

LINN

English

Français

Deutsch

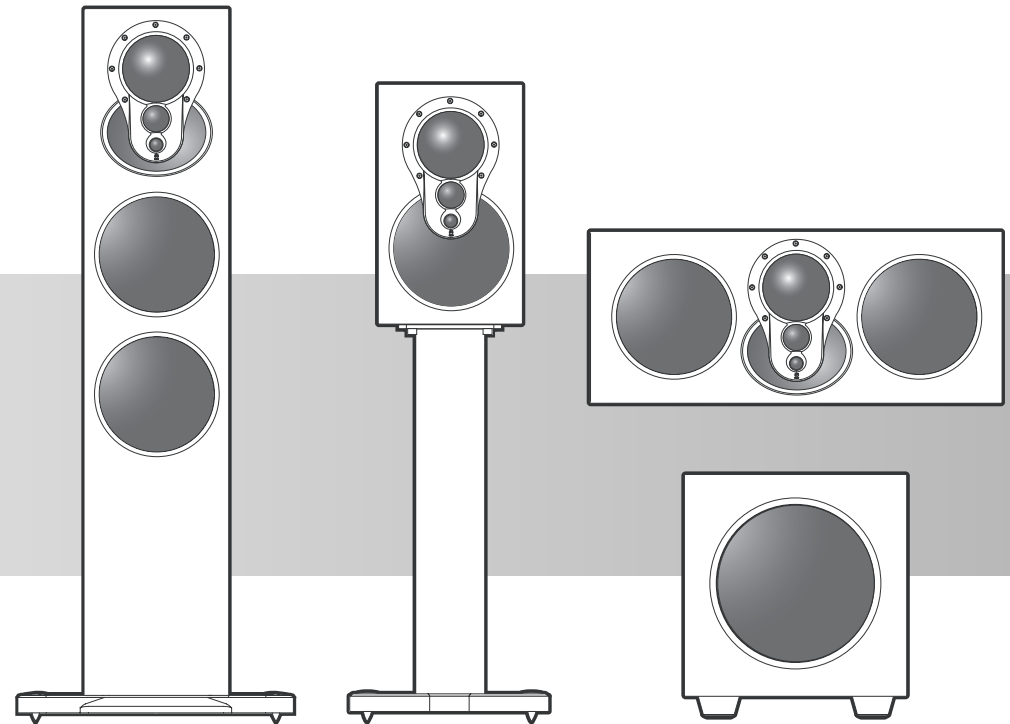
Italiano

Español

Nederlands

日本語

AKURATE Loudspeaker System
Owner's Manual



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 operation, 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.

REPLACE THE MAINS FUSE IN THE PLUG WITH ONE OF THE SAME TYPE AND RATING.

DISCONNECT SUPPLY CORD BEFORE CHANGING FUSE.

WARNING

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

SHOCK HAZARD. DO NOT OPEN.

MAINS PLUGS

This appliance is supplied with a non-rewireable mains plug for the intended country.

Replacement mains leads can be obtained from your Linn retailer. Should you need to change the plug please dispose of it carefully. A plug with bared conductors is dangerous if engaged in a live socket.

The Brown wire must be connected to the Live (Line) supply pin.

The Blue wire must be connected to the Neutral supply pin.

The Green/Yellow wire must be connected to the Earth (Ground) supply pin.

Please contact your retailer or a competent electrician if you are in any doubt.

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 safety purpose of the polarised or grounding type plug. A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
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. **Mains plug.** Use the mains plug to disconnect the product from the mains supply. The mains plug must be accessible at all times. Use the mains switch (if applicable) when the product is not in use.
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. **Lightning storms.** Unplug this apparatus during lightning storms or when unused for long periods of time.
18. **Objects and liquid entry.** Do not let objects or liquids fall into the product. Do not expose the product to dripping or splashing. Do not place a vessel containing liquid on top of 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.** Do not attempt to service the product beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

UK USERS PLEASE READ THIS IMPORTANT SAFETY INFORMATION

Fuse replacement

This appliance is fitted with a non-rewireable 13 Amp mains plug. The plug contains a 5 Amp fuse. If the fuse has blown it can be replaced as follows:

- Pull out the red fuse cover/carrier.
- Remove and dispose of the blown fuse.
- Fit a new 5 Amp BS1362 approved fuse into the carrier and push the carrier back into the plug.

Always ensure the fuse cover is fitted. If the fuse cover is missing do not use the plug. Contact your Linn retailer to obtain a replacement fuse cover.

Fuses are for fire protection and do not protect against electric shock.

Mains plug replacement

Should your mains plug need replacing and you are competent to do this proceed as follows. If you are in doubt contact your Linn retailer or a competent electrician.

- Disconnect the plug from the mains supply.
- Cut off the plug and dispose of it safely. A plug with bared conductors is dangerous if engaged in a live socket.
- Only fit a 13 Amp BS1363A approved plug with a 5 Amp fuse.
- The cable wire colours or a letter will be marked at the connection points of most quality plugs.

Attach the wires securely to their respective points. The Brown wire must go to the Live pin, the Blue wire must go to the Neutral pin, and the Green/Yellow wire must go to the Earth pin.

- Before replacing the plug top ensure that the cable restraint is holding the outer sheath of the cable firmly and that the wires are correctly connected.

WARNING

THIS APPLIANCE MUST BE EARTHED.



CE Declaration of Conformity

Linn Products Ltd declare that this product is in conformance with the Low Voltage Directive 73/23/EEC and Electromagnetic Compatibility 89/336/EEC as amended by 92/31/EEC and 93/68/EEC.

The conformity of the designated product with the provisions of Directive number 73/23/EEC (LVD) is proved by full compliance with the following standards:

Standard number	Date of issue	Test type
EN60065	2002	General requirements Marking Hazardous radiation Heating under normal conditions Shock hazards under normal operating conditions Insulation requirements Fault conditions Mechanical strength Parts connected to the mains supply Components Terminal devices External flexible cords Electrical connections and mechanical fixings Protection against electric shock Stability and mechanical hazards Resistance to fire

The conformity of the designated product with the provisions of Directive number 89/336/EEC (EMC) is proved by full compliance with the following standards:

Standard number	Date of issue	Test type
EN55013	2001	Conducted emissions
EN55013	2001	Absorbed emissions
EN55020	2002	Immunity

FCC notice

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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* Patent pending

Contents

Introduction	1	AKURATE 221	9
The AKURATE system	1	Unpacking	9
Features	2	Voltage selection	9
AKURATE 242, 225 and 212	3	Positioning	9
Unpacking	3	Fabric grille	9
Fabric grilles	3	Cleaning	9
Cleaning	3	Connecting	10
Positioning and levelling	4	Operation	11
Connecting	6	Operating modes	11
General	6	Parameters	11
Single-wiring	7	Technical Specifications	13
Bi-wiring or bi-amping	7	Guarantee and Service	14
Tri-wiring or tri-amping	7		
Important notes on using the link strips	7		
Quad-amping and beyond	7		
Bass Boost	8		
AKTIV operation	8		

Introduction

At Linn, we recognise that the way people access sound is changing. Entertainment systems are becoming ever more integrated and the line between music and movie systems is no longer clear. As the popularity of new and improved hi-resolution music formats increases, multi-channel systems are no longer for the movie enthusiast only.

As we change the way we access sound, the equipment we use to relay that sound must also change. A modern loudspeaker must offer greater levels of flexibility, reproduce a wider range of sounds and playback at a higher resolution to truly communicate the full potential of the system. The loudspeaker communicating the awesome force of an explosion in a movie blockbuster must be subtle enough to replay the tone and emotion of the softest female jazz vocal.

With this in mind, Linn presents AKURATE - a system of complementary loudspeakers, visually and sonically designed to achieve seamless multi-channel performance.

The AKURATE system

AKURATE 242 - A five-way, bass reflex, floorstanding loudspeaker, precision engineered for use in medium to large sized listening areas. The AKURATE 242 speaker incorporates dual 6 1/2" (16.5 cm) drivers mounted vertically for controlled, tuneful and extended bass performance.

AKURATE 212 - A compact, high-performance, four-way, bass reflex, bookshelf loudspeaker. It features a single 6 1/2" (16.5 cm) bass driver and is designed for use as a main speaker in smaller rooms or surround channel effects applications. A custom designed stand is available for this model to allow positioning for optimum performance.

AKURATE 225 - A centre channel loudspeaker designed primarily to match the AKURATE 242 speakers. The AKURATE 225 speaker uses the same drive unit complement as the AKURATE 242 speaker and has been tolerance-matched to the other AKURATE loudspeakers to allow seamless system integration. A custom designed stand is available for this model to allow positioning for optimum performance.

AKURATE 221 - Bass extension in the AKURATE system is provided by the powered 221 subwoofer. The unit is driven by a 500 W power amplifier and features an 8" (20.3 cm) servo-controlled driver in a 21-litre enclosure for pure, precise bass response.

Features

AKURATE 242, 225 and 212

Linn 3-K Driver Array (patent pending) Linn designed and engineered drive unit array delivers optimised dispersion and high frequency performance. Provides open and natural presentation and clear, precise dialogue and effects. All components used in the 3-K Array are matched to a close tolerance, retaining sonic purity and consistency throughout.

Unique Linn Loudspeaker Configuration System Input connector system enabling passive multi-wiring/amplifier operation and a simple, clear upgrade path to an active system. You can begin with a complete, high quality, passive loudspeaker system and achieve performance enhancements through easy upgrade to full active operation.

High Quality 6½" (16.5 cm) Sandwich-Cone Bass Drive Units Layered cone design delivers pitch accurate, musical, bass extension.

AKURATE 242 and 225

Bass Extension Feature Allows calibrated tailoring of the bass response to suit room acoustics or environment.

AKURATE 242 and 212

Acoustically Matched Double-Flared Ports Unique, mirrored "rifling" design reduces turbulence and matches the impedance of internal cabinet volume with the external environment.

AKURATE 221

New 500S Amplifier Module The AKURATE 221 bass extension loudspeaker utilises 500 watts of servo-assisted Linn silent power. The bass drive unit is constantly monitored and regulated to maintain accurate, extended bass in any listening environment.

Entire System

SEKRIT-Fastener Invisible, flush-fitting, speaker grille technology.

Magnetic Shielding To avoid magnetic interference with other household products such as a television or a mobile communications device, all of the loudspeakers within the AKURATE system are magnetically shielded.

AKURATE 242, 225 and 212

Unpacking

The AKURATE speakers are heavy; take care when removing them from their packaging.

The AKURATE 242 floorstanding speakers are supplied with the following accessories:

- speaker stand kit
- 20 terminal link strips (four of which are factory fitted to the terminals); 4 x five-hole, 4 x four-hole, 4 x three-hole, 8 x two-hole
- 4 speaker plugs
- 4 foam bungs
- terminal collar tool
- spike adjustment tool
- warranty card
- this manual

The AKURATE 225 centre speaker is supplied with the following accessories:

- 10 terminal link strips (two of which are factory fitted to the terminals); 2 x five-hole, 2 x four-hole, 2 x three-hole, 4 x two-hole
- 2 speaker plugs
- terminal collar tool
- spike kit
- warranty card
- this manual

The AKURATE 212 bookshelf speakers are supplied with the following accessories:

- 12 terminal link strips (four of which are factory fitted to the terminals); 4 x four-hole, 4 x three-hole, 4 x two-hole
- 4 speaker plugs
- 2 foam bungs
- terminal collar tool
- spike kit
- warranty card
- this manual

We recommend that you retain the packaging in case you need to transport your speaker(s) at a later date.

3-K Array cover

To remove the protective cover from the 3-K Array, carefully cut through the two cable ties. The cover should come away easily.

Fabric grilles

The AKURATE 242, 225 and 212 speakers are supplied with fabric grilles. The grilles are held in place by SEKRIIT-Fasteners (shielded magnets hidden within the cabinets). Grilles can easily be removed by sliding them downwards (away from the magnets) and gently pulling them towards you.

IMPORTANT:

Do not attempt to remove the metal grilles covering the drivers.

Cleaning

Remove dust and fingerprints from the cabinets with a soft, dry, lint-free cloth. Avoid using domestic cleaning products as they may damage the veneer. The grilles should be removed from the cabinets and cleaned carefully with a soft brush.

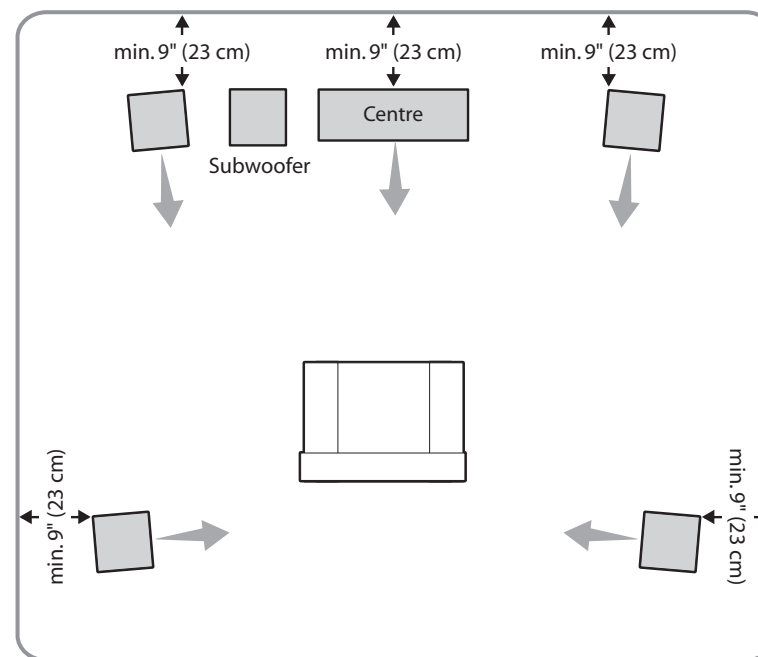
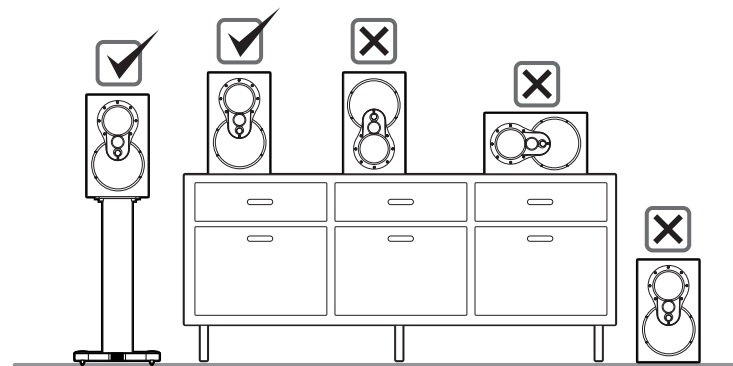
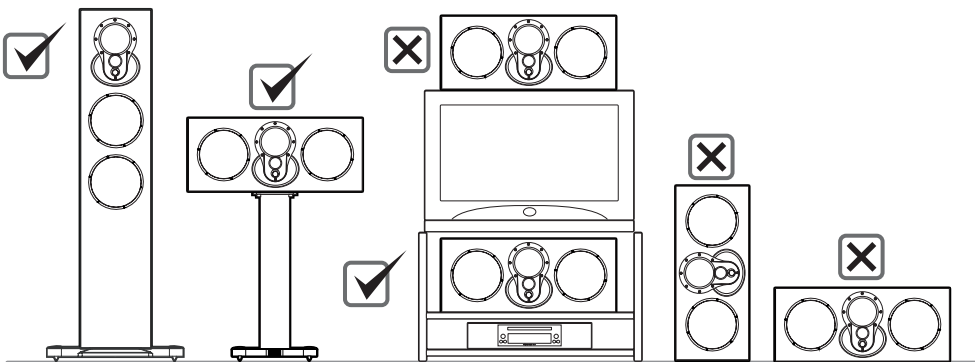
Positioning and levelling

To get the best from your Linn AKURATE speakers, it is important that they are positioned and levelled correctly. The acoustics of a room are dependent on many factors including size, shape and even furniture. The information below will assist in helping you find the best position in your room for your speakers and will tell you how to level them correctly.

Positioning

It pays dividends to experiment with loudspeaker positioning. However, the very nature of the 3-K Array and its close driver proximity ensures uniform dispersion characteristics and therefore should not require any significant degree of toeing-in to improve performance.

A loudspeaker placed too close to a wall will tend to affect bass definition creating a bass 'bloom', so a minimum of 9" (23 cm) is recommended between the back of a speaker and the closest wall. If lack of space is an issue, foam bungs are provided for insertion into the AKURATE 242 and 212 speakers' rear reflex ports to seal the cabinets. This converts the speakers to an infinite baffle design and allows them to be placed closer to a wall. The AKURATE speaker system will work effectively in free space, but if bass extension is limited the AKURATE 242 and 225 speakers contain a Bass Boost feature to enhance the bass frequencies below 200 Hz (see *Bass Boost* section).



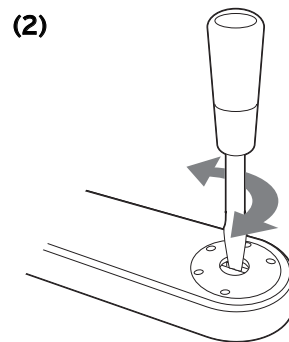
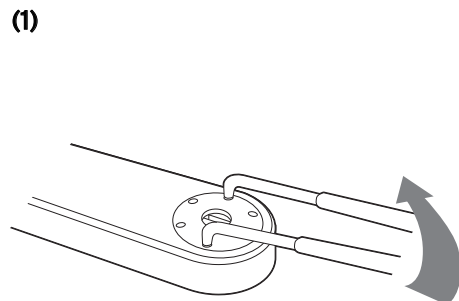
Levelling

All components in the AKURATE speaker system benefit from levelling, which produces distinct improvements in soundstage and accuracy. A properly levelled loudspeaker will always perform more effectively than an unstable one. The actual loudspeaker cabinet can remain fixed whilst the drive units are allowed to move as precisely determined by the playback signal from the amplifier. Adjustable spikes or feet enable levelling on uneven floors, however these adjustments are subtle and will not compensate for excessively irregular floors.

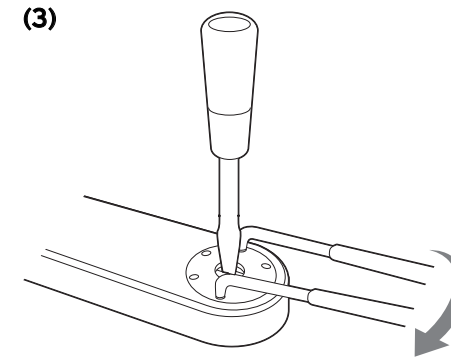
Spikes are supplied with the AKURATE 242 speakers and the stand for the AKURATE 225 and 212 speakers.

The procedure for levelling each speaker should be as follows:

- Use a spirit level on the top of the speaker to check if it is sitting level. If it is, gently rock the speaker from front to back, side to side and diagonally to check for any movement. If none is present and the speaker is sitting level, no adjustment to the spikes is necessary.
- If the speaker is not level, or moves when you rock it, loosen the appropriate lock nuts using the tool provided (1) and use a screwdriver to turn the spikes to adjust their height (2).



- Press down firmly on the top of the speaker to ensure it is in close contact with your flooring.
- Use the spirit level as before and continue to adjust the spikes as required.
- When the speaker is level and does not rock, use the screwdriver to hold the spikes in place and tighten the lock nuts using the tool provided (3).



Note:

To protect wooden or tiled floors the spikes can be placed on Linn SKEETS which are available from your Linn retailer.

Connecting

General

IMPORTANT:

Before making any connections, switch off your power amplifier(s).

Ensure the positive (+) or red coloured connectors from your amplifier(s), connect to the positive (+) connectors on your loudspeaker(s). And that the negative (-) or black coloured connectors from your amplifier(s), connect to the negative (-) connectors on your loudspeaker(s).

AKURATE 242 and 225

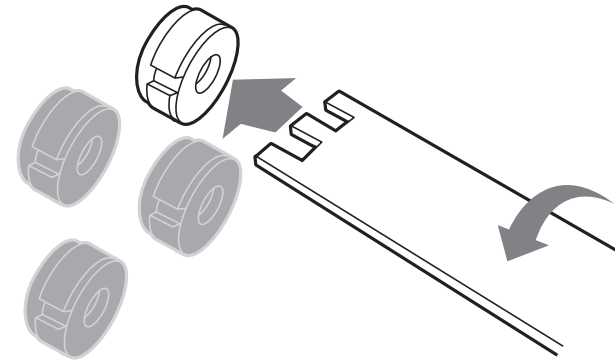
The AKURATE 242 and 225 speakers are supplied with several terminal link strips. These strips can be connected to the terminals on the back of the speakers to provide a wide variety of amplifier-speaker connection configurations. The links connect two, three, four or five terminals together allowing for single-wiring, bi-wiring, tri-wiring, or connection to up to five separate power amplifier channels. The speakers are supplied from the factory with the five-hole link strips attached.

AKURATE 212

The AKURATE 212 speaker is supplied with several link strips. These strips can be connected to the terminals on the back of the speaker to provide a wide variety of amplifier-speaker connection configurations. The links connect two, three or four terminals together allowing for single-wiring, bi-wiring, tri-wiring or connection to up to four separate power amplifier channels. The speakers are supplied from the factory with the four-hole link strips attached.

To remove/fit the link strips:

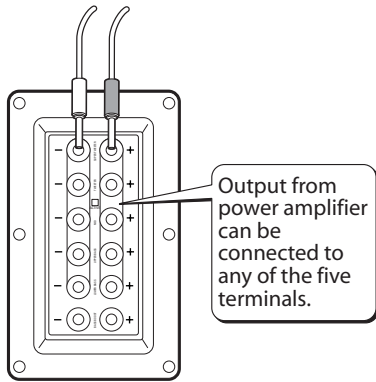
- Carefully remove the blanking plugs that are in the terminals, using a thin blade.
- Use the supplied tool to unscrew the terminal collars.



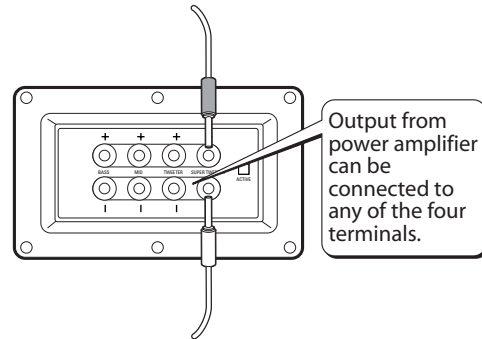
- Remove/fit the required link strips.
- Replace all the terminal collars, making sure they are tightly secured.
- Replace the blanking plugs.

Single-wiring

Position of link strips if single-wiring (i.e. using a single pair of cables from one stereo power amplifier).



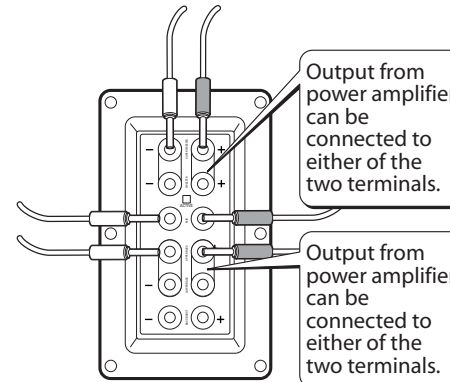
AKURATE 242 and 225



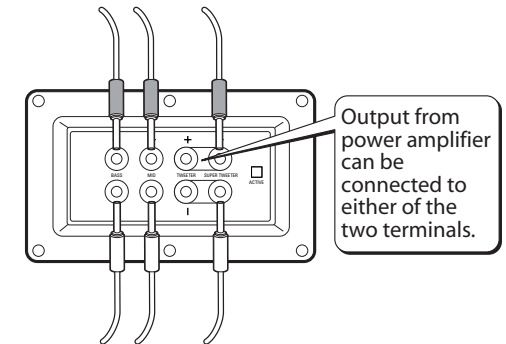
AKURATE 212

Tri-wiring or tri-amping

Suggested position of link strips if tri-wiring (i.e. using three pairs of cables from one power amplifier) or tri-amping (i.e. using one pair of cables from each of three power amplifier channels).



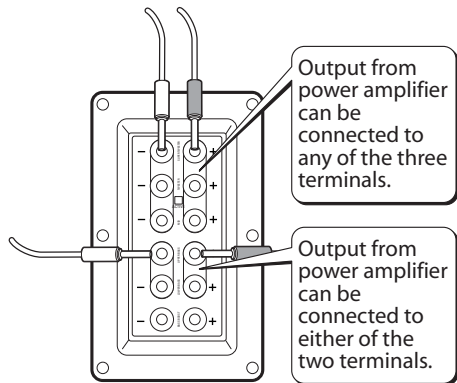
AKURATE 242 and 225



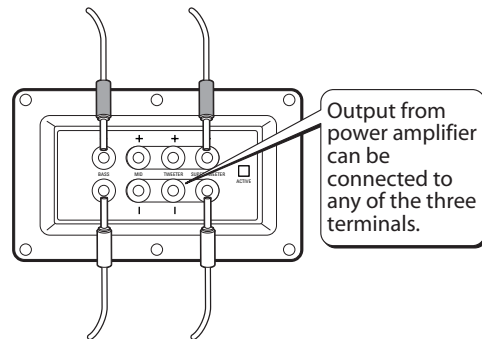
AKURATE 212

Bi-wiring or bi-amping

Suggested position of link strips if bi-wiring (i.e. using two pairs of cables from one power amplifier) or bi-amping (i.e. using one pair of cables from each of two power amplifier channels).



AKURATE 242 and 225



AKURATE 212

Important notes on using the link strips

The above configurations are only suggestions; many others are possible. If you are trying other setups please bear in mind the following points.

- **Never** use the strips to link positive (+) and minus (-) terminals together.
- Don't connect more than one strip per terminal.
- Bass quality will be impaired if you link LOWER BASS and BASS BOOST together or UPPER BASS, LOWER BASS and BASS BOOST together.

Quad-amping and beyond

Improved audio quality can be obtained by connecting separate power amplifiers to each pair of speaker terminals (bar the BASS BOOST terminals, see next page). However, for the best audio performance your AV/hi-fi system should be converted from running passively to running actively (see *AKTIV operation* section).

Bass Boost (AKURATE 242 and 225 only)

Depending on the position of the speakers in your room, or room acoustics, you may wish to boost the lower bass frequencies (those under 200 Hz). This is done by connecting the output from a power amplifier to the BASS BOOST terminals on the rear panel.

If you are bi-wiring Fit the four-hole link strips to the top four positive (+) and minus (-) terminals. Connect one pair of speaker cables from the amplifier to the linked terminals and the other pair to the BASS BOOST terminals.

If you are bi-amping Fit the three-hole link strips to the top three positive (+) and minus (-) terminals. Connect one pair of speaker cables from one amplifier channel to the linked terminals, and bi-wire from the second amplifier channel to the UPPER BASS and BASS BOOST terminals.

If you are tri-wiring Fit the three-hole link strips to the top three positive (+) and minus (-) terminals. Connect one pair of speaker cables from the amplifier to the linked terminals, a further pair to the UPPER BASS terminals and the remaining pair to the BASS BOOST terminals.

If you are tri-amping Fit the two-hole link strips to the top two positive (+) and minus (-) terminals. Connect a pair of speaker cables from one amplifier channel to the linked terminals, a pair from another amplifier channel to the MID terminals and bi-wire from the remaining amplifier channel to the UPPER BASS and BASS BOOST terminals.

Note:

If you are using four or five amplifier channels per speaker you do not need to use any of the link strips.

AKTIV operation

The AKURATE 242, 225 and 212 speakers can be either passively or actively driven. In a passive system, the output from a power amplifier is passed through the crossovers housed in the loudspeakers. This results in a certain loss of audio signal as some of the energy in the signal is absorbed by the crossover circuitry. In an active system, or in Linn terms - AKTIV system, the crossover circuitry is placed before the power amplifier instead. After passing through the crossover, the signal is amplified and sent to the drive units in the speaker, bypassing the speaker's crossover and therefore not losing that bit of energy. This results in significantly improved audio performance.

AKURATE speakers are shipped in a passive configuration. If you wish to run your speakers actively, you must have one Linn power amplifier channel for each drive unit in the speakers and each amplifier must be fitted with the correct AKTIV crossovers (contact your Linn retailer for further information). The last step is to convert your AKURATE speakers from passive to active. Your Linn retailer will do this for you.

The Bass Boost feature (see left) is not available if a speaker is being actively driven.

Note:

The AKURATE 242, 225 and 212 speakers can be driven partially active, i.e. either the 3-K Array or the bass driver(s) can be actively driven.

IMPORTANT NOTES ON AKTIV SYSTEMS

Do not use your amplifiers with any other loudspeakers - you may damage the loudspeakers.

Do not use your loudspeakers with any other amplifiers - their internal crossovers will be bypassed and the drivers could be severely damaged.

Do not use the terminal link strips - they can only be used in a passive system.

AKURATE 221

Unpacking

The AKURATE 221 bass reinforcement speaker is heavy: take care when removing it from its packaging.

The AKURATE 221 speaker is supplied with the following accessories:

- mains lead
- phono lead
- warranty card
- this manual

We recommend that you retain the packaging in case you need to transport the AKURATE 221 speaker at a later date.

Voltage selection

Voltage selection is not needed. Your AKURATE 221 is factory set to operate from your local mains supply. The mains lead supplied may be fitted with a fused plug according to local regulations. If this is the case, always replace this fuse with another of the same type and rating.



This unit must be earthed. Use the earthed mains lead supplied. Never use an unearthed plug or adaptor.

Positioning

The AKURATE 221 speaker can be placed anywhere you find convenient but please consider the following points:

- The AKURATE 221 speaker is best suited to be positioned on a floor, not a table, shelf etc. It is heavy and must be stably supported.
- For best results, position your AKURATE 221 speaker as close as possible to either your left front or right front speaker.
- Bass notes will be accentuated if the AKURATE 221 speaker is positioned close to a wall or in a corner.
- Experimenting with the position may be necessary in order to match the sound of the AKURATE 221 speaker with other speakers in your system and the acoustics of the room.

Fabric grille

The AKURATE 221 is supplied with a fabric grille. This grille is held in place by SEKRIIT-Fasteners (shielded magnets hidden within the cabinet). The grille can easily be removed by sliding it downwards (away from the magnets) and gently pulling it towards you.

IMPORTANT:

Do not attempt to remove the metal grille covering the driver.

Cleaning

Disconnect the AKURATE 221 speaker from the power supply before cleaning. Remove dust and fingerprints from the cabinet with a soft, dry, lint-free cloth. Avoid using domestic cleaning products on the cabinet as they may damage the veneer.

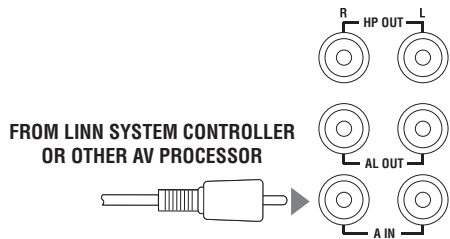
Connecting

Connect the AKURATE 221 speaker to a mains supply using the mains lead provided.

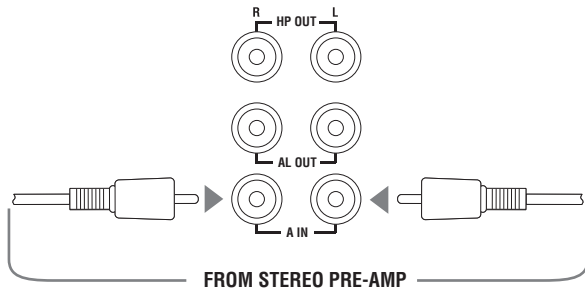
IMPORTANT:

Do not turn on the mains supply until you have connected all other components.

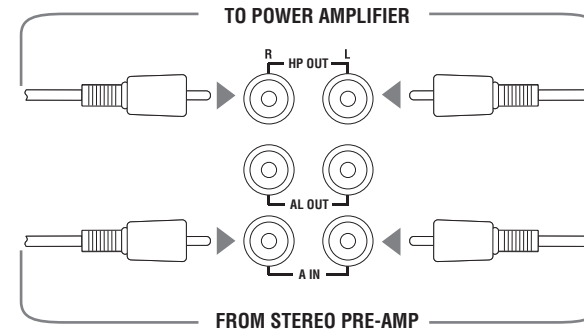
Connecting to a Linn System Controller or other AV processor



Connecting to a stereo pre-amplifier if used with large (full-range frequency response) speakers, for example AKURATE 242 or 212 speakers.



Connecting to a stereo pre-amplifier and power amplifier if used with 'small' (limited bass response) speakers.

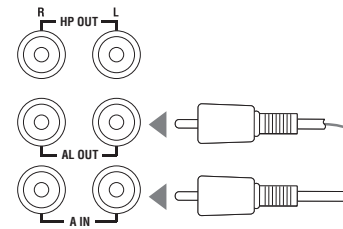


Note:

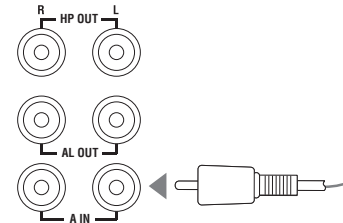
In the above configuration the AKURATE 221 speaker is being used to stop low bass notes from being sent to the main speakers.

Connecting to another AKURATE 221 speaker

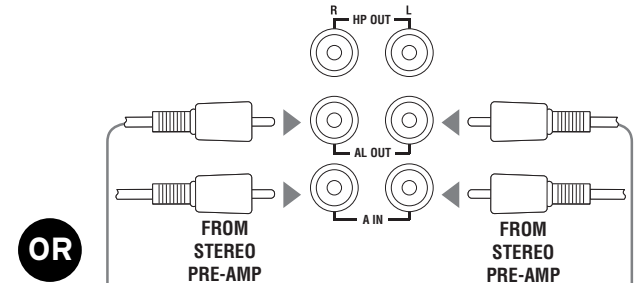
AKURATE 221 - ONE



AKURATE 221 - TWO

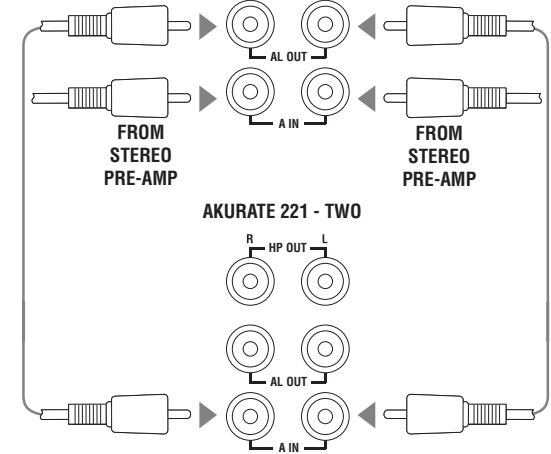


AKURATE 221 - ONE



AKURATE 221 - TWO

OR



Operation

When you have made all the required connections, switch on the mains supply. Flashing bars will be shown on the back panel display for approximately 30 seconds. During this time the speaker's servo circuitry is stabilising and no audio will be issued. When the display changes to show the standby symbol (see table below), the speaker is ready to receive an audio signal.

Whenever the AKURATE 221 speaker is disconnected from the mains supply and then reconnected, wait until the standby symbol appears on the display before playing a disc.

Operating modes

Key to symbols

SYMBOL	MODE	MEANING
◆	Standby	The unit is waiting for an audio signal In this mode the unit consumes minimal power.
—	On	The unit is fully powered-up The unit will enter this mode as soon as it receives an audio signal.
L	Thermal Standby	The unit has overheated During very demanding, sustained use the unit will go into Thermal Standby mode in order to allow itself to cool down. When in this mode the unit will not produce any sound. The unit will return to On mode when its temperature has dropped to its operating level.

Parameters

The AKURATE 221 speaker is equipped with seven adjustable parameters (see next page) that enable you to alter its performance to suit your taste.

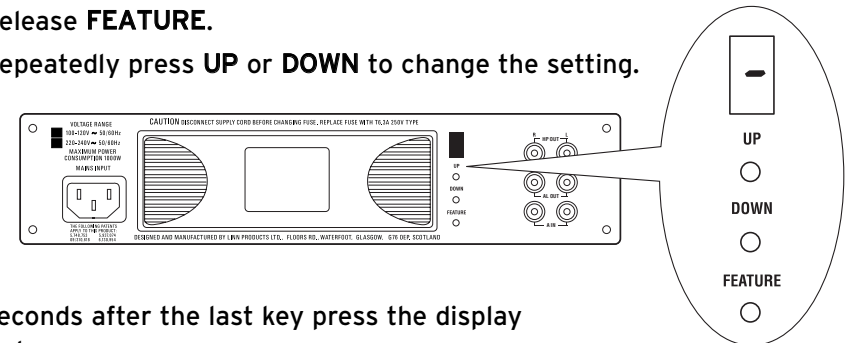
Note:

The parameters can only be adjusted when the AKURATE 221 speaker is not in standby mode.

Adjusting the parameters

To select the parameter you wish to adjust:

- Hold **FEATURE**.
- Repeatedly press **UP** or **DOWN** until the letter for the desired parameter appears.
- Release **FEATURE**.
- Repeatedly press **UP** or **DOWN** to change the setting.



A few seconds after the last key press the display changes to —




To restore the default settings:

- Disconnect the AKURATE 221 speaker from the mains supply and wait for the display to go blank.
- While holding **FEATURE** reconnect the mains supply.
- Continue to hold **FEATURE** until the display shows **H**

A few seconds after releasing **FEATURE** the display changes to —





Description and available settings for parameters

Default settings are shown in grey.

PARAMETER	SYMBOL	0	1	2	3	4	5	6	7	8	9
External high pass frequency* Increasing the setting reduces the bass content sent to the external speakers. (Hz)			10	50	75	100	115	135	160	190	235
Internal high pass frequency Increasing the setting raises the lowest frequency produced by the unit. (Hz)			18	22	25	30	34	40			
Internal low pass frequency** Reducing the setting lowers the highest frequency produced by the unit. (Hz)			55	85	130	NO FILTERING					

* Only for use when the AKURATE 221 speaker is connected to a power amplifier (see *Connecting* section in this chapter).

** If you are using the AKURATE 221 speaker with a Linn System Controller or other AV processor, set to 4 (No filtering).

PARAMETER	SYMBOL	0	1	2	3	4	5	6	7	8	9
Coarse gain Every one step increase in the setting raises the gain (volume) of the speaker by 5 decibels. Every one step decrease in the setting lowers the gain (volume) of the speaker by 5 decibels. (dB)			-15	-10	-5	0	+5	+10	+15		
Fine gain Every one step increase in the setting raises the gain (volume) of the loudspeaker by 1 decibel. (dB)		0	+1	+2	+3	+4					
Bass equalisation Every one step increase in the setting applies an additional 3 dBs at 30 Hz and below. (dB@30 Hz)		0	+3	+6							
Time out Length of time before unit will go into standby after audio input ceases. (mins)		ALWAYS ON	5	10	20						

Technical Specifications

	AKURATE 242	AKURATE 225	AKURATE 212
Type	5-way floorstander	5-way centre	4-way bookshelf
Drive units	13 mm / 25 mm / 75 mm domes, 2 x 165 mm bass units	13 mm / 25 mm / 75 mm domes, 2 x 165 mm bass units	13 mm / 25 mm / 75 mm domes, 1 x 165 mm bass unit
Efficiency	87 dB for 1 watt at 1 m (1 kHz)	87 dB for 1 watt at 1 m (1 kHz)	87 dB for 1 watt at 1 m (1 kHz)
Crossover options	Passive / active	Passive / active	Passive / active
Frequency response - passive	49 Hz - 33 kHz	66 Hz - 33 kHz	70 Hz - 33 kHz
Frequency response - active	40 Hz - 33 kHz	58 Hz - 33 kHz	50 Hz - 33 kHz
Nominal impedance - passive	8 Ω	8 Ω	8 Ω
Impedance - active (bass)	16 Ω	16 Ω	16 Ω
Impedance - active (mid)	8 Ω	8 Ω	8 Ω
Impedance - active (tweeter)	6 Ω	6 Ω	6 Ω
Impedance - active (super-tweeter)	4 Ω	4 Ω	4 Ω
Crossover points	All 4th order Linkwitz Riley at 225 Hz, 450 Hz, 3.6 kHz, 9.2 kHz	All 4th order Linkwitz Riley at 225 Hz, 450 Hz, 3.6 kHz, 9.2 kHz	All 4th order Linkwitz Riley at 450 Hz, 3.6 kHz, 9.2 kHz
Connection options	Up to 5-way by wire or amplifier	Up to 5-way by wire or amplifier	Up to 4-way by wire or amplifier
Magnetic shielding	Yes	Yes	Yes
Operating volume	42 litres	25 litres	12 litres
Dimensions	1000 mm (H) x 210 mm (W) x 380 mm (D)	250 mm (H) x 600 mm (W) x 300 mm (D)	350 mm (H) x 210 mm (W) x 300 mm (D)
Weight	32 kg	21 kg	12 kg
Finishes	Black Ash, Maple, Cherry, Rosenut	Black Ash, Maple, Cherry, Rosenut	Black Ash, Maple, Cherry, Rosenut

AKURATE 221	
Type	1-way bass reinforcement
Drive unit	203 mm servo bass
Mains input voltage	Voltage range
100 V	90 - 110 V
115 V	103 - 126 V
230 V	207 - 253 V
Mains supply frequency	50 - 60 Hz
Magnetic shielding	Yes
External frequency response	Adjustable from 10 Hz - 235 Hz in 9 steps. Default is 10 Hz.
Internal frequency response	Adjustable from 55 Hz - 130 Hz in 3 steps and flat (to allow external low pass filtering). Default is 85 Hz.
Lowest frequency response at default settings	24 Hz @ -3 dB
Gain	Adjustable in 1 dB steps
Line input impedance	18 k Ω
Line output level	Electronically in parallel with line input
Output power	500 W RMS, 1000 W peak
Operating volume	21 litres
Dimensions	324 mm (H) x 324 mm (W) x 324 mm (D)
Weight	17 kg
Finishes	Black Ash, Maple, Cherry, Rosenut

Guarantee and Service

This product is guaranteed under the conditions which apply in the country of purchase and your statutory rights are not limited. In addition to any statutory rights you may have, Linn 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.

In parts of Europe, the United States of America and some other markets, extended warranty may be available to customers who register their purchase with Linn. A warranty registration card is included with the product and should be stamped by your retailer and returned to Linn as soon as possible.

Alternatively, you can register your warranty online at www.linn.co.uk

Warning

Unauthorised servicing or dismantling of the product invalidates the manufacturer's warranty. There are no user serviceable parts inside the product and all enquiries relating to product servicing should be referred to authorised retailers only.

Technical support and information

For technical support, product queries and information, please contact either your local retailer or one of the Linn offices opposite.

Full details of your local retailer/distributor can be found on the Linn web site: www.linn.co.uk

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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