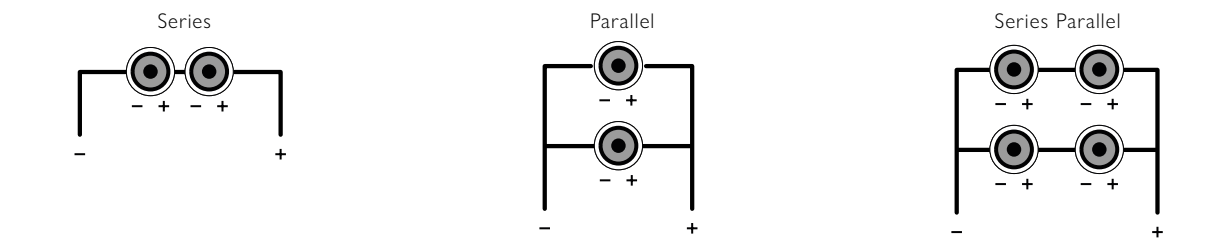


SETUP AND WIRING EXAMPLES

The following examples show some of the ways that KEF Architectural products may be used in your project. Included are wiring diagrams and the product settings required for each example.

WIRING NOTES

These types of wiring are used in the following examples. Please note that impedance will change depending on the wiring style as well as the type and number of speakers used.



COMMON SYSTEM IMPEDANCES

These are some of the most common system impedances when using different wiring configurations with KEF Architectural speakers.

PLEASE NOTE: Wiring diagrams are for guidance and illustration only. More speakers may be added, but you MUST ensure that the resulting impedance is suitable for the amplification you are specifying.

Wiring Style	Speaker 1 (Series 1)	Speaker 2 (Series 1)	Speaker 3 (Series 2)	Speaker 4 (Series 2)	Total Impedance
Series	4Ω	4Ω	-	-	8Ω
Series	8Ω	8Ω	-	-	16Ω
Parallel	4Ω	-	4Ω	-	2Ω
Parallel	8Ω	-	8Ω	-	4Ω
Series Parallel (w/sub)	8Ω	8Ω	6Ω	-	4.36Ω
Series Parallel	4Ω	4Ω	4Ω	4Ω	4Ω
Series Parallel	8Ω	8Ω	8Ω	8Ω	8Ω

PRODUCT SETTINGS

KASA500, as well as some Architectural subwoofers, have mode selection switches. The modes required are found with each example. The following icon shows the switch when BYPASS is selected:



NOTE: When Ci200Q5b-THX is used with KASA500, ensure the CROSSOVER mode is set to bypass. When powered by a standard amplifier that does not feature a crossover, set the CROSSOVER mode to ON.

KASA500

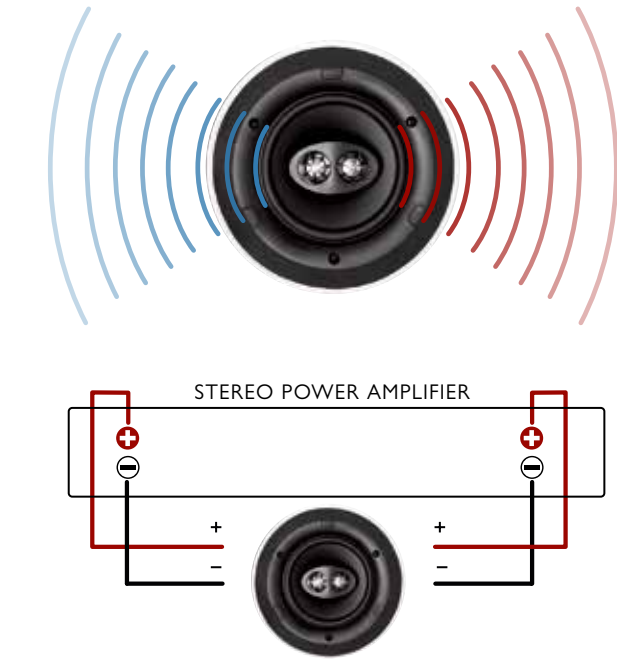
KASA500 has DIP switches on the rear to adjust the line output (high pass filter) and the internal DSP (for KEF Architectural subwoofers). Please contact KEF Technical Support, or consult the DIP switch chart for advice on the best settings for your particular KEF speakers and subwoofers. Also note that KASA500 may be used in place of any 'generic' stereo amplifiers in these examples.

SINGLE SPEAKER SOLUTIONS

KEF has two ways of bringing phenomenal sound into situations where space is at a premium and only a single speaker will fit.

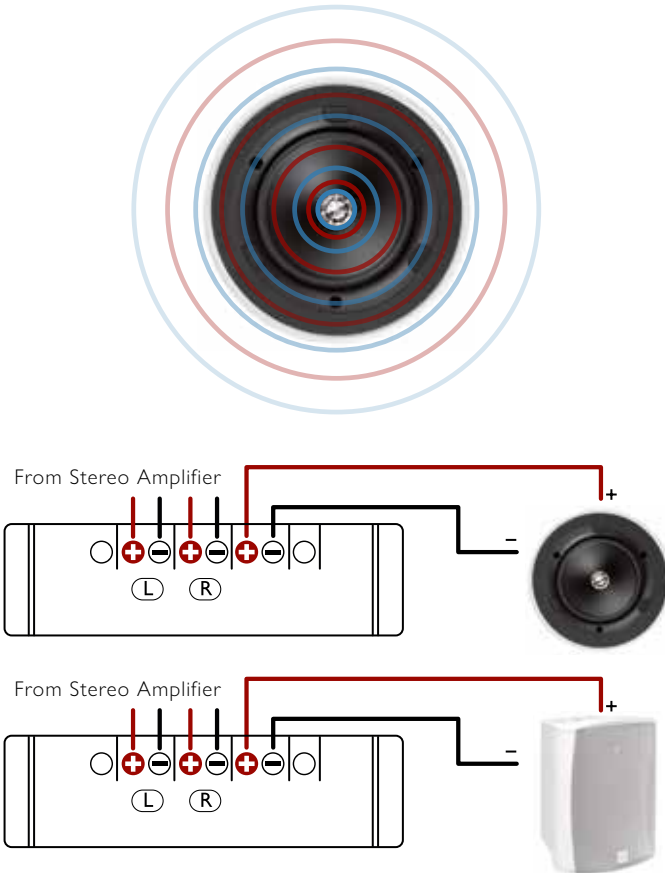
DUAL STEREO

The Dual Stereo special application loudspeakers feature two tweeters and a dual voice coil woofer. Stereo soundstage is created by combining the dispersion effect of the Tangerine WWaveguide with asymmetrical tweeter placement, as illustrated below.

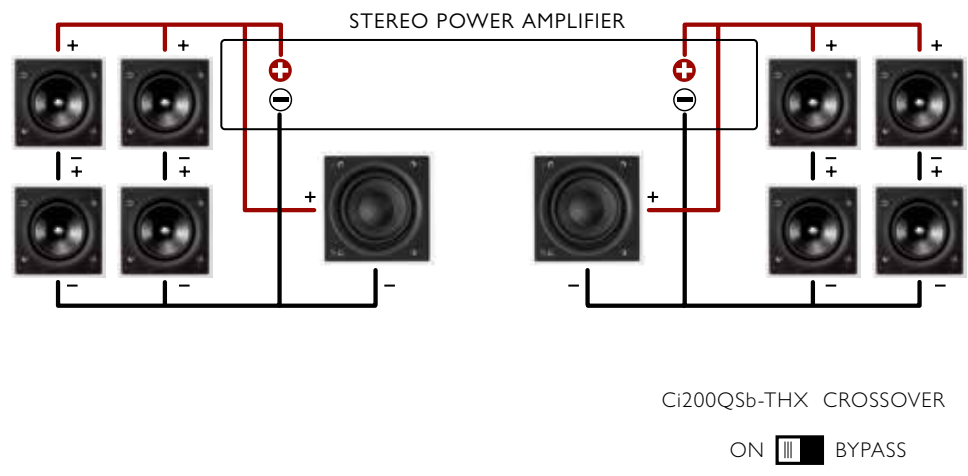


STEREO TO MONO TRANSFORMER (CiTR-SM)

The CiTR-SM converts a stereo amplifier signal into mono, allowing any KEF Architectural loudspeaker to deliver all the music from a single unit, with all the room filling benefit of Uni-Q.

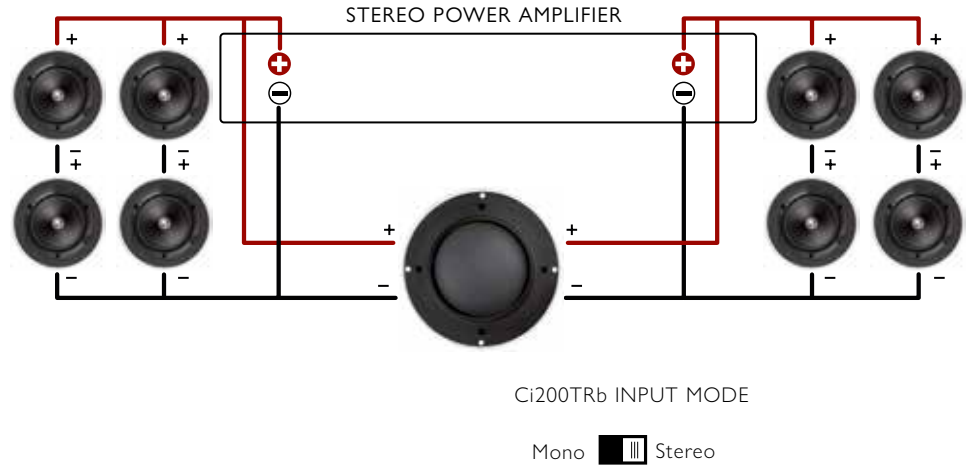


PASSIVE SUB/SAT SYSTEM (STEREO SUBWOOFERS)



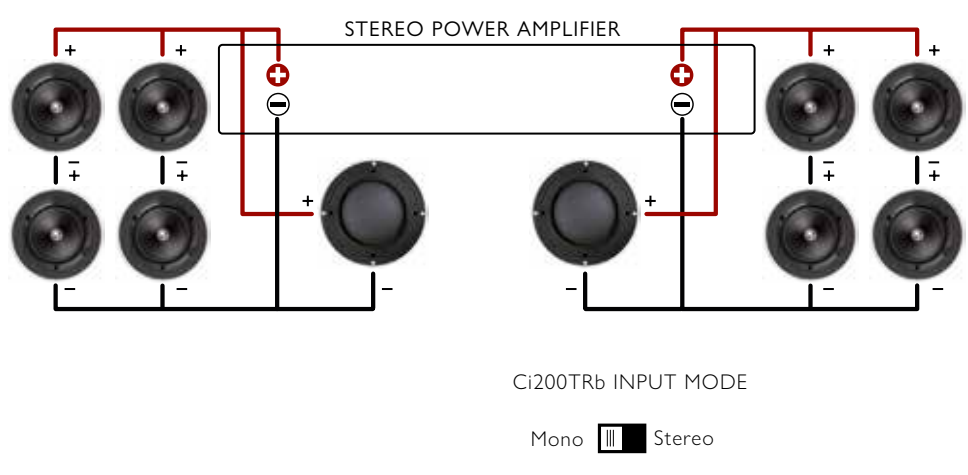
Ci200Q5b-THX CROSSOVER
ON ☐ BYPASS

PASSIVE SUB/SAT SYSTEM (Ci200TRb STEREO MODE)



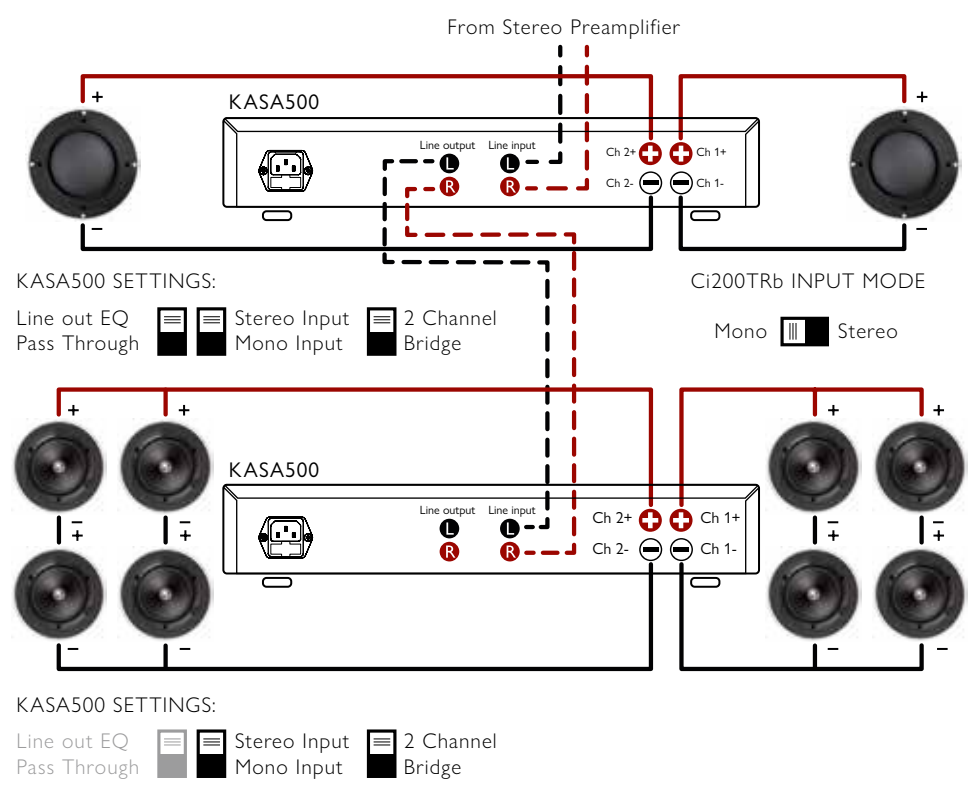
Ci200TRb INPUT MODE
Mono ☐ Stereo

PASSIVE SUB/SAT SYSTEM (Ci200TRb MONO MODE)

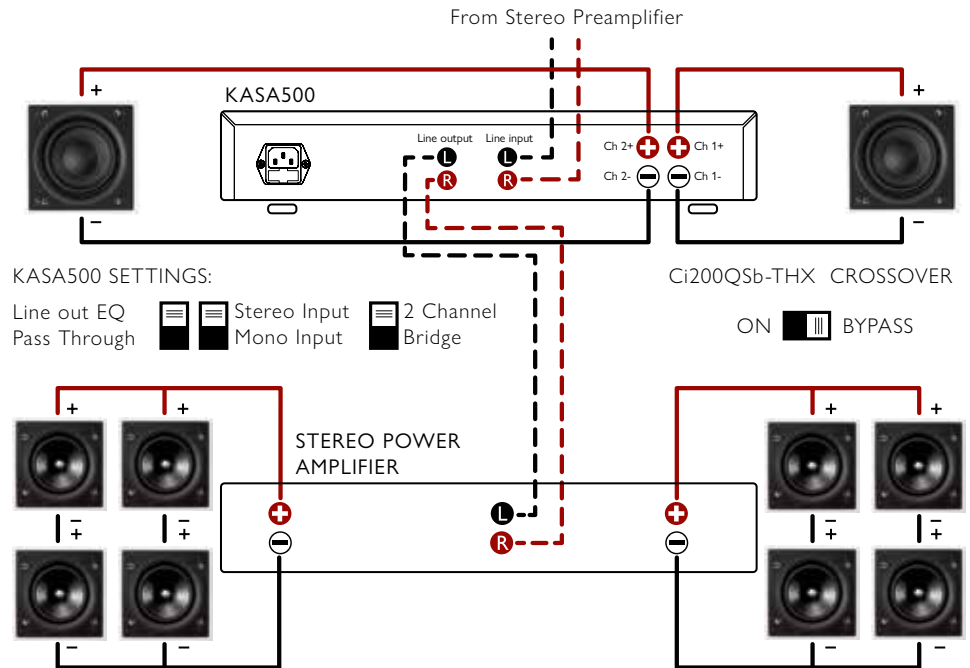


Ci200TRb INPUT MODE
Mono ☐ Stereo

ACTIVE SUB/SAT SYSTEM 1



ACTIVE SUB/SAT SYSTEM 2



UNI-Q BENEFITS

KEF's signature Uni-Q Driver Array is a point source that places the tweeter at the exact acoustic centre of the midrange driver. The unique benefits of Uni-Q makes it the ideal solution for custom installation:

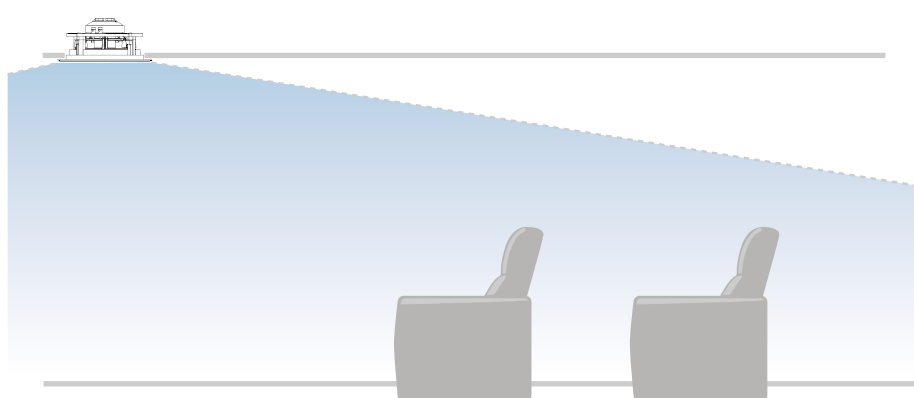
SIT ANYWHERE

Equal directivity sound of up to 160° delivers pinpoint imaging and effortlessly natural performance across a huge listening area, ensuring everybody shares the same experience.



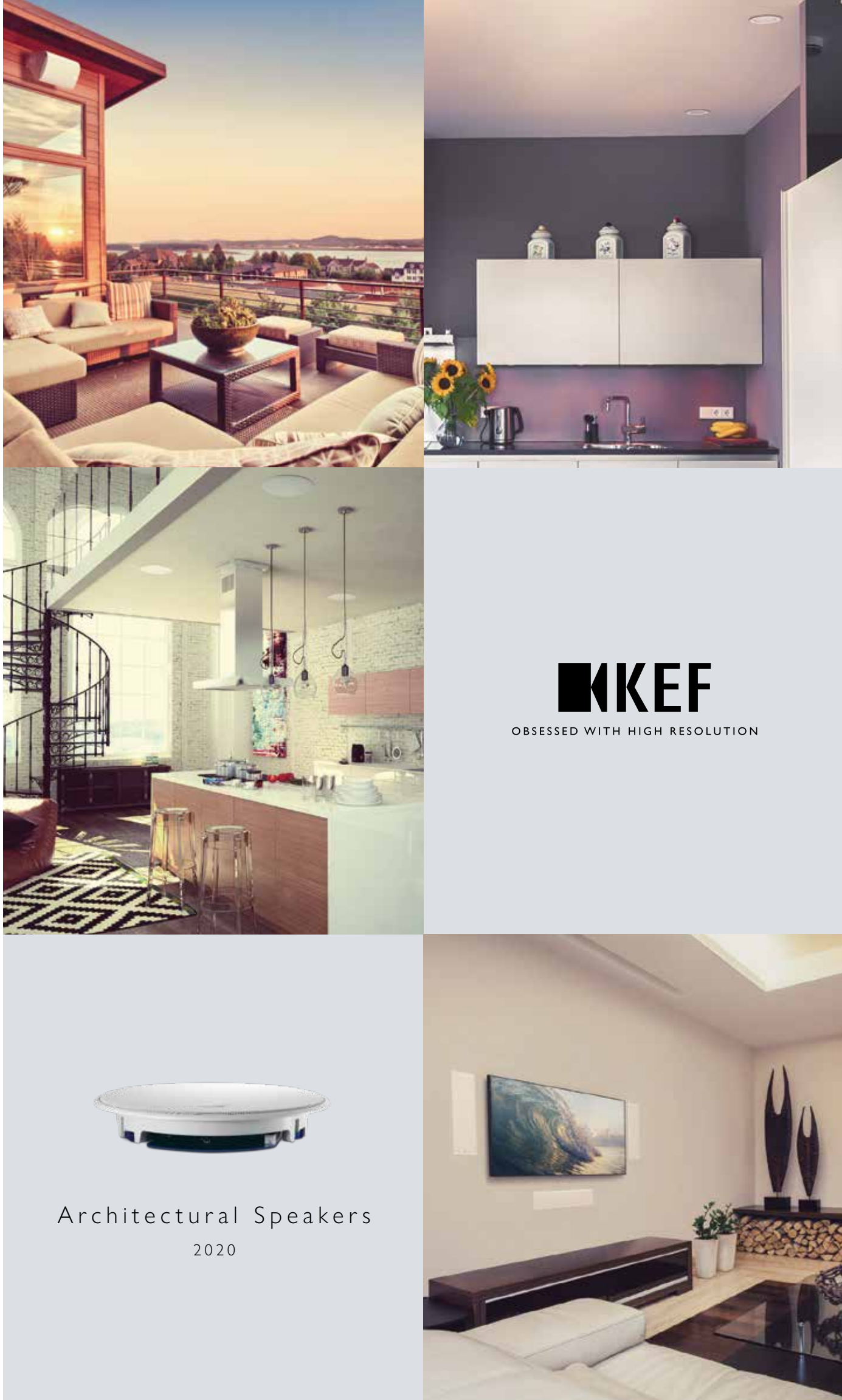
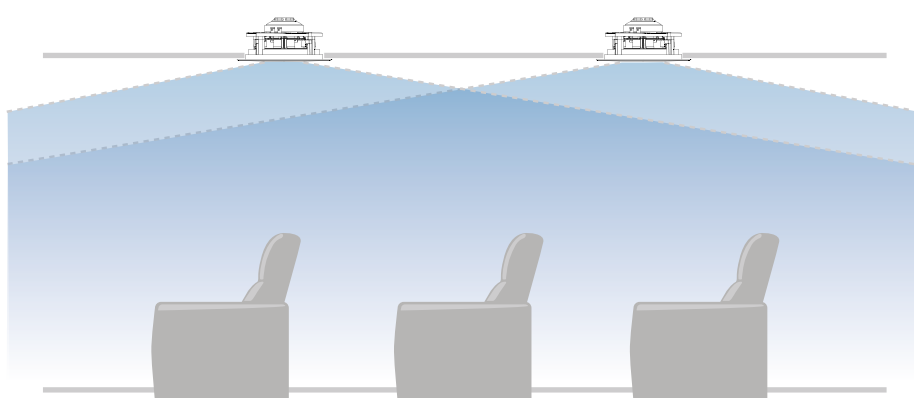
IN-CEILING LCR

By installing a KEF ceiling speaker as close to the front wall as possible, all listeners will hear the sound as if it is coming from the screen, rather than from above.

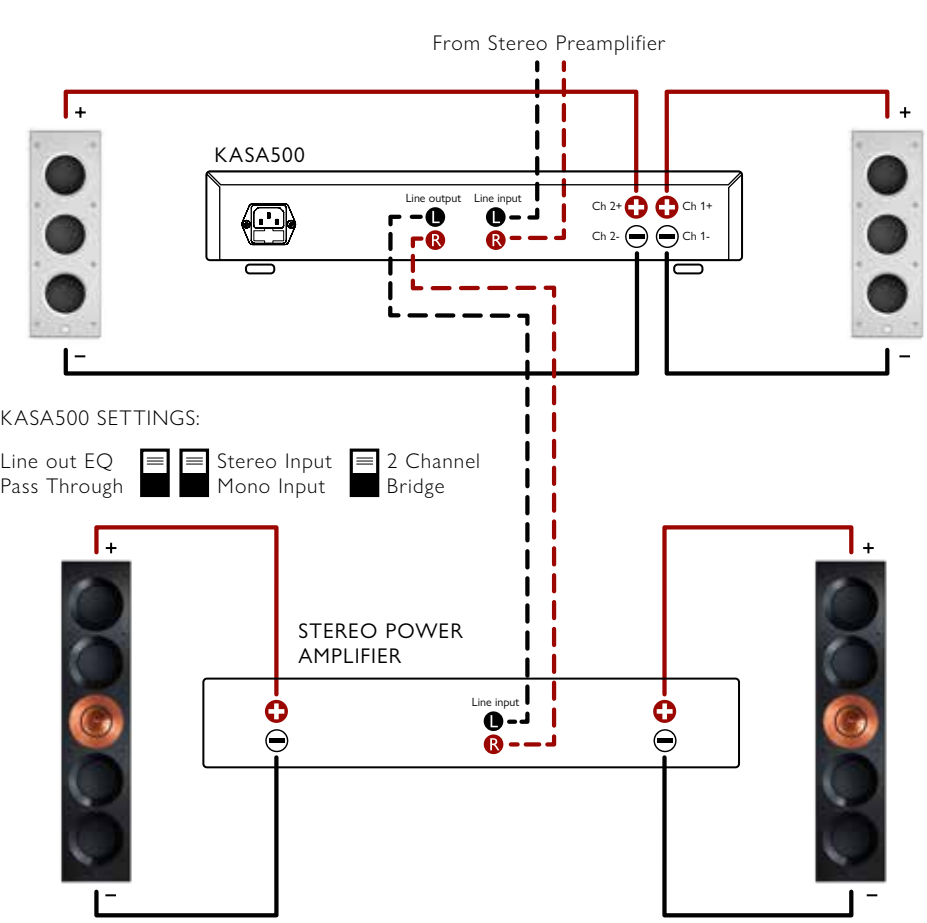


DOLBY ATMOS FOR ALL

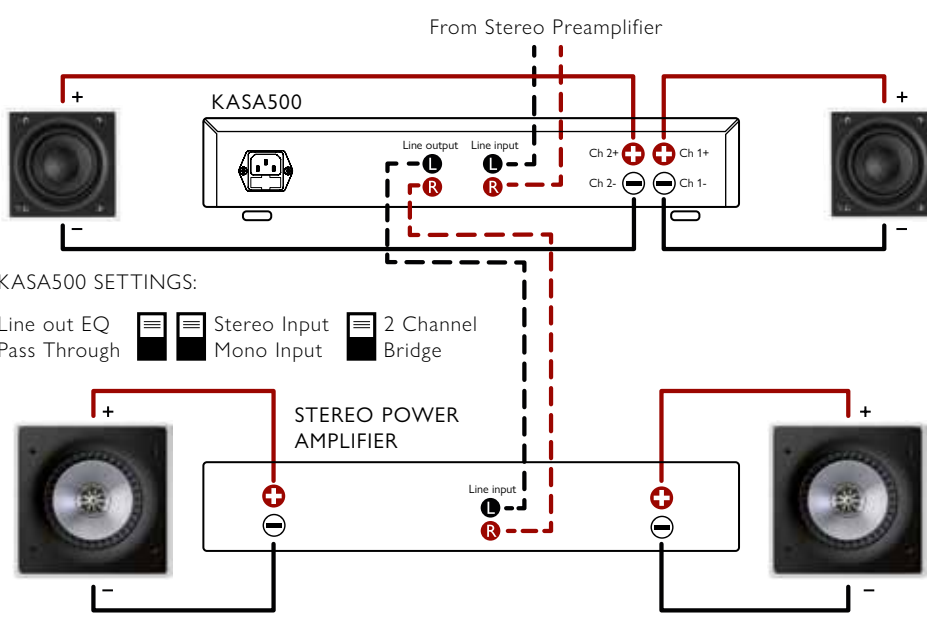
The huge off-axis response ensures that everybody in the front row receives all the information from the rear Atmos channels, and everybody in the back row experiences everything from the front row.



HIGH END SUB/SAT SYSTEM



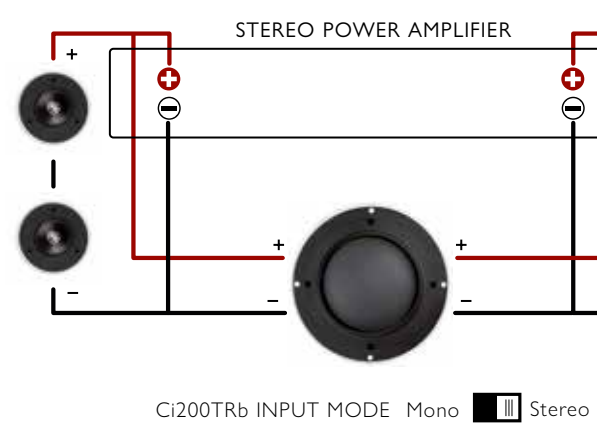
HIGH OUTPUT ACTIVE SUB/SAT SYSTEM



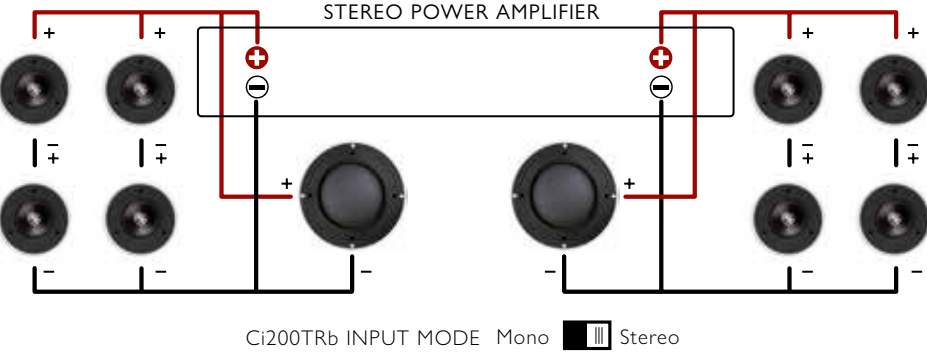
SOUNDLIGHTS

KEF Soundlights are specifically designed to mimic the aesthetics of installed lighting.

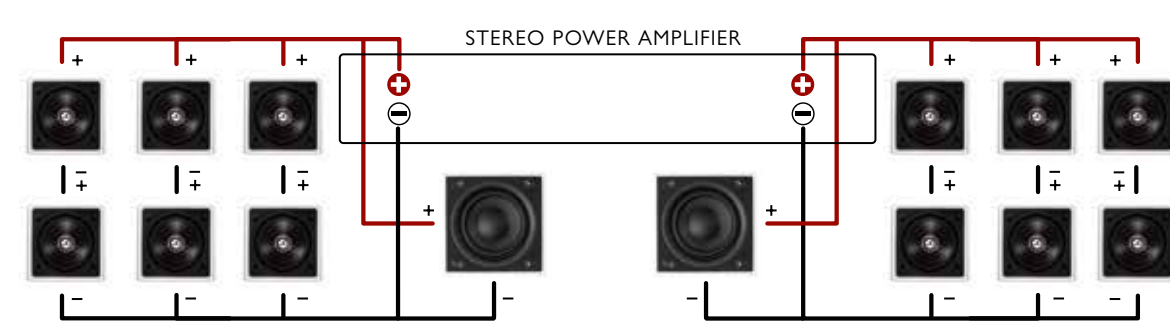
SOUNDLIGHT SUB/SAT 1 (Ci200TRb STEREO)



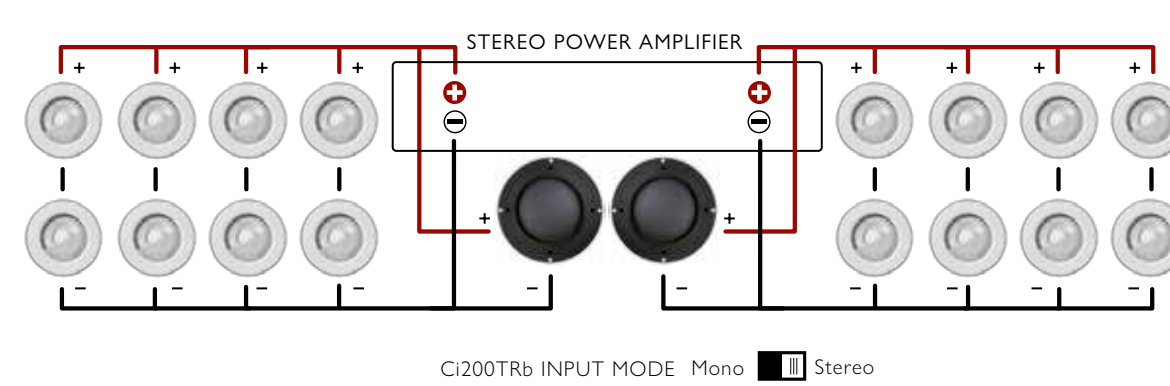
SOUNDLIGHT SUB/SAT 2 (Ci200TRb MONO)



SOUNDLIGHT SUB/SAT 3



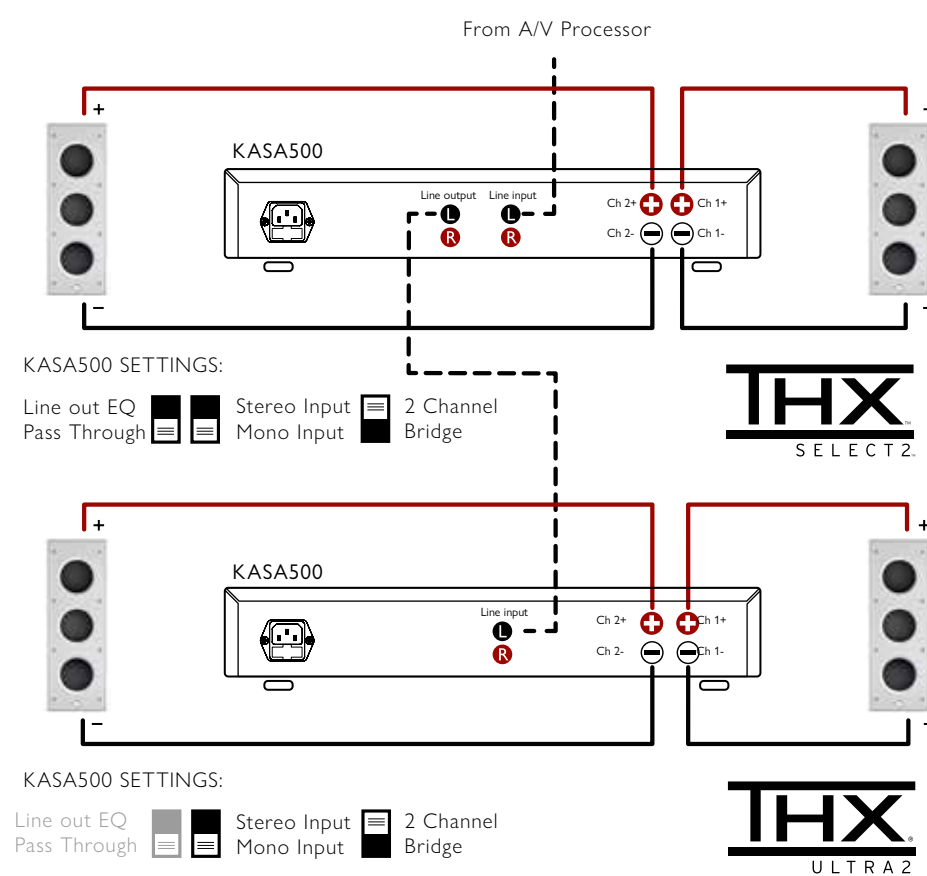
SOUNDLIGHT SUB/SAT 4 (Ci200TRb MONO)



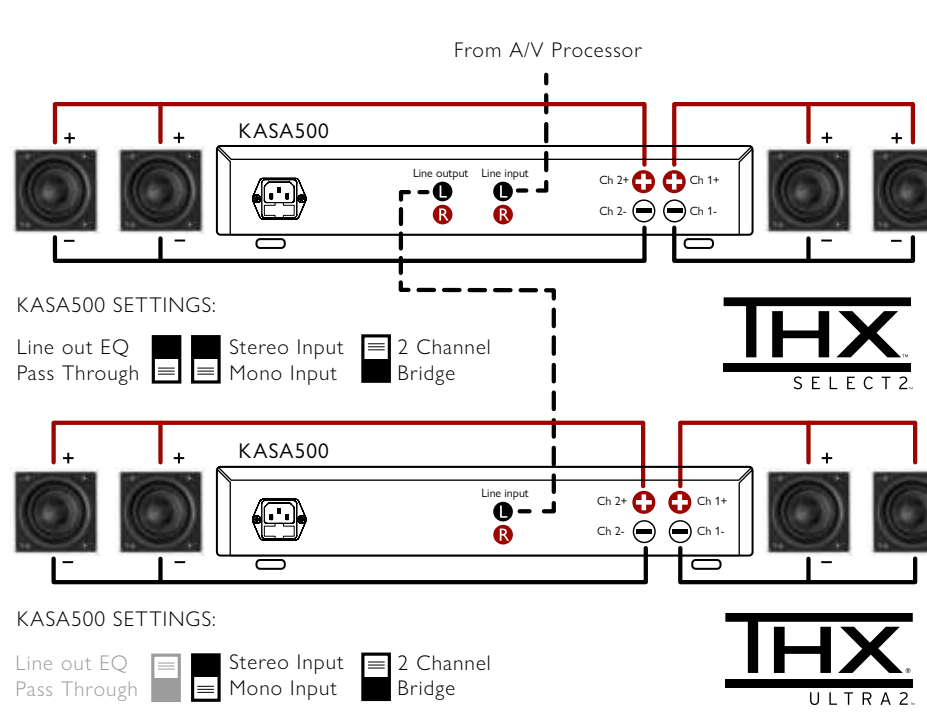
THX® CERTIFIED SUBWOOFERS

Two KEF Architectural subwoofers models, when combined with the KASA500 Audio System Amplifier, deliver THX® certified bass performance. For THX® Certified Select (rooms up to 2000 cubic feet), one KASA500 is used, whilst two KASA500 are needed for THX® Certified Ultra (rooms up to 3,000 cubic feet). The diagrams below show the number of subwoofers required, as well as the wiring and KASA500 settings.

Ci3160RLb-THX SELECT/ULTRA



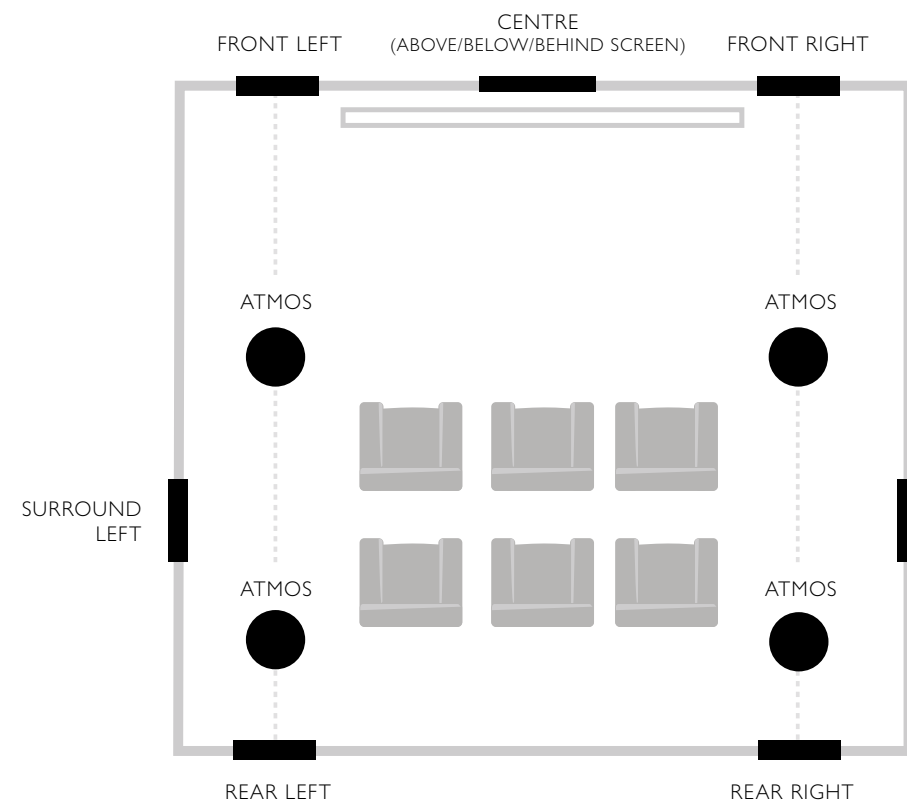
Ci200Q5b-THX SELECT/ULTRA



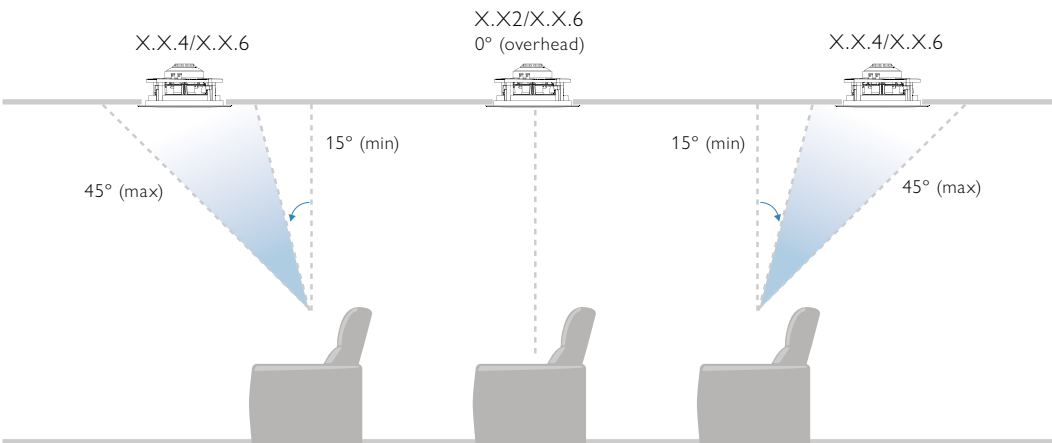
RECOMMENDED HOME THEATRE SPEAKER PLACEMENT


























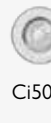






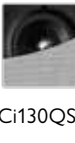







Due to the impressive off-axis response of Uni-Q, KEF recommends slightly different speaker placement for home theatre, designed to cover the whole listening area rather than cater for one single position (or provide subpar sound for all positions).

Front speakers should be positioned as wide as the seating area (with clearance from the side walls). The rear, as well as any Atmos channel speakers, should be positioned in line with the front speakers. Surround speakers should be positioned in line with, or just behind the Main Listening Position. Both Surround and Rear speakers should be positioned above ear height to assist in diffusing ambient sounds throughout the room.





For Dolby Atmos, it is important for the overhead speakers to be positioned correctly, so that they work with the other speakers to faithfully deliver the sound effects. KEF recommends the following placement, measured from the profile of the Main Listening Position, and still in line with the Front speakers. Note the configurations for the number of overhead speakers being used. Measure directly overhead from the middle of the listening area, front Atmos speakers from the front row, and rear Atmos speakers from the rear row.






	Tall Rectangle			Rectangle		Square			Soundlight Square	Round				Soundlight Round	
Woofer	5 x 160 mm (5 x 6.5 in.)	3 x 160 mm (3 x 6.5 in.)	4 x 100 mm (4 x 4 in.)	200 mm (8 in.)	160 mm (6.5 in.)	200 mm (8 in.)	160 mm (6.5 in.) T Series 115mm (4.5 in.)	130 mm (5.25 in.)	100 mm (4 in.)	250mm (10 in.)	200 mm (8 in.)	160 mm (6.5 in.) T Series 115mm (4.5 in.)	130 mm (5.25 in.)	75 mm (3 in.)	50 mm (2 in.)
Cut-out	1052 x 209 mm (41.42 x 8.23 in.)	660 x 209 mm (25.98 x 8.23 in.)	476 x 114 mm (18.74 x 4.49 in.)	334 x 238 mm (13.15 x 9.37 in.)	274 x 194 mm (10.79 x 7.64 in.)	238 x 238 mm (9.37 x 9.37 in.)	194 x 194 mm (7.64 x 7.64 in.)	158 x 158 mm (6.22 x 6.22 in.)	112 x 112 mm (4.41 x 4.41 in.)	TBC	Ø240 mm (Ø9.45 in.)	Ø196 mm (Ø7.71 in.)	Ø158 mm (Ø6.22 in.)	Ø118 mm (Ø4.65 in.)	Ø65 mm (Ø2.56 in.)
REFERENCE Extreme Theatre	 C15160REF-THX	 C13160REF-THX													
R SERIES Extreme Theatre	 C15160RL-THX	 C13160RL-THX				 C1200RS-THX					 C1250RR-THX	 C1200RR-THX	 C1160RR-THX		
Q SERIES Uni-Q Driver			 C14100QL-THX	 C1200QL	 C1160QL	 C1200QS	 C1160QS	 C1130QS	 C1100QS			 C1200QR	 C1160QR	 C1130QR	 C1100.2QR
C SERIES Uni-Q Driver					 C1160.2CL		 C1160.2CS	 C1130.2CS			 C1200.2CR	 C1160.2CR	 C1130.2CR		 C150R
E SERIES Uni-Q Driver							 C1160ES				 C1200ER	 C1160ER	 C1130ER		
C SERIES Dual Stereo							 C1160CSds					 C1160CRds			
FL SERIES Flush Mount								 C1130QSfl					 C1130QRfl		
T SERIES & SUBWOOFERS Thin Speakers & Subwoofers		Subwoofer  C13160RLb-THX KASA500 Required				Subwoofer  C1200QSb-THX KASA500 Recommended	Thin  C1160TS			Subwoofer  C1250RRb-THX KASA500 Required	Subwoofer Thin  C1200TRb KASA500 Recommended	Thin  C1160TR			
Rough-in Frame	RIF160L	RIF3160L	RIF4100L	RIF200L	RIF160L	RIF200S	RIF160S	RIF130S	RIF100S	RIF250R	RIF200R	RIF160R	RIF130R	RIF100R	N/A
Rear Enclosure	N/A	N/A	N/A	RNC200L	RNC160L	RNC200S Excluding C1200RS-THX & C1200QSb-THX	RNC160S	RNC130S	RNC100S	N/A	RNC200R Excluding C1200RR-THX	RNC160R	RNC130R	RNC100R	C150CAN

SUBWOOFER				
Woofer	200 mm (8 in.)	254 mm (10 in.)	305 mm (12 in.)	225mm (9 in.)
Dimensions (H x W x D) with rear panel and feet	293 x 293 x 310 mm (11.5 x 11.5 x 12.2 in.)	370 x 353 x 370 mm (14.6 x 13.9 x 14.6 in.)	410 x 393 x 410 mm (16.1 x 15.5 x 16.1 in.)	352.5 x 330 x 360.5mm (13.9 x 11.8 x 14.2 in.)
	 Kube 8b	 Kube 10b	 Kube 12b	 KF92

Elegant front firing subwoofers with KEF's proprietary IBX technology extends the bass dynamically. Line level and speaker inputs and 3 DSP EQ setting for use in-room, in-corner, or in-cabinet.







OUTDOOR		
Woofer	160 mm (6.5 in.)	130 mm (5.25 in.)
Dimensions (H x W x D)	300 x 226 x 263.5 mm (11.8 x 9 x 10.37 in.)	262 x 197 x 235 mm (10.3 x 7.75 x 9.25 in.)
Finish	White/Black	White/Black
VENTURA	 Ventura 6	 Ventura 5

OPTIONAL	
AMPLIFICATION	
<p>KASA500</p> <p>KASA500 is a powerful 2x250W Class D stereo amplifier. With powerful, bespoke DSP utilising KEF's propriety IBX technology that extends the bass depth dynamically, KASA500 unlocks the full potential of the driver's power at any listening level. Custom EQ settings optimise the performance of KEF subwoofers into any installation, and limitless system configurations are possible through the inclusion of high-level speaker and line level inputs, plus signal pass-through with full range or adjustable high pass operation. Rackmount ears included.</p>	

ACCESSORIES		
		
<p>Steel Rough-in Frames (See table for product code)</p> <p>Rough-in Frames (new construction brackets) are used with in-wall and in-ceiling speakers and are available for most models. Installed during the pre-wiring of a new construction installation, they allow the installer to reserve the space in the wall or ceiling and simplify cutting the perfect hole size.</p>	<p>Steel Rear Enclosures (See table for product code)</p> <p>Metal Rear Enclosures (back-boxes) are available for most models of KEF architectural speakers. Installed during the pre-wiring of a new construction installation, they provide a sealed enclosure for the loudspeaker and reduce sound transmission to the room behind the speaker.</p>	<p>C1TR-SM Stereo to mono adaptor. Allows any KEF Ci product to play two channels (stereo) from a single speaker. Can be mounted near speaker or equipment.</p>

SPEAKER NOMENCLATURE	
<div> <div> <div>Ci</div> <div>160</div> <div>C</div> <div>R</div> <div>ds</div> </div> <div> <div>ds</div> <div>Dual Stereo</div> </div> <div> <div>b</div> <div>Subwoofer</div> </div> <div> <div>THX</div> <div>approved</div> </div> <div> <div>fl</div> <div>Flush Mount</div> </div> </div>	<div> <div>EXAMPLE - C1160CRds</div> <div> <div>SPECIAL APPLICATION</div> <div> <div>ds</div> <div>b</div> <div>THX</div> <div>fl</div> </div> <div>SHAPE</div> <div> <div>R</div> <div>S</div> <div>L</div> </div> <div> <div>Round</div> <div>Square</div> <div>Rectangle</div> </div> <div>RANGE NAME</div> <div> <div>REF</div> <div>R</div> <div>Q</div> <div>T</div> <div>C</div> <div>E</div> </div> <div> <div>Reference</div> <div>R Series</div> <div>Q Series</div> <div>T Series</div> <div>C Series</div> <div>E Series</div> </div> <div>WOOFER SIZE (MM)</div> <div>CUSTOM INSTALLATION</div> </div> </div>

FEATURES

<div> <div> <div>THX</div> <div>CERTIFIED</div> </div> <div>  </div> </div> <div> <p>EXTREME HOME THEATRE</p> <p>A complete system designed and built to THX® Certified Ultra and THX® Certified Select standards the Ci-REFERENCE and Ci-R Series consists of two powerful in-celling speakers that can be combined with one of four in-wall models and a choice of two sensational new powered subwoofer configurations. As you might expect, its towering performance sets a new standard for custom installed speakers.</p> <p>UNI-Q®</p> <p>KEF's patented Uni-Q driver technology places the tweeter at the acoustic centre of the bass/midrange cone so that both act as a single source, dispersing sound widely and evenly over a large area. No matter the placement, KEF custom installation speakers deliver effortlessly natural sound with minimal distortion to every person in the room.</p> </div>	<div>  <p>C1200QSb-THX</p> </div> <div> <p>INSTALLED SUBWOOFER</p> <p>With three subwoofers to choose from, the elegant C13160RLb-THX with 3 lighting fast 6.5" woofers, the powerful and flexible square C1200QSb-THX with a massive 8" driver, and the sleek C1200TRb that mounts in under 59mm, there is a KEF installed subwoofer for any room or installation. When driven by the powerful KASA500 amplifier (2x250W), whose custom DSP EQ curves allow them to adapt to any sonic situation, the KEF installed subwoofers are the foundation for your theatre or music room, unleashing all of the impact, drama, and intensity of any movie soundtrack while preserving valuable floor space! KEF's THX® Certified Select and THX® Certified Ultra in-wall subwoofers are built with a serious regard for aesthetic appeal that will make even the most demanding interior designer fall in love.</p> </div>	<div>  </div> <div> <p>OUTDOOR</p> <p>Weatherproof, IP65 certified and salt spray tested, marine quality Ventura Series outdoor models can flood your pool, garden or yacht with high quality sound, even in the most extreme atmospheric conditions.</p> <ul style="list-style-type: none"> Weatherproof sealed enclosure Salt spray tested for over 1200 hours Operating temperature range: -40 to +70C (-40 to +158F) Independent test lab certified IP65 Aluminium grille and mounting bracket, 1/4" - 20 threaded inserts for mounting options Stainless steel / brass hardware Rotatable logo </div>	<div>  </div> <div> <p>FLUSH MOUNT</p> <p>The Flush Mount series features a brand new installation design from KEF. A mounting assembly is easily installed before the plastering stage, allowing you to achieve a perfectly flush fit. With the same paintable grille as the rest of the ranges, you can completely eliminate all traces of the speaker – except for the beautifully natural sound.</p> </div>	<div>  </div> <div> <p>EXTREMELY LOW PROFILE</p> <p>When nothing else will fit at 40mm (1.57in.) deep, requiring a mounting depth of only 36mm (1.42in.), the C1160TR round, the C1160TS square, and the C1200TRb subwoofer at 59mm are the slimmest architectural speakers in the world, and all fit snugly into even the narrowest voids without compromising audio performance.</p> </div>	<div>  </div> <div> <p>ULTRA THIN BEZEL</p> <p>Offers the slimmest visible rim around the speaker while casting virtually no shadow. Designed to sit tight to the wall or ceiling with no visible gap, KEF speakers disappear as if part of the ceiling. Coupled with a magnetic grille that is as silent as it is acoustically transparent, KEF architectural speakers are fast and easy to install for the ultimate in discreet installation.</p> <p>DUAL STEREO</p> <p>For areas with space for only one speaker, KEF's Ci Series Dual Stereo model plays left and right channels from a single unit containing twin tweeters and a dual voice coil woofer.</p> <p>SOUNDLIGHTS</p> <p>As discreet as LED downlights, KEF's tiny Soundlights give you big speaker performance with outstanding sound coverage, thanks to Uni-Q's exceptionally wide dispersion.</p> </div>
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*KEF Ci subwoofer requires the KASA500 subwoofer amplifier. ** THX® Certified Ultra requires 4 x C13160RLb-THX or 4 pairs x C200QSb-THX used with 2 x KASA500. *** THX® Certified Select requires 2 x C13160RLb-THX or 2 pairs x C200QSb-THX used with 1 x KASA500.

† Not all accessories and finishes are available in all markets, contact your local dealer for specific range details. THX and the THX Logo are the property of THX Ltd., registered in the U.S. and other countries. KEF reserves the right, in line with continuing research and development, to amend or change specifications. E&OE.