



OPERATING INSTRUCTIONS | BRONCOLOR MOVE

Vor dem Benutzen

We are pleased you have chosen a broncolor Move 1200 L, which is a high-quality product in every respect. If used properly, it will render many years of good service. Please read all the information contained in these operating instructions carefully. They contain important instructions for use, safety and maintenance of the appliance. Keep these operating instructions in a safe place and pass them on to further users if necessary. Observe the safety instructions.

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Before startup of your flash equipment, please read all the information contained in these operating instructions carefully. The safety instructions they contain must be strictly followed!

- > Make sure you are thoroughly familiar with the operating instructions!
- > Remove all transport protection and packing materials!
- > Take special care of your equipment, particularly when there are children present! Never leave flash equipment unattended!
- > Like sunlight, flash light contains a certain amount of UV radiation! Using flash tubes or protecting glasses that provide UV protection considerably reduces the undesirable side effects on skin and eyes! Nevertheless, when taking pictures at close range, avoid exposing unprotected skin and eyes to flashes! Eye contact with the light source should also be avoided! The maximum daily exposure to UV radiation according to IEC 60335-2-27/DIN 5031-10 is: 50 J/m². This value must not be exceeded!
- > The distance between a lamp and a person, or a lamp and an inflammable or heat-sensitive surface must be at least 1 m to prevent damage due to thermal radiation!
- > Switch off the power pack when connecting or disconnecting lamp plugs! The lamp plugs and sockets have mechanical interlocks! When plugging in, ensure that the interlocks engage completely! To unplug, push down the locking spring below the cable guide and pull the plug out of its socket!
- Prior to replacing flash tubes, halogen lamps, protecting glasses, and fuses, disconnect the lamp from the power pack! Allow the lamp to cool down for 10 minutes before replacing a halogen lamp or flash tube!
- > broncolor flash light systems should only be equipped with original broncolor flash tubes, original broncolor combustible and packing material, original broncolor accessories, and original broncolor spare parts!
- > broncolor power packs, lamps and accessories meet extremely high safety standards! When broncolor lamps are connected to power packs from other manufacturers, or broncolor power packs to other brands' lamps and accessories, built-in safety measures may become ineffective. Due to different design features and contact assignment of the lamp plugs of other brands, there may even be hazards for the user. Our guarantee is invalidated by the use of such unauthorised combinations, and we accept no liability for damage arising from such use.
- > Use only lamps which are expressly approved for operation with this power pack!
- > To minimise the risk of fire, electric shock, or injury to persons use exclusively accessories recommended by the manufacturer!
- > Check that the mains voltage corresponds to the information on the charger's type plate!
- > The flash equipment is designed for use in dry conditions and in an ambient temperature between -20°C and 65° C. Protect the flash equipment from moisture, condensation, dripping and splash water, humidity, dirt, sand, metal chips, and the effects of dust!
- Protect the flash equipment from electromagnetic fields, shock and vibration! Protect the flash equipment from heat and frost! If the power pack freezes, a permanent loss of power output and serious technical damage may result!

- > Sudden temperature differences may result in condensation forming inside the unit. In such situations allow the equipment to stand for at least one hour in a well-ventilated place to acclimatise to the new temperature before startup!
- > Do not operate the flash equipment in places where there is an explosion hazard!
- > Do not use the power pack or lamps in or on water! Attention: high voltage!
- > The power pack and lamps must not be immersed in water or other liquids! This could cause dangerous electric discharges!
- > Before connecting a lamp to the power pack, the transport protection must be removed from the front of the lamp!
- > For safety reasons, never operate a lamp without the protecting glass in place! To protect eyes against UV radiation, either a UV-coated protecting glass or a UV-coated lamp must be used.
- > Before startup, the lamp must be mounted on a stand or suspended from a suitable mounting. When a lamp is suspended, it must be secured to the mounting with the retaining screw
- > For lamps, only sand-filled fuses of the type indicated on the safety type plate may be used! Sand-filled fuses can be identified by their opaque body. If the wrong fuse is used, the lamp may burst.
- > Filters or diffusers should not be fastened directly on to flash tubes, halogen modelling lamps, or protecting glasses!
- > Operate equipment and lamps only in the correct protective bag with ventilation slots!
- > Cooling slots on the unit and lamps must never be covered.
- > When laying, clearing away or rolling up cables, make sure they do not contact hot equipment or parts of lamps, and that they do not cause a tripping hazard!
- > Do not touch the lamp sockets on a power pack, and never insert a metallic object into a socket!
- > Flash tubes, modelling lights, halogen lamps and protecting glasses operate at high temperatures. This also applies to the front faces of lamps. Any accessory used on the front of a lamp also becomes very hot. Take great care when handling such accessories! Touching hot components can cause injuries!
- > When operating flash equipment, never touch glass or metal parts!
- > Allow the unit and connected lamps to cool completely after use, before packing them!
- > Remove the battery before you clean or service the unit!
- > Equipment and lamps that have fallen over or been damaged must be checked by a competent specialist before they are put back into service!
- > To prevent dangerous electric shocks, never open a power pack or lamp! There may still be dangerous voltages inside the unit. Units should only be opened, and all service and repair carried out by an authorised broncolor Service station. Incorrect assembly can cause dangerous contact voltages, even on connected units.
- > For all MobiLED lamps with the serial numbers N08, N10, N12 and 004, it is compulsory that they are modified in our Service station before use with the Move 1200 L power pack.

Shipping instructions:

> For transporting a power pack use the original broncolor packing!

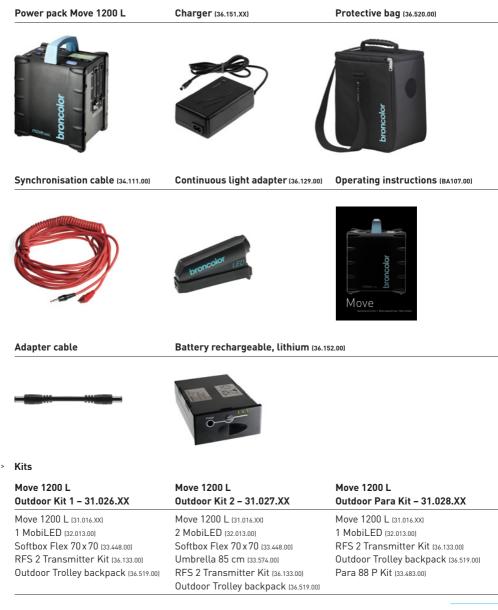
Shipping instructions for lamps:

> For transporting a lamp use the original broncolor packing! Before shipping fit the transport protection elements we supplied originally (foam elements and transport protection cover) to flash tubes, halogen lamps and protecting glasses. If the transport protection elements are not all available, remove the flash tubes, halogen lamps and protecting glasses and ship them separately.

1. SCOPE OF SUPPLY

Move 1200 L power pack - 31.016.XX

Check whether the following items have been delivered:



2. STARTUP

1. Remove transport protection





2. Press the "on/check" key



3. Click the battery into place

>



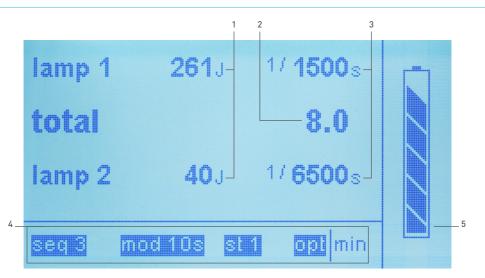
4. Switch on the power pack



3. OPERATING ELEMENTS

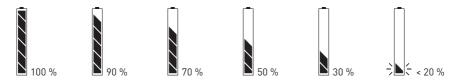
Кеу		Function
	On/Off (1)	Switches the unit on and off.
_	Sync socket/ Mini USB (2)	For release via the sync cable, or software update via Mini USB (only possible in Service station).
speed	Speed (3)	For fast charging and flash times. See explanation in Chapter 8.
1 2	Lamp connection 1 or 2 (5.1, 5.2)	Switches the appropriate lamp circuit on and off
▼ ()▲	Energy regulation channel 1 (6)	Changes the flash energy in channel 1. Press briefly to change by 1/10, long press by 1/1 f-stops.
• • • • • • • • • • • • • • • • • • •	Energy regulation channel 2 (7)	Changes the flash energy in channel 2. Press briefly to change by 1/10-, long press by 1/1 f-stops.
▼ master ▲	Output control (8)	The flash energy of both channels is changed together.
mod	Modelling-light On/Off (9)	Switches the modelling light of both channels on and off. The info display tells you the duration until the modelling light switches off automatically to save power (example: mod10s > modelling light is on for 10 seconds).
eco	Eco operation (10)	When Eco is activated, the charging time is twice as long. At the same time the number of flashes per battery charge increases.
sync	Sync (11)	Permits the selection of different methods of release. 1 x press > Release by photocell 2 x press > release by RFS 2 3 x press > Release by photocell and/or RFS 2
V	Selection key (14)	Use the key to scroll between the various menu functions.
menu / enter	Menu and acknowledge- ment key (15)	Use the key to go from the info display to the menu, and to confirm your selection in the menu. There is an explanation of menu navigation in Chapter 7
test	Test (16)	A test is initiated and the blue "Ready" display appears (as soon as the charge/discharge operation has been completed).

4. INFODISPLAY



- 1 Energy level in Joules or Watt seconds
- 2 Total energy of both channels in f-stops
- 3 Flash time for each lamp (at t0.1)
- 4 Shows the parameter setting. For details of menu navigation, see Chapter 7 seq displayed as soon as a sequence is selected in the menu mod shows the selected modelling light duration st displays the selected studio address for radio release opt/min displays the flash speed mode selected
- 5 State of battery charge display (13)

The display shows the approximate state of charge as follows:



The battery charge display blinks to indicate a low state of charge. Once the warning message "Battery low" appears, the power pack is no longer available for use and must be recharged. All settings are saved and the power pack switches off after two minutes.

Please note: batteries can only withstand a limited number of charging cycles. Battery life and the number of charging cycles vary according to the type of use and the settings. Depending on how the power pack is used, the actual working life of the battery may be shorter than given. The manufacturer offers no guarantee regarding the number of flashes and charging cycles. You will find further instructions under "Battery care and maintenance".

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5. BATTERY

5.1 Description of display on the battery

During operation	1	2	3	
				Battery fully charged (100%)
				Battery half-full (ca. 50%)
				Battery almost empty (ca. 20%)
			-)(-	Battery empty, please recharge (ca. 5%)

During charging	1	2	3	
	÷	÷	-)(-	Battery empty and is being recharged
				Battery is 50% charged
	-)(-			Battery is 80% charged
				Battery fully charged
Fault messages at battery	1	2	3	
	.] ;			Battery temperature too high. Allow battery to cool down.
		. ∦⊱		Current draw too high. Battery and power pack must be serviced.
] [-	Voltage too high. Battery and charger must be serviced.

5.2 Care of the lithium battery

During charging and discharging, the ambient temperature should be in the range 5° C – 35° C. Use of the battery at very low temperatures (below – 10° C) may result in a severe loss of output.

The battery has a deep-sleep mode and switches itself off after 72 hours unless it is inserted into a power pack so as to protect it against deep discharge. In this way the energy stored in the battery is retained even after months without use.

To wake up the battery after 72 hours without use, press the "On" key on the battery's front panel.

The type of battery used does not have a "memory effect", and so does not have to be discharged regularly. It is however important to remember that the battery must not be discharged too far. The unit switches off automatically when the battery voltage is too low. However, because there is a small leakage current even when the unit is switched off, we strongly recommend that the battery is recharged after use. The battery should be removed from the unit during long periods out of use.

In particular, please observe the following important information on the subject of care and maintenance of the battery:

Important note: before the first startup, we recommend that you charge the battery. We also recommend that you recharge the battery immediately after use, even if it is only partially discharged. Avoid discharging the battery completely!

You will find further information on care of the battery on our website under "Download" > "battery & care".

5.3. Charging the battery

The battery can be charged either installed in the unit or outside it. The unit can be operated while it is charging.

When you switch the power pack on, the main menu screen appears. From there you have access to various functions. The only menu language available is English.

- 1) To enter the main menu, press the "menu/enter" key (15).
- 2) Use the " ∇/A " buttons (14) to reach the menu item you want.
- 3) Confirm your choice with "menu/enter" (15).

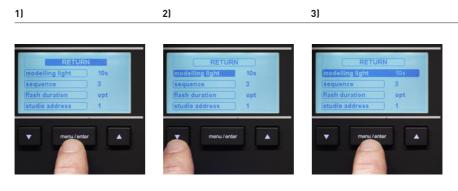
Display	Selection options	Description
modelling light	10 s 30 s 60 s cont	Time the modelling light is switched on to conserve the battery. "cont" mode for continuous operation
sequence	off 2-50	Selection of a certain number of flash releases from 2 – 50. As soon as this is activated, the infodisplay shows the number in the selected sequence. (e.g.: seq15)
flash duration	opt min	Choice of flash duration Opt: optimum colour temperature over entire control range. Min: fastest possible flash duration for selected energy (explanation in Chapter 8)
studio address	1 – 99	Assignment of studio address from 1–99
audio ready signal	on off	Switches acoustic ready signal on or off

7. MENU NAVIGATION

On pressing the menu key (15), you enter the main menu of the power pack. From there you have access to the various functions.

Example: Change the time the modelling light is on from 10 s to continuous operation

- 1) Press the menu key (15) to enter the main menu.
- 2) Use the selection key (14) to scroll down to the menu item "modelling light".
- 3) Press menu key (15) again to select the function. The display begins to blink.
- 4) Press the selection key (14) repeatedly until "cont" (continuous operation) appears..
- Confirm the selection by pressing the menu key (15) once.
 You can return to the infodisplay by pressing the menu key again.



4)





8. CONTROLLING FLASH TIMES

With the Move 1200 L power pack, you can control the flash time in two different ways:

8.1 Controlling flash times using the Speed key

Pressing the Speed key (3) reduces both the flash duration and the charging time for the power pack. In this way Move power packs are optimised for photographing moving objects and/or rapid image sequences.

As soon as the Speed key is pressed, the appropriate LED shows blue and the maximum flash energy is restricted to 600 J. In speed mode the colour temperature is slightly colder, but remains constant over the energy setting range.

8.2 Controlling flash times with the "flash duration" setting in the main menu

In the main menu you can change the power pack's flash times from "optimum" (opt) to "minimum" (min). This setting calculates the fastest possible flash time for the chosen energy level. This also causes the flash colour to shift slightly towards the blue region.

- 1) Press "menu/enter" (15) to go to the main menu.
- 2) Use the "v" key (14) to scroll down the main menu to "flash duration".

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- 3) Confirm your selection with the "menu/enter" key (15).
- 4) Use the "▼/▲" buttons (14) to select "opt" or "min".
- 5) Confirm this with the "menu/enter" key (15).



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4)

5)



			Flash times at	t 0.1
Output	In Joules/Ws	opt	speed	min
10	1200	1/375 s	-	1/375 s
9	600	1/875 s	1/935 s	1/935 s
8	300	1/1310 s	1/2150 s	1/2300 s
7	150	1/2150 s	1/3250 s	1/4300 s
6	75	1/2620 s	1/4300 s	1/7500 s
5	38	1/3000 s	1/4600 s	1/8500 s
4	18	1/3750 s	1/5250 s	1/8500 s
3	9	1/5250 s	1/6500 s	1/8500 s
2	5	1/7000 s	1/8500 s	1/8500 s

8.3 Overview of flash times for opt, speed and min

9. RELEASE

9.1 RFS 2 interface (Radio Frequency System)

Move power packs are supplied with RFS 2 installed as standard. For RFS 2 flash control, the channel (studio address) must correspond to the transmitter's RFS 2 channel. The channel (studio address) is defined in the LCD display under "studio address". The RFS 2 transmitter is not included in the power pack's scope of supply.

9.2 Photocell (cell)

The photocell can be switched on and off using the "sync" key (11). When it is active, the blue LED beside the "cell" label is illuminated.

After the first flash of a sequence, the active photocell is deactivated, and the blue LED beside the "sync" key (11) blinks. Pressing the "sync" key switches on the photocell again.

9.3 Sync socket (2)

The sync cables, 5 m (Art. No. 34.111.00) and 10 m (34.112.00), can be fitted to socket (2) for cable release.

9.4 "test" key (16)

This key is used for manual release. A flash can be triggered as soon as 70% of the set energy level is reached. The visual Ready indicator [16], on the other hand, only illuminates when 100% is attained.

10. SPECIAL FUNCTIONS

10.1 Reset ((works settings)

Press the "test" key (16) for 4 s. This resets all functions to the works settings. Resetting is acknowledged with a double beep.

10.2 Submenu

To enter the submenu for the power pack, hold the "menu/enter" key (15) pressed for 4 s.

Display	Options	Description
daily counter		Number of flashes since the last reset (reset with the "menu/enter" key)
flash counter		Number of flashes since the power pack was shipped
energy unit	J Ws	Choice of unit for energy on the infodisplay
serial number		Displays the serial number. Only for Service
country		Displays the country code. Only for Service
Power time-out	16–120 min	Automatically switches the power pack off after so many minutes without use.
prog.version		Displays the program version. Only for Service

11. DISPLAY CODES

Meanings of display codes (4)

Example with lamp energy "8.7":

- > "8.7" blinks Flash monitor has detected a misfire
- > "--" Lamp connected but switched off
- > " " No lamp connected
- > "-o" No energy can be assigned (all available energy has already been used by the other lamp outlet)

12. INFORMATION AND FAULT SIGNALS

Message in display	Description
Thermo 1	Charging circuit overheated (cooling phase = 15 min)
Thermo 2	Capacitors overheated (cooling phase = 60 min)
Thermo 3	Resistors overheated (cooling phase = 3 min)
Thermo 4	Battery overheated (cooling phase = 15 min)
Thermo 5	Battery overheated (cooling phase = 20 min)
Accu low 20%	Appears on reaching 20% energy remaining in battery
Charge defect	Unit must be sent to Service for repair
Overvoltage	Unit must be sent to Service for repair
Defect lamp 1/lamp 2	Lamp 1 or Lamp 2 is defective or not correctly connected
Use broncolor tubes	Please use only original broncolor flash tubes

Acoustic fault indicator

If the flash fails to fire, a warning signal sounds for ca. 0.5 s and the display (2) for the appropriate lamp blinks.

Acoustic signals

Beep sound: End of charging or discharging

Double beep: Energy demand above or below energy control setting via RFS 2 transmitter Test key held pressed for 4 s (reset to works settings)

13. LAMP COMPATIBILITY

max. Energie	Move 1200 L	Comments
1600 J	x	Modification required (Service)
	x	Modification required (Service)
1600 J	X	Modification required (Service) for serial numbers: N08, N10, N12, O04
2400 J	_	
1600 J	x*	Flash yes, modelling light no
1600 J	X*	Flash yes, modelling light no
1600 J	X*	Flash yes, modelling light no
3200 J	X*	Flash yes, modelling light no
3200 J	x*	Flash yes, modelling light no
	x*	Flash yes, modelling light no
	x*	Flash yes, modelling light no
3200 J 3200 J	X*	Flash yes, modelling light no
3200 J	x*	Flash yes, modelling light no
3200 J 3200 J	X*	Flash yes, modelling light no
3200 J	x*	
3200 J	X*	Flash yes, modelling light no No. of flashes per sequence is limited (see marking on lamp!)
6400 J	-	
	1600 J 1600 J 2400 J 1600 J 1600 J 1600 J 3200 J	1600 J x 1600 J x 1600 J x 2400 J - 1600 J x* 1600 J x* 1600 J x* 1600 J x* 3200 J x*

*with restrictions

14. MOBILED

The MobiLED lamp was developed to suit the Move 1200 L power pack: exceptionally compact and light, MobiLED has a tilt-and-swivel head for single-handed operation and an integral reflector mounting. The intelligent ventilation control only switches on when the operating temperature demands it. The unique design requires very little space for transport and storage.

The continuous lighting mode of the Move 1200 L enables the use of powerful LEDs for modelling light so as to create new light design effects. Especially at the daylight colour temperature of 5500 K, it offers completely new possibilities for film sequences.



Important note: all MobiLED lamps with the serial numbers N08, N10, N12 and 004 must be modified in our Service station before use with the Move 1200 L power pack.

14.1 Replacing flash tubes

Before you change the flash tube, be sure to disconnect the lamp from the power pack! Plug-in flash tubes are used.

To change a flash tube, remove the snap ring and take out the protecting glass. Then pull the flash tube axially out of its socket. When replacing the flash tube make sure it is pushed in as far as it will go. Finally replace the protecting glass and secure it with the snap ring. Protecting glasses are available in the versions "UVE" art. no. 34.339.00 (5500 K) and "UVE matt" art. no. 34.340.00 (5500 K).

14.2 Lamp plugs

Lamp plugs and sockets are fitted with mechanical interlocks to prevent unintentional disconnection. To unplug, push down the locking spring below the cable guide and pull the plug out of its socket.

14.3 Extension cable to MobiLED

The extension cable (3.5 m), available as an accessory under art. no. 34.150.00, is especially thin and flexible. It is only intended for use with MobiLED, Mobilite and Mobilite 2. If the cable is used with other lights, the modelling light and cooling fan will not operate.

14.4 Lamp fuses

Use only sand-filled fuses of the type indicated on the type plate!

14.5 MobiLED continuous lighting adapter

With the MobiLED lamp, the lithium charger for Move 1200 L, and the continuous lighting adapter, it is possible to use the modelling light independently of the power pack. For example, with the MobiLED operated directly from the mains power supply, a separate video sequence can be filmed in addition to the photo shooting.

14.6. Adapter to lithium battery charger

With the MobiLED lamp, the lithium battery for Move 1200 L the continuous lighting adapter, and the Adapter to lithium battery charger, it is possible to use the modelling light independently of the power pack and the mains power supply. With this arrangement, the MobiLED's modelling light can be supplied with current directly from the battery.





15. MAINTENANCE/REPAIRS

Your broncolor power pack is a precision instrument and will give many years trouble-free operation if treated with the appropriate care. However should a fault occur, please do not try to open the unit and repair it yourself. Even when the unit is switched off, there may still be dangerous voltages inside it. Therefore, for maintenance and repairs always send the unit to your broncolor Service station.

16. TECHNICAL DATA



Move 1200 L | 31.016.XX

Flash energy	1200 J
f-stop at 2 m, 100 ISO, P70 reflector	64 1/10 (with MobiLED)
Flash duration t 0.1 (t 0.5) Fastest: Max. energy:	1/8'500 s (1/20'000 s) 1/375 s (1/1'000 s)
Charging time (minmax. energy)	0,02-1,9 s (Speed Mode 0,02-0,9 s)
Number of flashes per battery charge	ca. 170/230 (Eco-Mode) at 1200 J ca. 50'000 at 4 J
Lamp outlets	2 outlets with flash cut-off and ECTC
Power distribution	Symmetrical and individually asymmetric
Controls	Illuminated silicone keypad, dust and scratch resistant, LCD display
Flash energy control range	9 f-stop steps in 1/10 or full f-stop steps display in Joules or Watt seconds (4,5–1200 J)
Modelling light	Halogen max. 2x100 W or 2x LED 30 W Setting for modelling light duration (10/30/60 s) Operation in modelling-light mode for 2 hours
Colour temperature	ECTC (Enhanced Color Temperature Control) technology for constant colour temperature
Flash triggering	Manual release key, photocell, RFS 2, sync cable
Radio release	Operational distance outdoors up to 50 m (potential range up to 300 m) Operational distance indoors up to 30 m (potential range up to 300 m)
Dimensions (L×B×H) without handle	21x17x23 cm (8.3x6.7x9")
Weight	6,2 kg (13.7 lbs) (incl. battery)
Operating temperature range	- 20°C to + 65°C (- 4°F to + 149°F)
Lithium battery	14,4 V/6,6 AH Li-FePo4 with integral battery status display
Accessories	Outdoor Trolley backpack, weather-resistant power-pack bag

17. ENVIRONMENTAL PROTECTION INFORMATION

At the end of its useful life, this product may not be deposited in normal household waste but should be brought to a collection point for the recycling of electrical and electronic appliances.

The materials are recyclable according to their markings. By re-use, recycling, or other form of re-utilisßing old appliances you are making an important contribution to the protection of our environment. Please ask your local authorities or our sales partner for the appropriate disposal point.



18. GUARANTEE

All broncolor power packs, lamps, monolights and accessories have a high quality standard. We offer a two-year factory guarantee from the date of purchase (for the first owner) on the above broncolor products. Exceptions to this rule are flash tubes, halogen lamps, protecting glasses, cables, batteries, rechargeable batteries and textiles.

Faults resulting from non-observance of safety instructions, incorrect handling, use of accessories from another manufacturer, or unauthorised intervention/modification are excluded from the factory guarantee. We assume no liability for damage resulting from non-observance of safety instructions, incorrect handling, use of accessories from another manufacturer, or unauthorised intervention/modification.

In the event of technical problems, please contact immediately the nearest authorised broncolor Service station.

Article numbers, product descriptions, and the scope of delivery can vary from one country to another. Detailed information is available from your broncolor distributor. Errors and misprints excepted.