BE CREATIVE WITH LIGHT.
AND WITH SYSTEM.

broncolor®
THE LIGHT

DEAR READER

The challenge of thoroughly addressing your needs and repeatedly surprising you with innovations is what motivates us. And light is our passion. Essentially, we have much in common. You face daily challenges, too. Every new assignment calls for different, refined, and surprising photographic solutions. That's where we want to offer our support. We tap every single personal contact with your colleagues from all over the world and ask them how we can provide assistance in the form of solutions that will ultimately benefit the entire community in the studio and on location. This valuable input inspires our engineers as they push the technology to its limits with a living suite of broncolor innovations that become the global benchmark. Beyond the spirit of innovation, nothing has changed as regards the legendary quality and dependability that you have come to expect of broncolor products in your everyday work. Every device that leaves our production facility has undergone exhaustive functionality tests. Where possible, innovations are compatible with previous-generation products. Over the years, this systematically implemented philosophy has enriched the broncolor product line to such an extent that it leaves nothing to be desired in terms of operating convenience, longevity, value for money, and reliability. The objective stands.
At www.broncolor.com, you can find detailed information on the entire broncolor product line.
You're the judge. Let the following pages acquaint you with the current broncolor product line. We look forward to the continued privilege of serving you – for many years to come.

Jacques Bron

COMPATIBILITY, GETTING STARTED, EXPANSION.

The broncolor modular system includes compact units, power packs, lamp bases and accessories which are mutually compatible. This facilitates the start with the broncolor system as you always will be able to enlarge it step by step and adopt it to your individual requirements. Combination with earlier broncolor equipment is virtually unrestricted.

THE BRONCOLOR SYSTEM.

Output, easy to handle, microprocessor control system, quick flash series - no matter what criterion makes you buy a flash system. Amongst the broncolor system you will find the units completely in line with your lighting requirements. They let you advance into new applications and succeed with motion shots. Various lamp bases and a wide selection of reflectors, area lights and accessories give you ample latitude in your visions of lighting and creativity.

WARRANTY.

All broncolor equipment is characterized by high quality standards. All equipment - with the exception of flash tubes and parts subject to wear - carry a 2-year warranty.

ORDERING POWER SUPPLIES.

broncolor equipment can be supplied for various voltages and frequencies. Please replace the last two digits "XX" of the item number by the code number for your rated voltage.

Power supply	**Code**
100 V 50 Hz	.01
100 V 60 Hz	.02
110 V 50 Hz	.03
110 V 60 Hz	.04
115 V 50 Hz	.05
115 V 60 Hz	.06
117 V 60 Hz	.07
120 V 60 Hz	.08
220 V 50 Hz	.10
230 V 50 Hz	.11
240 V 50 Hz	.12
240 V 60 Hz	.13
220 V 60 Hz	.14
200 V 50 Hz	.15
200 V 60 Hz	.16

SPECIAL BROCHURES.

Please ask your broncolor representative for detailed special brochures relating to individual broncolor products and services.

We reserve the right to make changes due to technical developments.

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BRONCOLOR.
CREATIVITY IS COMPELLING.
Photography feeds on light. This truism is as old as the craft itself. Yet the studio flash is one of the most recent developments in classical photography. Since then, technology has undergone quantum leaps. In the professional community, the digital image is here to stay, thanks perhaps to storage media that aren't much bigger than lighters. The ability to edit images on computers is now taken for granted. But one factor remains unchanged: light. This factor drives our mission to accompany developments in photography and to advance technological progress in professional lighting. The current broncolor product line illustrates how successful we have been in this regard.

From the very beginning of its 50-year history, our company has been nurtured by inventiveness and an entrepreneurial spirit. Today, "broncolor" is the leading brand globally for flashlight systems; our products can be found in countless studios around the world. Precision, benchmark technology, quality and reliability are the drivers of this success story.
These attributes also characterise the company's site. Our headquarters and the technology centre are located in Allschwil near Basel, close to where the German, French and Swiss borders meet. At this globally recognised research triangle, committed broncolor employees forge the future.
broncolor is an international brand. Specialised partners market power packs, compact units, lampheads, and accessories to professional photographers, rental studios, and prepress companies in more than 60 nations around the globe.

BRONCOLOR.
THE POWER OF INNOVATION.
The research and development department is certainly a decisive factor in broncolor's success. It is the think tank in which pioneering broncolor technologies were invented and are continually being refined. Its unfaltering quest for optimisation is based on a constant involvement at the forefront of electrical engineering as well as the identification of new materials and manufacturing processes. The ongoing dialogue with professional photographers and broncolor equipment users also plays an important role. These discussions have often

inspired new generations of equipment, safeguarding continuity in an evolution that addresses genuine user needs.
The best technical features are worth very little if they lack operating convenience. For this reason, broncolor also stands for design. Our products are ergonomic, easy to understand, and aesthetically appealing. As people whose perception is quintessentially visual, photographers especially appreciate these attributes.

BRONCOLOR.
QUALITY COUNTS.
Imagine a production day with models, makeup artists, hair stylists, assistants, creative directors, and the client assembled in a studio. Everything is in place; everything is ready. And then, at the decisive moment, the flash system fails: a catastrophe for the client, the agency, and the photographer. We know that. Apart from fascination and technical progress, what drives us is the meticulous compliance of every broncolor product with the loftiest standards of quality, precision, and dependability. And these standards are defined by the photographer's expectations. We spare no effort to fulfil them. Our production department works to very strict tolerances and uses only proven, high-grade components. The quality of incoming components is constantly monitored. Using latest-generation resources, broncolor products are assembled in the production facilities at the company's Swiss headquarters. Prior to delivery, every single power pack, every compact unit, and each lamphead is painstakingly tested for unrestricted functionality and flawless quality. Our two-year factory warranty proves that we stand behind our work. This commitment is globally acknowledged.

BRONCOLOR.
THE WORLD IS OUR HOME.
Quality generates acceptance. broncolor products have been embraced by the world's most professionally managed studios as the standard for perfect lighting. In return, we emphasise world-wide customer support with more than 100 service centres. In addition to maintenance and repair specialists, every broncolor representative is staffed with competent advisors who can assist photographers in solving lighting problems. At the same time, broncolor's in-house instructors provide training for local service technicians and acquaint them with innovations and new technologies.
In addition to the assurance that they can count on competent support virtually everywhere, photographers also have access to another welcome service at about 100 locations around the world: the "broncolor World Light Rent-a-System."
broncolor's dedication to quality is also evidenced by our popular workshops on lighting techniques and the numerous publications we issue. For details, see page 51, or log on to our website at www.broncolor.com.

Once you have made a decision in favour of broncolor, we provide regular software updates to make sure your product retains its functionality as long as possible, in some cases even extending its capabilities. The numerous control and monitoring functions are software-updated and can be modified to address new needs with comparatively little effort. This approach allows us to actively protect your investment in the interest of a long-term partnership – a partnership that lets you and us join forces to shape the future of light in photography.

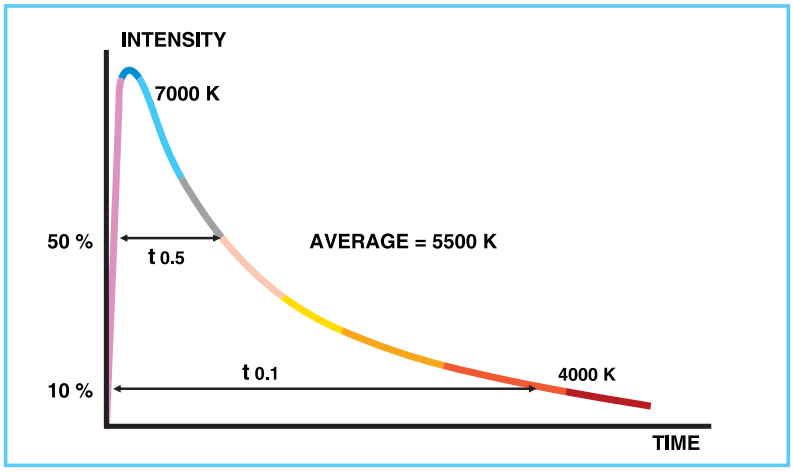
|| LIGHTCLUB, GERMANY

|| LIGHTCLUB, GERMANY

The only effective way to define and compare technical equipment is to develop evaluation criteria that take into account both technical and economic aspects.

CHARGING TIME.
A certain amount of electrical energy from the mains (AC supply) is needed to charge the capacitors of a flash unit. The amount of time required for charging is determined by the capacity of the mains (AC supply) or the battery, and by the storage capacity of the built-in capacitors. The larger or more powerful the flash unit, the longer the time required for charging. The time between the beginning of charging and the moment the "ready" light illuminates is called the charging or recycle time. According to DIN, the ready light can come on when charging is only 70% complete, although varying results may be expected with such indicators. In broncolor units, the ready light comes on only with a 100% charge.

FLASHING PROCEDURE AND FLASH DURATION.
The flash does not have a constant intensity over its entire duration, but instead decreases as indicated by the curve (see sketch). At the beginning of its discharge, the flash emits high-intensity light, which decreases continuously to zero toward the end. A close examination of the flash discharge curve reveals that although it possesses a fairly well defined beginning, it does not have a distinct end. Artificial definitions are therefore necessary so that curves of different durations can be compared. ISO Standard 2827 defines two values for quoting discharge duration: 1) The effective flash duration t0.5 was developed on the basis of the definition of shutter speeds, and describes the time elapsed between the moment the flash intensity reaches 50% of maximum and the moment it decays to the same value. 2) The total flash duration t0.1 indicates the time between two points at which flash intensity is 1/10 of maximum. The t0.5 value is more common and is usually quoted in brochures and data sheets. If the task is to "freeze" motion with short flashes, however, it is worth remembering that even after the t0.5 time quoted, the flash is still emitting at half-intensity. The t0.5 time therefore cannot be compared with shutter speeds of the same duration in terms of achievable sharpness; t0.1 is more informa-



Flash duration

tive in such cases. If a manufactrer does not quote t0.1, the mathematical shape of the discharge curve is such that this rule of thumb can be applied: t0.1 = 3 x t0.5, i.e. if a flash unit has an effective flash duration of 1/1500 second, its total flash duration is approximately 1/500 second and motion will be frozen with approximately the same sharpness as a 1/500-second shutter speed.

HOW IMPORTANT ARE JOULES FOR EXPOSURE?

The amount of light reaching the CCD chip (or film) is important. The parameter Ws (watt-seconds) – also called joules – quantifies the energy content or storage capacity of the flash capacitors. If a flash unit has a storage capacity of 300 joules, it can operate a 300-watt lamp for 1 second or a 300,000-watt lamp for 1/1000 second. The number of joules or watt-seconds gives no information about the actual amount of light that is emitted and that is crucial for lighting purposes, since it ignores certain important factors that can decrease the conversion of electrical energy to light. For example, the flash tube and the unit must be co-ordinated with one another, the reflector must be adapted to the flash tube and the power cable must be dimensioned appropriately. Losses between the flash capacitors and flash tubes, which would otherwise have a negative effect on efficiency, are thereby minimised.

GUIDE NUMBERS AND F-STOPS.

For amateur and portable flash units, it is common to quote a guide number, which is the product of the f-stop and the distance between the subject and the light source. For example: distance from light source to subject = 2 m, measured f-stop = f/11; 2 x 11 = 22, and the guide number for that unit is therefore 22. If this value is to serve as a parameter for a flash unit, it must be dependably applicable in every case (i.e. constant). This condition is met only when the light intensity decreases as the square of the distance. This is certainly the case when the light source is small in comparison with the distance between it and the subject; a requirement which flash units for amateurs fulfil very well, but only seldom flash systems. Their light sources are generally not point-like, but instead are often larger than the subject itself or the distance between the light source and subject. Since in this case the light does not diminish proportionally with the squared distance, the expected f-stop cannot be calculated with this method. For flash systems, therefore, the guide number is a purely theoretical value and not a usable parameter. broncolor therefore simply quotes the expected f-stop at a distance of 2 meters for its units. The advantage for photographers is that they get a definite statement about exposure that has already taken into account all the losses and efficiencies not accounted for in the energy rating. The figure also allows users to compare the effects of different reflectors.

FLASH UNITS AND DIGITAL PHOTOGRAPHY.

Light quality depends on two factors: first the quality of the light shaper that is used, and second the precision of the flash unit's control system. If the light quantity or light quality of different exposures is not identical, colour shifts are inevitable. broncolor flash systems offer precise control of flash voltage. This outstanding repetitive precision is especially important for images using multi-shot cameras. The high-end Grafit A power pack is moreover equipped with broncolor's patented CTC (Colour Temperature Control) technology, which ensures a constant (or deliberately controllable) colour temperature over the entire control range. For users of digital imaging systems who need completely computer-controlled image acquisition, broncolor offers units that can be remotely radio-controlled from a PC or Macintosh.

TECHNICAL EVALUATION CRITERIA.

Now that the technical terms have been explained, it is time to consider which criteria should be applied when evaluating flash units.

CRITERION 1: PERFECT PHOTOGRAPHIC RESULTS.
This is obviously the first priority. The most important prerequisites are 1) correct, controllable and reproducible colour reproduction by means of colour-neutral and UV-corrected flash tubes; 2) stabilised flash intensity that always ensures the same amount of light; 3) a "ready" indication at 100% charge; and 4) an extensive range of lamp bases and light shapers co-ordinated with the characteristics of the studio flash unit.

CRITERION 2: SERVICE LIFE AND QUALITY.
These are also critical factors in terms of quality evaluation. The service life of a flash system is determined by:

- the nature and dimensions of the capacitors and other power components that are used;
- the charging time, i.e. the duty cycle of the capacitors, which are subject to large temperature fluctuations during charging and discharging. The key issue here is that inexpensive components have a shorter service life and an increased risk of failure after even a brief period of use. This stands in contrast to mechanical systems, where the wear rate determines service life.

CRITERION 3: ELECTRICAL SAFETY.
Any electrical device can theoretically be hazardous if the manufacturer does not conscientiously observe every safety regulation. Increasing safety consciousness on the part of users has naturally led to increasingly detailed and, in some cases, more stringent specifications.
Safety is ensured when

- international safety regulations are complied with; and
- controls are protected from mechanical damage by recessed placement and by the use of impact-resistant material.

CRITERION 4: CONVENIENCE.
For flash units, each user's evaluation will depend on the purpose of the unit and the photographer's subjective criteria. What one person regards as a luxury others will consider a necessity they cannot live without. When it is understood that more convenience usually also means more complexity and a higher price, the usefulness of individual convenience features can then be evaluated more objectively. All the same, there are certain attributes about which everyone agrees, including any characteristic that

- helps shorten working time,
- decreases or eliminates poor results or operator errors, and
- prevents damage.

CONVENIENCE RIGHT DOWN THE LINE.
broncolor equipment offers even more convenience features. For instance: the illuminated silicone push buttons on power packs with LED displays, which can easily be operated even in a darkened studio; the useful extra functions of the Grafit A range; the ability to adjust light delivery precisely to within one-tenth of a f-stop; and much more. broncolor lamp bases offer convenience that photographers will not want to do without: a bright halogen modelling lamp, maximised co-ordination between flash tube and modelling light coverage angles, plug-in flash tubes, UV-coated flash tubes and protecting glasses that guarantee neutral colour reproduction, a patented bayonet system that lets the user replace light shapers with one twist of the wrist, a cooling fan in every lamphead and a built-in thermal circuit breaker. Convenience is especially appreciated when it does not carry an extra price tag but constitutes a standard feature in a carefully thought-out design. A simple example: the housings whose projecting edges or handles effectively protect the controls from damage. A comprehensive listing of convenience features in broncolor products would exceed the scope of this publication.

The broncolor System
A Master Achievement

POWER PACKS

High-powered flashlight systems always consist of a separate so-called power pack and one or more lamps. The advantages as compared with compact units are the ability to connect more than one lamp, a large selection of special lamps (e.g. area lamps, spots, etc.) and an extensive range of accessories. There are many models offering the right solution for every lighting task and every budget. broncolor power packs, lamps and accessories are (with a few exceptions) also compatible with current compact units and offer a power range from 10 J to 6400 J of flash energy.

The top-of-the-line Grafit A models offer individual power distribution, i.e. each lamp output can be controlled separately. broncolor's patented CTC (Colour Temperature Control) technology ensures absolute control of colour temperature and flash duration over the entire control range. Numerous programmable extra functions provide a very wide range of capabilities. The high-end Verso A power pack is characterised by fast charging time, short flash duration and individual power distribution. The unit can optionally be powered from a rechargeable battery. The lamp outlets of Topas A precision units are individually controllable. Automatic colour control stabilisation, an extremely wide control range and programmable flash sequences are the outstanding features of Topas A. Nano power packs are the ideal introduction to the broncolor system: Nano 2 with symmetrical and Nano A4 with asymmetrical power distribution. The Mobil mains-independent power pack offers light weight and a user-friendly plug-in rechargeable battery. Adding a Studio Booster turns the battery-based power pack into a fully fledged studio unit. The Mobil is compatible with all broncolor flash units and lampheads (up to 3200 J).

With all broncolor studio power packs, the modelling light can be set in proportion to the varying flash output of different power packs, and to the number of lamps. This allows the lighting situation to be evaluated in the correct proportion to the actual flash output. The robust housings protect the electronics during rough everyday use, and fan cooling as well as a safety thermostat prevent damage due to overheating. Modern microprocessor technology controls the various functions and also monitors the capacitor voltage and modelling light operating voltage. Highly accurate flash voltage control makes broncolor power packs especially suitable for multi-shot digital photography. All models are equipped with a photocell and an infrared receiver, and offer a wide control range at 1/10 f-stop increments. Grafit A, Verso A, and Topas A are also available in RFS versions: power packs fitted with an RFS interface can be triggered and remotely controlled with radio signals.

Verso A2

- Automatic regulation of flash duration for optimum colour temperature
- High repetitive precision for digital imaging
- Battery-supplied operation with battery package
- Individual power output distribution for each lamp base outlet
- 3 lamp base outlets
- Wide control range of the flash energy
- Flash release also possible via radio (optional) and infrared
- Automatic flash release control
- Illuminated silicone keyboard and LED-display, resistant to dust and scratches
- Sensibility of the photocell can be reduced
- Additional function flash sequences (flash series)
- Automatic adaptation to the respective mains power
- Modification to RFS version possible

	Verso A2 mains-operated 31.030.XX	**Verso A2 with battery**
Flash energy J	1200	1200
f-stop at 2 m 100 ISO, Reflector P70	45 7/10	45 7/10
Flash duration t 0.1 (t 0.5)	1200 J: 1/500 (1/1500) 600 J: 1/900 (1/2500) 300 J: 1/1500 (1/4500)	1200 J: 1/500 (1/1500) 600 J: 1/900 (1/2500) 300 J: 1/1500 (1/4500)
Charging time (230 V)	0,2 – 0,9 s	0,3 – 1,8 s
Ready display	visual and audible (can be switched off)	
Lamp base outlets	3	
Power output distribution	individual (asymmetrical)	
Control range flash energy	channel 1 (without using channel 2):	over 7 f-stops; channel 1 and 2 or channel 2: over 6 f-stops
Modelling light (230 V)	Halogen max. 3 x 650 W, proportionality adjustable to other broncolor power packs and their various output ratings	Halogen a total of max 150 W, distributed over the number of connected lamps, variable settings of the on time are possible
Flash release	infrared receiver and photocell (can be switched off), sync cable	
Sync sockets	2	
Dimensions mm / inches	290 x 185 x 315 / 11.4 x 7.3 x 12.4"	
Weight kg / lbs	7,5 / 16.5	
Power requirements	200-240 V / 50 Hz; 110-120 V / 50-60 Hz; 100 V / 50 Hz	
Number of flashes	quick charge:	approx. 360 at full output
per fully charged battery	slow charge:	approx. at full output

	Verso A2 RFS 31.031.XX
Flash release	RFS Transmitter, RFS Transceiver, IR-receiver, photocell, sync cable
Sync sockets	1 (radio antenna instead of 2 sync sockets)
Remote control	by radio from a computer with integrated 10-channel RFS interface, up to 15 units per channel
Radio	operational distance outdoors up to 50 m (possible range up to 300 m) operational distance in closed rooms up to 30 m (possible range up to 300 m)

Battery package to power pack Verso A2

36.124.00

Independent mains voltage use in combination with the available battery package.

To be docked on the bottom of the power pack.

Because of the laws in some countries, the use of the broncolor radio system is not allowed. Therefore the power packs RFS version are also available in the version Plus (that means with cable remote control). Apart from the cable connection between the power pack and the computer, the application in comparison with RFS is almost identical.

Grafit A

- Automatic regulation of flash duration for optimum colour temperature.
- Constant colour temperature (5500 K) over the complete control Range (CTC)
- Preselection of flash duration possible
- High repetitive precision for digital imaging
- Individual power output distribution for each lamp base outlet
- Flash release also possible via radio (optional) and infrared
- Remote control via radio (optional) and infrared
- Automatic flash release control
- Display in f-stops and joules, joules switchable to %
- Illuminated silicone keyboard and LED-display, resistant to dust and scratches
- Different additional functions and user-friendly menu operation
- Modification to RFS version possible

	Grafit A2 31.166.XX	**Grafit A4** 31.176.XX
Flash energy J	1600	3200
f-stop at 2 m 100 ISO, Reflector P70	64 2/10	90 2/10
Flash duration t 0.1 (t 0.5)	1/150-1/7500 (1/450 – 1/12'000)	1/80 – 1/7500 (1/240 – 1/12'000)
Charging time (230 V)	0,03 – 1,3 s	0,04 – 2,6 s
Ready display	visual and audible (can be switched off)	
Lamp base outlets	3	
Power output distribution	individual (asymmetrical)	
Control range flash energy	outlet 1 and 2: over 6 7/10 f-stops, Outlet 3: over 4 f-stops, Alternatively in 1/10 or 1/3 f-stop intervals	
Modelling light (230 V)	Halogen max. 2x650 W, proportional, adjustable to other broncolor flash units with different power	
Flash release	infrared receiver and photocell (can be switched off), sync cable	
Sync sockets	2	
Dimensions mm / inches	288 x 180 x 311,5 / 11.3 x 7 x 12.2"	288 x 180 x 407,5 / 11.3 x 7 x 16"
Weight kg / lbs	8 / 17.6	11 / 24.2
Power requirements	200-240 V / 50 Hz switchable to 120 V/60 Hz */**; 110-120 V / 60 Hz switchable to 230 V/50 Hz* 100 V / 50 Hz switchable to 230 V/50 Hz*	

	Grafit A2 RFS 31.169.XX	**Grafit A4 RFS** 31.179.XX
Flash release	RFS Transmitter, RFS Transceiver, IR-receiver, photocell, sync cable	
Sync sockets	1 (radio antenna instead of 2 sync sockets)	
Remote control	by radio from a computer with integrated 10-channel RFS interface, up to 15 units per channel, 4 storage spaces for lighting situations	
Radio	operational distance outdoors up to 50 m (possible range up to 300 m) operational distance in closed rooms up to 30 m (possible range up to 30 m)	

* longer charging time, no interval-setting possible; ** Charging up to max. 9 instead of 10

Because of the laws in some countries, the use of the broncolor radio system is not allowed. Therefore the power packs RFS version are also available in the version Plus (that means with cable remote control). Apart from the cable connection between the power pack and the computer, the application in comparison with RFS is almost identical. For the version Plus no RFS transmitter is available

Topas A

- Automatic stabilization of colour temperature (Topas A2 and A4)
- Highest repetitive precision for digital imaging
- Individual power output distribution for each lamp base outlet
- Wide control range of the flash energy
- Flash release also possible via radio (optional) and infrared
- Automatic flash release control
- Illuminated silicone keyboard and LED-display, resistant to dust and scratches
- Additional function flash sequences (flash series)
- Automatic adaptation to the respective mains power
- Modification to RFS version possible

	Topas A2 31.168.XX	**Topas A4** 31.178.XX	**Topas A8 Evolution** 31.184.XX
Flash energy J	1600	3200	6100*
f-stop at 2 m 100 ISO, Reflector P70	64 2/10	90 2/10	128
Flash duration t 0.1 (t 0.5)	1600 J: 1/300 (1/1000) 1000 J: 1/400 (1/1300) 600 J: 1/500 (1/1600)	3200 J: 1/150 (1/600) 2200 J. 1/200 (1/800) 1000 J: 1/300 (1/1300)	6100 J: 1/50 (1/230)
Charging time (230 V)	0,4 – 1,8 s	0,4 – 3,4 s	0,5 – 5,2 s
Ready display	visual and audible (can be switched off)		
Lamp base outlets	2		
Power output distribution	individual (asymmetrical)		
Control range flash energy	over 5 f-stops expandable to 7,3 f-stops	over 5 f-stops expandable to 8,2 f-stops	over 4 f-stops expandable to 6 f-stops
Modelling light (230 V)	Halogen max. 2x650 W, proportional, adjustable to other broncolor flash units with different power		
Flash release	infrared receiver and photocell (can be switched off), sync cable		
Number sync sockets	2		
Dimensions mm / inches	280 x 162,7 x 272 / 11.3 x 6.4 x 10.7"	280 x 162,7 x 322 / 11.3 x 6.4 x 12.6"	280 x 162,7 x 517 / 11.3 x 6.4 x 20.3"
Weight kg / lbs	5,8 / 12.7	8 / 17.6	15,6 / 34.4
Power requirements	200-240 V / 50 Hz; 110-120 V / 50-60 Hz; 100 V / 50 Hz		

* 6100 with Pulso lamphead 8 / 2 x 3050 J (4 x 1525 J) with lamphead Pulso G, Unilite or Pulso Twin

	Topas A2 RFS 31.173.XX	**Topas A4 RFS** 31.174.XX	**Topas A8 RFS Evolution** 31.183.XX
Flash release	RFS Transmitter, RFS Transceiver		
Sync sockets	1 (radio antenna instead of 2 sync sockets)		
Remote control	by radio from a computer with integrated 10 channel RFS interface, up to 10 units per channel		
Radio	operational distance outdoors up to 50 m (possible range up to 300 m) operational distance in closed rooms up to 30 m (possible range up to 300 m)		

Because of the laws in some countries, the use of the broncolor radio system is not allowed. Therefore the power packs RFS version are also available in the version Plus (that means with cable remote control). Apart from the cable connection between the power pack and the computer, the application in comparison with RFS is almost identical.

Nano

- Highest repetitive precision for digital imaging
- Asymmetrical power distribution (Nano A4)
- Large control range of the flash energy
- Flash release also possible via infrared
- Automatic flash release control
- Keyboard resistant to scratches and LED-display
- Additional flash sequences (flash series)
- Version 230 V is a dual voltage unit

	Nano 2 31.151.XX	**Nano A4** 31.172.XX
Flash energy J	1200	2400
f-stop at 2 m 100 ISO, Reflector P70	45 7/10	64 7/10
Flash duration t 0.1 (t 0.5)	1200 J, 100%: 1/200 (1/650) 600 J, 50%: 1/300 (1/1050)	2400 J, 100%: 1/150 (s/400); 1700 J, 70%: 1/180 (1/500); 700 J, 30%: 1/250 (1/1000)
Charging time (230 V)	0,25 – 1,4 s	0,25 – 2,4 s
Ready display	visual and audible (can be switched off)	
Lamp base outlets	2	
Power output distribution	symmetrical	asymmetrical
Control range flash energy	over 4 f-stops expandable to 6 f-stops	over 4 f-stops expandable to 6,7 f-stops
Modelling light (230 V)	Halogen max. 2 x 650 W, proportional, adjustable to other broncolor flash units with different power	
Flash release	infrared receiver and photocell (can be switched off), sync cable, built-in infrared receiver and photocell	
Sync sockets	1	
Dimensions mm / inches	235 x 157 x 270 / 9.2 x 6.2 x 10.6"	280 x 162.7 x 272 / 11 x 6.4 x 10.7"
Weight kg / lbs	5 / 11	6,5 / 14.3
Power requirements	200-240 V / 50-60 Hz; 110-120 V / 50-60 Hz; 100 V / 50 Hz	

Mobil

- High repetitive precision for digital imaging
- Can be used alternatively as battery or studio power pack
- Flash release also possible via infrared
- Variable settings of the on time of the modelling light
- Simple exchange of rechargeable battery by plug-in procedure
- Slow charge to protect the battery
- Illuminated silicone keyboard and LED-display, resistant to dust and scratches
- Automatic switch-off of the power pack after selectable waiting time
- Automatic adaptation to the respective mains power (in operation with Studio Booster)

	Mobil with battery 31.010.XX		**Mobil with Studio Booster**
Flash energy J	1200		1500
f-stop at 2 m 100 ISO, Reflector P70	45 6/10		45 9/10
Flash duration t 0.1 (t 0.5)	1/230 (1/680)	1 Lamp base	1/220 (1/650)
	1/360 (1/1100)	2 Lamp bases	1/330 (1/1000)
Charging time	1,5 – 6 s	Quick charge	0,6 – 2,4
	2 –13 s	Slow charge	
Ready display	visual and audible (can be switched off)		
Lamp base outlets	2		
Power distribution	symmetrical		
Control range flash energy	over 4 f-stops		
Modelling light	Halogen (12 V) max. 2 x 50 W or 1 x 100 W		Halogen (230 V) max. 2 x 650 W, proportional, adjustable to broncolor flash units with different power
Flash release	Infrared receiver and photocell (can be switched off), sync cable		
Number sync sockets	1		
Dimensions mm / inches	235 x 144 x 275 / 9.2 x 5.6 x 10.8"		235 x 144 x 332 / 9.2 x 5.6 x 12.6"
Weight kg / lbs	7,25 / 16		6,55 / 14.4
Power requirements	220-240 V / 50 Hz; 110-120 V / 60 Hz; 100 V / 50 Hz		

ACCESSORIES

Studio Booster
36.120.XX
240 x 360 mm

Charge unit
36.121.00
60 x 60 mm

Connection cable
for cigarette lighter for Mobil
34.113.00

Bag for battery power pack Mobil
36.513.00
empty, for 1 battery power pack Mobil

Plug-in battery
36.123.00

Mobil Travel Kit
31.020.XX
consists of:
1 battery-powered Mobil power pack
1 Mobilite small lamp with flash tube, protecting glass and modelling lamp
1 charger
1 sync cable, 5 m (16 ft)
1 travel bag

Bag for Mobil Travel Kit
36.512.00
empty, for 1 Mobil generator and 2 small lamps Mobilite

Minipuls D 160 is broncolor's high-end digital compact unit; the Plus version is controllable directly from a PC or Macintosh. Outstanding repetitive precision, power regulation over 5 f-stop intervals, selective infrared triggering and programmable additional functions are among the acclaimed convenience features of this model. The Minicom compact unit is ideal as an introduction to the broncolor system or as a supplementary unit. It offers a short flash duration, large control range and excellent repetitive precision. The sensitivity of the photocell can also be reduced. Minipuls C 200 is a high-power compact unit that is perfect for lighting larger sets. Its features include a continuous control range and a visual flash monitor.
broncolor compact units cover the power spectrum from 10 J to 1500 J, and are also available as kits. They are equipped with a powerful halogen modelling light that is proportional when broncolor power packs are used. Thanks to the integrated Pulso bayonet with its release catch, light shapers can be rotated 360° and exchanged quickly and securely. Accessories are compatible and can be used with broncolor power packs and lampheads. All models are fitted with a photocell and an infrared receiver. Minicom is also available in a RFS version; units equipped with a RFS interface can be triggered and remotely controlled with radio signals.

Minicom

- High repetitive precision for digital imaging
- Large control range of the flash energy
- Flash release also possible via radio (optional) and infrared
- Automatic flash release control
- Illuminated silicone keyboard and LED-display, resistant to dust and scratches
- Additional flash sequences (flash series)
- Sensitivity of the photocell can be reduced
- Automatic adaptation to the respective mains power
- Modification to RFS version possible

	Minicom 40 31.403.XX	**Minicom 80** 31.413.XX
Flash energy J	300	600
f-stop at 2 m 100 ISO, Reflector P70	22 5/10	32 5/10
Flash duration t 0.1 (t 0.5)	1/900 s (1/2500 s)	1/420 s (1/1500 s)
Charging time (230 V)	0,3 – 0,9 s	0,4 – 1,4 s
Ready display	visual and audible (can be switched off)	
Control range flash energy	over 4 f-stops, in 1/10 f-stop intervals, switchable to 5 f-stops	
Modelling light (230 V)	Halogen max. 300 W	
Flash release	infrared receiver and photocell (can be switched off), sync cable	
Sync sockets	2	
Dimensions mm / inches	286 x 154 x 194 / 11.2 x 6 x 7.6"	286 x 154 x 194 / 11.2 x 6 x 7.6"
Weight kg / lbs	3 / 6.6	3,3 / 7.2
Power requirements	200-240 V / 50-60 Hz; 100-120 V / 50-60 Hz	

	Minicom 40 RFS 31.404.XX	**Minicom 80 RFS** 31.414.XX
Sync sockets	2	
Remote control	by radio from a computer with integrated 8-channel RFS interface, up to 8 units per channel, 4 storage spaces for lighting situations	
Operational distance outdoors	up to 30 m (possible range up to 300 m)	
Operational distance in closed rooms	up to 20 m (possible range up to 300 m)	

Bag for Minicom 40 and 80

36.503.00 / 36.504.0

for 2 compact units and accessories / for 3 compact units and accessories

Because of the laws in some countries, the use of the broncolor radio system is not allowed. Therefore the power packs RFS version are also available in the version Plus (that means with cable remote control). Apart from the cable connection between the power pack and the computer, the application in comparison with RFS is almost identical. For the version Plus no RFS transmitter is available.

Minipuls D160

- High repetitive precision for digital imaging
- Large control range of the flash energy
- Flash release also possible via infrared
- Remote control possible via infrared
- Automatic flash release control
- Illuminated silicone keyboard and LED-display, resistant to dust and scratches
- Different additional functions
- Automatic adaptation to the respective mains power
- Modification to "plus" version possible

Minipuls C200

- High repetitive precision for digital imaging
- High flash power
- Large control range of the flash energy
- Flash release also possible via infrared
- Automatic flash release control
- User-friendly controls

	Minipuls D160 31.470.XX	**Minipuls C200** 31.450.XX
Flash energy J	1200	1500
f-stop at 2 m 100 ISO, Reflector P70	45 7/10	64
Flash duration t 0.1 (t 0.5)	1/250 s (1/1000 s)	1/250 s (1/1000 s)
Charging time (230 V)	0,4 – 1,8 s	0,6 – 2,4 s
Ready display	visual and audible (can be switched off)	visual
Control range flash energy	over 4 f-stops, in 1/10 f-stop intervals, switchable to 5 f-stops	continuous over 4 f-stops
Modelling light (230 V)	Halogen max. 650 W	
flash release	infrared receiver and photocell (can be switched off), sync cable	
Sync sockets	2	1
Dimensions mm / inches	495 x 120 x 195 / 19.4 x 4.7 x 7.6"	495 x 120 x 195 / 19.4 x 4.7 x 7.6"
Weight kg / lbs	4,5 / 9.9	4,5 / 9.9
Power requirements	200-240 V / 50 Hz; 110-120 V / 60 Hz; (Japanese: 100 V / 50 Hz; 200 V / 50 Hz)	200-240 V / 50-60 Hz; 110-120 V / 5060 Hz

	Minipuls D160 plus 31.471.XX
Sync sockets	1 (the second sync socket is configured as connection to the computer cable)
Remote control	by cable from a computer with integrated 2-channel Plus interface, up to 8 units per channel, 4 storage spaces for lighting situations, length of the connection cable from the computer to the unit 5 m, length of the connection cable between the units: 2,5 m

Bags for Minipuls D160 and C200

36.507.00 / 36.508.00

for 2 compact units and accessories / for 3 compact units and accessories

broncolor compact units are available without flash tubes, Halogen modelling lamps and protecting glasses. See page 46 and 47.

COMPACT UNITS KITS

Broncolor compact units are also available as Kits. The complete Kits have a large assortment and are also reliable on location, easily transportable and have powerful light sources.

Minicom Basic Kit
31.490.XX
comprises:
1 Minicom 80 incl. flash tube; modelling lamp; protecting glass; protection cap; 1 P-Travel reflector; 1 umbrella reflector; 1 umbrella, white; 1 sync cable, 5 m; 1 bag; 1 stand

Minicom Basic Kit RFS
31.494.XX
Scope of delivery same as Minicom Basic Kit and in version RFS

Minicom Classic Kit
31.492.XX
comprises:
1 Minicom 40 and 2 Minicom 80 incl. flash tubes; modelling lamp; protecting glasses; protection caps; 2 P-Travel reflectors;1 barn door for P-Travel;1 Pulsoflex C 60x100; 1 Sync cable, 5 m; 1 bag; 1 stand bag; 3 stands

Minicom Classic Kit RFS
31.496.XX
Scope of delivery same as Minicom Classic Kit and in version RFS

Minicom Expert Kit
31.493.XX
comprises:
3 Minicom 80 incl. flash tubes; modelling lamps; protecting glasses; protection caps; 2 P-Travel reflectors; 1 barn door for P-Travel; 1 umbrella reflector; 1 umbrella, silver; 1 Pulsoflex C 60x100; 1 IRX2; 1 sync cable, 5 m; 1 bag; 1 stand bag; 3 stands

Minicom Expert Kit RFS
31.497.XX
Scope of delivery same as Minicom Expert Kit and in version RFS

Because of the laws in some countries, the use of the broncolor radio system is not allowed.

Minicom Travel Kit RFS
31.491.XX
comprises:
2 Minicom 40 incl. flash tubes; modelling lamps; protecting glasses; protection caps;
2 P-Travel reflectors; 1 barn door for P-Travel; 1 sync cable, 5 m; 1 bag; 1 stand bag; 2 stands

Minicom Travel Kit RFS
31.495.XX
Scope of delivery same as Minicom Travel Kit and in version RFS

Minipuls Location Kit 2
31.454.XX
comprises:
2 Minipuls C200 incl. flash tubes;
modelling lamps; protecting glasses;
grey protection caps;
2 P-Travel reflectors;
1 sync cable, 10 m;
1 bag; 1 stand bag; 2 stands

Minipuls Location Kit 3
31.456.XX
comprises:
3 Minipuls C200 incl. flash tubes,
modelling lamps; protecting glasses;
grey protection caps;
2 P-Travel reflectors;
1 barn door for P-Travel;
1 umbrella reflector; 1 umbrella, silver;
1 Pulsoflex C 60 x 100; 1 IRX 2;
1 bag; 1 stand bag; 3 stands

The extensive range of lamps meets every photographer's needs for creative light management. The lamp is a critical element in terms of light quality, but that quality is also influenced by other factors: the shape and coating of the flash tube, the characteristics and surface of the reflector, uniform illumination with a defined reflector axis, a good match between the emission characteristics of the flash and modelling light, optimum colour temperature and much more. broncolor Pulso G, Unilite, Pulso Twin and Pulso 8 lampheads all have compact dimensions, a bright Halogen modelling light, fan cooling, a thermal circuit breaker and plug-in flash tubes. Thanks to the integrated Pulso bayonet with its release catch, light shapers can be rotated 360° and exchanged quickly and securely. Twin lamps allow the energy of two power packs to be concentrated onto one lamphead, directing as much as 6100 J to a single Pulso 8 flash tube. The Picolite and Mobilite small lamps use their own accessories and, with a Pulso adapter, can also be fitted with lightweight broncolor reflectors and accessories. For customised lighting, users can select from a wide range of light shapers with accessories. A variety of accessories and stands enhance the handling convenience of all broncolor lamps.
Protecting glasses and 1600 J flash tubes are available uncoated (5900 K) and with a UV coating (5500 K). 3200 J flash tubes are available only uncoated. For correct colour reproduction, only one filter coating must be used, for instance a 5900 K flash tube with a 5500 K protecting glass.

Pulso G lamp base*

- Corresponding emission characteristics of flash tubes and modelling light
- Can be equipped with 1600 J or 3200 J flash tubes
- Plug-in flash tube and protecting glass (with mechanical safety device)
- Front focusing device
- Quick release bracket
- Automatic locking mechanism of the light shaper (rotatable 360°)
- Integrated tilt head with locking lever for an optimal breaking effect
- Integrated umbrella holder
- Cooling fan and thermal protection
- Automatic adaptation to the respective mains power supply (after exchange of the Halogen modelling lamp)

	Pulso G lamp base
	32.121.XX
Flash energy	max. 3200 J
Modelling light (230 V)	Halogen max. 650 W
Length lamp cable	5 m / 16 ft
Dimensions	Ø 130 x 310 x 200 mm / 5.1 x 12.2 x 7.8"
Weight (with cable)	3,15 kg / 6.9 lbs
Stand support	for bolts 12 mm, 3/8" thread and bolts 16 mm

* broncolor lamp bases are available without flash tubes, Halogen modelling lamps and protecting glasses. See page 46 and 47.

Unilite lamp base*

- Corresponding emission characteristics of flash tubes and modelling light
- Can be equipped with 1600 J or 3200 J flash tubes
- Plug-in flash tube and protecting glass (with mechanical safety device)
- Quick release bracket
- Automatic locking mechanism of the light shaper (rotatable 360°)
- Built-in tilt head with locking lever for an optimal breaking effect
- Integrated umbrella holder
- Cooling fan and thermal protection
- Automatic adaptation to the respective mains power supply (after exchange of the Halogen modelling lamp)

	Unilite lamp base*
	32.112.XX
Flash energy	max. 3200 J
Modelling light (230 V)	Halogen max. 650 W
Length lamp cable	5 m / 16 ft
Dimensions	Ø 126 x 300 x 175 mm / 4.9 x 11.8 x 6.9"
Weight (with cable)	2,8 kg / 6.2 lbs
Stand support	for bolts 12 mm, 3/8" thread and bolts 16 mm

Picolite small lamp*

- Corresponding emission characteristics of flash tubes and modelling light
- Plug-in flash tube and protecting glass (with mechanical safety device)
- Integrated reflector
- Adapter for own accessories with small dimensions (rotatable 360o)
- Adapter for broncolor light shaper available
- Built-in tilt head with locking lever for an optimal breaking effect
- Integrated umbrella holder
- Cooling fan and thermal protection
- Automatic adaptation to the respective mains power supply (after exchange of the Halogen modelling lamp)

	Picolite small lamp*
	32.020.XX
Flash energy	max. 1600 J
Modelling light (230 V)	Halogen max. 150 W
Length lamp cable	3,5 m / 11 ft
Dimensions	Ø 80 x 205 x 135 mm / 3.1 x 8 x 5.3"
Weight (with cable)	1,25 kg / 2.7 lbs
Stand support	for bolts 12 mm, 3/8" thread and bolts 16 mm

* broncolor lamp bases are available without flash tubes, Halogen modelling lamps and protecting glasses. See page 46 and 47.

Mobilite small lamp*

- Corresponding emission characteristics of flash tubes and modelling light
- Plug-in flash tube and protecting glass (with mechanical safety device)
- Integrated reflector
- Adapter for own accessories with small dimensions (rotatable 360°)
- Adapter for broncolor light shaper available
- Built-in tilt head with locking lever for an optimal breaking effect
- Integrated umbrella holder
- Cooling fan and thermal protection

	Mobilite small lamp*
	32.010.XX
Flash energy	max. 1600 J
Modelling light (12 V)	Halogen max. 1 x 100 W (in operation with Mobil power pack)
Length lamp cable	3,5 m / 11 ft
Dimensions	Ø 80 x 205 x 135 mm / 3.1 x 8 x 5.3"
Weight (with cable)	1,25 kg / 2.7 lbs
Stand support	for bolts 12 mm, 3/8" thread and bolts 16 mm

Pulso-Twin lamp base*

- Corresponding emission characteristics of flash tubes and modelling light
- Plug-in flash tube with integrated protecting glass
- Quick release bracket
- Automatic locking mechanism of the light shaper (rotatable 360°)
- Built-in tilt head with locking lever for an optimal breaking effect
- Cooling fan and thermal protection

	Pulso-Twin lamp base*
	32.127.XX
Flash energy	max. 2 x 3200 J
Modelling light (230 V)	Halogen max. 650 W
Length lamp cable	2 x 5 m / 2 x 16 ft
Dimensions	Ø 120 x 264 x 198 mm / 4.7 x 10.4 x 7.8"
Weight (with cable)	4 kg / 8.8 lbs
Stand support	for bolts 12 mm, 3/8" thread

* broncolor lamp bases are available without flash tubes, Halogen modelling lamps and protecting glasses. See page 46 and 47.

Pulso 8 lamp base

- Corresponding emission characteristics of flash tubes and modelling light
- Plug-in flash tube with integrated protecting glass
- Quick release bracket
- Automatic locking mechanism of the light shaper (rotatable 360°)
- Built-in tilt head with locking lever for an optimal breaking effect
- Cooling fan and thermal protection

	Pulso 8 lamp base*
	32.128.XX
Flash energy	max. 6400 J
Modelling light (230 V)	Halogen max. 650 W
Length lamp cable	7,5 m / 24 ft
Dimensions	Ø 120 x 264 x 198 mm / 4.7 x 10.4 x 7.8"
Weight (with cable)	3,35 kg / 7.4 lbs
Stand support	for bolts 12 mm, 3/8" thread

ACCESSORIES

Stand clamp for twin articulated arm for Picolite/Mobilite
32.912.00

Attachment with 3 honeycomb grids and 2 aperture masks for Picolite/Mobilite
33.204.00

Twin articulated arm in 3 parts for Picolite/Mobilite
35.102.00
Twin articulated arm complete, bolt with 5/8" thread and screw device for bolt adapter; may only be used with stand clamp 32.912.00

Picolite/Mobilite adapter for Satellite Evolution
35.214.00

Pulso wall adapter
(with bayonet)
36.900.00
allows careful storage of reflectors and accessories with a minimum use of space on the wall

Barn door for Picolite/Mobilite with 4 wings
33.244.00

Pulso adapter for Picolite/Mobilite
33.501.00
allows to use lightweight reflectors and accessories of the Pulso range

Gobo set 8 pieces, for projection attachment for Picolite
33.642.00

Lamp extension cable for Mobilite
34.150.00
3,5 m / 11 ft

Lamp extension cable
34.151.00
5 m / 16 ft
(not compatible with Topas A8 Evolution)

Lamp extension cable
34.152.00
10 m / 32 ft
(not compatible with Topas A8 Evolution)

* broncolor lamp bases are available without flash tubes, Halogen modelling lamps and protecting glasses. See page 46 and 47.

The slightly textured open reflectors are characterised by homogeneous light distribution, although a controlled centre emphasis can be achieved using focussable Pulso G lamps. The light angle of each open reflector is apparent from its model designation; optical attachments (such as Fresnel spot attachments) offer a variable coverage angle.

Standard reflector P70
33.107.00

Narrow angle reflector P45
33.104.00

Standard reflector P65
33.106.00

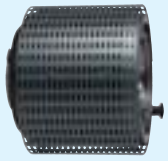
Reflector PAR
33.113.00
light angle 48°; with protecting glass UVE, mat

Narrow angle reflector P50
33.105.00

Wide angle reflector P120
33.112.00

Softlight reflector P
33.110.00

Fresnel spot attachment
33.630.00
light angle adjustment range 15-35°



Conical snoot
33.120.00

Spot attachment
33.640.00
with mat protecting glass,
6 aperture masks, 1 gobo holder

Reflector P-Travel
33.103.00
light angle 55°

Projection attachment for Picolite
33.641.00
100 mm; with mat protecting glass,
3 aperture masks, integrated templates
(4 pieces)

Optical snoot for Pulso Spot 4
33.618.55 (5500 K) / 33.618.59 (5900 K)
100 mm; with 6 masks, gobo holder, filter with holder

Fresnel spot attachment for Picolite / Mobilite
33.631.00
light angle adjustment range 15-35°

Picobox for Picolite
33.128.00
max. 1600 J; lamp surface 15 x 25 cm; with integrated spring lock

Optical snoot for Pulso Spot 4
33.620.55 (5500 K) / 33.620.59 (5900 K)
150 mm; with 6 masks, gobo holder, filter with holder

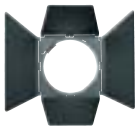
ACCESSORIES

Honeycomb grids for P70
33.207.00
set of 3 pieces (fine, medium. coarse)

Honeycomb grids for P50
33.205.00
set of 3 pieces (fine, medium. coarse)

Honeycomb grids for P65, P45 and PAR
33.206.00
set of 3 pieces (fine, medium. coarse)

Barn door for P65, P45 and PAR
33.246.00
with 4 wings; with 2 clips to fix diffusers, filters and masks



Barn door for P70
33.227.00
with 2 wings; with 2 clips to fix diffusers, filters and masks

Barn door for P70
33.247.00
with 4 wings; with 2 clips to fix diffusers, filters and masks

Barn door for P-Travel
33.243.00
with 2 wings

Barn door for Pulso Spot 4
33.224.00
with 2 wings

Colour filters for P65, P45 and PAR
33.306.00
set of 12 pieces

Colour filters for P70
33.307.00
set of 12 pieces

Honeycomb grid for Satellite Staro
33.209.00

Honeycomb grid for Softlight reflector P
33.210.00

Diffuser filter for Softlight reflector P
33.310.00

Grey and correcting filters for P70
33.317.00
set of 12 pieces

Opal diffusers for P70
33.327.00
set of 12 pieces

Slide holder for optical snoots for Pulso Spot 4
33.621.00
6 x 6 cm (2¼" x 2¼")

Slide holder for optical snoots for Pulso Spot 4
33.622.00
24 x 36 mm

Templates for optical snoots
33.623.00
for Pulso Spot 4, set of 4 pieces

BRONCOLOR OFFERS TWO TYPES OF SOFTBOXES

The compact Pulsoflex C series and the more extensive Pulsoflex EM range, comprising softboxes with wide projecting rims that help direct the light more precisely and limit spillage. Both models provide almost completely homogeneous illumination, which in some sizes can be refined even further with intermediate diffusers. Here as well, a centre emphasis can be achieved and accurately controlled by using focussable Pulso G lamps.

In different sizes for use with flash light and broncolor HMI F575 lamp base (from edge length 80 cm/ 32" only); with removable diffuser, guided rods for easy mounting and transport bag; without adapter ring

Pulsoflex EM (Easy Mount)

33.406.00	50	x	50	cm	20 x 20"
33.407.00	80	x	80	cm	32 x 32"
33.408.00	110	x	110	cm	44 x 44"
33.415.00	35	x	60	cm	14 x 24"
33.416.00	55	x	95	cm	22 x 38"
33.417.00	80	x	140	cm	32 x 56"
33.424.00	30	x	110	cm	12 x 44"
33.425.00	40	x	155	cm	16 x 62"

Pulsoflex C

33.441.00	70	x	70	cm	28 x 28"
33.442.00	100	x	100	cm	40 x 40"
33.445.00	150	x	150	cm	60 x 60"
33.443.00	60	x	100	cm	24 x 40"
33.446.00	80	x	140	cm	32 x 56"
33.444.00	35	x	120	cm	14 x 48"

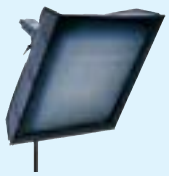
In different sizes for use with flash light and broncolor HMI F575 lamp base (from edge length 80 cm/ 32" only); with diffuser, rods and transport bag; without adapter ring

ACCESSORIES

Adapter ring for Pulsoflex C/EM
33.400.00
(not for broncolor HMI F575 lamp base)
with heat shield

Adapter ring for Pulsoflex C/EM and broncolor HMI F575 lamp base
34.100.00
with integrated reflector; for increased centred light concentration
(can be defocused with the Pulso G lamp base)

Honeycomb grid for Pulsoflex
33.190.00
EM 80 x 80



Textile grid Lighttools ™ for Pulsoflex
33.193.00
EM 80 x 80
light angle 40°

Set of barn doors for Pulsoflex EM 80 x 80
33.250.00
comprises: 2 wings and 2 textile masks

Round mask for Pulsoflex EM 80 x 80
33.418.00

Intermediate diffuser for Pulsoflex EM 80 x 80
33.410.00

THE CLASSIC LIGHTING DEVICE

broncolor offers umbrellas in two sizes (82 cm and 102 cm diameter). Umbrellas are available in three different versions: transparent and with white or silver coating.

Umbrella silver
33.452.00
Ø 102 cm (40")

Umbrella white
33.453.00
Ø 102 cm (40")

Umbrella transparent
33.454.00
Ø 102 cm (40")

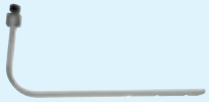
Umbrella silver
33.459.00
Ø 82 cm (32")

Umbrella white
33.460.00
Ø 82 cm (32")

Umbrella transparent
33.461.00
Ø 82 cm (32")

ACCESSORIES

Umbrella bracket for Pulso-Twin, Pulso G and Pulso 8 lamp bases with standard reflector P70
33.490.00



Umbrella reflector for Pulso G and Unilite lamp bases and for Minipuls C/D
33.496.00

SPECIAL REFLECTORS

broncolor special reflectors are preferably used as primary lights. Whereas the large parabolic umbrellas of the Para family provide unlimited flexibility in terms of light characteristics, other light shapers are optimised for specific tasks. The highly centre-focussed Satellite Staro offers an optimum light for glamour and fashion photography: soft enough for beautiful faces but hard enough to emphasise skin and fabric textures. The Satellite Evolution and the Mini-Satellite put out incredible amounts of light, and the Pulso Flooter S offers impressively homogeneous illumination and a wide light angle adjustment range.

Mini-Satellite
33.152.00
f-stop at 2 m (6½ ft.) distance,
100 ISO with 3200 J: f:180 2/10;
parabolic reflector Ø 60 cm (23"),
protecting glass mat UVE,
additional reflector;
light angle adjustment range 18°- 30°
(from 3 m /10 ft. distance)

Satellite Staro
33.151.00
f-stop at 2 m (6½ ft.) distance, 100 ISO
with 3200 J: f:45 2/10;
parabolic reflector Ø 88 cm (35"),
mat Plexiglas diffuser, bracket

Satellite Evolution
33.150.00
f-stop at 2 m (6½ ft.) distance,
100 ISO with 3200 J: f:180 7/10;
parabolic reflector Ø 88 cm (35"),
bracket, protecting glass mat UVE,
additional reflector; creates very
concentrated light,
light angle adjustment range 18°- 30° (2 m /
6½ ft distance) / 10°- 20° (3 m /10 ft distance)

Pulso-Flooter S
32.430.00
max. 6400 J
light angle adjustment range 15°- 70°;
with fixing bracket, Fresnel lens

ACCESSORIES

Honeycomb grid for Satellite Staro
33.209.00

Honeycomb grid for Pulso Flooter S
33.208.00

Reflector for Pulso Flooter S for HMI 575
43.101.00

Barn doors for Pulso Flooter S
33.225.00
set of 2 pieces

Para 170 FB
33.484.00
3200 J
f-stop at 2 m / 6 1/2 ft. (10 m /33 ft) distance, focused: f:128 3/10 (f:45 5/10);
dimensions open (without stand) Ø 170 x 125 cm (5 1/2 x 4 ft),
closed 26 x 75 cm (10" x 29 1/2"); weight 6,1 kg (13.4 lbs)

Para 220 FB
33.485.00
3200 J
f-stop at 2 m / 6 1/2 ft. (10 m /33 ft) distance, focused: f:128 3/10 (f:32 8/10);
dimensions open (without stand) Ø 220 x 180 cm (7 x 6 ft),
closed 26 x 110 cm (10 x 43 1/3"; weight 7 kg (15 1/2 lbs)

Para 330 FB
33.486.00
3200 J
f-stop at 2 m / 6 1/2 ft. (10 m /33 ft) distance, focused: f:90 8/10 (f:32 9/10);
dimensions open (without stand) Ø 330 x 260 cm (10.8 x 8 1/2 ft),
closed 32 x 150 cm (12 1/2 x 59"); weight 9 kg (20 lbs)

Para 170 FF
33.478.00

Para 220 / Para 220 FF
33.462.00 / 33.474.00

Para 330 / Para 330 FF
33.463.00 / 33.475.00

ACCESSORIES

	Para 170 FB	Para 220 FB	Para 330 FB
Diffuser No. 1	33.479.00	33.464.00	33.469.00
Diffuser No. 2	33.480.00	33.465.00	33.470.00
Diffuser No. 3	33.481.00	33.466.00	33.471.00
Tilt head with crank handle for Para FB	33.477.00	33.477.00	33.477.00
Bag for Para 220 FB / 330 FB	36.514.00	36.514.00	36.514.00
Repair set for Para FB	40.333.00	40.333.00	40.333.00

In Germany, France, Great Britain, Italy and Japan only the umbrellas Para FB are available.

SPECIAL EFFECT LAMPS

Many effect lamps are available, so every photographer always has exactly the right tool for special situations. The versatile Ring-flash falls into this category along with the Profil 15/42 and Pulso-Spot 4 optical systems. Mini-area lamps such as Boxlite or Striplite provide absolutely homogeneous illumination and are used primarily (but not exclusively!) for still life photography, whilst the Fibrolite system is indispensable for macrophotography.

Ringflash
32.460.00 (5500 K)
max. 3200 J
f-stop at 2 m (6½ ft) distance, 100 ISO: f:45 6/10; inside diameter of the housing: 100 mm (4"); with flash tube and camera holder, cable 3.3 m (1.1 ft); compatible with all broncolor power packs, except the lowest power setting of 3200 J power packs (without Grafit A) and Topas A8 Evolution

Pulso-Spot 4
32.425.XX (5500 K)
max. 3200 J
with fixing bracket, flash tube, modelling lamp,
Fresnel lens (UV coating); light angle adjustment range 15°- 40°,
cable 5 m (16 ft)

Following spot Profil 15/42
32.437.XX
max. 3200 J
f-stop at 2 m (6½ ft) distance, 100 ISO: f:90.0-45.3;
light angle adjustment range 15°- 42°; housing with lens system, focusing device,
U-bracket holder, iris diaphragm,
flash tube, modelling lamp, cable 5 m (16 ft.)
and 2 colour temperature filters

Sunlite Set for Pulso G
33.162.00 (5500 K)
max. 3200 J
comprises:
1 U-shaped special flash tube,
1 clear protecting glass,
1 mat protecting glass, 1 barn door
with 4 wings; for effects similar to sunlight

Fibrolite
32.903.XX (5500 K)
max. 3200 J
with 4 outlets (individually controllable)
for one optical fibre each,
cable 5 m (16 ft.), flash tube,
4 modelling lamps and interchangeable tilt head; without optical fibres

Litestick
32.451.00 (5500 K)
max. 3200 J
f-stop at 2 m (6½ ft) distance, 100 ISO: f:45.7;
with flash tube, removable reflector,
stand adapter, cable 3,5 m (11½ ft)

Balloon
33.161.00
to Pulso G and Unilite lamp bases,
compact units and HMI F575;
acrylic glass sphere, opal, Ø 50 cm (20"),
with black plastic socket and Pulso bayonet
(not for HMI F1200)

Boxlite 40
32.341.XX (5500 K)
max. 1600 J
30 x 40 cm (12 x 16"), with 2 flash tubes, 4 modelling lamps,
quick change head, cable 5 m (16 ft)

Lightbar 60 Evolution
32.351.XX (5500 K)
max. 3200 J
58 x 12 cm (23 x 5"); f-stop at 2 m distance,
100 ISO: f:32 5/10; with "tunnel-shaped" Plexiglas diffuser,
interchangeable tilt head, fan, 2 flash tubes,
10 modelling lamps, cable 5 m (16 ft)

Striplite 60 Evolution
32.301.XX (5500 K)
max. 3200 J
58 x 12 cm (23 x 5"); f-stop at 2 m distance, 100 ISO: f:32 1/10;
with Plexiglas diffuser, interchangeable tilt head,
fan, 2 flash tubes, 10 modelling lamps,
cable 5 m (16 ft)

Lightbar 120 Evolution
32.353.XX (5500 K)
112 x 12 cm (44 x 5"); f-stop at 2 m distance,
100 ISO: f:45 5/10; with "tunnel-shaped" Plexiglas diffuser,
interchangeable tilt head, fan, 4 flash tubes,
20 modelling lamps, 2 cables 2x 5 m (16 ft)

Striplite 120 Evolution
32.303.XX (5500 K)
112 x 12 cm (44 x 5"); f-stop at 2 m distance, 100 ISO: f:45;
max. 2 x 3200 J; with Plexiglas diffuser, interchangeable tilt head, fan,
4 flash tubes, 20 modelling lamps, 2 cables 2 x 5 m (16 ft)

ACCESSORIES

Gobo set
33.625.00
for optical snoots 100/150 mm for Pulso Spot 4;
set of 12 different masks, made of high-grade steel Ø 100 mm (4")

Soft reflector for Ringflash
33.121.00
for soft light with the Ringflash

Macro reflector for Ringflash
33.122.00
for concentrated light at a
50 cm (20") distance

Colour filters for Fibrolite
32.906.00
set of 12 pieces

Grey filters for Fibrolite
32.907.00
set of 12 pieces

Optical fibre for Fibrolite
32.908.00
1 m (40")

Focusing lens for Fibrolite
32.910.00

Filter holder for Fibrolite
32.905.00

Arm for stand Fibrolite
32.911.00

Stand clamp for Fibrolite
32.912.00

Iron stand base Fibrolite
32.913.00

Kit for Fibrolite
32.904.00
comprises:
2 optical fibres 1 m (40") each
2 focusing lenses, 2 filter holders;
2 arms for stand;2 stand clamps;
1 set of colour filters; 1 set of grey filters

Striplite attachment for Lightbar 60 Evolution
33.274.00

Striplite attachment for Lightbar 120 Evolution
33.275.00

Honeycomb grid for Striplite 60 attachment
33.217.00

Honeycomb grid for Striplite 120 attachment
33.218.00

**Barn doors for Lightbar/
Striplite 60 Evolution**
33.228.00

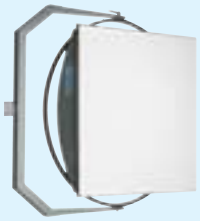
**Barn doors for Lightbar/
Striplite 120 Evolution**
33.229.00

Plexiglas cap mat, for Lightbar 60 Evolution
33.272.00

Plexiglas cap mat, for Lightbar 120 Evolution
33.273.00

Available in several sizes, these can adapt to any setup. In contrast to softboxes, the diffuser surface is made of translucent acrylic (except for the Megaflex and the Megalite system). The light character is therefore absolutely homogeneous and untextured even when directly reflected. Cumulite 2 offers the additional capability of creating different types of light using three lampheads.

Hazylight 2
33.511.00
1 x 1 m (40 x 40"); with silver inside coating, bracket and ring;
for Pulso-Hazy 4 lamp base (protecting glass needed)



Pulso Hazy 4 lamp base
32.334.XX
max. 3200 J
with glass counter-reflector, spring fastener for mounting on the reflector, fan,
cable 5 m (16 ft); without flashtube, protecting glass and modelling lamp

Hazylight Soft
33.513.00
1 x 1 m (40 x 40"); with white inside coating, bracket and ring; for Pulso lamp bases

Mini-Cumulite
33.141.00
80 x 120 cm (32 x 48"); with bracket and ring

Glass counter-reflector
33.301.00
To Pulso G and Unilite lamp bases and reflector Mini-Cumulite; with holder

ACCESSORIES

Honeycomb grid for Mini-Hazylight
33.203.00

Honeycomb grid for Hazylight 2/Soft
33.215.00

Honeycomb grid for Mini-Cumulite
33.214.00

Barn doors
33.223.00
For Mini-Hazylight and Mini-Cumulite;
with 4 clamps and 2 wings

For flash tubes, protecting glasses and Halogen modelling lamps please see page 46 and 47.

Reflektor Cumulite 2
33.534.00
2 x 1,2 m (80 x 48")
to be used with 2 or 3 Pulso, Unilite or HMI 575 lamp bases
(when using HMI 575 lamp base,
the glass counter-reflector must be dismantled);
with Plexiglas diffuser,
2 glass counter-reflectors, lateral fastening;
for suspension 35.315.00

Megaflex
33.521.00
3 x 1,2 m (120 x 48")
Soft reflector with 2 diffusers to be fitted with 2 Pulso,
Unilite or HMI 575 lamp bases

Suspension to Megaflex
35.312.XX
incl. Servor receiver, 4 24 V-motors for
up/down movements, manual rotation through 360°;
form mounting on Foba Roof-Track or Mega-Track system

Trolley set
35.333.00
4 pieces, for mounting Megaflex on Roof-Track system

Trolley set
35.332.00
2 pieces, for mounting Megaflex on Mega-Track system

Megalite-System
modular area lights with aluminium framework;
available in widths of 1.5 m (5 ft) and 2.5 m (8ft) in 14 sizes;
for mounting onto ceiling rail suspensions

Item No.	Size in m / ft		Quantity Pulso-/Unilite lamp bases*	max. intensity in joules with U-shaped flash tubes
33.540.00	1.5 x 2.45	5 x 8	2	2 x 3200
33.540.01	1.5 x 3.7	5 x 12	3	3 x 3200
33.540.02	1.5 x 4.95	5 x 16	4	4 x 3200
33.540.03	1.5 x 6.2	5 x 20	5	5 x 3200
33.540.04	1.5 x 7.45	5 x 24	6	6 x 3200
33.540.05	1.5 x 8.7	5 x 28	7	7 x 3200
33.540.06	1.5 x 9.95	5 x 32	8	8 x 3200
33.541.00	2.5 x 2.45	8 x 8	4	4 x 3200
33.541.01	2.5 x 3.7	8 x 12	6	6 x 3200
33.541.02	2.5 x 4.95	8 x 16	8	8 x 3200
33.541.03	2.5 x 6.2	8 x 20	10	10 x 3200
33.541.04	2.5 x 7.45	8 x 24	12	12 x 3200
33.541.05	2.5 x 8.7	8 x 28	14	14 x 3200
33.541.06	2.5 x 9.95	8 x 32	16	16 x 3200

*When ordering please indicate length of cable.

Depending on the size of the reflector and on the required energy, the reflectors can be equipped with Pulso G and Unilite lamp bases and with power packs from 1200 J to 6100 J. Please ask for your detailed Megalite planning information.

Pulso G lamp base see page 23
32.121.XX

Unilite lamp base see page 24
32.112.XX

For flash tubes, protecting glasses and Halogen modelling lamps please see page 46 and 47.

BRONCOLOR RFS RADIO REMOTE CONTROL SYSTEM

RFS stands for "Radio Frequency System", our new radio-based remote control. The RFS transmitter sends radio signals to trigger and remotely control appropriately equipped broncolor power packs and compact units. In addition to the flash trigger, it also has two buttons to adjust the power level of every flash unit in the workstation, as well as a function display. The transmitter is light and compact, and uses energy-saving technology so that even when used continuously, it requires a new battery only every few years. In this application, RFS replaces the conventional sync cable and infrared trigger. In combination with a computer and appropriate software, the broncolor RFS Transceiver lets the photographer control and monitor the operation of RFS flash units in as many as 10 studio workstations, each equipped with up to 15 power packs or compact units (the exact number depends on the adjustment range of the flash unit being used). Radio offers more capability than infrared: longer range, indoor and outdoor use, more channels (10), more flash units per channel (up to 15), data interchange, etc.

RFS transmitter
36.130.00
Transmitter with Lithium button cell;
1 sync cable; 10 channels,
operational distances: outdoors 30-50 m (98-164 ft) /
in closed rooms 20-30 m (65-98 ft),
(possible range up to 300 m / 984 ft)
71,5 x 47 x 56,5 mm (2 1/2 x 1.8 x 2.2"),
55 g (0.12 lbs)

RFS transceiver
36.131.00
Transceiver with base plate,
1 USB connection cable,
1 sync cable,
1 data carrier with software;
10 channels, operational distances:
outdoors 30-50 m (98-164 ft) /
in closed rooms 20-30 m (65-98 ft) (possible range up to 300 m / 984 ft);
80 x 55,5 x 51,5 mm (3.1 x 2.1 x 2"); 105 g (0.23 lbs);
System requirements: requires a serial USB interface.
Computer requirements: Apple Macintosh with OS 8.6 or higher (OS 9.1 or higher recommended), OS X; approx. 5 MB free memory space, or PC with Microsoft Windows 98 / WinMe / Win2000 / Windows XP; USB interface, approx. 5 MB free memory space

|| MARKUS KLINKO & INDRANI, USA

INFRARED REMOTE CONTROL

Wireless IR triggering helps you save time. The sync cable is replaced with a small transmitter mounted on the camera – an advantage that is appreciated not just in fashion model or child photography assignments. To allow two teams to work simultaneously in the studio, the IRX 2 infrared transmitter, Grafit A power packs and Minipuls D160 compact unit each have two infrared channels. The Servor d remote control enables wireless control of the principal functions of a Grafit A power pack and a Minipuls D160 power pack. Servor d can control as many as four units in the same studio. The Servor 3 remote control can wirelessly operate multiple Grafit A units, letting the photographer switch lamps on and off, adjust power pack output, or tilt, rotate and move large area lamps. Servor 3 displays the power settings of each flash unit and can control up to 16 units per studio. Servor 3 and Servor d are both capable of storing lighting configurations that can be retrieved at any time. Space-saving ceiling mounting of lamps and power packs is possible with IR technology, thus optimising the available working area in the studio. Another important advantage for any photographer is that the lighting can be monitored from the camera location and observed on a computer screen.

IRX 2
36.116.00
Infrared transmitter with
2 channels for cordless
triggering, range approx. 50 m (160 ft);
with 1 sync cable
and 2 batteries 1.5 V

Servor d
36.204.00
for Grafit A and Minipuls D160
to control main functions: on/off,
power, selection, modelling light on/off,
photocell IR on/off;
with Grafit A: individual control
of lampheads, 4 memory functions;
with Minipuls D: 3 memory functions,
test flash; without battery 9 V

Servor 3
36.202.00
for Grafit A power packs and
Servor receiver; to control main
functions: power pack on/off,
power selection, modelling light on/off,
photocell/IR on/off, test flash, etc.
and to control mechanical functions of the
ceiling-mounted lamps; without battery 9 V

METERS

Accurate light meters and appropriate measurement methods are essential for correct lighting. broncolor knows what photographers need, and has developed a variety of meters for different requirements. The FCM 2 (Flash Contrast Meter) measures two values: flash and continuous light (depending on the light measurement method, and in the film plane with a probe), and contrast. The FCC (Flash Colour Chronoscope) measures flash duration and colour temperature, and displays corresponding filter correction values. Both meters can remotely trigger broncolor flash units using a built-in infrared transmitter. With a Grafit A power packs, FCM 2 and FCC can even control flash output and colour temperature. broncolor light meters are easy to use with clearly readable displays.

FCC Colormeter
36.340.00
Flash-Colour-Chronoscope;
measuring instrument for colour
temperature and flash duration time,
display of colour correction filtering
for flash and continuous light, intensity of continuous light
in Lux, remote control of colour temperature of
Grafit A power packs, built-in infrared transmitter;
without battery 9 V

FCM 2 flashmeter
36.316.00
for measuring continuous and flash
light, with display for ambient and flash light
in mixed light, for incident light measuring,
contrast and multiple flash measuring,
built-in infrared transmitter for flash release and power
remote control of Grafit A and Minipuls D160;
without probe and battery 9 V

Junior stand AC
35.100.00
air cushioned, with 2 height extensions, adjustable from 90 cm to 2.5 m (3-8 ft), and 3/8-threaded bolt

Senior stand AC
35.110.00
air cushioned, with 2 height extensions, adjustable from 1.1 to 2.6 m, (3.6-8.1 ft), and 3/8-threaded bolt

Compuls stand AC
35.113.00
air cushioned, with 2 height extensions, adjustable from 1.3 m to 3.2 m (4.2-10 ft) and 3/8-threaded bolt (25.210.00)

XXL stand AC
35.114.00
air cushioned, with 3 height extensions as well as stand rolls, adjustable from 1.44 to 4.55 m (4.7 – 14.9 ft), stand mount 28 mm (1.1"), 3/8" threaded bolt 16 mm

Mini-Flamingo stand
35.170.00
stand on casters with platform for power pack as counter-weight, crank handle and cable suspension, arm length 1.07 m (3.4 ft), max. height 2.60 m (8.5 ft), incl. broncolor threaded bolt, lamp adapter and angle adapter

Flamingo stand
35.210.00
stand on casters with platform for power pack and container for counter-weight, crank handle and cable suspension, arm pivot 1,5 m (5 ft), max. height 3,25 m (10 ft)

Boom
35.130.00
boom arm counter-weight with attachment to mount on Junior and Senior stands, length 2.5 m (8 ft)

Super boom
35.140.00
boom arm with counter-weight, length 2,1 m (7 ft), with holder (35.146.00) for steel stand

broncolor pillar stand 215
35.160.00
stand on casters, cable suspension, crank handle, arm and platform for power pack, arm 30 cm (1 ft) max. height 2.15 (7.2 ft)

Hazylight stand
35.200.00
Stand on casters with platform for power pack, counter-weight and cable suspension arm 85 cm (2.6 ft) max. height 2.7 m (9 ft)

Casters to Senior and Compuls stands
35.111.00
set of 3 pieces

Bag for stands, empty for 3 Junior stands
36.551.00

Bag for stands, empty for 3 Senior stands
36.552.00

Threaded nipple
25.200.00
with 3/8" outside and inside thread
A

Threaded bolt
25.210.00
with 3/8" outside thread
B

Holder
35.146.00
for Super-boom for Pulso lamp bases
C

Hazylight and Mini-Cumulite holder to Flamingo stand
35.215.00
D

Striplite holder
35.216.00
for Flamingo stand
E

Bolt for quick change head
35.298.00
for stands of other brands, broncolor fit
with 3/8" inside and outside thread
F

Bolt for quick change head
35.299.00
for stand of other brands, Foba fit with cone inset
of 18 mm diameter and 3/8" inside and outside thread
G

Threaded bolt
35.409.00
for Mini-Hazylight stand for Pulso lamp bases
with 3/8" inside and outside thread
H

Threaded bolt
35.504.00
for pantograph for Pulso lamp bases with 3/8" outside thread
I

Threaded bolt
35.505.00
for pantograph for Mini-Hazylight,
Pulso-Spot and Pulso Flooter S with 3/8" outside thread
K

Threaded bolt
35.153.00
3/8" for clamp
L

Double bolt
35.297.00
16 mm
M

Schedule

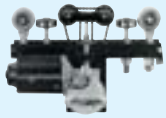
	Minicom 40/80 / Minipuls D160/C200	Pulso G + Unilite lamp bases	Pulso G, HMI F575- und HMI F1200- lamp bases	Pulso-Flooter S	Pulso-Spot 4	Profil 15/42	Boxlite	Mini-Hazylight	Hazylight 2/Soft	Mini-Cumulite	Fibrolite	Lightbar/Striplite 60 Evolution	Lightbar/Striplite 120 Evolution	Satellite Evolution and Staro	Picolite / Mobilite / Litestick	Para
Junior stand 35.100.00	●	●	●	○	○	○	●				○	●	○	○	●	○
Senior stand 35.110.00	●	●	●	●	●	○	●	●			●	●	●	○	●	○
Compuls stand 35.113.00	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	○
XXL stand AC 35.114.00	●	●	F	●	●	●	●	●			F	F	F	●	●	○
Giraffe 35.130.00		●	●				●				●	○			●	○
Boom 35.140.00	●	●	C				C				●	●	○		●	
Super boom 35.170.00	H	H	H	●	●	●		●					●	●	H	●
Flamingo stand 35.210.00									D	D						
broncolor pillar stand 215 35.160.00	H	H	H	●	●	●	H	●			H	H	●	●	H	●
Hazylight stand 35.200.00									●	●						
Stands of other brands: with 3/8" thread	F	F	F	F	F	F	F	F			F	F	F	F	F	
with cone inset Ø 16 mm	I, M	I, M	I	I	I	I	I	I			I, M	I, M	I, M	I	I, M	
with cone inset Ø 18 mm	G	G	G	G	G	G	G	G			G	G	G	G	G	G
with cone inset Ø 28 mm	●			●	●	●	●	●						●		●

● No further holder necessary A-M Necessary holder ○ Fastening is not recommended

CEILING RAIL SYSTEM

When lamps are suspended from the ceiling, the studio working area remains uncluttered. The wireless remote control on broncolor Grafit A power packs makes it all possible. The power packs themselves can also be mounted on the ceiling, an approach that reduces the distance between power pack and lamp. The result: shorter lamp cables and therefore less energy loss, and maximum freedom of movement in the studio. The broncolor system encompasses all the essential parts for ceiling rail installation, including rails, suspension units, motorised tractor carriages, remote controls, etc. Your broncolor representative will be glad to help plan and outfit your ceiling rail system, meeting all your specific configuration requirements.

Motorized tractor carriage 24 V
35.608.00



Trolley
35.351.00
for receiver Servor 2 and 8-channel transformer

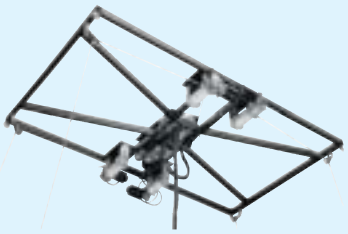
Trolley complete
35.343.00
for 1 Grafit A power pack
and 1 receiver Servor 2

Trolley complete
35.344.00
for 2 Grafit A power packs
and 1 receiver Servor 2

Receiver Servor 2
36.252.XX
for control of the electro-mechanical functions

Junction box
35.325.00

Suspension for Cumulite 2
35.315.00



for Megalite
35.315.00
matching the sizes
item nos. 33.540.00/01/02

for Megalite
35.316.00
matching the sizes
item nos. 33.540.03/04, 33.541.00/01/02

for Megalite
35.317.00
matching the sizes
item nos. 33.540.05/06, 33.541.03/04/05/06

Wiring set for Megalite
35.352.00
for 35.315./316./317.00

REFLECTORS IN COMBINATION WITH LAMP BASES

		Minipuls D160/C200	Minicom 40/80	Unilite	Pulso G lamp base	Pulso-Twin lamp base	Pulso 8 lamp base	Pulso-Hazy 4 lamp base	Picolite/Mobilite with Pulso adapter	HMI F575	HMI F1200
Reflectors	Standard reflector P70	●	●	●	● 4	○	○		●	● 5	
	Standard reflector P65	● 1	● 1	● 1	● 4	●	●		●	● 5	
	Narrow angle reflector P45	●	●	●	● 4	○	○		●	3	
	Narrow angle reflector P50	● 1	● 1	● 1	● 4	●	●		●	● 4	
	Softlight reflector P	●	●	●	●				●	●	
	Wide angle reflector P120	●	●	●	●	●	●			●	
	Reflector PAR	○	○	○	●					●	
	P-Travel	●	●	●	●	●	●		●	●	
	Conical snoot	●	●	●	●	●	●		●		
	Umbrella reflector	●	●	●	●						
	Fresnel spot attachment	●	●	●	●						
	Spot attachment	●	●	●	●						
	Sunlite-Set			●	●						
	Satellite Evolution	●	●	●	●	● 3	●			●	
	Satellite Staro	● 12	● 12		●				● 9	●	
Pulsoflex EM	Satellite Staro	●	●	●	●	● 8	● 8		● 1	11	
	50 x 50	●	●	●	●	●	●		● 1		
	80 x 80	●	●	●	●	●	●		● 1	10	
	110 x 110	●	●	●	●	●	●			10	
	35 x 60	●	●	●	●	●	●		● 1		
	55 x 95	●	●	●	●	●	●		● 1		
	80 x 140	●	●	●	●	●	●			10	
	30 x 110	●	●	●	●	●	●				
Pulsoflex H	40 x 155	●	●	●	●	●	●				
	80 x 80										●
Pulsoflex C	110 x 110										●
	70 x 70	●	●	●	●	●	●		● 1		
	100 x 100	●	●	●	●	●	●		● 1	10	
	150 x 150	●	●	●	●	●	●			10	
	60 x 100	●	●	●	●	●	●		● 1		
	80 x 140	●	●	●	●	●	●			10	
Area lamps	35 x 120	●	●	●	●	●	●				
	Mini-Hazylight	●	●	●	●	● 6	● 6		●		
	Mini-Cumulite	●	●	●	●	● 6	● 6			●	
	Hazylight 2							●		●	
	Hazylight-Soft			●	●	● 6	● 6			●	
	Cumulite 2				●	● 6	● 6			●	
	Megalite				●	●	●			●	
	Megaflex				●	●	●			●	
	Balloon	●	●	●	●	●	●		●	●	

● recommended combination
○ not recommended combination
1 centre-focus light
2 uniform illumination
3 non-optimized illumination
4 adjustable illumination, heavily centre-focused till uniform
5 adjustable illumination, centre-focused till uniform
6 only with aluminium counter-reflector 33.302.00
7 only with additional reflector 43.101.00
8 up to 3200 J
9 with mat protecting glass and adapter 35.214.00
10 only with adapter 43.100.00
11 use without Plexiglas diffuser
12 with mat protecting glass and adapter 35.229.00

SELECTION OF COLOUR TEMPERATURES FOR FLASH TUBES AND PROTECTING GLASSES.
Flash tubes and protecting glasses are available in 2 colour temperature versions. Please append the appropriate code number to the item number when ordering:
thinly coated: 5500 K Code .55
(broncolor standard version)
uncoated: 5900 K and more Code .59

MINICOM 40/80 (page 18)

Halogen modelling lamp 300 W / 120 V
34.225.XX
with fuse

Halogen modelling lamp 300 W / 230 V
34.231.XX
with fuse

Halogen modelling lamp 150 W / 230 V
34.250.XX
with fuse

Halogen-Einstelllampe 150 W / 230 V
34.251.XX
with fuse

Flash tube 600 J
34.307.55
to plug in

Protecting glass 5500 K
34.336.55

Protecting glass 5900 K
34.336.59

Protecting glass, mat 5000 K
34.337.55

Protecting glass, mat 5900 K
34.337.59

MINIPULS C200 / D160 (page 19)

Halogen modelling lamp 300 W / 120 V
34.225.XX
with fuse

Halogen modelling lamp 650 W / 240 V
34.226.XX
with fuse

Flash tube 1500 J 5500 K
34.310.55

Protecting glass 5500 K
34.336.55

Protecting glass, clear 5900 K
34.336.59

Protecting glass, mat 5500 K
34.337.55

Protecting glass, mat 5900 K
34.337.59

UNILITE, PULSO G (pages 23, 24)

Halogen modelling lamp 300 W / 120 V
34.225.XX
with fuse

Halogen modelling lamp 650 W / 240 V
34.226.XX
with fuse

Flash tube 1600 J 5500 K
34.322.55

Flash tube 1600 J 5900 K
34.322.59

Flash tube 3200 J 5900 K
34.324.00

Protecting glass 5500 K
34.336.55

Protecting glass, 5900 K
34.336.59

Protecting glass, mat 5500 K
34.337.55

Protecting glass, mat 5900 K
34.337.59

PULSO TWIN (page 25)

Halogen modelling lamp 250 W / 120 V
34.221.XX
with fuse

Flash tube 2x3200 J 5500 K
34.327.55

Flash tube 2x3200 J 5900K
34.327.59

PICOLITE (page 24)

Halogen modelling lamp 150 W / 230 V
34.201.00

Halogen modelling lamp 150 W / 120 V
34.202.00

Flash tube 1600 J 5900 K
34.308.00

Protecting glass 5500 K
34.332.55

Protecting glass, mat 5500 K
34.335.55

MOBILITE (Seite 25)

Halogen modelling lamp 50 W / 12 V
34.200.00
with fuse

Flash tube 1600 J 5900 K
34.308.00

Protecting glass 5500 K
34.332.55

Protecting glass, mat 5500 K
34.335.55

PULSO SPOT 4 (page 26)

Halogen modelling lamp 250 W / 120 V
34.221.XX
with fuse

Halogen modelling lamp 300 W / 220 V
34.223.XX
with fuse

Flash tube 3200 J 5900 K
34.344.00
to plug in

Continuous light is a special concern for everyone who takes photographs or motion pictures. broncolor HMI is the solution. These continuous light sources function as an alternative, or a powerful supplement, to natural daylight. Pioneering technology and 40 years of know-how are the special features of broncolor HMI continuous light sources. Ultramodern circuitry and high-quality components guarantee the ultimate in functional reliability even in difficult conditions.
The extremely small dimensions of the arc allow unprecedented lighting precision. The broncolor HMI bulb is single-ended. The light is electronically stabilised and completely flicker free – critical features for slow-motion filming and high-speed cameras and also for effortless imaging with electronic scanning cameras. In combination with its WYSIWYG (what you see is what you get) continuous output, it is perfect for digital photography and subsequent image processing.
broncolor HMI lampheads are equipped with the time-tested Pulso bayonet with unlocking button. Reflectors can be quickly exchanged and rotated 360°. The wide range of accessories includes most Pulso reflectors, Flooter, Pulsoflex (HMI version) and a number of area lamps.
broncolor's HMI system uses commercially available lamps. Thanks to broncolor's high-power igniter they can be struck immediately even when hot, so full light output is available at any time and with no waiting. broncolor HMI has three levels of protection: an electronically monitored safety hood, a safety thermostat and the earthing indicator together guarantee the ultimate in reliability.
A broncolor HMI lamp emits three times as much light as a halogen lamp with the same rating. Despite their intensity, HMI lampheads are compact and lightweight. The ballasts and lampheads together weigh less than 6 kg and are easy to transport.
The HMI system can be perfectly used for painting with light to illuminate large areas for long exposures. As a continuous light source at daylight colour temperature, it is ideal for designing wipe effects – just like outdoors. broncolor HMI is the continuous ight that delivers the right accents.

BRONCOLOR HMI 575

Electronic ballast unit HMI 575
41.100.XX
to lamp base HMI 575; with dimmer, switch to select operation mode either «flicker-free» or «low-noise», self-seeking voltage from 100-240 V, with mains cable

Lamp base HMI 575
42.101.XX
focus facility; f-stop at 2 m (6½ ft) distance, 100 ISO: F:22 8/10 for a 1/30 s with standard reflector P70; with Pulso bayonet for exchangeable reflectors, protection cap for transport, cable 3.5 m (11 ft); without 575 W discharge lamp and protecting glass

Parabolic reflector to HMI F575
43.103.55 (5500 K) / 43.103.59 (5900 K)
With 4 diffuser filters with different radiation angles (7° x 8°, 9° x 21°, 26° x 56°, 47° x 47°); barn doors 33.227.00 and 33.247.00 can be used

Lamp to HMI 575 lamp base
44.100.00

Protecting glass (5500 K) to HMI 575
44.101.55

Protecting glass (5500 K), mat, to HMI 575
44.102.55

LIGHT SHAPERS FOR HMI F575

33.107.00	standard reflector P70	page 27
33.106.00	standard reflector P65	page 27
33.104.00	narrow angle reflector P45	page 27
33.105.00	narrow angle reflector P50	page 27

33 112.00	wide angle reflector P120	page 27
32.430.00	Pulso-Flooter S	page 32
43.101.00	reflector for Pulso-Flooter S for HMI F575	page 32
33.150.00	reflector Satellite Evolution	page 32

33.407.00	Pulsoflex EM	80 x 80 cm (32 x 32 ")	page 29
33.408.00	Pulsoflex EM	110 x 110 cm (44 x 44 ")	page 29
33.417.00	Pulsoflex EM	80 x 140 cm (32 x 56 ")	page 29

33.442.00	Pulsoflex C	100 x 100 cm (40 x 40 ")	page 29
33.445.00	Pulsoflex C	150 x 150 cm (60 x 60 ")	page 29
33.446.00	Pulsoflex C	80 x 140 cm (32 x 56 ")	page 29

43.100.00	Adapter ring for Pulsoflex C/EM and broncolor HMI F575 lamp base	page 29

33.141.00	Mini-Cumulite		page 38
33.513.00	Hazylight-Soft		page 38
33.534.00	Cumulite 2		page 39

33.520.00	Megaflex	2 x 1,2 m (80 x 48 ")	page 39
33.540.00-33.541.06	Megalite	(14 sizes)	page 39
33.161.00	Balloon		page 35

ACCESSORY TO BRONCOLOR HMI F575

44.200.00 Extension cable to HMI 575/1200, 7 m (22 1/2 ft)

BRONCOLOR HMI 1200

Electronic ballast unit HMI 1200

41.101.XX

for lamp base HMI 1200; with dimmer, switch to select operation mode either «flicker-free» or «low-noise», self-seeking voltage from 100-240 V; automatic output selection when using the HMI 575 lamp base, with mains cable

Lamp base HMI F1200

42.102.XX (5500 K) / 42.103.XX (5900 K)

focus facility; f-stop at 2 m (6 1/2 ft) distance, 100 ISO: F:64 1/10 for a 1/30 s with parabolic reflector; Pulso bayonet for exchangeable reflectors, parabolic reflector, diffusion filter set (4 pieces), protection cap for transport, cable 3.5 m (11 ft); without 1200 W discharge lamp

Lamp for lamp base HMI F1200

44.103.00

ACCESSORIES FOR BRONCOLOR HMI 1200

33.227.00	Barn door with 2 wings
33.247.00	Barnd door with 4 wings
43.102.55 / 59	Diffusion filter set to HMI 1200 to lamp base HMI F1200 (5500 K / clear), consisting of 4 diffusion filters with different radiation angles (7° x 8°, 9° x 21°,26° x 56°, 47° x 47°)
44.200.00	Extension cable, 7 m (22 1/2 ft)

Stands and stand attachments for broncolor HMI F575 and HMI F1200 see page 42 and 43.

creative workshop

broncolor has been offering a variety of lighting seminars for more than 15 years. Some of today's most successful photographers participated as apprentices or assistants in the Creative Workshop, which has now become a classic. In the future as well, broncolor will continue to offer the world's photographers an opportunity to expand their know-how in the field of lighting. Almost all photographers agree that light and lighting are the key to better results. Unique lighting becomes a photographer's "signature" and has a decisive effect on success in the profession. broncolor therefore offers two different courses: a two-day intensive seminar and the three-day "classic". Both are held at a professionally equipped studio in Allschwil near Basel (Switzerland). The emphasis is on studio photography, and glass, plastic, chrome-plated steel, food, texture, special effects, multiple lights and surface-oriented lighting are some of the keywords.

"LIGHTING: HOW TO DO IT"
is the motto of the two-day intensive course. Participants work in small groups to learn effectively and encourage an exchange of experience. The two days provide solid photographic information in a true hands-on context.

BRONCOLOR CREATIVE WORKSHOP
This highly successful three-day lighting seminar has now been enriched with new topics. The purpose of the demanding course is to show participants new ways to meet everyday photographic challenges more quickly and more effectively. Definitely something special: you work, compare, watch demonstrations or listen to explanations. You also take a lot of pictures yourself. If you like, you can request specific demonstrations: feel free to bring your own objects to photograph. For more information about both workshops visit your dealer or contact Bron Elektronik AG,
Tel +41 (0)61 485 85 85,
Fax +41 (0)61 485 85 00,
E-mail: info@bron.ch, www.bron.ch.

worldlight
RENT A SYSTEM BY broncolor

WORLDLIGHT RENTAL SERVICE
It makes sense to rent lighting equipment (flash and continuous light) if you

- need more light on short notice
- want to achieve specific lighting effects
- would like to try out your future lighting equipment
- always want the latest units
- are photographing abroad and don't want to transport your own equipment
- want to test a variety of light sources for digital photography.

broncolor lighting equipment can be rented in 25 countries around the world at over 100 rental shops – one of which is probably near you. Your broncolor representative can provide a complete list.

|| NADIA WINZENRIED, SWITZERLAND

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broncolor®
THE LIGHT

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