en/Powerboard-Okto

1

LotharF
MikroKopter.de

Inhaltsverzeichnis

1 Okto Power Distribution 1/9
1.1 Arrangement of the BL controller 1/9
1.2 Assembly of the Molex connector 4/9
1.3 Assembly of the bridges 4/9
1.3.1 check for shortcut 5/9
1.4 Solder Elkos 5/9
1.5 I2C connections 6/9
1.6 Connect the batterie cable 6/9

2 Supply and Buzzer 7/9
2.1 Connect the batterie cable 7/9
2.2 Connect the Buzzer 7/9

3 Lighting 8/9
3.1 Lighting shiftable 8/9

4 connect the FC 9/9

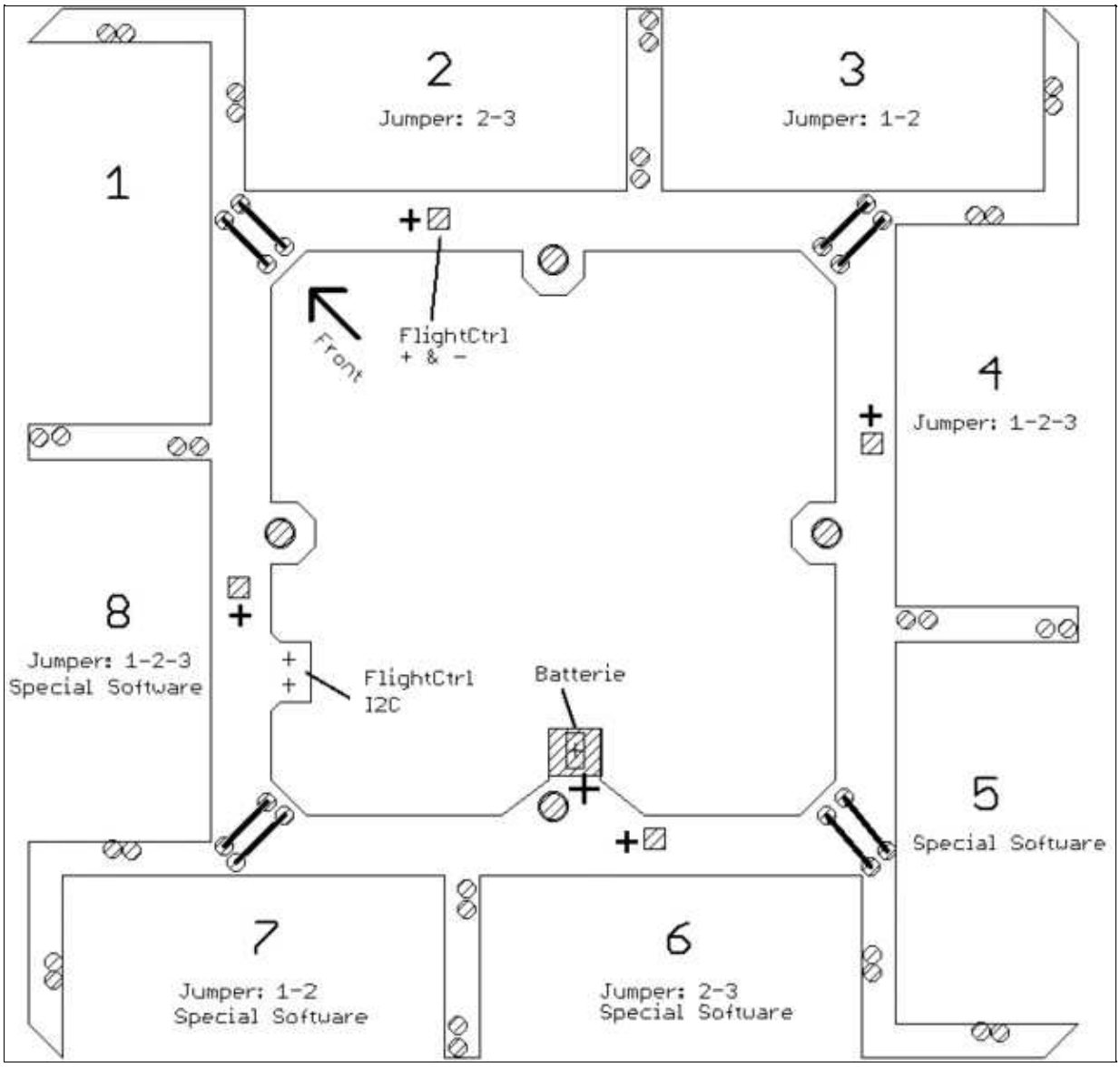
1 Okto Power Distribution

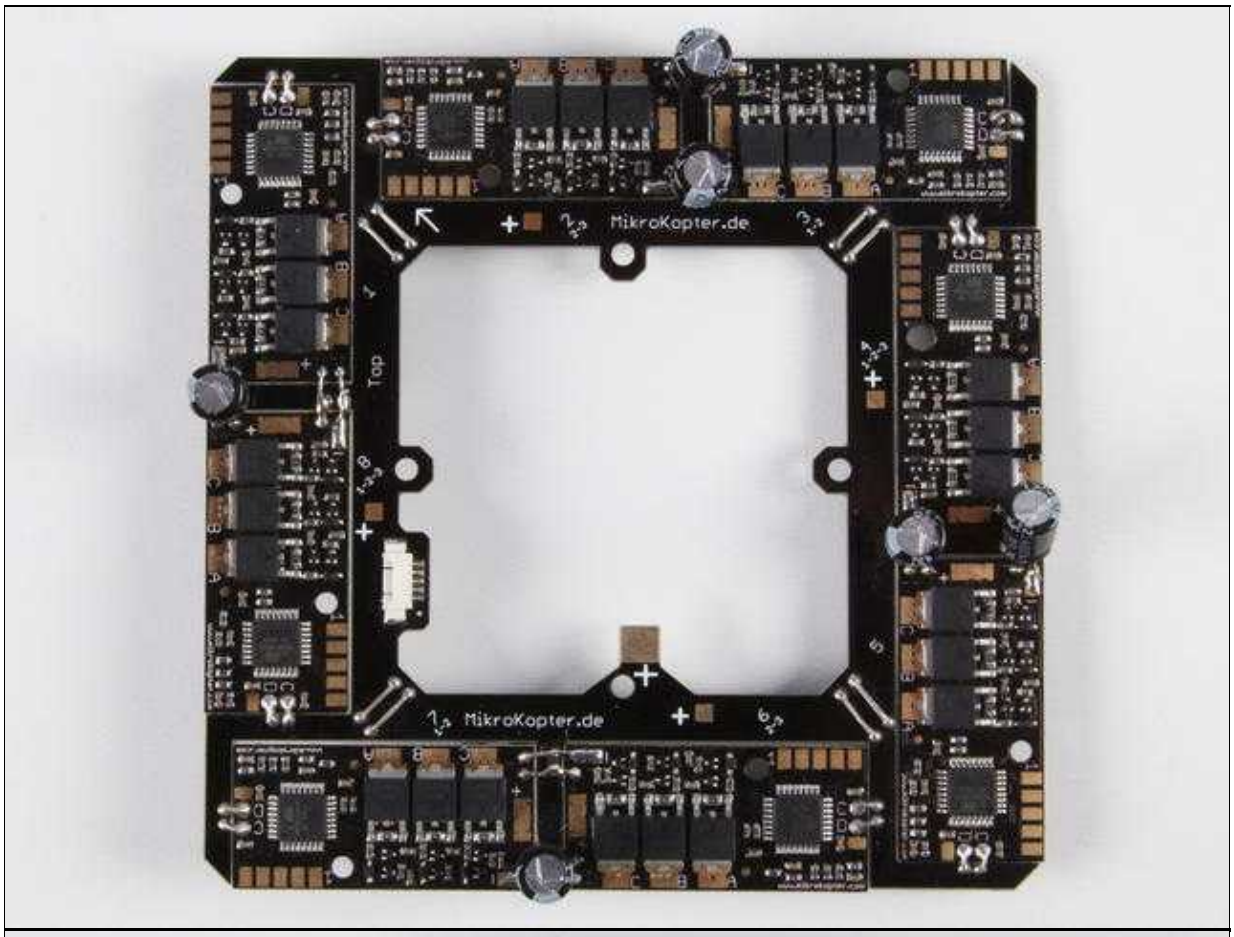
The Okto Power distributor provides the BL controller with power and connecting the I2C bus for communication.
You can install BL-Ctrl1.2 or BL-Ctrl2.0. The assembly is identical.
The BL controllers are mounted in the recesses of the distribution board and connected by wire bonds.
⚠ The top of the distribution board is marked with "+".

1.1 Arrangement of the BL controller

The BL-controllers are arranged as shown here in the distribution board (clockwise BL-Ctrl Nr. 1-2-3-4-5-6-7-8).
The processors and the solder connections for the motor have to show up at all controllers.

⚠ Also the (red)BL-Ctrl1.2 can be installed in the power distribution. The BL-Ctrl1.2 for the number 5-8 have a Special Software! In the shop, the BL-Ctrl with the special software have a white dot on it.


1
2
Jumper: 2-3
3
Jumper: 1-2
4
Jumper: 1-2-3
5
Special Software
6
Jumper: 2-3
Special Software
7
Jumper: 1-2
Special Software
8
Jumper: 1-2-3
Special Software
Front
FlightCtrl
+ & -
FlightCtrl
I2C
Batterie


MikroKopter.de
Top
MikroKopter.de

BL-Ctrl 2.8
MikroKopter.de
BL-Ctrl 2.8

- The capacitors for the regulator 6 and 8 can be attached to the underside of the distributor. Then the 10+6-pin connector to the NaviCtrl can be inserted easily.

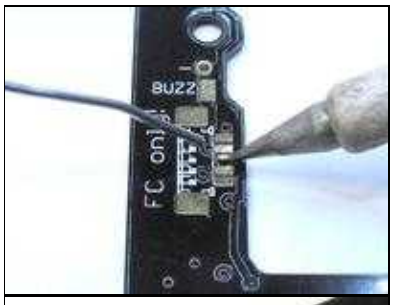
1.2 Assembly of the Molex connector

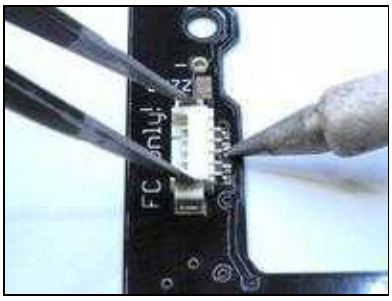
For this purpose you should use a fine tip. The first one is a solder pad on the distribution board and solder then Molexbuchse fixed thereto. This is to cater to the remaining contacts are soldered.

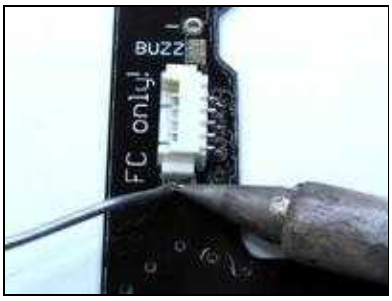
The contacts may have no connection with each other!

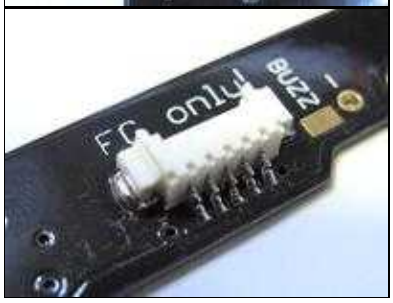
- **The FlightCtrl is connected over the Molex socket with power, I2C-bus and the Buzzer.**

Tip: Excess solder can be removed perfectly with solder wick. If the mounting of the Molex socket fails, the PCB can be gently heated from the bottom with a heat gun and the socket be released.



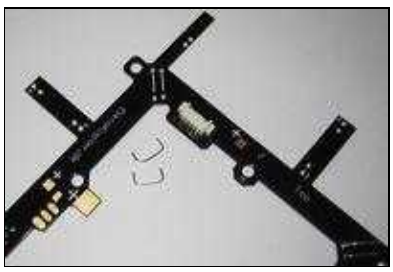
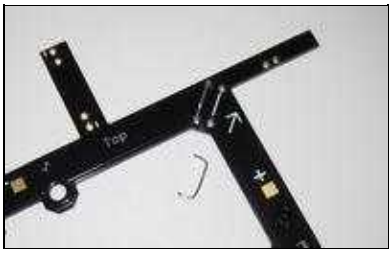






1.3 Assembly of the bridges

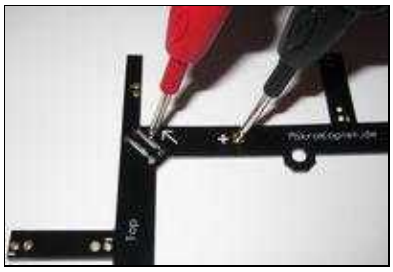
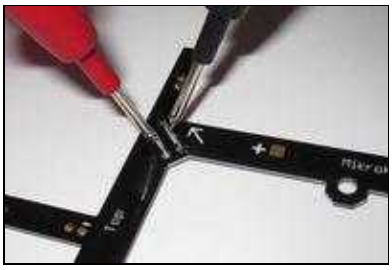
8 bridges have to be assembled on the distribution board.

1.3.1 check for shortcut

The bridges may not have contact against each other or against plus or minus.
Measure with a multimeter: against each other and against plus and minus it must have high resistance.

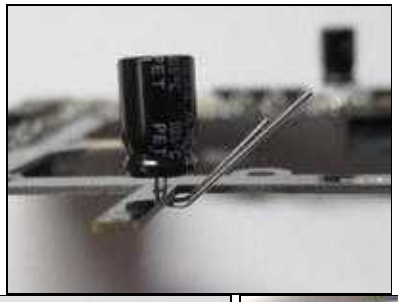
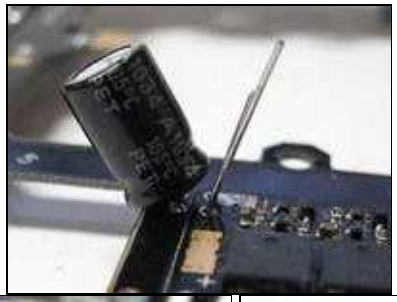
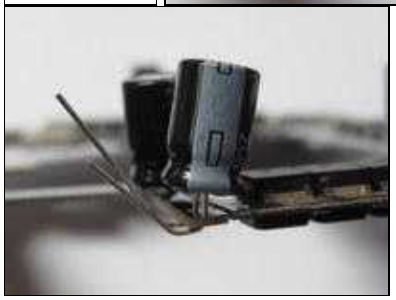
⚠ If the current distribution completely soldered incl. Bl-Ctrl, you should make the same measurement again!
Be sure that no short circuit exist.

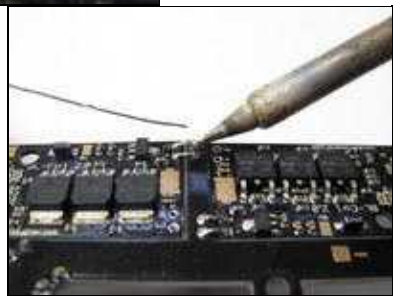



1.4 Solder Elkos

The BL-Ctrls are connected via the wires of the Elko (capacitors). The Elkos are assembled from the top of teh distribution board.
The Elko-wires are to be bent over and put (and soldered) through the + and - solder-pads of the BL-Ctrls.
Solder these pads from both sides of the distributor!

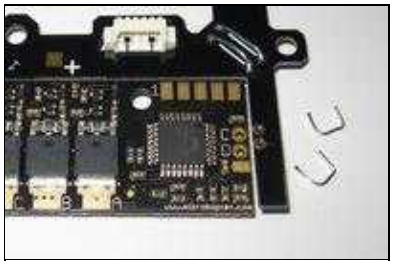
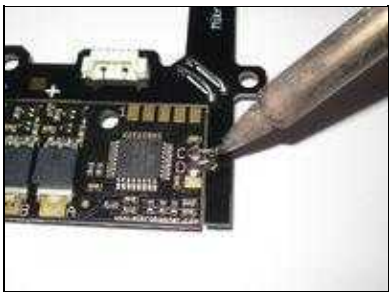
⚠ MINUS (marked on each Elko) goes to the outer sides - do not mix plus and minus here!
⚠ a lot of heat has to be used on the distribution board to make a perfect connection



1.5 I2C connections

connect C & D to the BL-Ctrls

1.6 Connect the batterie cable

On the large "+" and "-" solder pads connect the cable for the Lipo. With a cable tie the cable can be fixed to the power distributor.

- plus = red
- minus = black

⚠ do not mix plus and minus here!

2 Supply and Buzzer

2.1 Connect the batterie cable

On the large "+" and "-" solder pads connect the cable for the Lipo. With a cable tie the cable can be fixed to the power distributor.

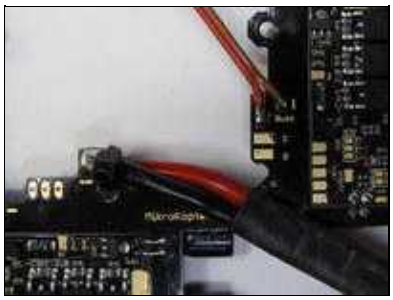
- plus = red
- minus = black

 do not mix plus and minus here!

2.2 Connect the Buzzer

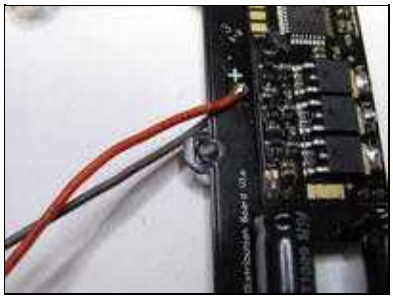
 The buzzer is sold through a cable and, for example mounted on the end of a rigger. If you mount the buzzer to close to the FlightCtrl (or on the FlightCtrl), the function of the MK3Mag can be disturbed!

- Buzzer plus = red cable = "Buzz"
- Buzzer Minus = black cable = "minus"



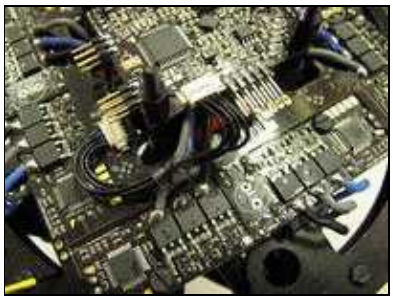
3 Lighting

By connecting with an Lipo e.g. 3S (11,1 V) or 4S (14,8 V), can the lighting (LED) directly to any "+" and "-" pad to be soldered.



3.1 Lighting shiftable

If you want to switch the lights, the optional ExtensionPCB can be used for this purpose.
The connection is described here: ExtensionPCB

4 connect the FC

The FlightCtrl2.1 can connected later with the Molex-cable.