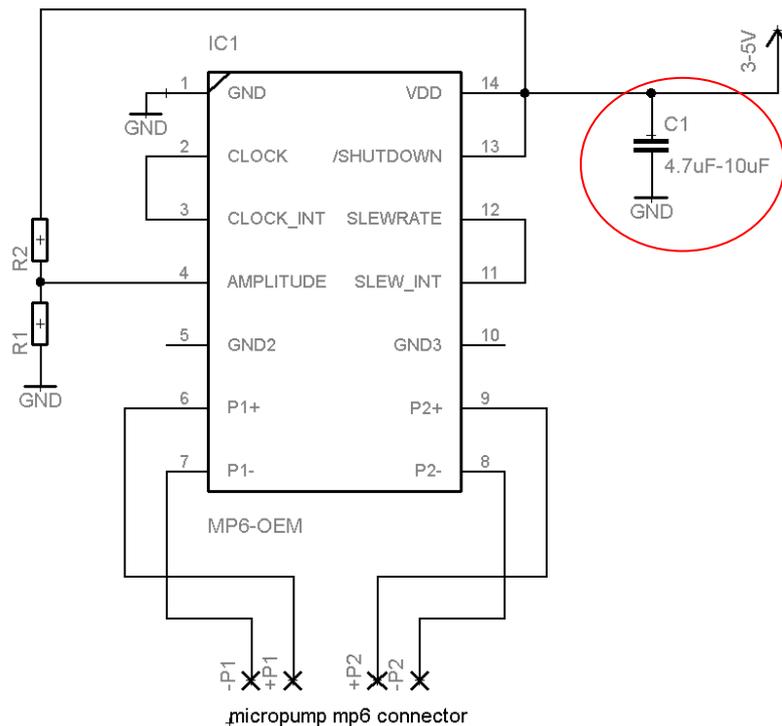


## Tech Alert

### Power supply decoupling and electrical noise

The onboard power supply decoupling on the mp6-OEM may not be adequate for some arbitrary power supply implementations. We suggest placing a ceramic chip capacitor with at least 4.7 uF across VDD and GND, close the mp6-OEM to ensure adequate decoupling and to minimize electrical noise on VDD.

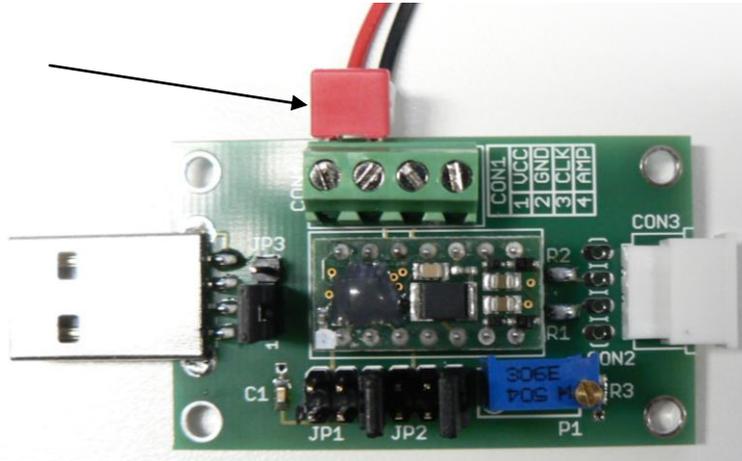


This info will be updated in our mp6 manual.



### Using the mp6-EVA with an arbitrary power supply

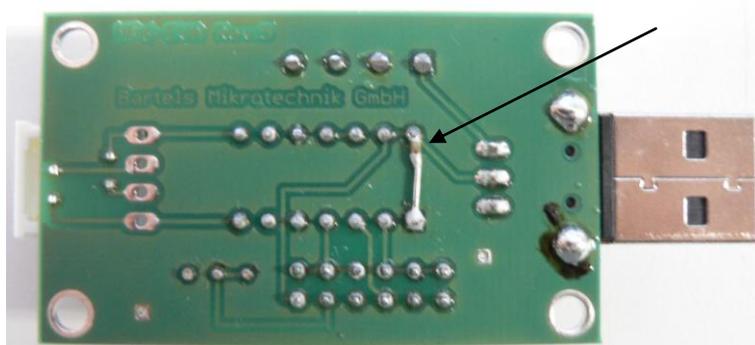
When using the mp6-EVA Board (revision 5 and below) with an arbitrary power supply, the above considerations also apply. The additional capacitor can easily be added by screwing in the leads together with the power supply leads on the screw terminal CON1.



### Using the mp6-EVA on a computer USB port

Usually the computer USB port has a stable power supply even when using extension cables. So the above considerations do not apply.

In some cases on older computers with USB 1.1 and below the USB port power supply is weakly regulated. In this case we recommend adding a capacitor (4.7 uF) as shown in the picture below:

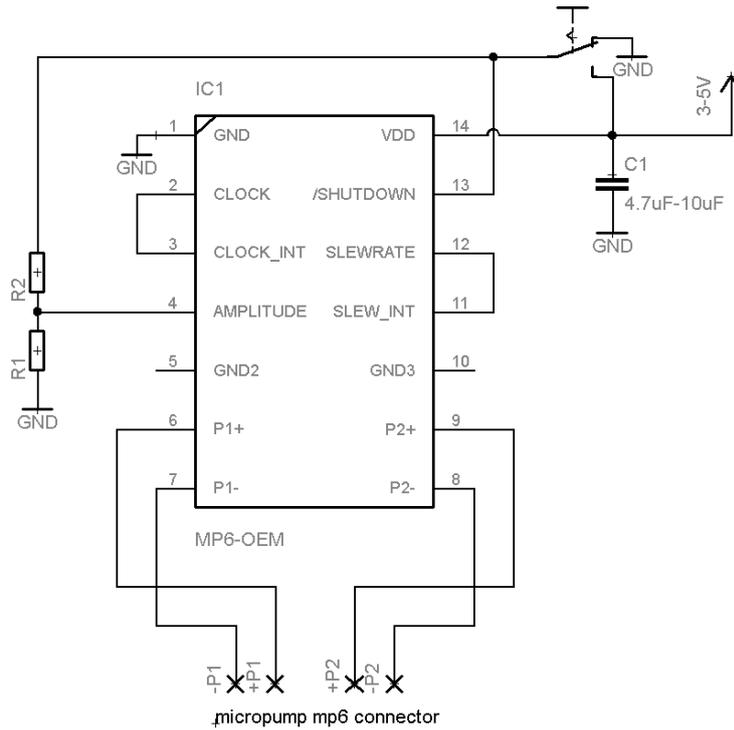


*On the next mp6-EVA Rev.6 this capacitor will already be in place, so this step will be obsolete.*



### Switching the pump on and off

Switching the pumps on and off by switching off the power supply is not recommended as this can cause voltage spikes to destroy the driver chip on the mp6-OEM (if the before mentioned capacitor is not present). By applying GND to the SHUTDOWN input (pin 13) and the amplitude input (pin 4) the pump can be switched off without causing voltage spikes.



This info will be updated in our mp6 manual



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