oronco or scoro



Scoro WiFi – Unique Abilities, Simple Control

Scoro WiFi is worldwide the most versatile flash generator with its three independent outlets, it combines the legendary broncolor flash and colour quality with WiFi control. Just with a mouse-click, the extraordinary technical features of the Scoro WiFi generator now power at your fingertips for any and every creative lighting need.

Absolute freedom

With 3200 Joules of power, there is more than enough light for any imaginable photographic task this immense energy can also be reduced over a range of 11 stops, or a factor of 1000, allowing the use of wide-open apertures. With broncolor's established expertise in color temperature controlthe output colour the light remains constant across the entire range from 3 to 3200 joules.

On-the-ball with colour

broncolor light is very consistent and of a neutral colour. However, indirect lighting or the use of diffusers can negatively impact upon this light. Scoro power packs not only allow the compensation for such influences, but also allow targeted work with warmer or colder light.

A lot of light in little time

The broncolor Scoro generators achieve their ultrashort flash firing times not just at low power settings, but also in the medium power range. Thus, there is always enough light available to not only freeze a fast movement, but also to perfectly photograph it with a usable amount of light.

broncolor - always and everywhere

Travelling photographers are sure to welcome the fact that broncolor equipment can be rented from the majority of rental studios worldwide. Your own equipment can be left at home or supplemented by other power packs and the world's biggest range of accessories and light shapes.







Innovative Technologies -Made in Switzerland

Innovation as a driving force. Although the technologies we have developed are accepted as groundbreaking, they are continuously being perfected and further developed. The basis for this is a persistent desire to optimise, and the constant study of electrical technologies, new materials and alternative manufacturing processes. Photography is the product of light, and it is our mission to advance the technical capabilties of professional lighting technology.



Cut-off technology

Flash duration and light output are the two decisive factors in light control. A microprocessor in the Scoro power packs offers you the option of calculating the shortest or longest flash duration for a given output this enables rapid flash sequences with up to 50 flashes per second.



Constant colour temperature - ECTC

The second generation of our patented ECTC (Enhanced Colour Temperature Control) technology, which adapts flash voltage and flash duration to each other, achieves a constant colour temperature over the entire variation range. If desired, the Scoro S, allows the colour temperature to be adjusted in calibrated steps of +/- 200 K at constant power.

When several lights are connected, a constant colour temperature is ensured on all channels up to an asymmetry of two f-stops.



Individual power distribution

The Scoro S packs have three lamp outlets, the Scoro E two. Each lamp has an individual power controller with an LED display and can be adjusted independently of the other outlets. The unit therefore behaves like three (or two) independent power packs. You have an operating range of 11 f-stops to set the flash output you need, this corresponds to a control range from a maximum of 3 to 3200 J.



Speed mode

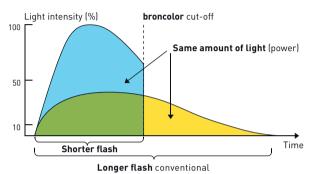
In speed mode, the charging time and flash duration are reduced by up to 50%, the maximum flash energy by 25%. In this way, you can achieve up to ten shots per second at full output, or up to 50 per second at reduced power. broncolor power packs and compact devices with cut-off technology thus become top-class flash devices, especially when speed is of the essence. Thanks to the active fan cooling, even long flash series are absolutely no problem at all.

Speed Meets Precision -Fast Flash Times



Cut-off technology

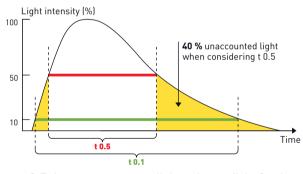
For a constant flash energy, flash durations can be substantially shortened using broncolor cut-off technology than is possible with conventional units:



t 0.1 = 1/600 s

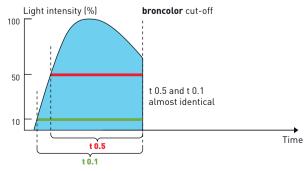
Whv t 0.1 and not t 0.5?

Comparison without broncolor cut-off technology



t 0.5 does not measure all the relevant light for the complete shooting: light is still radiated before and after t 0.5, which can result in blurring.

Comparison with broncolor cut-off technology



The total quantity of light is taken into account. No blurring, because the flash is cut off.



t 0.5 = 1/600 s

Good to know

There is no generally valid factor for converting t 0.5 to t 0.1. It depends on the technology employed. It is therefore not correct to use t 0.5 to compare different flash durations; for comparisons t 0.1 must be known as well.

Absolute Colour Constancy. Thanks to ECTC*

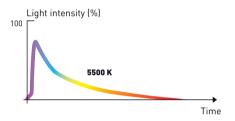


Constant colour temperature

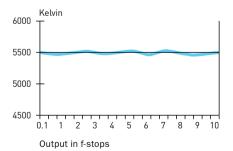
Patented ECTC technology enables a constant average colour temperature over the entire output range.

The colour temperature tolerance band is only +/- 50 Kelvin.

Thereby, the amplitude of the blue light component is controlled according to the warmer red component, which originates at cut-off.



Thanks to this unique technology, broncolor provides an output control over 11 f-stops at a constant colour temperature. There is no other technology to compare with this performance. With other technologies, a constant colour temperature such as this can only be achieved over 4 f-stops.



Even for fast flash sequences, a constant colour temperature and light quantity are the major quality criteria of broncolor products.





With broncolor technology





Without broncolor technology

^{*}ECTC Enhanced Colour Temperature Control

Control Meets Efficiency – Enormous Control Range, Individually Controllable



Power distribution

Scoro units have either two or three lamp connections. Each has an individual power controller with an LED display and can be adjusted independently of the other connections. The unit therefore behaves like three (or two) independent power packs.

The individual power distribution combined with the great control range, at its maximum from 3 – 3200 Joules, allows the photographer an almost entirely free choice of f-stop.

The required flash output can then be chosen from up to 11 f-stops or 10 f-stop intervals respectively.

Another power display provides information on the total energy supplied by the power pack. Using the buttons beside the display, it is possible to change the total energy of all the channels at the same time.



Aperture closed



Aperture open

Record Charging Times Thanks to the Speed Mode



Speed mode

In speed mode, the Scoro can be operated with a minimum charging time of 0.4 s (1600 J), but still with optimum colour temperature and maximum output. The shortest charging time is actually just $0.02\ s.$

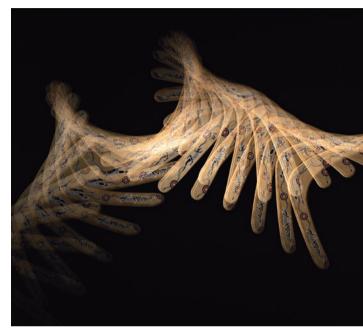
How is this possible?

With the speed button, the maximum energy is reduced by 25% and the charging time reduced by up to 50%.

This is how Scoro achieves the shortest recycle time worldwide, at just 0.02 s.

Using this technology, it is possible to illuminate stroboscope shootings with only a single flash unit. In this way, motion sequences can be made visible in technical and scientific photography, for example.

The number of flashes per second can actually be doubled by alternately triggering several power packs.



With broncolor technology



Without broncolor technology

Faster and More Efficient with bronControl



Even easier to use with a computer, tablet and smartphone

For large-scale studios, clear control over complex setups can be a challenge. This problem is solved by the bronControl app, in which the new Scoro power packs are fully integrated.

The performance of each individual lamp can be adjusted via the bronControl app, available on desktop, tablet, or smartphone. The entire studio is clearly illustrated on the intuitive visual interface of the bronControl app and each individual studio light can be easily identified and adjusted. For complete control, the entire studio, specific groups, or even individual lampheads can be adjusted.

The simple operation is not limited to the power setting, but extends over all the functions of the Scoro power packs. The expanded menu of the Scoro power packs are also available via the app. Easy adjustment of Scoro's advance feature set can be done from either the app or on the physical interface of the power pack.

WiFi communication operates via an integrated receiver in Scoro, and communicates with computers and smartphones with standard 802.11 WiFi technology.

The broncolor devices automatically form a separate WiFi network - alternatively you can integrate them into your existing network.





Scoro Captures a Photographic Universe

Even those who only seek powerful light output will still benefit from broncolor's legendary quality of light from the Scoro power packs. Massive control of power output, short recycle times, and unmatched colour consistency are the default. However, also available are the unique capabilities of Scoro's advanced feature set.

Three independent channels

The Scoro S works like three power packs, but in one device. Three completely independent channels deliver a light output of up to 3200 J.

Great control range

The control range of each individual channel allows a choice of 11 f-stops, from 3 – 3200 J.

Asymmetrical power distribution

The entire control range is asymmetrically available between the connected lamps, i.e. the difference in power between the lamps can actually exceed the factor of 1000.

Fast flash durations

At the basic setting, the Scoro calculates the flash duration in such a way, that the colour remains constant through the entire control range. The shortest times are achieved even at a high power setting which allows you to not just freeze a fast object or movement, but also to perfectly photograph it with a usable depth of focus.

Speed Function

Without having to dive into the menu, the speed button on the front panel allows you to optimise a Scoro for short charging times, and thus for fast flash sequences combined with short flash durations. As a rule, a Scoro calculates the flash curve so that the colour always remains the same - regardless of the power. Bounced lighting or use of diffusion materials can often influence colour temperature of the light. However, Scoro power

packs not only allow the compensation for such influences, but also for targeted work with warmer or colder light.

Sequences with intervals

Sequences of up to 50 flashes can be pre-programmed in a Scoro. In the case of very large sets (e.g. architecture), these multiple flashes are used to generate sufficient power. With reduced power, all 50 flashes can be triggered in less than a second, which makes spectacular stroboscopic effects possible.

The interval function allows the precise definition of the time period between two flashes in a sequence to a hundredth of a second.

Precise shutter release delay

The precise point in time when the flash should light the image can be defined by means of the delay. In steps of 1/100 s, it can be determined here how much time should pass between the arrival of the synchronisation signal and the actual flash.

Freemask and alternating

If you have two Scoro power packs available, it is possible to use the freemask function, to easily create cropping masks for post-processing.

Up to four Scoros can be triggered alternately the already extremely short charging times can thus be further shortened by a factor of four.





Wide Range -**Light Shapers and Effect Lighting**

Scoro power packs already offer an incredible variety of technical and creative possibilities. Not to be forgotten, however, is that the very wide range of accessories can decisively expand these possibilities.

The availability of light shapers is designed to meet any lighting challenges. A full breadth of square, rectangular, strip, and octa softboxes with a full line of accessories. Reflectors for ever type of light, beauty dishes, umbrellas, and even our family of Paras in 4 different sizes.

...and there is more, broncolor offers the widest range of special and effect lights requiring the use of power packs. The Picolite System particularly delights product photographers due to its unrivalled precision in directed lighting. The classic ringflash can also be operated on any Scoro, as can the broncolor special light shapers, such as the UVattachment, Lightbar, Striplite, Litestick, Pulso Spot 4, Sunlite-Set and many more...

With its lamps, light shapers and effect lighting, Scoro solves every photographic problem and meets every creative demand.



Scoro S and Scoro E -The Fine Differences at a Glance

Scoro S

With the Scoro S, broncolor has set no less than four world records, and remains the major influence in modern flash technology. Thanks to the numerous power distribution options at constant light quality, many of them unique, this power pack is the ideal light source in professional photography. Charging times as short as 0.02 s, an 11 f-stop control range at a constant colour temperature, colour temperature adjustable in 200 K intervals, as well as three independent channels with precisely the same colour temperature, are just a few of its functions with which outstanding pictures can be created.

Scoro E

Scoro E is a mighty powerhouse in disguise. With its subtle appearance the capability of the humble Scoro E always exceeds expectations. Simplification by reduction is the watchword. With intuitive menu navigation, the innovative ECTC system, two lamp connections, and an excellent out-put, the Scoro E is equipped for the best results in fashion and still-life photography.

	Scoro S	Scoro E
Lamp outlets	3	2
Flash duration t 0.1 (t 0.5)	1/10'000 s (1/14'000 s)	1/8'000 s (1/12'000 s)
Fastest charging time	0.02 s	0.06 s
Languages	11	11
Selectable flash duration	Yes	Yes
Sequence function	Yes	Yes
Interval	Yes	-
Individual colour correction	Yes	_
Speed mode	Yes	-
Memory function	Yes	_
Delay	Yes	-
Alternate	Yes	_

Scoro 1600 S WiFi / RFS 2 Scoro 3200 S WiFi / RFS 2



		Normal mode	Normal mode
Flash energy		1600 J	3200 J
f-stop at 2 m, 100 ISO, reflector P	70	64 ² / ₁₀	90 ² / ₁₀
Flash duration at max. energy*	t 0.1 (t 0.5)	1/265 s (1/760 s)	1/132 s (1/390 s)
Flash duration at max. energy*	t 0.1 (t 0.5)	1/150 - 1/10'000 s (1/450 - 1/14'000 s)	1/85 – 1/10'000 s (1/240 - 1/14'000 s)
Charging time	230 V	0.02 – 0.6 s	0.02 – 1.3 s
(min. – max. energy)	120 V	0.02 – 1.0 s	0.02 – 2.0 s
	100 V	0.02 – 1.1 s	0.02 – 2.2 s
		Switchable to slow recycle	Switchable to slow recycle

		Speed mode	Speed mode
Flash energy		1200 J	2400 J
f-stop at 2 m, 100 ISO, reflector P70	0	45 %10	64 %10
Flash duration at max. energy* t	0.1 (t 0.5)	1/535 s (1/1'600 s)	1/285 s (1/860 s)
Variation range for flash duration	* t 0.1 (t 0.5)	1/150 - 1/10'000 s (1/450 - 1/14'000 s)	1/85 - 1/10'000 s (1/240 - 1/14'000 s)
Charging time	230 V	0.02 – 0.4 s	0.02 – 0.8 s
(min. – max. energy)	120 V	0.02 – 0.6 s	0.02 – 1.2 s
	100 V	0.02 - 0.7 s	0.02 – 1.4 s

Ready display	Visual and audible (can be switched off), activated when pack is fully recharged		
Lamp outlets	3 outlets with flash cut-off and ECTC		
Power distribution	Symmetrical and individually asymmetrical		
Control elements	Dust and scratch-resistant, illuminated silicone keypad, setting by radio remote control		
Control range for flash energy	over 10 f-stops	over 11 f-stops	
	in 1/10 or full f-stop intervals. Choice of joul	n 1/10 or full f-stop intervals. Choice of joules or percent for LCD display	
Colour temperature	ECTC (Enhanced Color Temperature Control) technology for constant colour temperature		
Modelling light Halogen max. 3×650 W at $200 - 240$ V / Halogen max. 3×300 W at 100		alogen max. 3 × 300 W at 100 - 120 V	
	Proportional to flash energy, also full and low settings. Can be adjusted proport		
	match other broncolor power packs and monolights.		
Additional functions	t 0.1, sequence, delay, interval, colour temperature, alternating, stroboscopic, memory, and many more		
Flash release Manual release button, photocell, infrared RFS or RFS 2 receiver, may be		RFS or RFS 2 receiver, may be switched off	
	sync cable, IRX 2		
Number of sync sockets	1	1	
Computer connection for remote control	1	1	
Stabilised flash voltage	+/- 0.3%	+/- 0.3%	
Power requirements	16.0 A (230 V) 15.0 A (120 V) 15.0 A (100 V)	16.0 A (230 V) 15.0 A (120 V) 15.0 A (100 V)	
	802.11 b/g/n, encoding: Open/WPA/WPA2		
WiFi	802.11 b/g/n, encoding: Open/WPA/WPA2		
WiFi Dimensions without handle	802.11 b/g/n, encoding: Open/WPA/WPA2 $28.8 \times 19 \times 29.5$ cm (11.3 \times 7.5 \times 11.6")	$28.8 \times 19 \times 40 \text{ cm} (11.3 \times 7.5 \times 15.7")$	

^{*} Automatic regulation of flash duration and energy for optimum colour temperature. Preselection of minimum flash duration possible.

 $[\]ensuremath{^{**}}$ incl. dust soft case, mains cable and operating instructions

POWER PACKS



Senso 1200 RFS 2 Senso 2400 RFS 2 31.051.XX



Scoro 1600 S WiFi / RFS 2 Scoro 3200 S WiFi / RFS 2



Scoro 1600 E WiFi / RFS 2 Scoro 3200 E WiFi / RFS 2



Move 1200 L RFS 2 31.016.XX



HMI 200 HMI 400.575.800 41.102.XX HMI 800.1600

STUDIO MONOLIGHTS



Siros 400 WiFi / RFS 2 Siros 400 S WiFi / RFS 2 Siros 800 WiFi / RFS 2 Siros 800 S WiFi / RFS 2



Siros 400 L WiFi / RFS 2 Siros 800 L WiFi / RFS 2





Pulso G 32.115.XX 1600 J Pulso G 32.116.XX 3200 J



Unilite 32.113.XX 1600 J Unilite 32.114.XX 3200 J



Picolite smal lamp 32.021.XX



MobiLED Litos 32.030.XX

ECTORS AND ATTACHMENTS



Standard reflector P65





Narrow angle reflector P45 Narrow angle reflector P50



BATTERY MONOLIGHTS

Standard reflector L40



P-Travel reflector



PAR reflector





UV attachment



Pulso Twin 32.117.XX

Power reflector for Ringflash C 33.125.00



Beauty reflector for Ringflash C



Soft reflector for Ringflash C





Softlight reflector P



Beauty Dish with textile diffuser





Wide angle reflector P120 33.112.00



Background reflector



Spot attachment



Conical snoot

PARA SYSTEM



Para 222 Kit without adapter Para 222 FT Kit 41 178 00



Para 177 Kit without adapter Para 177 FT Kit 41.177.00



Para 133 reflector Para 133 HR reflector Para 133 Kit without adapter Para 133 HR Kit without adapter Para 133 FT Kit 41.175.00



Para 88 reflector Para 88 HR reflector Para 88 Kit without adapter Para 88 HR Kit without adapter Para 88 FT Kit



Stands and lampsare not

RFS 2.1 transmitter



RFS 2.1 receiver



RFS 2.1 transmitter/ receiver kit 36 135 00



RFS 2.2 transmitter 36.160.00 Canon 36.161.00 Nikon 36.162.00 Sony







HMI FT800.1600 Lamphead 42.110.00 Lamphead Tungsten FT 42.112.XX



HMI FT800 Lamp device HMI FT1600 Lamp device FT1000 Lamp device Tungsten FT2000 Lamp device Tungsten



HMI F200 Lamphead HMI F400 Lamphead 42.106.00



HMI F575.800 Lamphead 42.104.00



HMI F800 Lamphead HMI F1600 Lamphead 42.108.00



REFLECTORS

Open Face reflector for HMI E200 43 104 0



PAR reflector for HMI F200 43.116.00 HMI F400 43.117.00



PAR reflector for HMI F575.800 43.103.55 (5500 K) 43.103.59 (5900 K)



Open Face reflector for



PAR reflector for HMI F1600 43.140.00

EFFECT LAMPS



Ringflash C



Ringflash P



Balloon

Picobox

Boxlite 40



Lightbar 120 Evolution Lightbar 60 Evolution



Striplite 120 Evolution Striplite 60 Evolution



Litestick



Pulso-Spot 4 broncolor Flooter



Litepipe for HMI F400 43.118.00



Optical snoot 150 mm for Pulso-Spot 4 5500 K: 33.620.55 5900 K: 33.620.59



Pulso adapter for Picolite 33.501.00



Projection attachment for Picolite



Barn door with 4 wings 33.246.00 for P65, P45 and PAR 33.247.00 for P70 33.119.00 for L40



Barn door with 4 wings for Picolite 33.244.00



Honeycomb grids, set of 3 pcs. 33.219.00 for Ringflash C 33.189.00 for Power reflector



33.205.00 for P50 33.206.00 for P55, P45 and PAR 33.211.00 extremely narrow for P65, P45 and PAR (1 pce.) 33.207.00 for P70



Mini-Satellite Satellite Staro



Attachment with 3 honeycomb grids and 2 aperture masks for Picolite



Fresnel spot attachment for Picolite



Barn door with 2 wings for P70 33.227.00



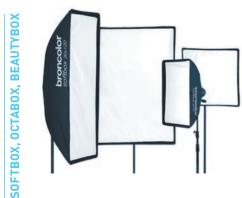
Sunlite-Set

Beautybox 65

33 568 00 Ø 65 cm



33.194.00 for L40



Softbox

33.560.00 35 × 60 cm 33.561.00 60 × 60 cm 33.562.00 60 × 100 cm 33 563 00 100 x 100 cm 33.564.00 30 × 120 cm 33.565.00 90 × 120 cm 33.566.00 120 × 180 cm $33.567.00.30 \times 180 cm$

Octabox 33.600.00 Ø 75 cm 33.601.00 Ø 150 cm

ring and stands are not included





33.576.00 Focus 110 umbrella, silver Ø 110 cm (43.3")

33.496.00 Umbrella reflector 33.570.00 Silver/black Ø 105 cm (41.3") 33.571.00 White/black Ø 105 cm (41.3") 33.572.00 Transparent Ø 105 cm (41.3")

33.573.00 White/black Ø 85 cm (33.5") 33.574.00 Silver/black Ø 85 cm (33.5") 33.575.00 Transparent Ø 85 cm (33.5")

Scoro 1600 E WiFi / RFS 2 Scoro 3200 E WiFi / RFS 2



Scoro 1600 E WiFi / RFS 2 | 31.066.XX Scoro 3200 E WiFi / RFS 2 | 31.067.XX

		Normal mode	Normal mode
Flash energy		1600 J	3200 J
f-stop at 2 m, 100 ISO, reflector P	70	64 1/10	90 1/10
Flash duration at max. energy*	t 0.1 (t 0.5)	1/265 s (1/760 s)	1/132 s (1/390 s)
Variation range for flash duratio	n* t 0.1 (t 0.5)	1/265 - 1/8'000 s (1/760 - 1/12'000 s)	1/132 - 1/8'000 s (1/390 - 1/12'000 s)
Charging time	230 V	0.06 – 1.0 s	0.06 – 1.7 s
(min. – max. energy)	120 V	0.06 – 1.4 s	0.06 – 2.4 s
	100 V	0.06 – 1.5 s	0.06 – 2.6 s
		Switchable to slow recycle	Switchable to slow recycle
Ready display		Visual and audible (can be switched off), activated when pack is fully recharged	
Lamp outlets		2 outlets with flash cut-off and ECTC	
Power distribution		Symmetrical and individually asymmetrical	
Control elements		Dust and scratch-resistant, illuminated silicone keypad, setting by radio remote control	
Control range for flash energy		over 8 f-stops	over 9 f-stops
		in 1/10 or full f-stop intervals. Choice of joules or percent on LCD display	
Colour temperature		ECTC (Enhanced Color Temperature Control) technology for constant colour temperature	
Modelling light		Halogen max. 2 \times 650 W at 200 - 240 V / Halogen max. 2 \times 300 W at 100 - 120 V	
		Proportional to flash energy, also full and low settings. Can be adjusted proportionally to	
		match other broncolor power packs and monolights.	
Additional functions		t 0.1, sequence	
Flashrelease		Manual release button, photocell, RFS or RFS 2 receiver, sync cable	
Number of sync sockets		1	1
Computer connection for remote control		1	1
Stabilised flash voltage		+/- 0.5%	+/- 0.5%
Power requirements		16.0 A (230 V) 15.0 A (120 V) 15.0 A (100 V)	16.0 A (230 V) 15.0 A (120 V) 15.0 A (100 V)
WiFi		802.11 b/g/n, encoding: Open/WPA/WPA2	
Dimensions without handle		$28.8 \times 19 \times 29.5 \text{ cm } (11.3 \times 7.5 \times 11.6")$	$28.8 \times 19 \times 40 \text{ cm} (11.3 \times 7.5 \times 15.7)$
Weight**		9.6 kg (21.2 lbs)	12.6 kg (27.8 lbs)

Automatic regulation of flash duration and energy for optimum colour temperature. Preselection of minimum flash duration possible.

^{**} incl. dust soft case, mains cable and operating instructions

