

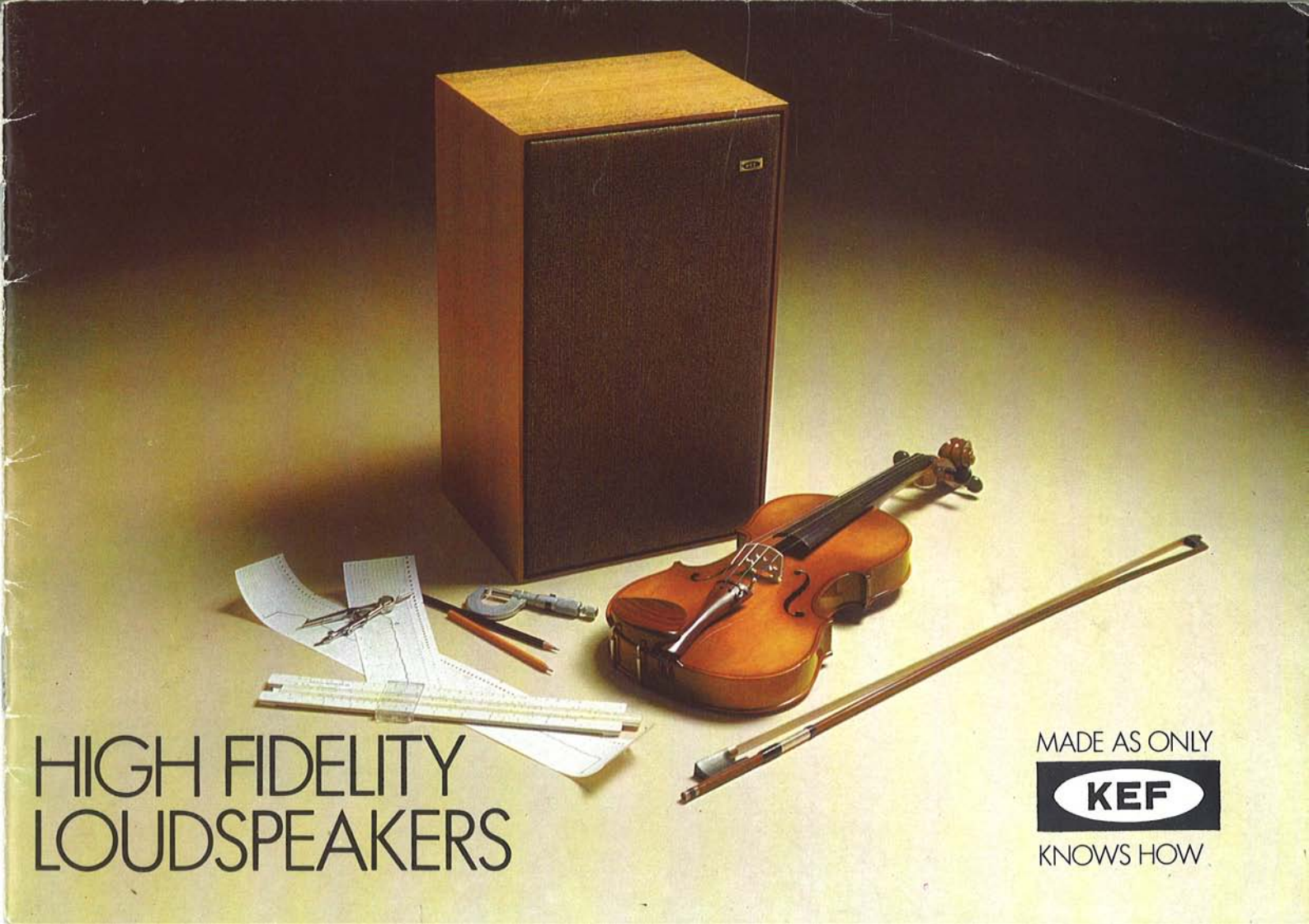


BBC Monitor LS5/1A

BBC MONITOR LS5/1A (APPROX. 1964-74)

Soon after the formation of KEF, Raymond Cooke re-established his previous relationship with the BBC and KEF took on the exclusive manufacture of the LS5/1A monitor system, a system to which KEF's meticulous approach to production engineering was well suited. The monitor utilised a Goodmans C129/15pr 15" woofer and two Celestion HF1300 tweeters and was designed for studio broadcast monitoring. The system stayed in production for more than ten years and was a useful benchmark for KEF's own designs.

KEF also supplied the LS5/5 (including manufacturing the bextrene coned 12" bass and 8" midrange units) the LS3, LS5/2A, LS3/4 and LS5/6. In 1973, the KEF designed Reference Series Model 5/1AC, an active version of the LS5/1A, went into production and found application in many of the new independent radio stations of the time.



HIGH FIDELITY LOUDSPEAKERS

MADE AS ONLY

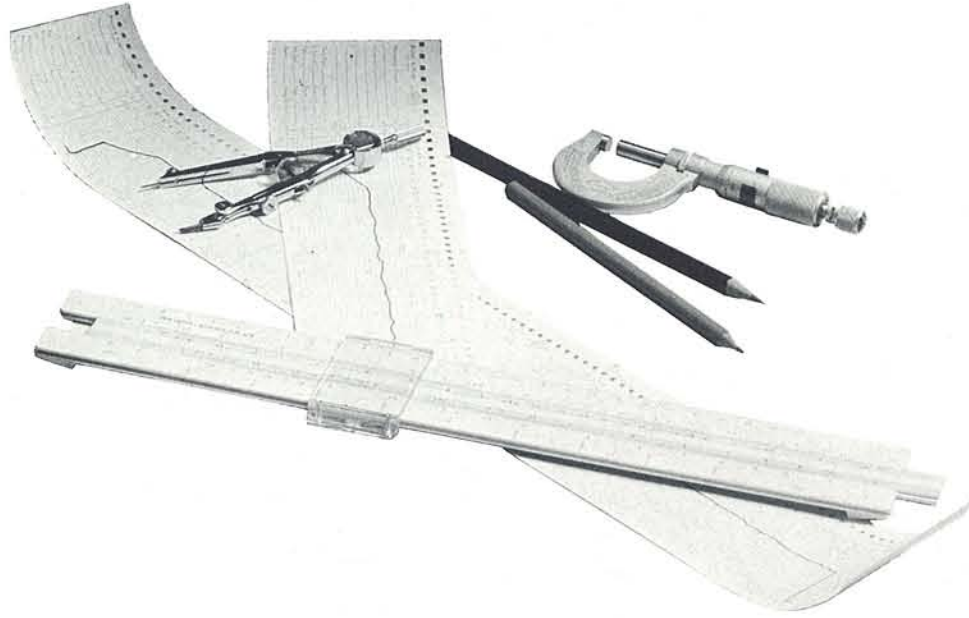


KNOWS HOW



You choose a loudspeaker by how it sounds. A good loudspeaker is one that sounds clear and true—to your ears, on your kind of music. The true sound is the sound of live music. This is the sound that KEF high fidelity loudspeakers are designed to recreate—in your own home.

MADE AS ONLY KEF KNOWS HOW



A good loudspeaker should have no 'tone' of its own to get in the way of the true sound of live music. KEF's research has shown that the 'tone' or 'timbre' that characterises the sound of conventional loudspeakers is due mostly to subtle 'colouration' effects in the mid-frequency band from about 300Hz to 4000Hz where the ear is most sensitive, and not, as is commonly thought, to limitations in response at the extreme high and low frequencies.

'Colouration' (or transient hangover) is caused by uncontrolled vibrations or resonances in the cone and enclosure. KEF loudspeakers incorporate several features to design out these resonances and reduce 'colouration' to negligible level.

The most important is the use of plastic materials for the actual radiating element or cone, rather than the conventional paper. Some of the other techniques used by KEF to reduce 'colouration' are shown on the diagram overleaf.

The use of these new techniques and materials, all specially researched and developed by KEF, brings a new 'transparency' and 'clarity' to sound reproduction, coupled with a unique consistency of performance under all climatic conditions.

Why KEF replace paper with plastics.

1. Because they are acoustically 'dead' and inherently free from resonances, the plastic materials used for KEF's diaphragms add no sound of their own to the sounds being reproduced. Result—lower colouration; clear, true sound.
2. Reducing colouration and unwanted resonances means an amazingly smooth, even frequency response. Result—all parts of the range are accurately balanced, and the sound is smooth and 'easy on the ear'.
3. With conventional loudspeakers, any delayed sound reflections within the cabinet are heard through the paper cone, causing a muddled, boxy sound quality, particularly prominent with small systems. KEF's plastic diaphragms form a barrier to these delayed sounds. Result—a clean, clear sound, completely free from 'boom' even with the smallest cabinets.
4. Plastics are predictable, give less variation in performance due to changes in temperature and humidity, and less physical and chemical deterioration with age. Result—unique consistency.

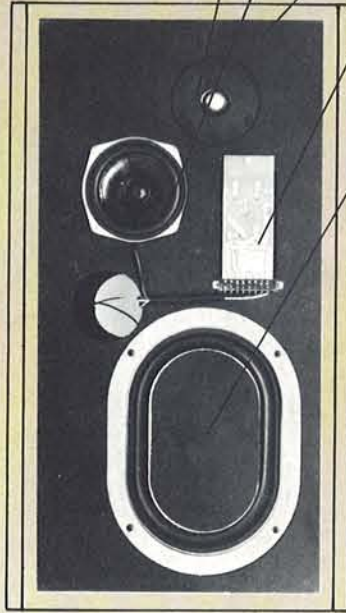
INSIDE A KEF CONCERTO

$\frac{3}{4}$ " domed Melinex diaphragm tweeter gives remarkably smooth response from 3 to 30kHz, very wide dispersion—assures smooth, spacious sound. Voices are free from artificial 'edge'. Strings sound crisp and alive yet completely free from false stridency.

5" Acoustilene diaphragm unit covers the critical range 400 to 3000Hz with low colouration and smooth, accurately balanced response. The unit is completely isolated in its own sub-enclosure to prevent interference from the bass unit. An effortlessly transparent sound quality is achieved, and the subtle sounds of the separate instruments remain completely clear even in the most complex musical passages.

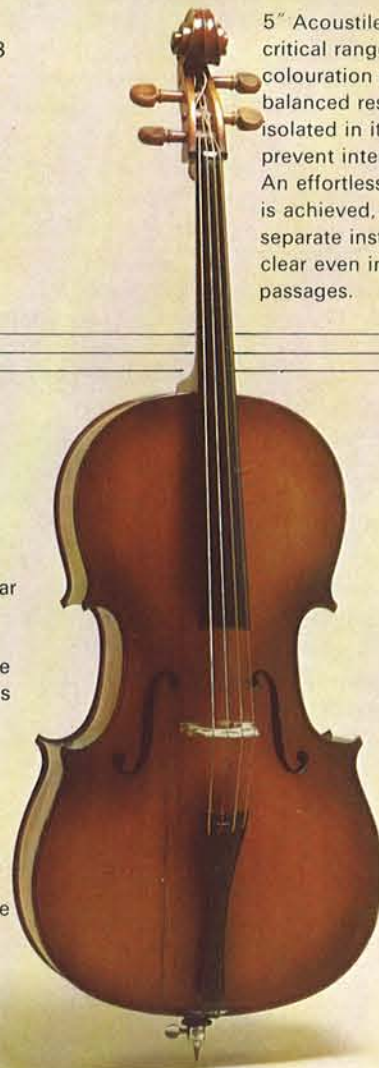
Carefully conceived, braced high density chipboard cabinet construction avoids panel vibrations and resulting mid-range colouration. Specially developed high hysteresis polyurethane foam damps enclosure 'boom' and controls the 'Q' of the fundamental bass resonance. Complete freedom from 'muddle' is assured—drums, for example, sound crisp and distinct.

Sophisticated printed circuit crossover network, together with carefully matched polar responses, provides smooth transition between the separate drive units, ensures a single, coherent sound image. The individual sounds of the different woodwind instruments, for example, each remain fully integrated and distinct—completely free from the 'disembodied top' effect so common with multi-unit systems.



Bass unit with massive diaphragm made of expanded polystyrene with aluminium skins, moves as a piston to give clean clear sound from 30 to 300Hz. Long-throw voice coil and neoprene surround together with optimum enclosure loading ensure round, low-distortion bass—**musical** bass in which the different notes are clearly distinguishable.

Special double layer grille developed by KEF consists of a very open weave cloth backed by micro-porous foam. This construction provides a unique combination of attractive visual appearance and complete acoustical transparency. The superb response and dispersion characteristics of the drive units are unimpaired.



CRESTA

KEF make a range of loudspeaker systems—they differ in size and price. The larger, more expensive systems produce more extreme bass and handle more maximum power. But the difference in sound is much less than you'd expect. On some music, we have to admit, you may find it hard to hear the difference between our smallest and largest loudspeakers.

The Cresta is KEF's smallest loudspeaker. If you're short of space, give it a listen and you'll be amazed how much science has enabled KEF to reduce the limitations inherent in the performance of small systems. Despite its bookshelf-snug size, the Cresta gives an open, full, spacious sound.

Inside the Cresta are a 5" Acoustilene diaphragm long-throw bass and mid-range unit, and a $\frac{3}{4}$ " Melinex diaphragm tweeter.

Size	13 x 9 x 7 in 33 x 23 x 18 cm	Impedance	8 ohms
Weight	14 lb 8 oz. 6.6 kg	Freq. Range	45–30,000 Hz
Power Rating	15 W	Units	B110, T27
System Res.	59 Hz	Dividing Frequency	3,500 Hz
		Finishes	Walnut, Teak
		Grille Cloths	Brown, Grey



CHORALE

The KEF Chorale sets a new standard in bookshelf loudspeakers, reproducing music with unprecedented accuracy. An extended high frequency response and a natural, uncoloured mid-range are combined with full, round bass—quiet and delicate or complex and heavy music are handled with equal ease and authority.

Inside the Chorale are an 8" Acoustilene diaphragm long-throw bass and mid-range unit, and a $\frac{3}{4}$ " Melinex diaphragm tweeter.

Size	18½ x 11 x 8½ in 47 x 28 x 22 cm	Impedance	8 ohms
Weight	17 lb 10 oz. 8.0 kg	Freq. Range	35–30,000 Hz
Power Rating	20 W	Units	B200, T27
System Res.	55 Hz	Dividing Frequency	3,500 Hz
		Finishes	Walnut, Teak, White
		Grille Cloths	Brown, Grey, Beige



CELESTE

Originally introduced in 1962, the KEF Celeste was the first true high fidelity bookshelf loudspeaker, and is still a firm favourite. The Celeste has a remarkably smooth, even response and complete freedom from the 'thinness' and 'boxiness' that used to characterise the sound of small loudspeakers.

Inside the Celeste are a long-throw 13" x 9" bass unit with an aluminium-skinned expanded polystyrene diaphragm, and a 1½" Melinex diaphragm tweeter.

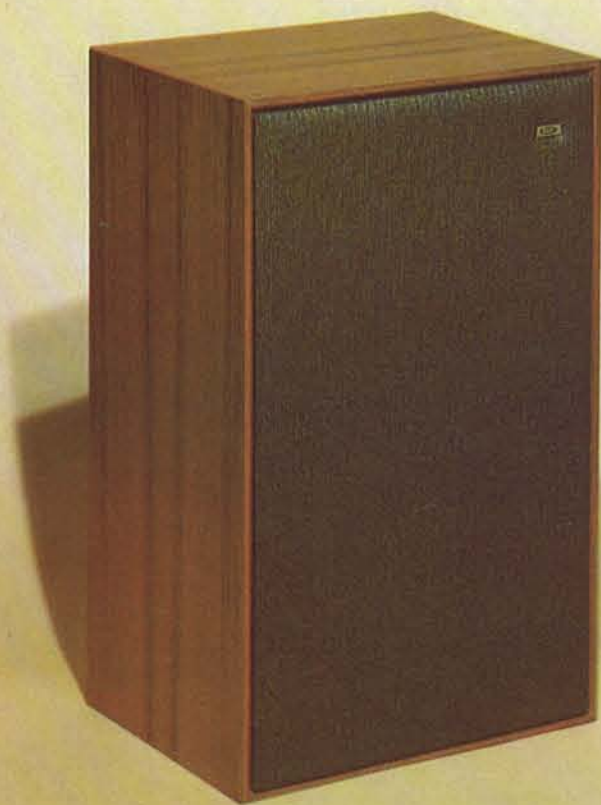
Size	18 x 10½ x 6½ in 46 x 27 x 17 cm	Impedance	8 ohms
Weight	21 lb 9.5 kg	Freq. Range	40–20,000 Hz
Power Rating	20 W	Units	B139, T15
System Res.	80 Hz	Dividing Frequency	1,000 Hz
		Finishes	Walnut, Teak
		Grille Cloths	Brown, White



CADENZA

The KEF Cadenza uses a larger cabinet and a special passive bass radiator to add an even deeper, fuller bass to the ultra-smooth mid-range and high frequency response of the smaller KEF systems. Great care in the design and production of the Cadenza assures an impeccably balanced and uncoloured, musical sound. Inside the Cadenza are an 8" Acoustilene diaphragm long-throw bass and mid-range unit, a 13" x 9" bass radiator covering the 30 to 70 Hz range and a $\frac{3}{4}$ " Melinex diaphragm tweeter.

Size	23 $\frac{1}{2}$ x 14 $\frac{1}{2}$ x 11 $\frac{1}{2}$ in	Impedance	8 ohms
	60 x 36 x 30 cm	Freq. Range	30-30,000 Hz
Weight	34 lb	Units	BD139, B200, T27
	15.5 kg	Dividing Frequencies	45 Hz, 3,500 Hz
Power Rating	25 W	Finishes	Walnut, Teak, White
System Res.	Mechanical reflex	Grille Cloths	Brown, Grey, Beige
	25 Hz		



CONCERTO

The KEF Concerto will do full justice to the finest and most elaborate high fidelity system. The use of a third drive unit to cover the critical mid-range allows the lowest possible colouration to be combined with an extended bass response and generous power capability. The result is a loudspeaker system that will fill the largest rooms with wonderfully true, effortless sound.

Inside the Concerto are a long-throw 13" x 9" bass unit with an aluminium-skinned expanded polystyrene diaphragm, a 5" Acoustilene diaphragm mid-range unit, and a $\frac{3}{4}$ " Melinex diaphragm tweeter. A wooden floor stand is available (extra).

Size	28 x 17 x 12 in	Impedance	8 ohms
	71 x 43 x 30 cm	Freq. Range	30-30,000 Hz
Weight	50 lb	Units	B139, B110, T27
	23 kg	Dividing Frequencies	400, 3,500 Hz
Power Rating	30 W	Finishes	Walnut, Teak, White
System Res.	Reflex	Grille Cloths	Brown, Grey, Beige

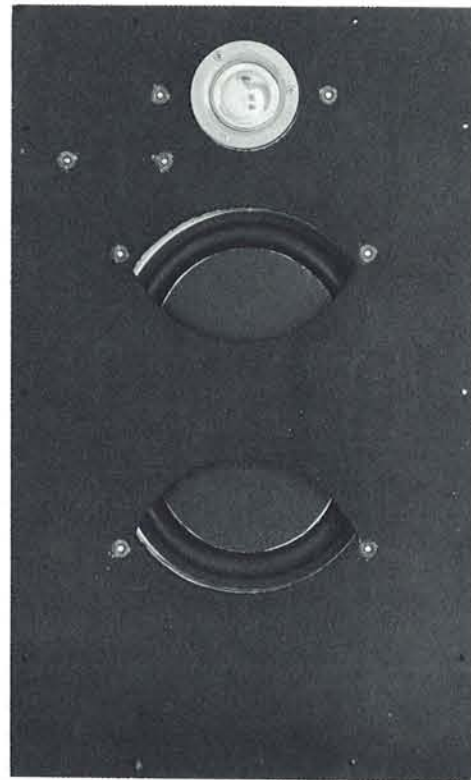


KEFKITS

If you wish to construct your own loudspeaker cabinets, or build a loudspeaker system into a wall or recess, then Kefkits are the answer. Built to the same high standards as KEF's complete systems, Kefkits come with the loudspeaker units already mounted onto a convenient baffle, and wired up with the appropriate dividing network. Instructions come too, giving dimensions of suitable cabinets and details of wall-mounting. Grille cloth, nameplate, terminal panel and screws complete the package, together with BAF wadding to line your enclosure.

KEFKIT 2

Size 22½ × 13½ × 4 in
57 × 34 × 10 cm
Weight 15 lb
6.8 kg
Power Rating 25 W
Impedance 8 ohms
Freq. Range 35–20,000 Hz
Units B139, T15
Dividing Frequency 1,000 Hz
Grille Cloth Brown

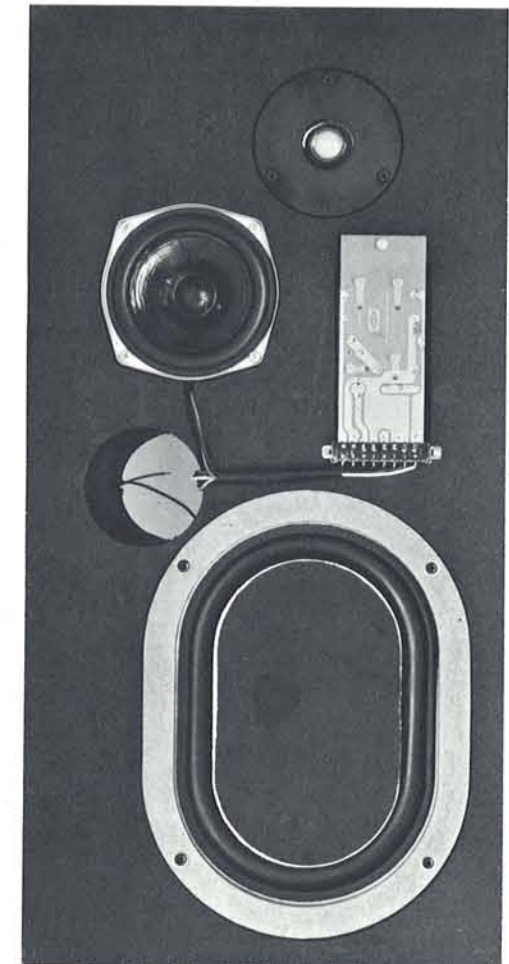
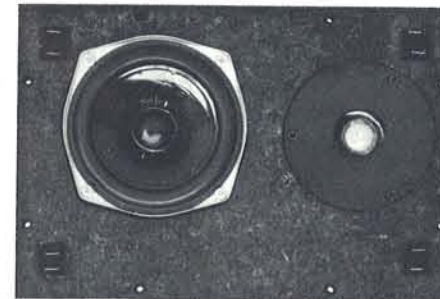


KEFKIT 3 (right)

Size 28 × 14 × 10½ ins
71 × 35.5 × 26.6 cms
Weight 23 lbs
10.45 kgs
Power Rating 30 W
Impedance 8 ohms
Freq. Range 30–30,000 Hz
Units B139, B110, T27
Dividing Frequencies 400, 3,500 Hz
Grille Cloth Brown

KEFKIT 4 (below)

Size 12¾ × 8¾ × 4½ in
31.4 × 21.3 × 11.4 cm
Weight 8 lb
3.64 kg
Power Rating 15 W
Impedance 8 ohms
Freq. Range 45–30,000 Hz
Units B110, T27
Dividing Frequency 3,500 Hz
Grille Cloth Brown



T27 Tweeter

This new high frequency unit is of the very latest design and gives the highest standard of performance so far achieved from a moving coil device. The domed Melinex diaphragm is small enough to give a broad radiation pattern up to the highest audio frequency. The high frequency response extends smoothly beyond 30 kHz. The T27 is beautifully engineered in a moulded plastic case with large ferrite magnet assembly.

SPECIFICATION:

Size:	4½ in dia x 1¾ in deep	Frequency range:	3—30 kHz
Weight:	1 lb 6½ oz 0.64 kg	Fundamental resonance:	900 Hz
Impedance:	8 ohms	Flux density:	12,500 oersted
Power rating:	6W (30W system)	Total flux:	24,700 maxwells



T15

A wide range, low distortion high frequency radiator; fitted with exclusive hemispherical diaphragm made from aluminised Melinex, giving wonderfully smooth response to beyond 20 kHz with wide dispersion of the higher frequencies. The T15 has a special acoustical circuit which ensures level response in the critical frequency range below 4 kHz.

SPECIFICATION:

Size:	3¾ in dia x 1¼ in deep	Frequency range:	800—20,000 Hz
Weight:	2 lb 0.9 kg	Fundamental resonance:	550 Hz
Impedance:	8 ohms	Flux density:	12,000 oersted
Power rating:	6W (25W system)	Total flux:	43,000 maxwells



B139 Bass Unit

One of the most highly developed bass drivers in the world, the B139 is an ideal unit for compact systems. The aluminium stressed plastic diaphragm of the B139 gives complete freedom from transient distortion and break-up. The special shape of the diaphragm is designed to give very wide dispersion up to 1,000 Hz where the response is only 1 dB down at 45° off axis. The B139 has a neoprene roll surround for low distortion bass.

SPECIFICATION:

Size:	13 x 9½ x 3 in	Frequency range:	20—1,000 Hz
Weight:	10 lb 4.5 kg	Fundamental resonance:	20 Hz
Impedance:	8 ohms		
Power rating:	30W		
Flux density:	10,500 oersted		
Total flux:	137,000 maxwells		



Note: the performance of a loudspeaker system is critically dependent on its enclosure. Full constructional details of suitable enclosures for KEF loudspeaker units and Kefkits are yours for the asking.

B110 Bass/Mid Range Unit

Suitable for use as a bass driver in compact 2-way systems or as a mid range unit in 3-way systems. Long voice coil, highly compliant linear roll suspension plus Acoustilene diaphragm combine to give low harmonic distortion, minimum colouration and extra smooth response.

SPECIFICATION:

Size:	5½ in dia. x 3¼ in deep
Weight:	3 lb 10 oz 1.6 kg
Impedance:	8 ohms
Max. input:	15 W
Frequency range:	30—5,000 Hz
Fundamental resonance:	30 Hz
Flux density:	12,000 oersted
Total flux:	64,000 maxwells



DN8

A three element printed circuit dividing network for use in combining the B139 and T15 with crossover at 1 kHz.

Specification:

Size:	2½ x 2½ x 1½ in
Weight:	3 oz



DN9

A three element printed circuit dividing network for use in combining the T27 with a suitable woofer having an impedance of 5—8 ohms. The crossover frequency is approximately 4 kHz.

Specification:

Size:	2½ x 2½ x 1½ in
Weight:	2½ oz

DN12

A nine element printed circuit dividing network for use in combining the T27, B110 and B139. The crossover frequencies are approximately 400 and 3,500 Hz. Supplied with edge connector.

Specification:

Size:	6½ x 2½ x 1½ in
Weight:	6½ oz



HOW THE BBC HELP KEF MAKE BETTER LOUDSPEAKERS

You choose a loudspeaker by how it sounds. So do the BBC. The loudspeaker used by the BBC for quality monitoring was developed with instant, direct reference to the sound of **live** music in their studios—a facility not available in an ordinary laboratory. These specialised, individually calibrated loudspeakers are made for the BBC exclusively by KEF. They form a constantly available reference standard to help the development of KEF's high fidelity loudspeakers towards the true sound—the sound of live music.





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