SERVICE :

This product is warranted under the conditions which apply in the country of purchase.

In addition to any statutory rights the customer may have we undertake to replace any parts which have failed due to faulty manufacture. To help us please ask your Linn retailer about the Linn warranty scheme in operation in your country.

Warning : Refer all enquiries to authorised Linn retailers only. Unauthorised servicing or dismantling of the product invalidates the manufacturer's warranty.

If you are in any doubt please contact your nearest Linn retailer. For information on your nearest Linn retailer contact the factory in Scotland or your national distributor.

Important : Please keep a copy of the sales receipt to establish the purchase date of the product. Please ensure that your equipment is insured by you during any transit or shipment for repair.

Designed and manufactured by :

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USIC enriches your life. It can stimulate you, relax you, change your mood and provide entertainment and pleasure.

A good hi-fi plays recorded music well enough to give you these benefits, and it will broaden and deepen your appreciation of music.

At Linn, we devote our energy to improving standards of music reproduction and control because we know that the better and more accessible the sound, the more you'll enjoy music at home.

The addition of any Linn component will improve the sound quality of your system.

We have a policy of continuously improving our products and, wherever possible, make these improvements available as upgrades.

INTRODUCTION Thank you for choosing our Linn TUKAN loudspeakers, which we have designed to make a really great sound and give you many years of pleasure. The TUKANs are an accurate, compact loudspeaker notable for their high power handling, neutrality, bass extension and efficiency.

The full Linn upgrade path is possible with TUKANs, from bi-wiring through bi-amping to fully active. TUKANs can be used on stands, bookshelves, close to a television set if required, and an ingenious wall bracket, the Linn BRAKIT, is available to allow the TUKANs to be mounted on any suitable wall.

GENERAL INFORMATION If you have chosen to install your TUKANs yourself, follow the detailed INSTALLATION GUIDE on page 8. If you have any problems, please ask your Linn retailer to help. Linn retailers and their staff have been extensively trained to ensure that they have the knowledge and expertise to get the best possible sound from our equipment, so it makes sense for you to call on this skill whenever you need it.

STANDS

All loudspeakers perform best when rigidly mounted. If you are going to use floor stands to support your TUKANs, remember that the loudspeaker sockets are towards the top of the rear panel - be careful not to 'spike' the top of the speaker cabinets.

BOOKSHELVES

If you wish to install your loudspeakers on shelves, we have supplied self-adhesive rubber feet which should be fixed to the bottom of the cabinet close to the corners.

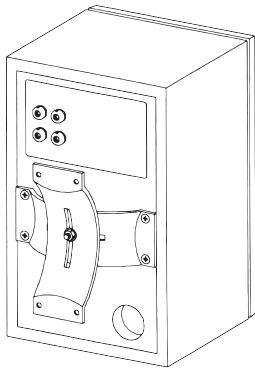
WALL MOUNTING

If you want to mount your loudspeakers on the wall, we recommend you use the Linn BRAKIT wall-mounting brackets. The Linn BRAKIT has been designed to be a very rigid and strong support and allows the loudspeakers to be angled both vertically and horizontally. The speakers are held close to the wall and the BRAKIT is hidden behind the speakers.

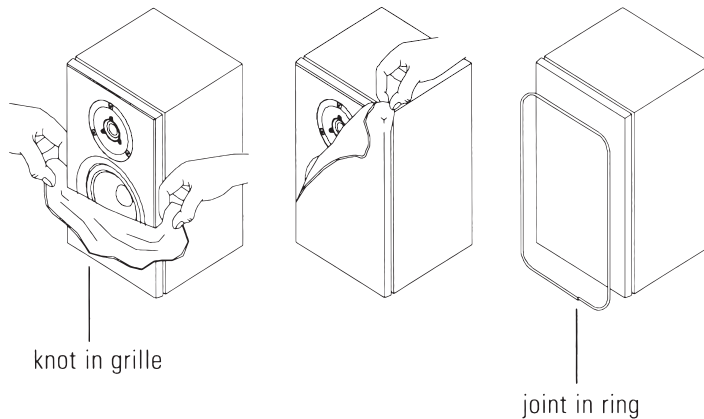
Full installation instructions and fixings are supplied with the BRAKITs.

GRILLES

The TUKAN grille has no frame and fits directly onto the front baffle. This avoids the problems of rattling and diffraction which a frame can induce.



Fitting the grille is time consuming, so unless you want to use the speaker without the grille, it is best to leave it on. To remove the grille, grip the top right hand corner, pulling it so that the rubber ring and elastic clear the baffle. Then remove the ring and the grille cloth. To refit the grille, ensure that the shiny side of the material is to the outside. Find the knotted part of the grille elastic, and locate it in the slot below the bass driver about a third of the way in from a corner. Pull the grille up evenly over the baffle. Then find the joint in the rubber ring and locate it in the same slot about a third of the way in from the other corner and fit the ring. A plastic ruler can be used to encourage the material and the rubber ring back into the slot. (If your TUKANs are situated above eye-level, the joins in the grille-cloth and rubber ring may be less noticeable if they are located in the slot at the top of the loudspeaker.)



TREBLE ADJUSTMENT

The room in which you use your TUKANs will have a significant effect on the perceived sound of your system. In particular, a room with a lot of hard surfaces and few soft furnishings can sound "bright". To compensate for such an environment, or for source equipment that may be similarly "bright", an adjustment can be made to the TUKAN to reduce the amount of treble slightly. Your Linn retailer will carry out this modification if required.

MAINTENANCE

The Linn TUKANs normally need no maintenance, other than occasionally polishing the cabinet with a soft, slightly damp cloth. Take care not to touch the drive units behind the grille cloth. If you have to transport your speakers, remove the BRAKITs if fitted and use the original packing. Your retailer can provide packing if necessary.

CONFIGURATION

The Linn TUKANs are versatile loudspeakers and can be used in a wide range of configurations, each with a distinct performance advantage. This makes it easy for you to develop your system over its lifetime, without having to change any substantial component. The configurations possible are:

- SINGLE-WIRED
- BI-WIRED
- BI-AMPLIFIED
- BI-AMPLIFIED AKTIV (dealer install only)

In the SINGLE-WIRED configuration, a single amplifier drives each loudspeaker through a single loudspeaker cable. This configuration is rarely used as it can be improved upon at relatively little cost by bi-wiring the loudspeakers.

BI-WIRING improves the performance of a loudspeaker. A single amplifier is still used, but this drives each loudspeaker through two loudspeaker cables, one for the bass/midrange section, and one for the treble section. By separating the cables to these sections, interaction between the bass and treble currents is reduced. The extra cost of an additional pair of loudspeaker cables is more than justified by the improvement in sound quality gained. The TUKANs are designed to be wired in this mode when a single amplifier is used. All Linn amplifiers are fitted with bi-wire terminals as standard, making this wiring option particularly simple.

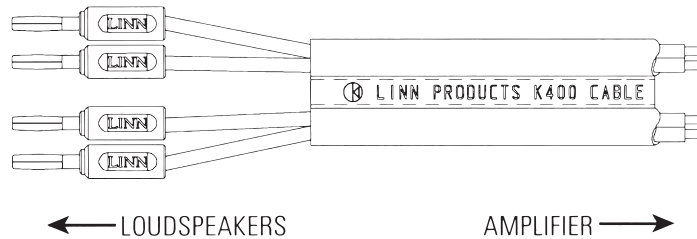
In the BI-AMPLIFIED configuration, two amplifiers are used to drive the speakers, such that the bass/midrange and treble sections of each loudspeaker are individually powered by a dedicated amplifier section. Each amplifier then carries only bass or treble current, which further reduces interaction and loading of the amplifiers.

The BI-AMPLIFIED AKTIV configuration delivers the ultimate performance potential of your TUKAN loudspeakers. A TUKAN AKTIV crossover is used to divide the signal from the pre-amplifier into two frequency bands, and feed each to its own power amplifier. The loudspeaker drive units are directly controlled by the power amplifiers. By processing the music signal at low power, the TUKAN AKTIV crossover allows better filtering and more accurate amplitude and time response correction for the loudspeaker than is possible with a passive crossover. If you use the Linn KLOUT, LK100 or MAJIK-I amplifiers, the AKTIV circuitry can be added inside the power amplifiers, giving substantial savings in cost, wiring complexity and space.

INSTALLATION GUIDE Lift the cabinets from the carton by their sides to avoid damaging the grilles or drive units. If you can, keep the packing for possible future transportation.

CONNECTION

Connection of the loudspeaker to the amplifier should be made with good quality cable. Linn K400 series cable is ideal for bi-wiring. The leads should be terminated with the connectors supplied. These ensure optimum contact and the use of other connectors could degrade the signal.



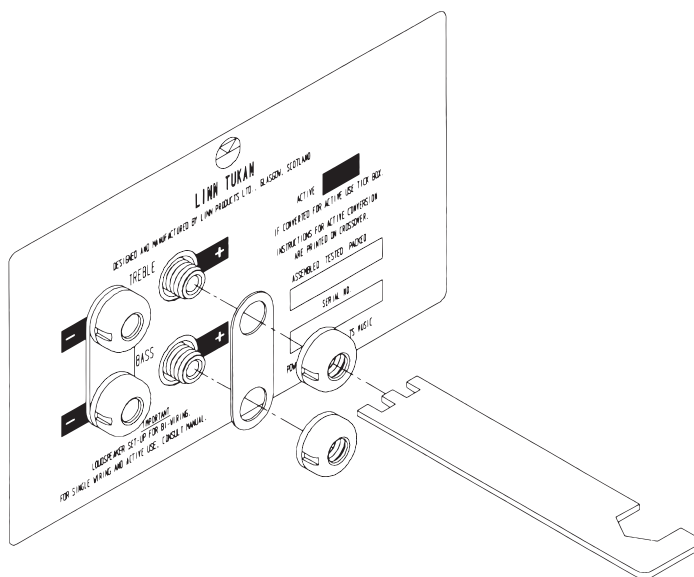
All Linn cable is marked with the Linn symbol to indicate directionality. The end marked with the circular Linn symbol should point to the loudspeakers, and the other to the amplifier.

Take care to observe the correct polarity. The red sockets are positive and the black are negative. On K20 cable, the positive wire is identified by a rib along the side of the cable. On K400 cable, the positive wires are red/black and white/black striped.

Your Linn retailer can supply you with properly made cables of a suitable length.

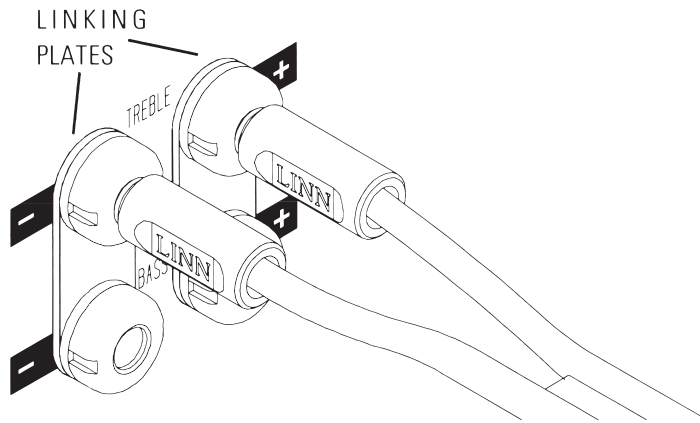
CONFIGURATION

TUKANs are supplied configured for use in BI-WIRED mode. The configuration can be altered by removing or inserting linking plates as appropriate on the terminal panel at the rear of the loudspeaker. To install or remove a linking plate, use the tool provided to remove the two terminal collars, install or remove the two-way linking plate, and replace the terminal collars. Refer to the illustrations overleaf for the correct arrangement of linking plates for the passive configurations. The AKTIV configurations are complex and are therefore always installed by a Linn retailer.

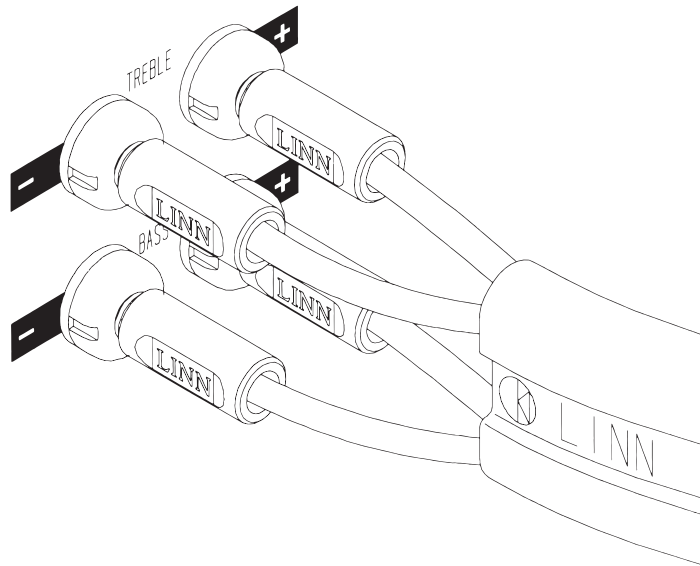


IMPORTANT Don't remove all the collars at once.

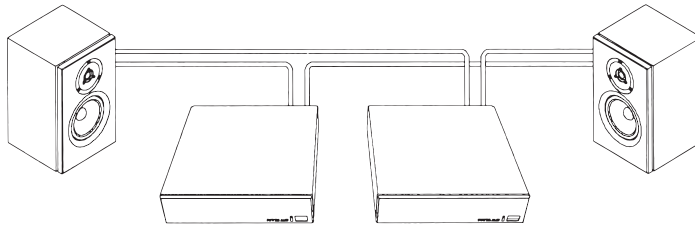
SINGLE WIRING Install a linking plate between the two negative sockets, and between the two positive sockets.



BI-WIRING Remove both linking plates.



BI-AMPING The exact method of wiring your system in this configuration depends on the pre-amplifier and amplifiers you are using. Please contact your retailer for full information.



POSITIONING

Place the speakers so that each speaker is the same distance away from your normal listening position. The distance between the speakers should be no more than the distance from the listening position to either loudspeaker.

TUKAN speakers have been designed to perform best when placed fairly close to a wall. Ideally, the rear of the loudspeaker should be between 2" and 12" (5 cm and 30 cm) from the wall, and at least 18" (45 cm) from any corner. Like all loudspeakers, they are influenced by the wall behind them. Generally speaking, moving the TUKANs closer to the back wall will increase the bass output, but too close will make the bass monotonic and sluggish.

They will usually benefit from being angled inwards slightly by between 5 and 10 degrees. This breaks the standing wave between the cabinet and the wall, and gives a clearer, more tuneful, midrange.

Wherever the TUKANs are positioned, they will work best when stable and secure.

These are general guidelines and a little experimentation with position and angle can optimise results for a particular listening room.

TECHNICAL NOTE

The TUKANs use the same ceramic domed tweeter as our top-of-the-range KELTIK loudspeakers and a custom made bass/midrange driver. This newly designed driver has a strong die-cast chassis, a carbon-loaded polypropylene cone and a massive magnet which gives it well controlled and extended bass with high-efficiency. High-temperature glues and voice coil contribute towards the substantial power-handling ability of the TUKANs. A secondary magnet mounted directly behind the primary unit focuses the magnetic field and increases its strength around the voice coil. This allows the TUKANs to be used close to television sets without risk of distorting the picture.

The cabinet is built in the Linn tradition; extremely solidly with a particularly thick front baffle and internal Ku-stone flint-composite absorbent material. The cabinet is small, rigid and free of any significant boxy colourations. The drive units are fixed using high-torque inserts, and the cabinet is carefully sealed. Bass response is extended by a carefully designed and damped port, located at the rear of the speaker, to avoid unwanted interactions with the main driver. The crossover, which has been designed to present an easy load to the amplifier, uses high-specification components and is connected directly to the bi-wired input sockets for optimum signal integrity.

SPECIFICATIONS

Type	2- way bass reflex loudspeaker.
Frequency response	Passive: 70Hz - 20kHz +/-3dB Active: 65Hz - 20kHz +/-3dB
Input Impedance	Passive: 4 Ohms Active: 6 Ohms treble, 4 Ohms bass
Efficiency	87dB for 1W at 1m (1kHz)
Amplifier power	Minimum: 30W/8 Ohms, 60W/4 Ohms
Features	Internal adjustment of treble level.
Wiring options	Single Wiring, Bi Wiring, Bi-amplification, Active Bi-amplification.
Drive Units	19mm ceramic-domed treble 130mm custom bass/midrange
Size	303mm (H) x 187mm (W) x 183mm (D)
Weight	5.6kg each.

GENERAL SYSTEM INSTALLATION

TURNTABLES For best results a turntable should be placed on a small, light, rigid table, or alternatively wall mounted on a light, rigid shelf.

CD PLAYER The KARIK and MIMIK should be positioned on a level surface. Extensive internal screening in the KAIRN pre-amplifier, KREMLIN tuner, KARIK and NUMERIK facilitates stacking these products one on top of the other without interference, if desired.

POWER SUPPLIES Take care not to position too close to signal leads, turntables or pre-amplifier.

AMPLIFIERS Pre- and power amplifiers may hum if positioned too close together. For minimum hum, experiment by moving the components with the system at full volume but not playing music (although it is best to turn the volume down whilst actually moving the components).

LOUDSPEAKERS Loudspeakers should be positioned correctly. They should be mounted such that they are not subject to any rocking movement.

CLEAN CONTACTS It is important that the electrical contacts in a hi-fi system are kept mechanically sound and clean. Occasionally unplugging and replugging all the connectors will effectively clean contacts.

WARNING This should be carried out after the mains supply has been switched off.

INTERCONNECT LEADS Correct cables should be used. We recommend good quality copper cable for interconnect leads and advise 4 mm² multicore copper cable, such as Linn K20, K400 or K600 for speaker leads.

Your Linn dealer can supply high quality interconnects for linking all your hi-fi components.

GUARANTEE AND SERVICE

This product is guaranteed under the conditions which apply in the country of purchase.

To help us, please ask your retailer about the Linn warranty scheme in operation in your country.

In Europe, America and other markets, extended warranty is offered to customers who register their purchase with Linn. A Registration Card can be obtained from your retailer and should be stamped by him. This will also enable you to receive the Linn RECORD Newsletter and details of music available from Linn.

WARNING Refer all enquiries to authorised dealers only. Unauthorised servicing or dismantling of the product invalidates the manufacturer's warranty.

For full warranty details, please refer to the card enclosed.

If you are in any doubt, please contact your nearest Linn dealer. For information on your nearest dealer, contact the Linn factory in Scotland or your national distributor.

IMPORTANT Please keep a copy of the sales receipt to establish the purchase date of the product.
Please ensure that your equipment is insured by you during any transit or shipment for repair.

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