

# Operating instructions

## *minipuls C200*

## Before use

Please read all the information contained in these operating instructions carefully. They contain important details on the 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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## **Safety information**

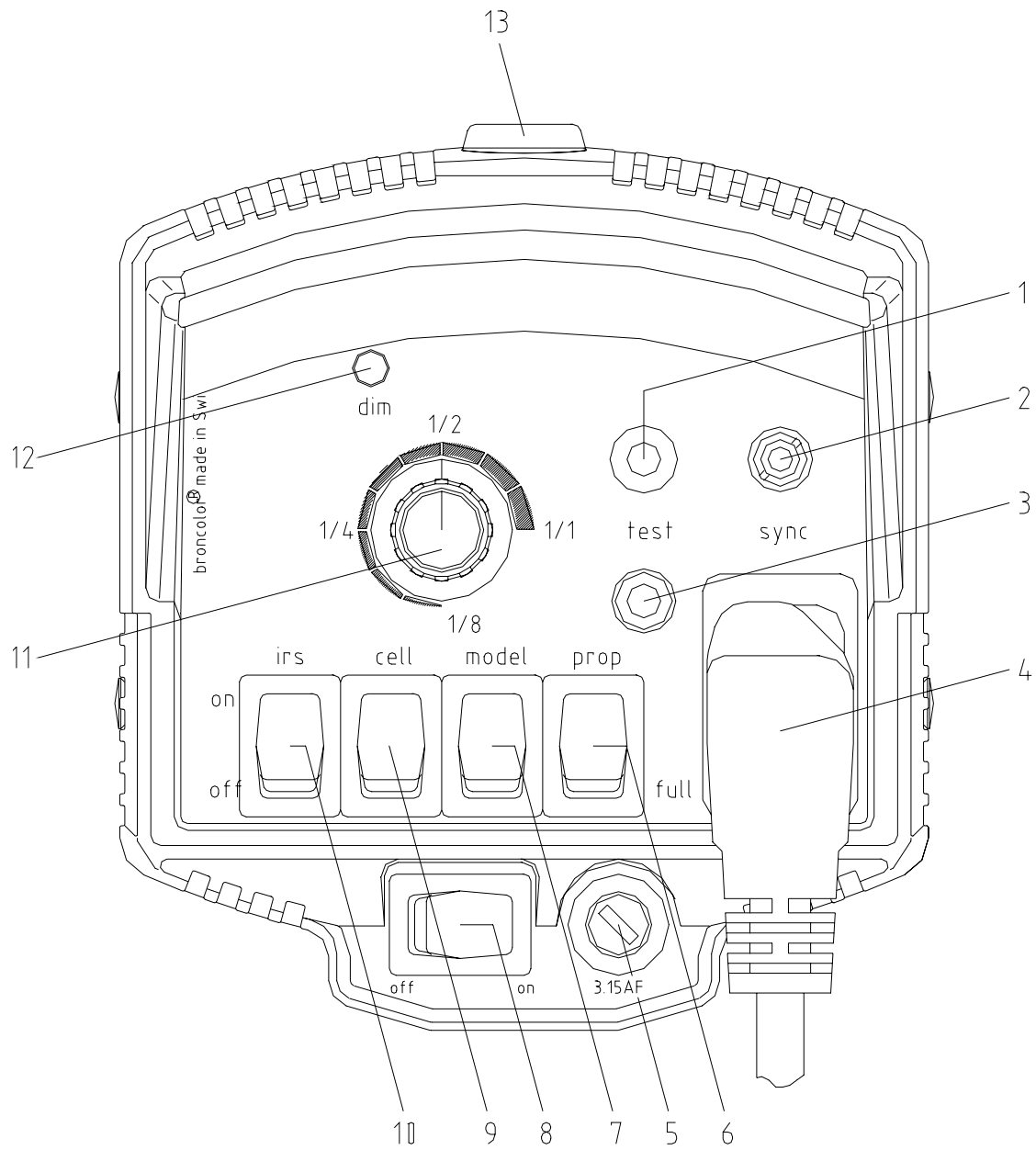
### **Attention: Read before start up**

- Prior to replacing the fuse, light bulb or flash tube, discharge the unit and disconnect from power. Allow the unit to cool off for 10 minutes before replacing the bulb or flash tube.
- Only those types of fuses indicated on the fuse label may be used. This is particularly important for fusing the halogen lamp which may burst if the wrong fuse is used.
- Only sand-filled fuses may be used. Sand-filled fuses can be identified by the opaque body of the fuse.
- The devices are designed for use in dry rooms. Protect them against splash water and against excessive exposure to dust.
- The devices are not suitable for use in an explosions-hazard environment.
- The accessories mounted to the unit may heat up to high temperatures under specific conditions. Handle with care !
- To protect against the effects of radiated heat, the unit must not be pointed at flammable surfaces from less than 1 meter away.
- Do not block the cooling louvers on the unit.
- Flash light contains, similar to sunlight, a specific portion of UV light. The undesirable side effects on skin and eyes are considerably reduced by using flash tubes with UV coating. Without these or other protective filters, use extreme care when shooting.
- Even when disconnected from power, dangerous voltages may remain within the interior of the device. For this reason, devices should only be opened by our broncolor repair service.
- For safety reasons, never operate a unit without the protecting glass in place.

## Controls and displays

1. Flash release key
2. Jack for synchronous cable
3. Flash ready control lamp
4. Connection socket for mains cable
5. Fuse
6. Switch for modelling light (proportional/full)
7. Switch for modelling light (on/off)
8. Main switch (on/off)
9. Slave cell (on/off)
10. Infrared receiver (on/off)
11. Rotary switch for power control
12. Switch for dim function (flash release control)
13. Reflector release

## Front panel for Minipuls C200



## **1. Minipuls C200**

We are delighted that you have chosen the high quality product broncolor Minipuls C200. With proper care it will render you many years of good service.

## **2. Application**

This mains supplied studio flash unit is designed for professional photography only. In countries with earthed mains systems, use a three-wire extension cable.

## **3. Commissioning**

- 3.1 Remove grey plastic hood by rotating. Insert the flash tube in accordance to point 4 and plug in the modelling lamp. Press desired reflector and protecting glass into the mounting and rotate in any direction.
- 3.2 Please check that the mains supply corresponds to the information on the label of the unit. Connect unit to earthed power.
- 3.3 Switch on main switch (8) and modelling light (7).
- 3.4 The modelling light can be switched off or on during charging (dim function) by pushing in switch (12) with a small screwdriver. This option allows the photographer to confirm visually that all the Minipuls C200 units have fired.
- 3.5 Set desired flash output via control knob (11).
- 3.6 Green control lamp (3) will illuminate: this is how the unit shows that it is ready
- 3.7 Release test flash by pressing key (1).
- 3.8 Switch photocell (9) or infrared receiver (10) on or off.
- 3.9 If needed, plug in synchronous cable (2).



The unit contains a temperature sensor which protects the electronic circuitry from overload during long flash sequences. If the safety system is activated, the modelling light goes out and charging is blocked. The ready indicator light changes to red until the unit has cooled off. The fan will continue to operate to promote faster cooling.

**9. Afterglow block**

The unit is equipped with an automatic afterglow block. If the flash tube begins to exhibit afterglow (at the end of its service life, for example), this block stops further charging to prevent any additional damage. The ready indicator light also glows continuously red to indicate this condition. To cancel the block, switch the unit off and then on again.

**10. Mounting**

The stand adapter is located below the housing. The adapter will accept standard broncolor<sup>®</sup> bolts and Manfrotto<sup>®</sup> pins.

Make sure the lamp is firmly attached to the stand before operating. The click-stops of the locking handle can be adjusted by pulling it out.

The enclosed locking pin has to be screwed into the lower part of the stand adapter so it can be hung from a broncolor<sup>®</sup> bolt; this is not required for stand mounting. A safety cable must be installed whenever the lamphead is suspended.

**11. Umbrella bracket**

The umbrella reflector (art. no. 33.496.00) is used in conjunction with umbrella diffusers and reflectors. The umbrella handle is inserted into the special holder in the stand adapter.

**12. Flash release**

The release is possible via sync cable, infrared, photocell or with manual trigger button.

The units are fitted with a synchronous circuit with low working voltage to protect the camera contact. This synchronous contact may not be switched parallel with outside brands since the latter work with high synchronous voltage.

The infrared receiver integrated in the unit is used for a wireless release by the following units

- |         |                                    |   |                   |
|---------|------------------------------------|---|-------------------|
| - IRX 2 | transmitter                        | } | Available as from |
| - FCM 2 | lightmeter and contrast photometer | } | shipping date     |
| - FCC   | flash colormeter chronoscope       | } | 1/1995            |

When in use, make sure that the receiver cell of the unit is not blocked by obstacles.

### 13. **Accessories**

The Pulso bayonet system allows you to use the full line of broncolor reflectors. For a complete summary, please consult the broncolor system catalogue, "Be Creative with Light. And with System."

### 14. **Service and repair**

Your broncolor compact unit is a precision device which will work for many years without malfunctions if you take proper care of it. If malfunctions do arise, please do not attempt to open the unit to repair it yourself. Even when the unit is shut off, dangerous voltages may remain within the interior of the device. Leave service and repairs to our broncolor repair service.

## 15. Technical data

<b>Minipuls C200</b>	
Flash energy	1500 J
F-stop at distance of 2 m, 100 ISO, reflector P70	64
Flash duration t 0.1	1/250 s
t 0.5	1/1000 s
Charging time (for 100 % of selected energy)	0.6 - 2.4 s
Ready display	optical
Control range	4 f-stops
Modelling light	halogen max. 650 W (off, prop, dim, full)
Flash release	wireless via infrared transmitter IRX 2, FCM 2*, FCC*, photocell, sync cable, manual release button
Reflector mounting	Pulso bayonet
Stabilized flash voltage	+/- 1 %
Power requirements	220-240 V, 50 Hz, 10 A or 110-120 V, 60 Hz, 16 A
Interference suppressor	SEV, VDE
Dimensions	120 x 195 x 495 (mm)
Weight	4.5 kg

\* From year of production 1995, serial number begins with C (=compatible with Minipuls C200).

Subject to change in the interest of technical development.

## 16. Order numbers for diverse spare parts/accessories

flash tube 5500 K for Minipuls C200	art. no. 34.310.55
halogen modelling light (650 W / 240 V)	art. no. 34.226.XX
halogen modelling light (300 W / 120 V)	art. no. 34.225.XX
halogen modelling light "longlife" (300 W / 120 V)	art. no. 34.232.XX
protecting glass, clear 5900 K	art. no. 34.336.59
protecting glass, mat 5900 K	art. no. 34.337.59
protecting glass 5500 K	art. no. 34.336.55
protecting glass, mat 5500 K	art. no. 34.337.55
fuse 3.15 AF	art. no. 37137.00
transport protecting cap, grey	art. no. Z3620.00
mains cable Europe 200-240 V	art. no. 39086.00
mains cable CH 200-240 V	art. no. 39084.00
mains cable USA 100-120 V	art. no. 39085.00