

Modify a Metz 45ct1 flash to make it full manual.

We need:

- a Stepped switch 12 positions (stappenschakelaar)
- Black knob with a marking (knop met markering)
- plastic box
- Some diode cable and some wire (diodekabel en montagedraad)
- Resistors:
 - 2,2M ohm
 - 56K ohm
 - 22K ohm
 - 15K ohm
 - 10K ohm
 - 5K6 ohm (5,6K ohm)
 - 3K9 ohm (3,9K ohm)
- tulip connectors 1 male and 1 female
- some pieces of shrinktube (krimpkous)



First remove the battery's.

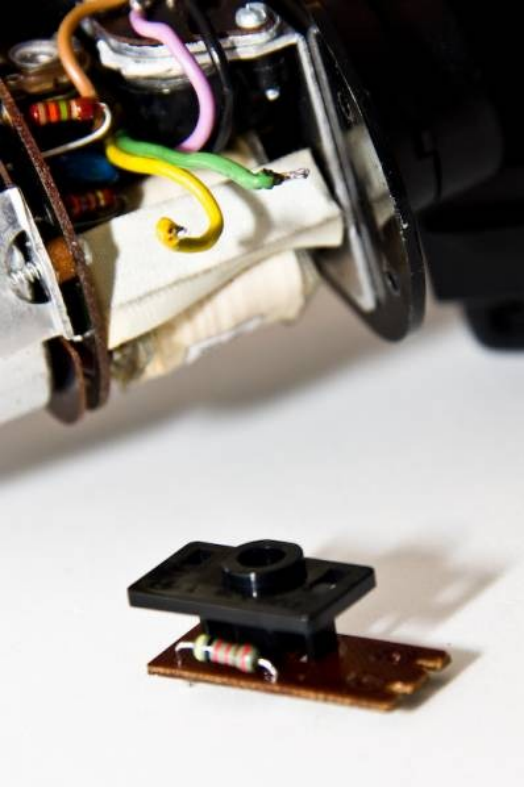
If the flash was charged, discharge it by pressing the testbutton several times.



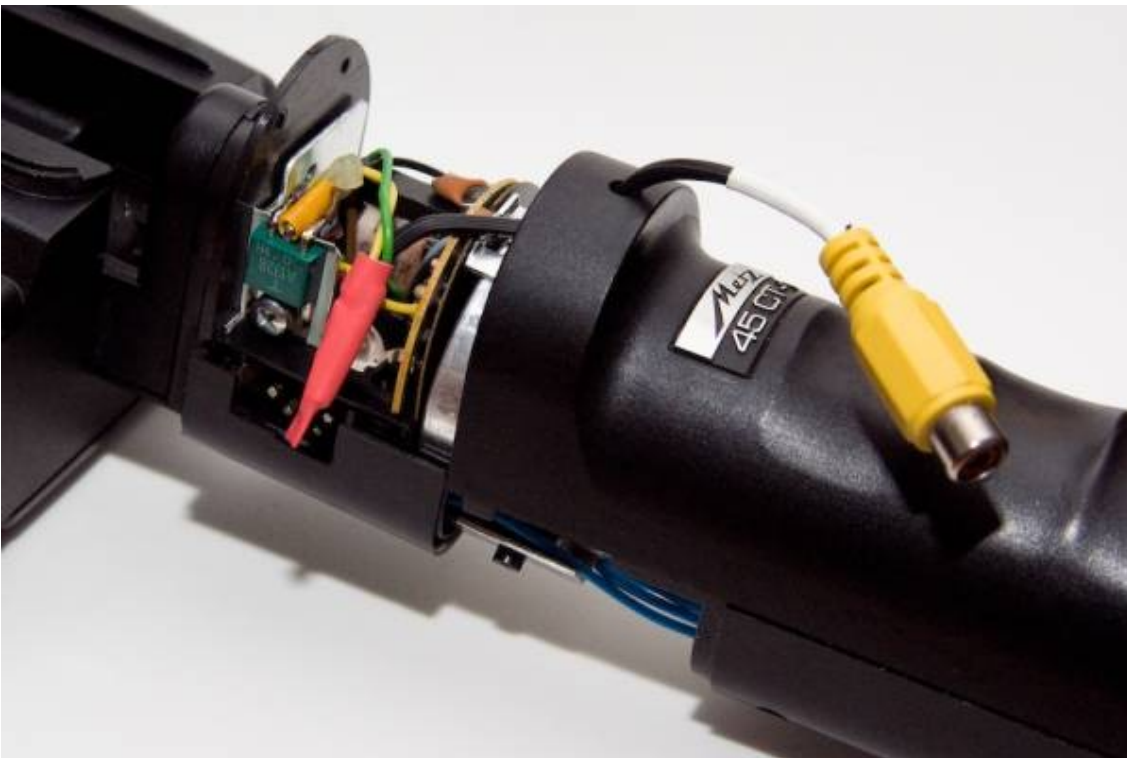
Remove the cover



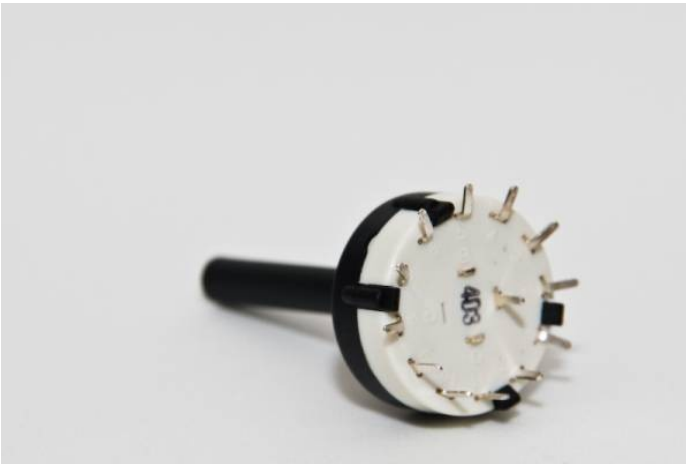
Detach the small printboard.



Cut a piece of diode cable approx 5 inches and connect a female connector at one end. Put the other end trough the hole (remove the small piece of transparent plastic). Connect the two wires of the diodecable with the green and yellow wire. eg. the center wire with the yellow wire and the outer wire with the green one or vice versa. Make sure you shield the wires to avoid shortcuts. First i used thin shrinktubes to put over the connected wires and a wider (red) piece of shrinktube to protect it all. This gives me a double protection.



Now you can close the cover again.
Next step is to make the controller.
Bend the first seven contacts of the switch about 90 degrees in the outer direction.



Connect one end of the resistors with the contacts of the switch.

- Contact 1 – 2.2M ohm – Full power
- Contact 2 – 56K ohm - 1/2 power
- Contact 3 – 22K ohm - 1/4 power
- Contact 4 – 15K ohm - 1/8 power
- Contact 5 – 10K ohm - 1/16 power
- Contact 6 – 5,6K ohm - 1/32 power
- Contact 7 – 3,9K ohm - 1/64 power

Connect the other ends of the resistors with each other.

Take a piece of diode cable of approx. 30 inch and connect the male connector at one end.

On the other end make loose knot at about seven inches from the end.

Connect one wire with the middle contact of the switch and the other wire with the the place where the resistors are connected with each other.



Take the top part of the plastic box and make a hole in the middle large enough to fit the switch in.
Download the scaling image from www.stokware.nl/metz_schaalverdeling.jpg or www.stokware.nl/metz_schaalverdeling.psd, print it, cut the white parts away and glue it around the hole.



Cut the shaft of the switch to the desired length so the knob fits good.



Build in the switch and make a small slot to lead the wire through.



Close the box, turn the switch all the way to the left and then screw on the knob making sure that the indication is pointing to the full power (1/1) marking.



You can use some strong velcro (in Nederland te koop bij de Hema) to attach the controller to the body of the flash.



Now you have a full manual flash to use with your strobist work. The length of the cable also makes it possible to control the flash-output when the flash is mounted on a high light stand.

Good luck.

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