

KEF CUSTOM SERIES

Sound Unseen



THE BEST SOUND AROUND

There's more to in-wall loudspeakers than speakers in a wall.

High fidelity sound is fast becoming an essential requirement of every well-appointed home. Once restricted to a single listening room, music systems today are being designed for enjoyment in several locations. Yet few architects, interior designers or home owners want to look at – or trip over – box speakers in every room. Mounting speakers in the ceiling or wall cavity makes more sense, except for one major problem – the loudspeakers themselves.

In the past, wall or ceiling speakers were either adapted box loudspeakers or indifferent public address systems, neither of which demonstrated a real understanding of the physical requirements unique to flush mounted hi-fi speakers.

Now KEF, the company behind so many of the world's most highly regarded loudspeakers, have created a product range expressly designed for flush mounting applications – The KEF Custom Series.

Instead of simply modifying our famous box speakers, KEF undertook a thorough re-examination of the demands of this type of hi-fi installation ... and came up with some new ideas.

What works in a box won't work in a wall.

All loudspeakers are subject to a problem known as edge diffraction. This occurs when sound travels across the front of the speaker and encounters any sharp edge or discontinuity. This edge becomes its own source of sound, radiating into the room, blurring the location of both instruments and voices and ruining the stereo sound stage in the process.

KEF recognised this problem in box loudspeakers ... and solved it! So it's no surprise that KEF's Custom Series also minimise diffraction effects. The baffles of our Custom speakers lie in the same plane as the wall and every edge is smooth and continuous. In consequence the sound source – and the stereo image – are clear and distinct.

Designed for uninterrupted performance.

In most multi-room systems, the volume control is in one room ... and the speakers are in another. So it's quite possible to accidentally overload remotely sited speakers. For this reason, the KEF CK160Q and CR200F incorporate a High Frequency protection circuit. In the event of an overload, the circuit simply lowers the output to the tweeter. When the overload has passed, the signal is automatically restored. There are no fuses to replace, no relays to reset and no need to remove the speakers from their mountings.

The final design touch is yours.

KEF Custom Series speakers can be seamlessly integrated into your decor. Both mounting bezels and grilles are finished in white, but can be painted to match the room. Detachable grilles incorporate a metal mesh which can be replaced with your own fabric.

For architects and interior designers, here's style and versatility.
For installers, here's the easy to fit package.
For the audiophile, here's true, uncompromised high fidelity sound.

CK160F 160mm Twin-Cone System.

Principally for use in non-critical areas, this full-range speaker has a frequency response of 60Hz – 15kHz. Easily installed within a stud partition wall or ceiling using the supplied round or square mounting bezels and grilles, the CK160F offers a good quality, low cost alternative to conventional secondary speakers.



CK160Q 160mm Two-Way Uni-Q System.

KEF's advanced research has produced a revolutionary design which for the first time allows the 19mm tweeter to be placed in the ideal acoustic position – coaxial and coincident with the LF unit. As a result the CK160Q has a coherent output which maintains flat response on-axis and up to 30 degrees off-axis in any direction. The uniform radiation pattern results in a better stereo sound quality and improved imaging over a wider area – important in ceiling installations as they cannot be moved at will to suit preferred listening position. Round or square mounting bezels and grilles will enable you to blend the speaker into any environment.



CR200F Two-Way System.

An attractive way to integrate sound into a wide variety of rooms, the CR200F has a 25mm tweeter and 200mm bass unit mounted close together. This minimises the off-axis response dips caused by both drive units operating near the cross-over frequency. The system is a mere 89mm deep and is supplied complete with rectangular mounting bezels and grilles.



CK200Q 200mm Two-Way Uni-Q System.

A recent addition to the range is the CK200Q. Comprising a 25mm fluid cooled HF unit, a 200mm polypropylene bass driver and dedicated cross-over, this speaker is fully capable of reproducing wide dynamics with effortless control. High power handling and superb bass extension are two more reasons why the CK200Q with its round bezel/grille is THE choice for those who want the best!



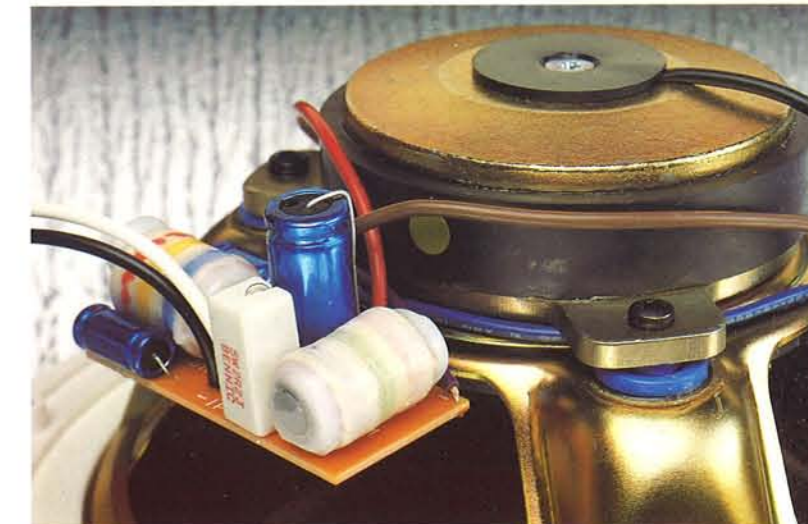
CR250SW Subwoofer.

Home owners can now get deep bass from a flush mount speaker system by using the CR250SW, the first genuine in-wall stereo subwoofer. Used with the CR200F, to make a three way system, the CR250SW can also be used with other speakers via the high frequency output terminals of its onboard cross-over network. The 250mm bass units provide response down to 32Hz (-2dB). The subwoofer needs only 94mm depth behind the surface and can go anywhere along the wall without disturbing the stereo image. Square mounting bezels and grilles are supplied.



Installation.

Using the air-space within a cavity wall or suspended ceiling for bass loading, Custom Series speakers are suitable for use in both domestic and commercial environments. High quality sound and long term reliability are uppermost in KEF's design approach. However a performance loss may be apparent if these speakers are mounted into solid brick or concrete walls and ceilings.



KEF Technology.

Energy stored in the CR200Q drive unit chassis is reduced by using a newly designed, decoupled magnet assembly. The result is lower audible colouration because less energy is transferred to the mounting surface.

KEF CUSTOM SERIES SPECIFICATIONS

Model	CK160F	CK160Q	CK200Q
System	Twin-cone full-range loudspeaker	2-way Uni-Q loudspeaker	2-way Uni-Q loudspeaker
Drive Units	160 mm (6 1/4 in.) twin polypropylene driver with high temperature voice coil in heavy duty pressed steel basket	LF: 160 mm (6 1/4 in.) polypropylene driver with high temperature voice coil built into rigid die-cast aluminium basket HF: 19mm (3/4 in.) polyamide dome driver with high energy Ne-Fe-B magnet system, high temperature voice coil and magnetic fluid cooling. Auto-reset overload protection	LF: 200 mm (8 in.) polypropylene driver and polymer surround. Decoupled magnet assembly to minimise dry wall vibration HF: 25mm (1 in.) dome with Ne-Fe-B magnet and magnetic fluid cooling
Frequency Range	60 Hz – 15 kHz	±2 dB, 60 Hz – 17 kHz (-10 dB at 35 Hz)	±2 dB, 45 Hz – 20 kHz (-6 dB at 35 Hz)
Maximum Output (note 1)	105 dB	105 dB	107 dB
Sensitivity (note 2)	88 dB	88 dB	88 dB
Amplifier Requirement (note 3)	10 – 60 watts	10 – 70 watts	10 – 100 watts
Nominal Impedance	8 ohms	4 ohms	8 ohms
Bezel Finish	White	White	White
Grille	White perforated metal	White perforated metal	White perforated metal
Cut-out Dimensions	CK160FR: 197 mm (7 3/4 in.) Ø CK160FS: 197 mm (7 3/4 in.) □	CK160QR: 197 mm (7 3/4 in.) Ø CK160QS: 197 mm (7 3/4 in.) □	CK200QR: 239 mm (9 1/2 in.) Ø
Mounting Depth (note 4)	89 mm (3 1/2 in.)	89 mm (3 1/2 in.)	94 mm (3 3/4 in.)
Overall Dimensions	CK160FR: 220 Ø x 89 mm (8 11/16 Ø x 3 1/2 in.) CK160FS: 220 □ x 89 mm (8 11/16 □ x 3 1/2 in.)	CK160QR: 220 Ø x 89 mm (8 11/16 Ø x 3 1/2 in.) CK160QS: 220 □ x 89 mm (8 11/16 □ x 3 1/2 in.)	CK200QR: 268 Ø x 98 mm (10 5/8 Ø x 3 7/8 in.)

Model	CR200F + CR250SW	CR200F	CR250SW
System	3-way combination loudspeaker	2-way loudspeaker	Subwoofer
Drive Units	LF: 250 mm (10 in.) driver with high temperature voice coil MF: 200 mm (8 in.) driver with high temperature voice coil HF: 25 mm (1 in.) soft dome with high temperature voice coil, fluid cooling, auto resetting protection	LF: 200 mm (8 in.) driver with high temperature voice coil HF: 25 mm (1 in.) soft dome with high temperature voice coil, fluid cooling, auto resetting protection	LF: 250 mm (10 in.) driver with high temperature voice coil
Frequency Range	±2 dB, 32 Hz – 22 kHz (-10 dB at 25 Hz)	±2 dB, 55 Hz – 22 kHz (-10 dB at 30 Hz)	±2 dB, 32 Hz – 150 Hz (-10 dB at 25 Hz)
Maximum Output (note 1)	112 dB	109 dB	112 dB
Sensitivity (note 2)	90 dB	90 dB	90 dB
Amplifier Requirement (note 3)	10 – 150 watts	10 – 100 watts	10 – 150 watts
Nominal Impedance	4 ohms	4 ohms	4 ohms
Bezel Finish	White	White	White
Grille	White perforated metal	White perforated metal	White perforated metal
Cut-out Dimensions	Satellite: 298 x 232 mm (11 3/4 x 9 1/8 in.) Subwoofer: 298 x 298 mm (11 3/4 x 11 3/4 in.)	298 x 232 mm (11 3/4 x 9 1/8 in.)	298 x 298 mm (11 3/4 x 11 3/4 in.)
Mounting Depth (note 4)	Satellite: 87 mm (3 7/16 in.) Subwoofer: 91 mm (3 5/8 in.)	87 mm (3 7/16 in.)	91 mm (3 5/8 in.)
Overall Dimensions (H x W x D)	Satellite: 326 x 254 x 96 mm (12 7/8 x 10 x 3 13/16 in.) Subwoofer: 326 x 320 x 100 mm (12 7/8 x 12 5/8 x 3 15/16 in.)	326 x 254 x 96 mm (12 7/8 x 10 x 3 13/16 in.)	326 x 320 x 100 mm (12 7/8 x 12 5/8 x 3 15/16 in.)

- Notes:**
1. Maximum spl on programme peaks under typical listening conditions.
 2. Measured at 1m on reference axis for input of 2.83V rms.
 3. Amplifier requirement figures are intended only as a guide. As a general rule buy the biggest amplifier you can afford within the specified range and use it with care. If in doubt, ask your dealer.
 4. Maximum depth required behind the front mounting surface.

Mounting Hardware

Rough-in frames are available for use during the construction of new walls and ceilings. RF160R or RF160S is suitable for either CK160F or CK160Q. RF200F suits the CR200F and RF250SW suits the CR250SW.



RF160R



RF160S



RF200F



RF250SW

KEF reserve the right to incorporate developments and amend specifications without prior notice in line with continuous research and product improvement.



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