



kreon

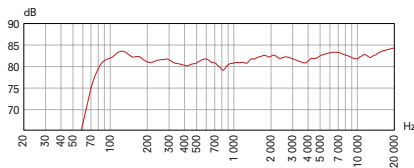
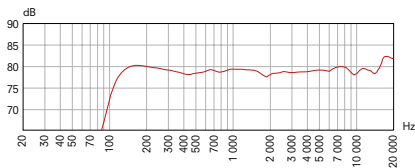
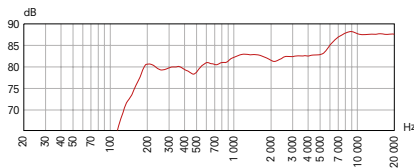
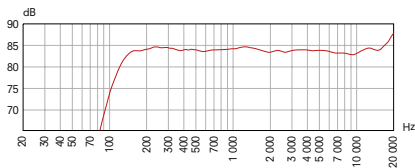
kreon

Table of contents

Quality	4	Prologe	31
		Prologe 80 in-Dolma / in-Line	32
Configurator	6	Prologe 145 in-Dolma / in-Line	32
Installation	9	Rokko	34
Aplis	10	Mini Square Rokko	34
Aplis 80 audio	10	General terms and conditions	36
Aplis 165 audio	10	Kreon offices	40
Aplis in-Line	12		
Aplis in-Line 80 audio	12		
Aplis in-Line 165 audio	12		
Cadre	14		
Cadre QR-CBC51	14		
Cadre T16 plexi	16		
Cadre T16 darklight	18		
Cadre accessories	21		
Down	23		
Down 80	23		
Down 165	23		
Down in-Line	24		
Down in-Line 76	24		
Down in-Line 80	24		
Down in-Line 165	24		
Nuit	26		
Nuit	26		
Nuit profile	28		

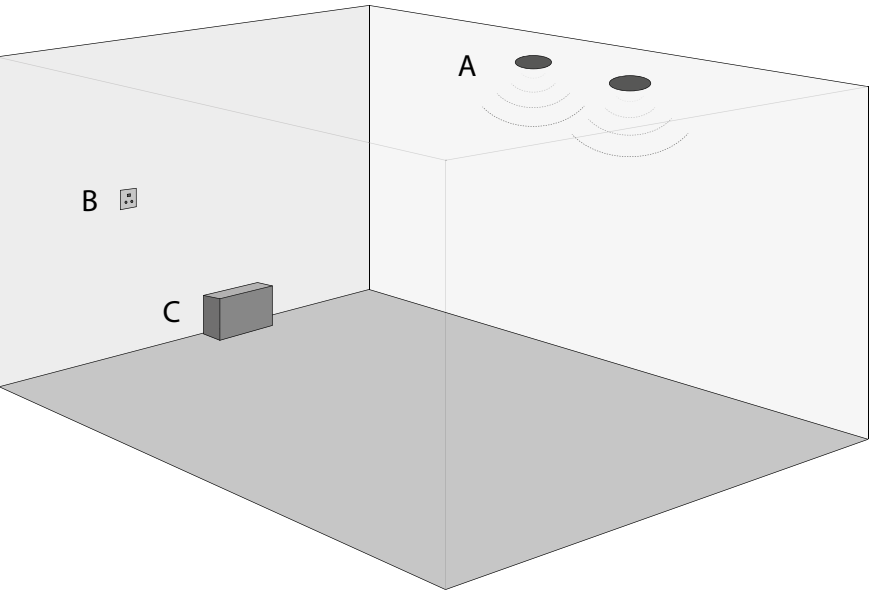
Finally, you can create an optimal audio experience without compromising the visual aesthetics of a room.

Kreon acoustic systems fit invisibly and easily in most of the Kreon lighting solutions. The miniaturized speakers are equipped with their own amplifier and digital signal processor, so you do not need additional equipment.



Use Kreon acoustic elements for invisible integration of high-end audio in walls and ceilings. The configuration is easy and always the same.

- 1: Choose your speakers
- 2: Add the interface
- 3: Install a subwoofer, when more clarity and power is needed



A - Choose your Speakers



Equip your Kreon wall or ceiling tile with a speaker. The Kreon speakers are miniaturized high quality audio components based on proprietary digital amplification and sound treatment technology by Vimes. Each speaker can be set as Left, Right or Mono. Its volume can be adjusted individually.

B - Add the interface



Because the Kreon speakers have their own amplifier, they can be connected directly to an audio source, such as a smartphone, tablet, CD player, TV, computer, or a home automation system. Use Kreon’s in-wall unit, the ‘connect 2-in-w’, as an interface. This module has standard switch dimensions (80 x 80 mm) and two audio inputs for universal compatibility: one analogue (cinch) and one optical digital input. Switching between the two input sources occurs automatically, with the optical source operating as the master source. This module responds when you turn the TV on, and automatically switches between your TV and audio device.

C - Add a subwoofer when needed



Depending on the size of your room and the characteristics of your speakers, a subwoofer may be required for additional clarity and power. The flat Kreon subwoofers are made of 3 mm steel sheets and measure 250 x 400 x 140 mm only. Thanks to their displaceable magnetic feet, they can be placed both vertically and horizontally. The chart below helps you to determine whether you need a subwoofer or not.

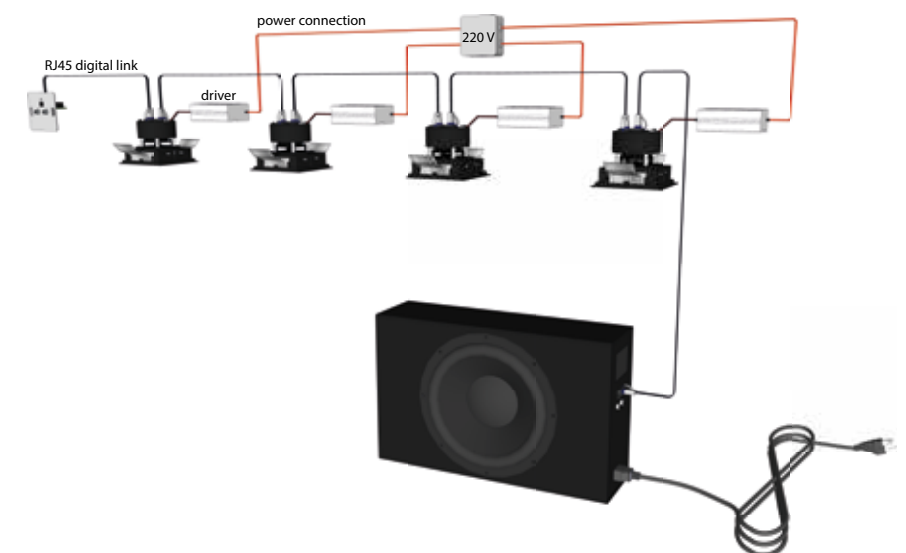
speaker models	outdoor	living < 40m²	living > 40m²	dining	kitchen	hotel room	bedroom < 15m²	bedroom > 15m²	bathroom	toilet	home cinema 5.1	home cinema 7.1
Aplis / Down / Down in-Line 80	-	2 to 4 + sub**	4 or +, sub**	2 to 4 + sub*	2 to 4 + sub*	2 + sub*	2 + sub*	2 to 4 + sub*	1 to 2	1	5 + sub**	7 + sub**
Aplis / Down in-Line / Down 165	-	2 to 4 + sub*	4 or +, sub*	2	2	2	2	2	1 to 2	1	5 + sub**	7 + sub**
Down in-Line 76	-	2 to 4 + sub**	4 or +, sub**	2 to 4 + sub*	2 to 4	2 + sub*	2 + sub*	2 to 4 + sub*	1 to 2	1	5 + sub**	7 + sub**
Cadre	-	1 + sub**	1 + sub**	1 + sub**	1 + sub*	1 + sub*	1 + sub*	1 + sub*			1 (rear effects)	2 (rear effects)
Nuit	-	4 + sub**	4 or +, sub**	2 + sub**	2 + sub**	2 + sub**	2 + sub**	4 + sub**	2 + sub*	1	5 + sub**	7 + sub**
Prologe in-Dolma / in-Line 80	-	2 + sub**	4 or +, sub**	2 to 4	2 to 4	2	2	2 to 4	1 to 2	1	5 + sub**	7 + sub**
Prologe in-Dolma / in-Line 145	-	2 + sub*	4 or +, sub*	2	2	2	2	2	1 to 2	1	5 + sub**	7 + sub**
Rokko	1 per 10m²											
Sub standard		1	1 to 2	1	1	1	1	1			1 to 2	1 to 2

Remarks
sub = subwoofer
* gives listening comfort
** required



Reliable and easy to install

The elements of your audio zone —speakers, interface, and subwoofers— are connected with RJ45 cables (Cat. 5). The speakers are powered by drivers, and the first speaker powers the interface.



name	aplis 80 audio	aplis 165 audio
white	kr937791	kr937891
black	kr937792	kr937892
audio bandwidth	110-24kHz	70-24kHz
<div><div></div><div></div></div>		
visible Ø	95	180
cut-out Ø	89	173
min. depth	130	155
thickness boardmaterial	9-26	9-26
speakers	1	2
amplifier power	25W	2x25W
voltage	15V	15V
orientation	↓	↓
required		
driver		
230V-15Vdc	kr490365	kr490365
connect		
connect 2 in-w	kr710500	kr710500
cable RJ45		
0.5 m	kr710000	kr710000
1.0 m	kr710001	kr710001
3.0 m	kr710003	kr710003
5.0 m	kr710005	kr710005
10.0 m	kr710010	kr710010
15.0 m	kr710015	kr710015
20.0 m	kr710020	kr710020
optional		
plasterkit		
concrete plasterkit	kr737702	kr737712
connect		
connect out	kr710400	kr710400
coverplate for connect in-W		
white	kr710601	kr710601
black anodised	kr710602	kr710602
matt anodised	kr710603	kr710603
standard	kr710515	kr710515
*subwoofer		

Remarks

* Select in relationship with your room dimensions (see page 6)



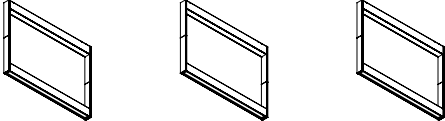
name	aplis in-line 80 audio	aplis in-line 165 audio
white	kr917791	kr917891
black	kr917792	kr917892
audio bandwidth	110-24kHz	70-24kHz
<div><div></div><div></div></div>		
min. depth	130	155
thickness boardmaterial	9-26	9-26
speakers	1	2
amplifier power	25W	2x25W
voltage	15V	15V
orientation	↓	↓
required		
driver		
230V-15Vdc	kr490365	kr490365
connect		
connect 2 in-w	kr710500	kr710500
cable RJ45		
0.5 m	kr710000	kr710000
1.0 m	kr710001	kr710001
3.0 m	kr710003	kr710003
5.0 m	kr710005	kr710005
10.0 m	kr710010	kr710010
15.0 m	kr710015	kr710015
20.0 m	kr710020	kr710020
louvres		
louvre black	kr717122	kr717222
louvre white	kr717106	kr717206
plasterkit		
trimless	kr717104	kr717204
shadowgap	kr717108	kr717208
plasterkit concrete		
trimless	kr717101	kr717201
shadowgap	kr717109	kr717209
optional		
connect		
connect out	kr710400	kr710400
coverplate for connect in-W		
white	kr710601	kr710601
black anodised	kr710602	kr710602
matt anodised	kr710603	kr710603
standard *subwoofer	kr710515	kr710515

Remarks

* Select in relationship with your room dimensions (see page 6)

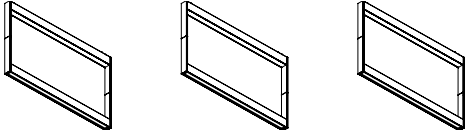


Cadre QR-CBC51

name	cadre 1200 light/audio chrome	cadre 1200 light/audio black anodised	cadre 1200 light/audio natural anodised
reference	kr963880	kr963882	kr963883
lamptype	QR-CBC51	QR-CBC51	QR-CBC51
audio bandwidth	120-24kHz	120-24kHz	120-24kHz
			
LxWxH	1230x75xH	1230x75xH	1230x75xH
*H min./max.	900-1650	900-1650	900-1650
gear	incl.	incl.	incl.
IP	40	40	40
class	1	1	1
orientation	↓	↓	↓
light			
fitting	GU5.3	GU5.3	GU5.3
max. watt	4x35W	4x35W	4x35W
voltage	230V/12V	230V/12V	230V/12V
symbol	◁	◁	◁
audio			
speakers	2x2 stereo	2x2 stereo	2x2 stereo
amplifier power	2x25W	2x25W	2x25W
voltage	230V/15V	230V/15V	230V/15V
accessories	see page 21	see page 21	see page 21

Remarks

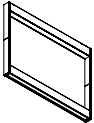
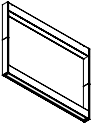
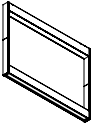



* Pendant height depends on the chosen accessory.

name	cadre 1500 light/audio chrome	cadre 1500 light/audio black anodised	cadre 1500 light/audio natural anodised
reference	kr963890	kr963892	kr963893
lamptype	QR-CBC51	QR-CBC51	QR-CBC51
audio bandwidth	120-24kHz	120-24kHz	120-24kHz
			
LxWxH	1530x75xH	1530x75xH	1530x75xH
*H min./max.	900-1650	900-1650	900-1650
gear	incl.	incl.	incl.
IP	40	40	40
class	1	1	1
orientation	↓	↓	↓
light			
fitting	GU5.3	GU5.3	GU5.3
max. watt	4x35W	4x35W	4x35W
voltage	230V/12V	230V/12V	230V/12V
symbol	◁	◁	◁
audio			
speakers	2x2 stereo	2x2 stereo	2x2 stereo
amplifier power	2x25W	2x25W	2x25W
voltage	230V/15V	230V/15V	230V/15V
accessories	see page 21	see page 21	see page 21

Remarks

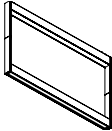
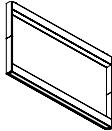
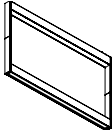



* Pendant height depends on the chosen accessory.

Cadre T16 plexi

name	cadre 1200 light/audio chrome	cadre 1200 light/audio black anodised	cadre 1200 light/audio natural anodised
reference	kr963780	kr963782	kr963783
lamptype	T16 plexi	T16 plexi	T16 plexi
audio bandwidth	120-24kHz	120-24kHz	120-24kHz
			
LxWxH	1230x75xH	1230x75xH	1230x75xH
*H min./max.	900-1650	900-1650	900-1650
gear	incl.	incl.	incl.
IP	40	40	40
class	1	1	1
orientation	↓	↓	↓
light			
fitting	G5	G5	G5
max. watt	28W/54W	28W/54W	28W/54W
voltage	230V/12V	230V/12V	230V/12V
symbol			
audio			
speakers	2x2 stereo	2x2 stereo	2x2 stereo
amplifier power	2x25W	2x25W	2x25W
voltage	230V/15V	230V/15V	230V/15V
accessories	see page 21	see page 21	see page 21

Remarks

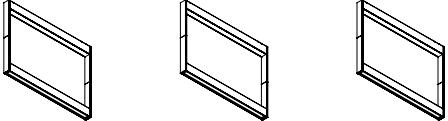



* Pendant height depends on the chosen accessory.

name	cadre 1500 light/audio chrome	cadre 1500 light/audio black anodised	cadre 1500 light/audio natural anodised
reference	kr963790	kr963792	kr963793
lamptype	T16 plexi	T16 plexi	T16 plexi
audio bandwidth	120-24kHz	120-24kHz	120-24kHz
			
LxWxH	1530x75xH	1530x75xH	1530x75xH
*H min./max.	900-1650	900-1650	900-1650
gear	incl.	incl.	incl.
IP	40	40	40
class	1	1	1
orientation	↓	↓	↓
light			
fitting	G5	G5	G5
max. watt	35W/49W/80W	35W/49W/80W	35W/49W/80W
voltage	230V/12V	230V/12V	230V/12V
symbol			
audio			
speakers	2x2 stereo	2x2 stereo	2x2 stereo
amplifier power	2x25W	2x25W	2x25W
voltage	230V/15V	230V/15V	230V/15V
accessories	see page 21	see page 21	see page 21

Remarks

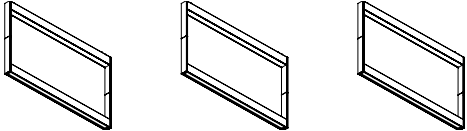



* Pendant height depends on the chosen accessory.

Cadre T16 darklight

name	cadre 1200 light/audio chrome	cadre 1200 light/audio black anodised	cadre 1200 light/audio natural anodised
reference	kr963980	kr963982	kr963983
lamptype	T16 darklight	T16 darklight	T16 darklight
audio bandwidth	120-24kHz	120-24kHz	120-24kHz
			
LxWxH	1230x75xH	1230x75xH	1230x75xH
*H min./max.	900-1650	900-1650	900-1650
gear	incl.	incl.	incl.
IP	40	40	40
class	1	1	1
orientation	↓	↓	↓
light			
fitting	G5	G5	G5
max. watt	28W/54W	28W/54W	28W/54W
voltage	230V/12V	230V/12V	230V/12V
symbol			
audio			
speakers	2x2 stereo	2x2 stereo	2x2 stereo
amplifier power	2x25W	2x25W	2x25W
voltage	230V/15V	230V/15V	230V/15V
accessories	see page 21	see page 21	see page 21

Remarks

* Pendant height depends on the chosen accessory.

name	cadre 1500 light/audio chrome	cadre 1500 light/audio black anodised	cadre 1500 light/audio natural anodised
reference	kr963990	kr963992	kr963993
lamptype	T16 darklight	T16 darklight	T16 darklight
audio bandwidth	120-24kHz	120-24kHz	120-24kHz
			
LxWxH	1530x75xH	1530x75xH	1530x75xH
*H min./max.	900-1650	900-1650	900-1650
gear	incl.	incl.	incl.
IP	40	40	40
class	1	1	1
orientation	↓	↓	↓
light			
fitting	G5	G5	G5
max. watt	35W/49W/80W	35W/49W/80W	35W/49W/80W
voltage	230V/12V	230V/12V	230V/12V
symbol			
audio			
speakers	2x2 stereo	2x2 stereo	2x2 stereo
amplifier power	2x25W	2x25W	2x25W
voltage	230V/15V	230V/15V	230V/15V
accessories	see page 21	see page 21	see page 21

Remarks

* Pendant height depends on the chosen accessory.

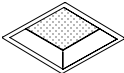
Cadre accessories

required			
telescopic suspension	chrome	black anodised	natural anodised
pendant height			
900-1200mm			
end part			
white leather	kr763751	kr763761	kr763771
black leather	kr763752	kr763762	kr763772
coupler			
white leather	kr763351	kr763361	kr763371
black leather	kr763352	kr763362	kr763372
pendant height			
1200-1650mm			
end part			
white leather	kr763851	kr763861	kr763871
black leather	kr763852	kr763862	kr763872
coupler			
white leather	kr763451	kr763461	kr763471
black leather	kr763452	kr763462	kr763472
connect			
connect 2 in-w	kr710500	kr710500	kr710500
cable RJ45			
0.5 m	kr710000	kr710000	kr710000
1.0 m	kr710001	kr710001	kr710001
3.0 m	kr710003	kr710003	kr710003
5.0 m	kr710005	kr710005	kr710005
10.0 m	kr710010	kr710010	kr710010
15.0 m	kr710015	kr710015	kr710015
20.0 m	kr710020	kr710020	kr710020
optional			
connect			
connect out	kr710400	kr710400	kr710400
coverplate for connect in-W			
white	kr710601	kr710601	kr710601
black anodised	kr710602	kr710602	kr710602
matt anodised	kr710603	kr710603	kr710603
standard	kr710515	kr710515	kr710515
*subwoofer			

Remarks
* Select in relationship with your room dimensions (see page 6)



name	down 80 audio	down 165 audio
white	kr947791	kr947891
black	kr947792	kr947892
audio bandwidth	110-24kHz	70-24k



visible LxW	96x102	180x186
cut-out LxW	91x91	173x173
min. depth	130	155
thickness	9-26	9-26
boardmaterial		
speakers	1	2
amplifier power	25W	2x25W
voltage	15V	15V
orientation	↓	↓

required		
driver		
230V-15Vdc	kr490365	kr490365
connect		
connect 2 in-w	kr710500	kr710500
cable RJ45		
0.5 m	kr710000	kr710000
1.0 m	kr710001	kr710001
3.0 m	kr710003	kr710003
5.0 m	kr710005	kr710005
10.0 m	kr710010	kr710010
15.0 m	kr710015	kr710015
20.0 m	kr710020	kr710020

optional		
plasterkit		
plasterkit concrete	kr747702	kr747712
connect		
connect out	kr710400	kr710400
coverplate for connect in-W		
white	kr710601	kr710601
black anodised	kr710602	kr710602
matt anodised	kr710603	kr710603
standard	kr710515	kr710515
*subwoofer		



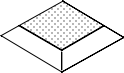
Remarks
* Select in relationship with your room dimensions (see page 6)

Down in-Line

Down in-Line

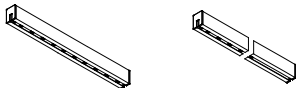
Project Private house
Location Bilthoven, the Netherlands

Architect BOS Architecten
Photographer Serge Brison

name	down in-line 76 audio	down in-line 80 audio	down in-line 165 audio
reference	kr918793		
white		kr917791	kr917891
black		kr917792	kr917892
audio bandwidth	90-24kHz	110-24kHz	70-24kHz
			
visible LxW	76x76	80x80	165x165
cut-out LxW	86x86	102x102	186x186
min. depth	155	130	155
thickness	6-28	9-26	9-26
boardmaterial			
speakers	1	1	2
amplifier power	25W	25W	2x25W
voltage	15V	15V	15V
orientation	↓	↓	↓
required			
driver			
230V-15Vdc	kr490365	kr490365	kr490365
connect			
connect 2 in-w	kr710500	kr710500	kr710500
cable RJ45			
0.5 m	kr710000	kr710000	kr710000
1.0 m	kr710001	kr710001	kr710001
3.0 m	kr710003	kr710003	kr710003
5.0 m	kr710005	kr710005	kr710005
10.0 m	kr710010	kr710010	kr710010
15.0 m	kr710015	kr710015	kr710015
20.0 m	kr710020	kr710020	kr710020
plasterkit			
plasterkit	kr718214		
plasterkit BA13	kr718218		
trimless		kr717114	kr717214
shadowgap		kr717118	kr717218
plasterkit concrete			
concrete plasterkit	kr718203		
concrete plasterkit trimless		kr717119	kr717219
concrete plasterkit shadowgap		kr717111	kr717211
louvre			
oblique grey	kr718215		
oblique white	kr718216	kr717116	kr717216
oblique alu matt	kr718217		
oblique black	kr718222	kr717112	kr717212
oblique gold	kr718227		
optional			
connect			
connect out	kr710400	kr710400	kr710400
coverplate for connect in-W			
white	kr710601	kr710601	kr710601
black anodised	kr710602	kr710602	kr710602
matt anodised	kr710603	kr710603	kr710603
standard	kr710515	kr710515	kr710515
*subwoofer			



name	nuit 1x5 mono audio	nuit 2x5 stereo audio
white	kr953911	kr953951
black	kr953912	kr953952
audio bandwidth	150-24k	150-24k



LxWxH	550x40x53	800x40x53
min. depth	40	40
gear	incl.	incl.
speakers	2	4
amplifier power	1x15W	2x15W
voltage	230V/12V	230V/12V
orientation	→ ↓	→ ↓

required		
connect		
connect 2 in-w	kr710500	kr710500
cable RJ45		
0.5 m	kr710000	kr710000
1.0 m	kr710001	kr710001
3.0 m	kr710003	kr710003
5.0 m	kr710005	kr710005
10.0 m	kr710010	kr710010
15.0 m	kr710015	kr710015
20.0 m	kr710020	kr710020

optional		
connect		
connect out	kr710400	kr710400
coverplate for connect in-W		
white	kr710601	kr710601
black anodised	kr710602	kr710602
matt anodised	kr710603	kr710603
standard *subwoofer	kr710515	kr710515
recessed mounting		
trimless plasterkit	kr753040	kr753050



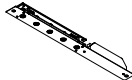
LxWxH	454x47x75	724x47x75
min. depth	88	88
cut-out LxW	460x50	730x50

Remarks

* Select in relationship with your room dimensions (see page 6)




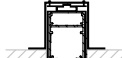
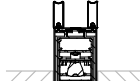


Nuit profile

name	nuit profile 1x5 mono audio
reference	kr973912
audio bandwidth	150-24k
	
LxWxH	550x40x53
min. depth	40
gear	incl.
speakers	1
amplifier power	1x15W
voltage	230V/12V
orientation	↓
required	
connect	
connect 2 in-w	kr710500
cable RJ45	
0.5 m	kr710000
1.0 m	kr710001
3.0 m	kr710003
5.0 m	kr710005
10.0 m	kr710010
15.0 m	kr710015
20.0 m	kr710020
optional	
connect	
connect out	kr710400
coverplate for connect in-W	
white	kr710601
black anodised	kr710602
matt anodised	kr710603
standard *subwoofer	kr710515

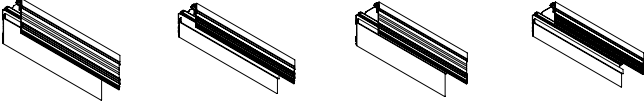

Remarks

* Select in relationship with your room dimensions (see page 6)

name	nuit profile surface mounted	nuit profile recessed mounted
white	kr703111	kr703111
black	kr703112	kr703112
<div></div> <div></div>		
LxWxH	Lx40x53	Lx40x53
max. length	2300mm	2300mm
orientation	↓	↓
optional		
recessed mounting		
name	recessed profile	
trimless	kr703055	
<div></div>		
LxWxH	Lx47x75	
max. length	2300mm	
min. depth.	88	
cut-out LxW	(L+3)x50	
optional		
name	mounting bracket recessed profile	
aluminium	kr703056*	
<div></div>		
LxWxH	45x107x61	
optional		
name	recessed profile snap hanger	
aluminium	kr726057**	
<div></div>		
LxWxH	.x10x61	



Prologe in-Line & in-Dolma

name	prologe 80 in-line profile aluminium	prologe 80 in-dolma profile aluminium	prologe 145 in-line profile aluminium	prologe 145 in-dolma profile aluminium
black anodised	kr765102	kr765002	kr785102	kr785002
naturel anodised	kr765103	kr765003	kr785103	kr785003
				
visible LxW	Lx80	Lx80	Lx145	Lx145
LxWxH cut out profile	(L+10)x105x245	(L+10)x105x190	(L+10)x170x245	(L+10)x170x190
max. length	6000 mm	6000 mm	6000 mm	6000 mm
IP	40	40	40	40
class	1	1	1	1
orientation	↓	↓	↓	↓
optional				
corner cut 90°				
black anodised	kr765402	kr765302	kr785402	kr785302
natural anodised	kr765403	kr765303	kr785403	kr785303
				
extra el. wiring	kr705401	kr705401	kr705401	kr705401

Remarks

Prologe profile should be finished with polyester gypsum.

The profile is supplied pre-assembled (all gears incl.).

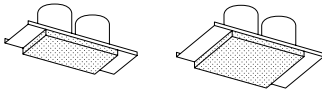
Combinations can be specified on order form.

Max. length single profile: 6000 mm.

Prologe in-Line & in-Dolma

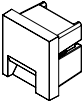
Prologe 145 in-Dolma
Project Simonsen Advokatfirma
Location Oslo, Norway

Int. Architect Scenario Interiørarkitekter AS
Photographer Espen Grønlie

name	prologe 80 in-line /in-dolma audio	prologe 145 in-line/in-dolma audio
bandwidth	80-24k	60-24k
white	kr965791	kr935991
black	kr965792	kr935992
		
LxWxH	500x75x100	590x140x100
gear	incl.	incl.
speakers	2	3
amplifier power	2x25W	2x25W
voltage	230V/15V	230V/15V
orientation	↓	↓
required connect		
connect 2 in-w	kr710500	kr710500
cable RJ45		
0.5 m	kr710000	kr710000
1.0 m	kr710001	kr710001
3.0 m	kr710003	kr710003
5.0 m	kr710005	kr710005
10.0 m	kr710010	kr710010
15.0 m	kr710015	kr710015
20.0 m	kr710020	kr710020
optional connect		
connect out	kr710400	kr710400
coverplate for connect in-W		
white	kr710601	kr710601
black anodised	kr710602	kr710602
matt anodised	kr710603	kr710603
standard	kr710515	kr710515
*subwoofer		

Remarks
* Select in relationship with your room dimensions (see page 6)



name	mini square rokko audio
bandwidth	90-24k
white	kr943391
black	kr943392
	
visible LxWxH	140x140x25
installation depth	85
gear	excl.
speakers	1
amplifier power	25W
voltage	15V
orientation	↴
required	
driver	kr943390
connect	
connect 2 in-w	kr710500
cable RJ45	
0.5 m	kr710000
1.0 m	kr710001
3.0 m	kr710003
5.0 m	kr710005
10.0 m	kr710010
15.0 m	kr710015
20.0 m	kr710020
optional	
connect	
connect out	kr710400
coverplate for connect in-W	
white	kr710601
black anodised	kr710602
matt anodised	kr710603
standard	kr710515
*subwoofer	

Remarks

* Select in relationship with your room dimensions (see page 6)



General information

All information in this catalogue is non-binding, supersedes all previous information, and is subject to amendment at any time. Kreon has the right to change the technical specifications of its products at any time without prior notice. Kreon terms and conditions are applicable at all times. No part of this catalogue may be reproduced without written authorisation from Kreon.

Low voltage fixtures

The installation of low voltage fixtures requires a number of precautions. The power of the transformer must equal the sum of the powers of the fixtures (W), in other words, 4 fixtures of 50W each require a transformer of 200VA. In addition, the low voltage fixtures must be looped to the security transformer. The transformer requires installation as close to the fixtures as possible to avoid voltage drops. Because the current at 12V is 18–20 times greater than at 230V, special attention must be paid to the use of appropriate wiring. In order to protect secondary circuits against overload, they must be equipped with the appropriate fuses. In particular, the use of electronic transformers, which operate at high frequencies (30–50kHz), requires a wire less than 2m long to comply with radio interference limit values. Dimming the current in low voltage installations is only possible by means of a dimmer suitable for the relevant transformer. Conventional (magnetic) transformers (operating frequency 50–60Hz) require a dimmer for inductive loads. Electronic transformers on the other hand normally require a dimmer for capacitive loads (turn-off controlled or phase control on the trailing edge, using a mosfet scheme). In some cases, by using an additional filter, in series with the electronic transformer, an inductive dimmer may also be used. In any case the dimmer should never be loaded under the minimum power or be overloaded. The instructions which come with the dimmer must be carefully read and strictly followed.

Specifications

Because of the constant improvement of its products, Kreon reserves the right to modify the characteristics of such products without prior notice.

Fixtures

Unless otherwise mentioned, all products are delivered without lamps. The maximum power specified must under no circumstances be exceeded.

Dimensions

Unless otherwise indicated, all dimensions are specified in millimetres.

Labels

Each product is labelled, specifying the equipment number of the article, its serial number, the type of lamp needed and its maximum power.

Patents/trademarks

Kreon holds patents on all products and all product names are registered trademarks.

Liability

Kreon products are manufactured in compliance with CE regulations and current standards in force and are delivered with assembly instructions. Each and every modification applied to the product after purchase and/or failure to comply with the assembly instructions may result in the loss of characteristics and in a dangerous situation for its user. Kreon disclaims all liability for products subjected to any modification whatever or for which the assembly instructions are not complied with. Kreon cannot be held liable for any technical errors in this catalogue.

IP classification

	Degree of Protection against penetration of solids
IP 0X	No-Protection
IP 1X	Protection against solid objects greater than 50mm Ø
IP 2X	Protection against solid objects greater than 12mm Ø
IP 3X	Protection against solid objects greater than 2.5mm Ø
IP 4X	Protection against solid objects greater than 1mm Ø
IP 5X	Protection against limited ingress of dust without interference in operation
IP 6X	Protection against any ingress of dust
	Degree of Protection against penetration of liquids
IP X0	No-Protection
IP X1	Protection against vertically dripping water
IP X2	Protection against vertically dripping water up to 15° from vertical
IP X3	Protection against spraying water up to 30° from vertical axis
IP X4	Protection against spraying water from any direction
IP X5	Protection against jets of water from any direction
IP X6	Protection from powerful jets of water with limited ingress with no harmful effect
IP X7	Protection against total immersion in water for limited periods
IP X8	Protection against total immersion in water under pressure for an indefinite period
	Max. depth shown in metres IPX8 ...m

IK classification

	Level of shock resistance according to CEI EN 50102
IK 00	No-Protection
IK 01	Protection against 0,15 J shocks
IK 02	Protection against 0,2 J shocks
IK 03	Protection against 0,35 J shocks
IK 04	Protection against 0,5 J shocks
IK 05	Protection against 0,7 J shocks
IK 06	Protection against 1 J shocks
IK 07	Protection against 2 J shocks
IK 08	Protection against 5 J shocks
IK 09	Protection against 10 J shocks
IK 10	Protection against 20 J shocks

General terms and conditions of sale and supply

Article 1 - Formation and subject matter of the contract:

The price quotes emanating from the vendor are for information only, and are entered into without commitment. Orders must be placed by the buyer in writing and are irrevocable. Orders are only binding on the vendor once it has accepted the order by means of a written order confirmation. The buyer must check the confirmation and inform the vendor immediately of any discrepancies. If any non-conformity is not notified within three (3) days of the date of the order confirmation, the order confirmation is deemed to be identical to the buyer's order. Moreover, orders are confirmed on the condition precedent that the goods ordered are still in stock. These terms and conditions form an integral part of all contracts entered into between the vendor and the buyer. These terms and conditions also apply to occasional supplies and services. Orders that deviate from these general terms and conditions of sale are only binding on the vendor after express written acceptance of the clauses that deviate from them. Terms and conditions of customers and suppliers referred to in their written documents are not accepted. If the vendor's trust in the creditworthiness of the customer is undermined by judicial enforcement action against the buyer and / or demonstrable other events that cast doubt on or render impossible the proper performance of the commitments given by the buyer, the vendor reserves the right, even if the goods are already partly or entirely shipped, to suspend the whole order or part thereof, and demand guarantees from the buyer. If the buyer refuses to accede to this demand, the vendor reserves the right to cancel the entire order or part thereof, without prejudice to the vendor's rights to compensation and interest. If an order comprises several deliveries, then the vendor is entitled to make the irrevocable presumption that each delivery is deemed to form part of a separate contract. Consequently, any disputes relating to the performance of the vendor's obligations relating to one delivery do not affect the rest of the order, so that the buyer cannot invoke any dispute about the delivery in order to escape its obligations with regard to the other deliveries. The titles of the articles of these general terms and conditions are given for information only.

Article 2 - Deliveries:

The delivery dates shown on the order form or in the order confirmation are not binding on the vendor, and are given merely as an indication. Any delay does not entitle the buyer to compensation or cancellation of the order and / or cancellation of a contract, except if expressly stipulated otherwise. The goods will be delivered to the ground floor only. Our goods are sold, collected and paid for at the warehouses / premises of the vendor, which is deemed to be the place of delivery, even if they are shipped carriage-paid. The shipping costs are always payable by the vendor, except if expressly stipulated otherwise. Delivery occurs at the vendor's premises, unless agreed otherwise. If delivery is arranged by the vendor, this is done at the buyer's risk and expense. In the event of transshipment, the buyer must give instructions about the transport contractor and the route. In the absence of such instructions, the vendor has the right to take a decision in this regard. The vendor has the right to ship a part-consignment. If the buyer does not collect the goods on the agreed date, or fails to accept the goods ordered on delivery, the vendor is free to choose between demanding enforced fulfilment of the buyer's obligations, or demanding termination of the contract by force of law, with compensation being payable by the buyer, equal to 30 % of the sale price, without formal notice, without prejudice to the vendor's other rights. Storage of the goods while awaiting collection or delivery is at the buyer's risk and expense.

Article 3 - Conformity, visible and latent defects:

Unless agreed otherwise, complaints concerning conformity of and visible defects in the goods must be notified within two (2) days after delivery by registered letter to the vendor citing the reasons. Within that period, the buyer must demonstrate that the visible defects and / or the non-conformity with the order placed by it were present at the time of collection / delivery. Once that period has lapsed, the goods are deemed to have been accepted definitively by the buyer. Complaints in connection with latent defects are only admissible if they are notified by registered letter to the vendor, citing reasons, within six (6) months after the delivery date, and within eight (8) days after the defect has been discovered. The vendor only undertakes to replace or repair the parts acknowledged by it as being faulty, excluding any other intervention or compensation for direct and / or indirect loss. The warranty for latent defects lapses in the event of abnormal use, poor maintenance, alteration of the goods by the buyer, dismantling or repair by an unqualified person. The existence of complaints does not release the buyer from his obligation to pay the vendor's invoices on the due date. All dimensions and weights quoted are approximate. A deviation from the quoted data cannot be deemed a defect.

Article 4 - Prices and payments:

All prices are exclusive of VAT and ' ex works ', except if expressly agreed otherwise in writing. They apply excluding transport costs, insurance, packing costs, import and export duties, installation and assembly costs, etc. Any increase in customs duties, VAT rates, social security charges, raw material prices, energy costs, exchange rates, as well as all other charges and taxes applicable to the sale, and applied after the formation of the contract, are payable by the buyer.Invoices which do not relate to an advance payment, issued by the vendor, are payable by bank transfer to the account numbers shown on the invoice, within thirty (30) days of the date of invoice, unless expressly agreed otherwise in writing. Invoices relating to an advance payment are payable cash.The payment terms are not altered by drawing a bill, which does not constitute novation.In the event of a bill not being honoured, or non-compliance with the payment terms granted, all other sums as yet unpaid become due immediately. Payments received shall be offset by the vendor first against interest due and compensation, and then against the principal of the invoice that fell due first. In the event of non-payment of the amounts payable on the due date, interest on overdue payment is due, by force of law and without prior notice of default being required, at a rate of 1 % per month on the sums not collected on the due date ; part of a month counts as a whole month. Any discounts granted lapse in the event of overdue payment. Furthermore and without prejudice to the contractually-agreed interest, in the event of overdue payment, flat-rate compensation will be payable by force of law and without notice of default, at a rate of 10 % of the invoice amount. Failing payment of an invoice on the due date, all the other invoices issued by the vendor to the buyer shall fall due immediately, without prejudice to the vendor's other rights. The vendor is also entitled to compensation for any other costs, such as collection expenses and judicial expenses, costs and the fees of lawyers used by the vendor, but for the extra-judicial and judicial steps to ensure debt recovery, as well as costs arising from unpaid bills of exchange.

Article 5 - Transfer of title, retention of title and express resolatory condition:

The Vendor reserves the title to all models, industrial and trade marks, patents, drawings and sketches and other intellectual property rights relating to the products sold or services supplied. The title to the goods sold and of their accessories shall only be transferred to the buyer once the price has been paid in full, both in principal and any ancillary interest and charges. While the vendor retains the title to the goods under the terms of this clause, the buyer remains liable for maintaining the goods in good condition. The buyer undertakes to insure the goods against all risks. The buyer may not alter, hire out, pledge, sell or encumber in any way the goods supplied. If the buyer sells the goods before the title passes to it, the buyer accepts that the income received from that sale belongs exclusively to the vendor. This income shall be kept separately by the buyer from his other funds. Advance payments made by the buyer shall remain the vendor's property by way of compensation for potential losses on re-sale by the vendor. Without prejudice to the provisions of the clause on retention of title, all risks are transferred to the buyer at the time of formation of the contract. In the event of prejudgement attachment or attachment in execution, or any other change that may affect the vendor's title, the buyer is bound to notify the vendor within 24 hours, on paid of liability, as well as notifying the third party of the vendor's retention of title. In these situations, the buyer warrants that he will allow the third party immediate insight into the agreement entered into between it and the vendor. If the buyer fails to fulfil its obligations, the sale may be dissolved by force of law and without notice of default, via a registered letter emanating from the vendor. The buyer will then be bound to return the equipment / material to the vendor within 24 hours. If it fails to do so, the vendor shall have the right by force of law to take possession of the goods after the expiry of the aforementioned period. Furthermore, in this case the vendor has the right to flat-rate compensation of 10 % of the purchase price, unless it is able to prove a greater loss.

Article 6 - Vendor's liability - force majeure:

If the vendor fails to fulfil one of its obligations, it is not liable if it is able to demonstrate that the non-performance is due to circumstances that it was not bound to take into consideration, to prevent or to surmount at the time of formation of the contract. There follows a list of such circumstances accepted by the parties. However, this is a non-exhaustive list :

- any change in the manufacturer's price, raw material prices, exchange rates, the price of the foreign currency in which equipment, materials or parts thereof are purchased, and in general, changes in any factors that determine the vendor's purchase price, whereby this purchase price rises by more than 10 % between the date of formation of the contract and the delivery of the goods in accordance with these terms and conditions ;
- non-delivery by manufacturers or the vendor's suppliers ;
- acts by government, export, import or transit bans, strikes, rioting, war or acts of war, mobilisations or weather conditions ;
- lack of materials or transport, breakage of machinery, fire, labour shortage, transport difficulties or disruption that leads to execution being delayed or seriously hindered, or an increase in the cost of execution by more than 10 % ;
- all measures that prevent or curb international trade or make it more difficult.

The vendor's liability is always limited to refunding the value of the defective goods. The vendor cannot be held liable for other direct or indirect losses such as loss of sales, consequential loss, physical injury or losses by third parties. The buyer shall hold the vendor harmless against any claims from third parties arising from any defect in the goods. If a subcontractor is used, the vendor may not be held liable for any delays, errors in execution or negligence by said subcontractor.

Article 7 - Repairs:

With regard to repairs, the vendor's warranty obligations apply only within the limits of the terms of Article 3 of these general terms and conditions.

Article 8 - Non - waiver of rights:

The vendor's failure to enforce one or more of the clauses of these general terms and conditions cannot be construed as a waiver of these rights.

Article 9 - Unforeseen circumstances:

The vendor reserves the right to impose amendment of the contract if unforeseen circumstances arise.

Article 10 - Applicable law and competent court :

Belgian law applies to all contracts entered into with the vendor. The courts of the Tongeren legal district shall have sole jurisdiction to hear disputes. However, the vendor has the right to opt to bring disputes before the courts with jurisdiction for and according to the law applicable to the buyer's registered office.

Kreon nv

Industrieweg Noord 1152
3660 Opglabbeek
Belgium
Tel +32 89 81 97 80
Fax +32 89 81 97 90
www.kreon.com
mailbox@kreon.com

Internal Sales department

Tel +32 89 81 99 54/55/56
Fax +32 89 81 99 58
www.kreon.com
mailbox@kreon.com

Kreon Austria

Kärntner Ring 4
1010 Wien
Austria
Tel +43 1 715 44 25
austria@kreon.com

Kreon sarl

5, rue d'Aboukir
75002 Paris
France
Tel +33 1 44 50 53 54
Fax +33 1 44 50 53 56
france@kreon.com

Kreon GmbH

Brühler Straße 11-13
50968 Köln
Germany
Tel +49 221 937 22 0
Fax +49 221 937 22 22
germany@kreon.com

Spazio Kreon

Via V. Forcella 5
20144 Milano
Italy
Tel +39 02 89 42 08 46
Fax +39 02 89 42 87 85
italy@kreon.com

Kreon UK

79 Maltings Place
169 Tower Bridge Road
London
SE1 3LJ
United Kingdom
Tel +44 (0)20 7740 2112
Fax +44 (0)20 7740 2923
uk@kreon.com

Kreon China

498 Guoshoujing Road
Building 21, Room 103
Shanghai, Pudong New Area
P.R. China

Kreon Iluminación Técnica S.L.

C/Llull, 321. - Edificio CINC-. 22@
08019 Barcelona
Spain
Tel +34 935 530 776
Fax +34 935 530 777
spain@kreon.com

Kreon office Middle East

Dubai Airport Free Zone Area (DAFZA)
West Wing 6 (W6)
Office 6 WA 420
P.O. Box 293845
Dubai
United Arab Emirates
Tel +971 4 6091 355
Tel +971 4 6091 656
Fax +971 4 6091 357
middle.east@kreon.com

Kreon Brasil

Avenida Angélica, 2.223 - 6º Andar - nº 601
Consolação 01227-200 SP
Brasil
Tel +55 11 956 236 60
Fax +55 11 362 798 13
brasil@kreon.com

Kreon South East Asia

63a Club Street
Singapore 069 437
Tel +65 62 22 33 93
Fax +65 62 22 33 03
singapore@kreon.com

Kreon Aydınlatma San. ve Tic. A.Ş

Şehit Murat Demirli Cad. Resadiye Yolu 76
Alemdag-Ümraniye 34794
Istanbul
Turkey
Tel +90 216 430 86 00
Fax +90 216 430 86 96
turkey@kreon.com

Kreon Inc.

North America & Canada
154 Grand Street
New York, NY 10013, USA
Tel +1 646 213 7487
Fax +1 646 213 1456
usa@kreon.com

Kreon LLC Southeast

3898 Biscayne Blvd
Miami, FL 33137, USA
Tel +1 305 438 9099
Fax +1 305 438 9098





Creative Space Brussels

Kanselarijstraat 19
1000 Brussel
Belgium
belgium@kreon.com

Creative Space Vienna

Kärntner Ring 4
1010 Wien
Austria
Tel +43 1 715 44 25
austria@kreon.com

Creative Space Paris

5, rue d'Aboukir
75002 Paris
France
Tel +33 1 44 50 53 54
Fax +33 1 44 50 53 56
france@kreon.com

Creative Space Cologne

Brühler Straße 11-13
50968 Köln
Germany
Tel +49 221 937 22 0
Fax +49 221 937 22 22
germany@kreon.com

Spazio Kreon

Via V. Forcella 5
20144 Milano
Italy
Tel +39 02 89 42 08 46
Fax +39 02 89 42 87 85
italy@kreon.com

Creative Space Amsterdam

Pedro de Medinalaan 89-91 unit 1-C
1086 XP Amsterdam-Ijburg
The Netherlands
the.netherlands@kreon.com

Creative Space Singapore

63a Club Street
Singapore 069 437
Tel +65 62 22 33 93
Fax +65 62 22 33 03
singapore@kreon.com

[illegible]