

# LINN AKUBARIK - FREQUENTLY ASKED QUESTIONS

## THE LOUDSPEAKER YOU'VE BEEN WAITING FOR!

40 years of Linn loudspeaker knowledge and expertise have been applied to produce Akubarik - a new Linn loudspeaker that stands apart from the crowd.

Akubarik includes a host of ground-breaking technical developments as well building on key technologies from our reference Klimax 350A loudspeakers.

### What's the product specification?

It's a 5-way integrated loudspeaker with on-board Chakra amplification, Aktiv filters, Dynamik power supply and a down-firing ported isobaric bass system.

### What are the key Linn technologies used in Akubarik?

- **Aktiv** – for improved timing and control, as well as lower distortion across the entire frequency range and elimination of cross-talk between drive units
- **Chakra** - high-efficiency ultra-linear power amplifier technology, which ensures superior levels of responsiveness, efficiency and reliability whilst producing less heat and lower distortion than traditional power amp designs
- **Dynamik** – our latest generation switch mode power supply powers Akubarik more effectively whilst optimising audio performance and reducing noise levels further
- **3K Array** – Linn designed die-cast array housing the mid-range, tweeter & super-tweeter drive units in one unit to provide a more complete soundstage throughout the room for better sound, whatever your listening position
- **Isobarik** - the isobaric bass system consists of two bass drive units positioned face to face in the base of the cabinet, letting us produce lots of rich, deep bass within a surprisingly compact cabinet

### What's special about the amp module?

The amp module houses the Aktiv analogue filters and Chakra power amplification which is all on one board. This means the circuit layout is optimised for the shortest signal path, eliminating interconnections and reducing noise.

The module fits seamlessly to the back of the cabinet, suspended with isolation mounts to reduce microphony.

The amp module is powered by Linn Dynamik which has been optimised for Akubarik.



### **Do the amps have a fan?**

No. Akubarik is totally silent. Efficient passive cooling is achieved by a chimney built into the amp module which draws the warm air up and out of the amp, meaning there is no need for a fan.

### **What new developments have been made to the crossover design in Akubarik?**

Extensive development work on the crossover has ensured much improved phase response alignment between drive units.

The join between the frequencies produced by the 6" upper bass drive unit and the 3" midrange dome involved a complete rethink of our Aktiv filter designs which has given us more flexibility, allowing us to push the limits of our Aktiv technology further than ever before. A new hybrid filter has been implemented to provide a seamless transition in this most critical frequency region.

### **Does Akubarik use the same drive units as other Linn loudspeakers?**

The 6" upper bass drive unit is a new design introduced in the Akubarik loudspeaker. Our familiar and unique 3K driver array, also used in Klimax loudspeakers, houses the mid-range, tweeter & super-tweeter drive units, and the 8" bass drive units derive from Majik Isobarik, however in both cases the drive units have been modified to be specifically optimised for this loudspeaker.

### **Why Isobarik?**

The isobaric bass system lets us produce lots of rich, deep bass within a surprisingly compact cabinet.

Reduced distortion at bass frequencies is achieved by mounting two bass drive units in opposite directions (face to face) to enforce symmetry and ensure a more linear response to the input current.

By doubling the driving force (two motors), doubling the moving mass (two cones and two voice coils), and doubling the stiffness of the suspensions we can produce the same deep bass extension using only half of the enclosure volume required by a non-isobaric design.

### **Why are the bass drive units positioned at the bottom of the cabinet?**

It helps to make positioning of the loudspeakers easier in any space - truly omni-directional bass is achieved through mounting the isobaric system on the underside of the enclosure.

You also get more bass output for the same electrical input - firing the bass towards the floor increases the acoustic loading of the bass system allowing more acoustic power output.

### **Can the bass be adjusted?**

Yes. Concealed but easily accessible adjustable bass controls are located on top of the Amp module with 3 roll-on frequencies and 7 bass shelf options which can be changed to allow for much more flexible positioning of the loudspeakers and optimised for any room.

### **Is the loudspeaker ported?**

Yes – there are two ports at the base of the loudspeaker cabinet behind the isobaric bass drive units.

### **Why is the cabinet curved?**

Firstly because we think it looks beautiful, but it has many practical and performance-related purposes too!

The curves have allowed us to cleverly house the isobaric bass system between the base of the cabinet and the solid stand. The cabinet would have had to be much bigger had this been situated in a different place within the loudspeaker.

The curves also conceal the amp module extrusion from view giving a seamless aesthetic from listening position.

The stainless steel pillars not only provide the air gap required for the bass system, they also help to make the loudspeaker appear smaller.

### **How is the cabinet made and what are the benefits?**

The cabinet structure is an evolution of a process used for the Klimax 350 cabinet. A composite construction of layers of wood veneer, MDF and glue are steam-pressed in a mould which provides a dense, rigid and acoustically dead cabinet.

Meticulously placed internal bracing not only provides added rigidity but creates an acoustically inert enclosure with very stable mounting for the drive units.

A completely sealed, large internal enclosure for the upper bass unit means it delivers better transients and reduced distortion for better performance.

Quarter wave damping chambers inside the enclosure eliminates acoustic resonance from the upper bass drive units and isobaric bass system.

### **How is the stand made and what are the benefits?**

The stand is precision-machined from a block of solid aluminium to provide a stable and rigid base for the loudspeakers, reducing cabinet vibration and improving overall performance and musicality.

### **What connections does Akubarik have?**

Balanced XLR and mains connections can be found on the rear underside of the amp module. An upward curve at the base of the module allows cables to be plugged in from below and concealed, making for a neat and charming solution.

## Does Akubarik have a Sleep Mode feature?

Yes, Akubarik goes into Sleep Mode when power is first applied, and returns automatically after about 20 minutes. It remains in Sleep Mode until music is detected.

In Sleep Mode, Akubarik consumes a tiny 3.5 Watts of power.

Linn's trademark blue LEDs located at the top of the amp module indicate the 'on' status of the loudspeakers and provide a subtle glow that can only be seen if you're standing above the speaker.

In Standby the LEDs turn to red.

## What are the technical specifications?

Introduced	2013
Type	5-way floor-standing integrated active loudspeaker
Drive units	13 mm (0.5") dome 25 mm (1") dome 75 mm (3") dome 150 mm (6") upper bass 2 x 200 mm (8") isobaric lower bass
Operating volume	44 litres
Crossover options	Fully Aktiv (internal modules)
Crossover points	110 Hz, 318 Hz, 3.6 kHz, 9.84 kHz
Frequency range (-3dB)	28 Hz – 20+ kHz
Bass roll-on	19 Hz, 40 Hz, 60 Hz
Bass Shelf	0dB to -7dB in 1dB steps below 40Hz
Connection options	Balanced XLR
Input impedance	7.5k $\Omega$
Amplifier Power	4x100W (4 $\Omega$ ) + 1x 200W (4 $\Omega$ )
Magnetic shielding	No
Input Power (Sleep Mode)	3.5W
THD+N (amplifier stages @1kHz)	<0.002%
Power Amplifier Gain	22.6dB
Mains supply frequency	50-60 Hz
Mains input voltage (auto-sensing)	100-120 V 200-240 V
Weight (including stand)	46 kg / 101 lb
Dimensions (including stand)	1050 mm (H) x 351 mm (W) x 450 mm (D) 41.3 inches (H) x 13.8 inches (W) x 17.7 inches (D)
Dimensions (excluding stand)	246 mm (W) x 435 mm (D) 9.7 inches (W) x 17.1 inches (D)
Standard finishes	Black Ash, Cherry, Oak, Rosenut, Walnut , White
High gloss finishes	Piano Black, Cherry, Oak, Rosenut, Walnut , White, plus over 200 RAL Classic Gloss colours (all except luminous colours: RAL 3026, 3024, 2007, 2005 and 1026)

### **What finishes are available?**

Akubarik is available in Linn's 6 standard loudspeaker finishes: Black Ash, Cherry, Oak, Rosenut, Walnut and White. With high gloss versions of these finishes are also available as well as over 200 high gloss colour finishes (any RAL colour except luminous options).

Akubarik comes with a black painted stand with stainless steel spike and lock nut system.

Customers can choose either a Chrome or Black 3K array with any speaker finish.

### **What about a passive version?**

A passive variant will follow later this year – timescale and price TBC

### **Can I still order Akurate 242?**

Yes you can.

### **When can I have Akubarik?**

Akubarik is available to order and ship now.

### **What system should I have on demonstration?**

Demonstrate Akurate DSM with Akubarik to showcase a new level of performance and simplicity, and the best value system available in the market at this price point.

The new Akurate system gives you the opportunity to sell to new customers as well as existing Linn owners ready to upgrade their loudspeakers.

### **Who is it for?**

Existing Linn loudspeaker owners, e.g. Keltik, Espek, Akurate 242 owners, etc.

Existing Linn DS / DSM owners, e.g. Akurate DSM, Akurate DS

New customers, e.g. Akurate System: Akurate DSM plus Akubarik

### **Where can I get product photography?**

A wide selection of product photography can be downloaded in high or web res from the retailer resource site: <http://resources.linn.co.uk>

User name: retailer

Password: justlisten