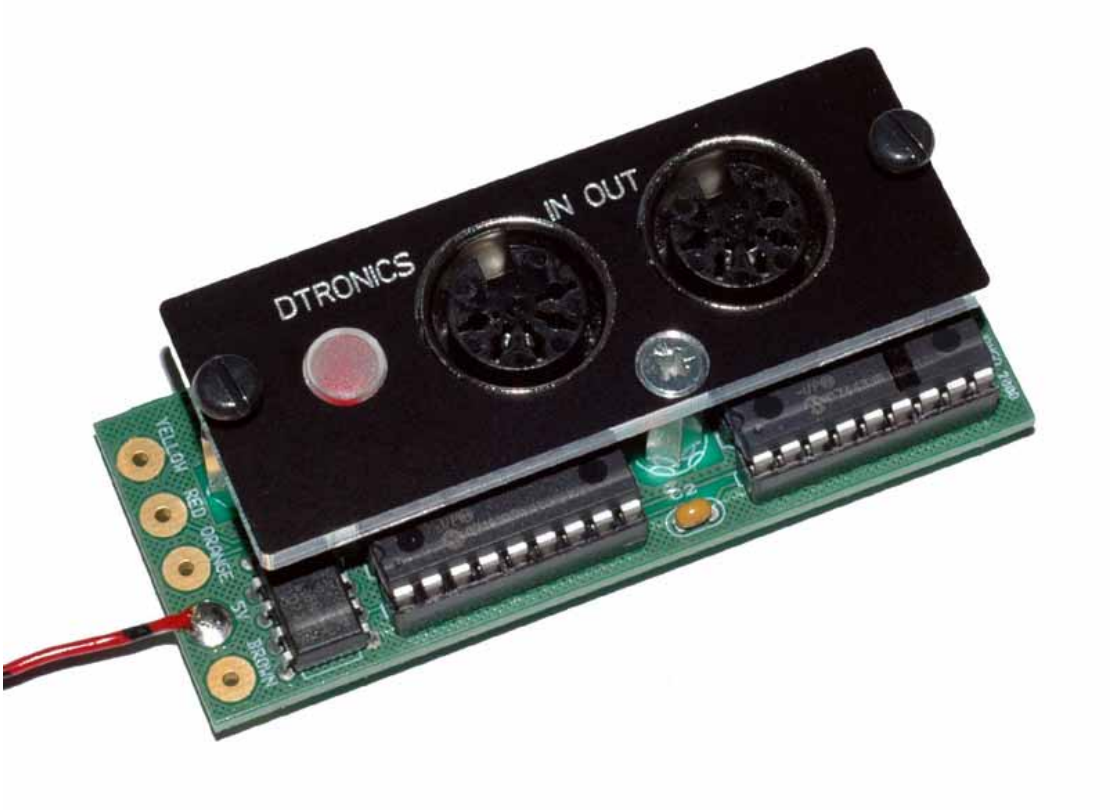
Engineers@Work
Leidsevaart 536
2014 HS Haarlem

T 06-22324422
F 023-5625613
E info@engineersatwork.nl

KvK 34230347
Giro 4589619
BTW NL 8145.98.262.B01



MDBC60 V2

- Installation instructions
- Operating instructions
- Clock output programming over sysex

- Version 2.0 (march 2011)

Installation instructions

The buyer of this MDCB60 is purchasing a product designed for a synthesizer no longer manufactured nor carried by distributors.
The buyer is to be aware that though all units are carefully quality checked before shipping, the providing party can not guaranty a proper functioning of its products due to the platform running it where errors because of age, malfunction circuits and/or other factors occur. Therefore, this unit is provided as is, without any kind of warranty. Dtronics shall in no event be liable for any loss of data or damage to either machine and/or cartridge. The buyer is advised to thoroughly read the instructions provided in this manual.

Installing the MDCB60

If you have any questions about the installation process, please contact us at: info@engineersatwork.nl

Step 1.

- **Make sure the power is OFF! And the mainsplug is unplugged.**

Step 2.

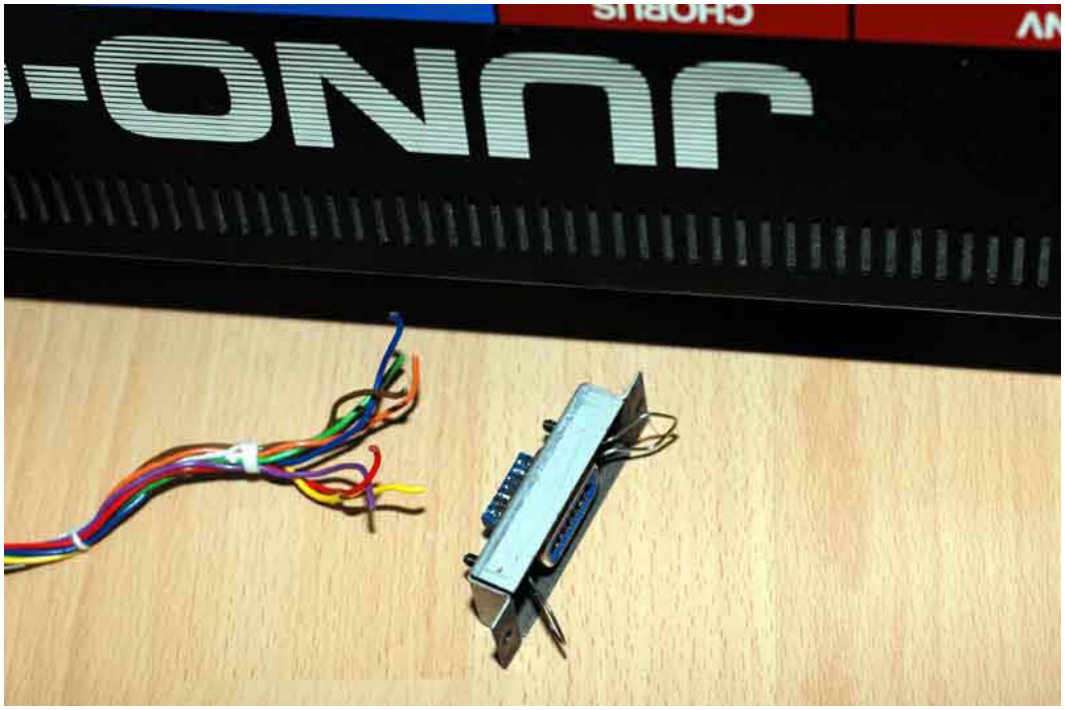
- Open the JUNO60 by removing the 4 screws (2 on each side)

Step 3.

- Remove the 2 screws from the dcb connector.

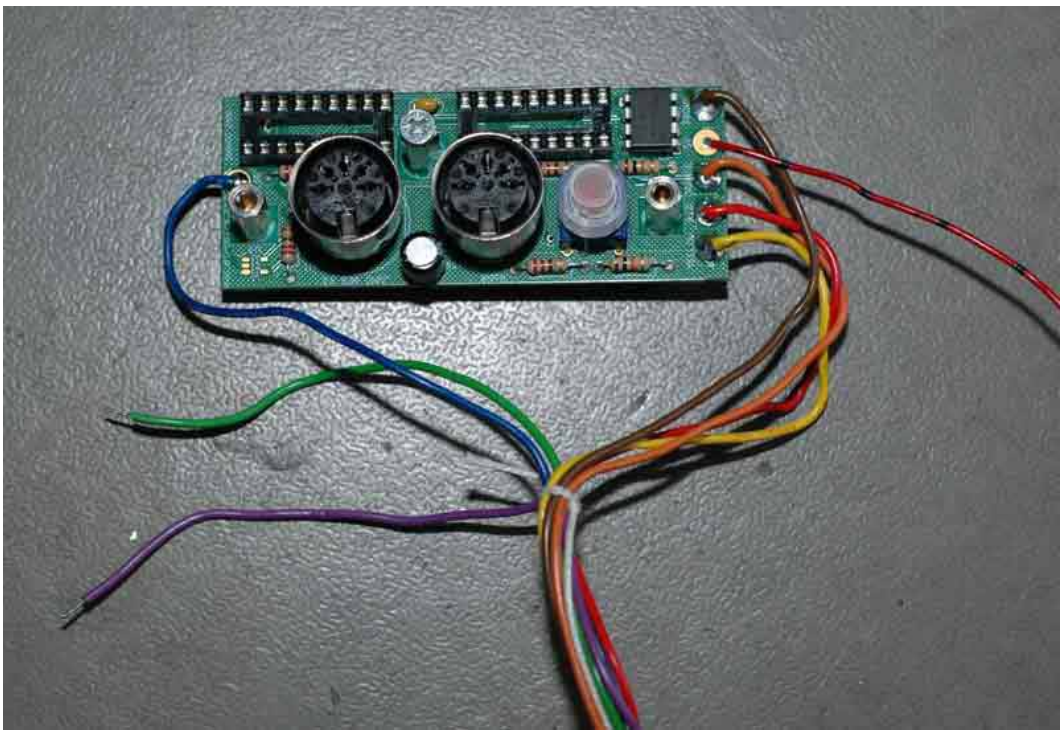
Step 4.

- Pull-out the dcb connector and remove the wires from the connector:



Step 5.

- Solder the wires to the MDCB60 pcb,
  DO NOT connect the GREEN and PURPLE wire!

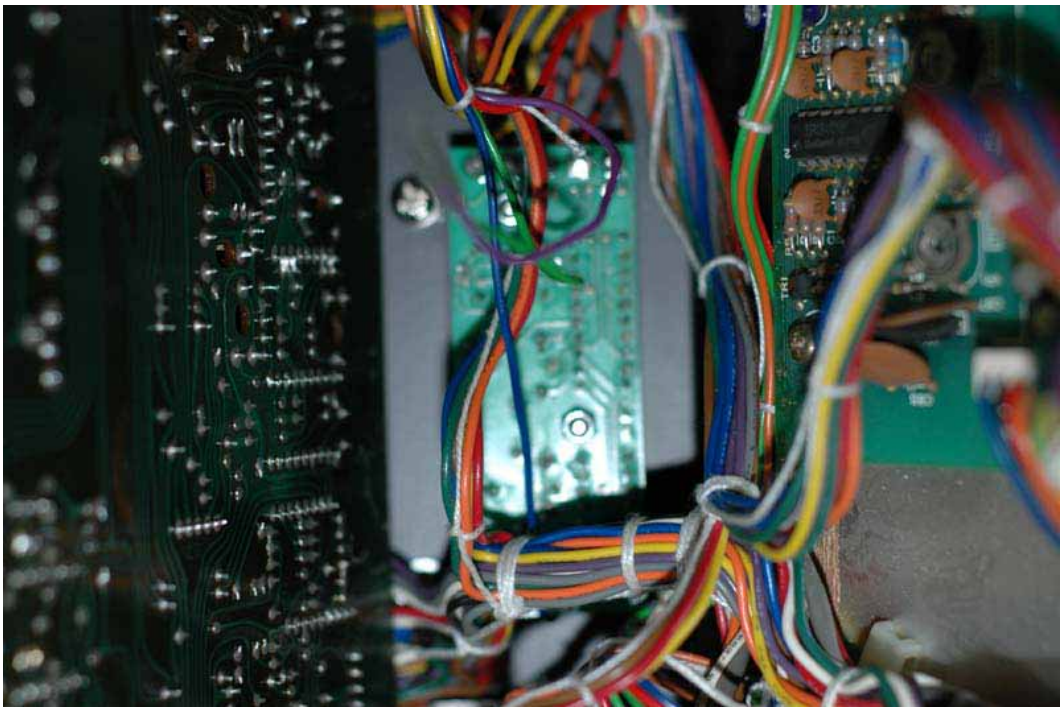


Step 6.

- Insulate the GREEN and PURPLE wire so they can not cause a shot-circuit.

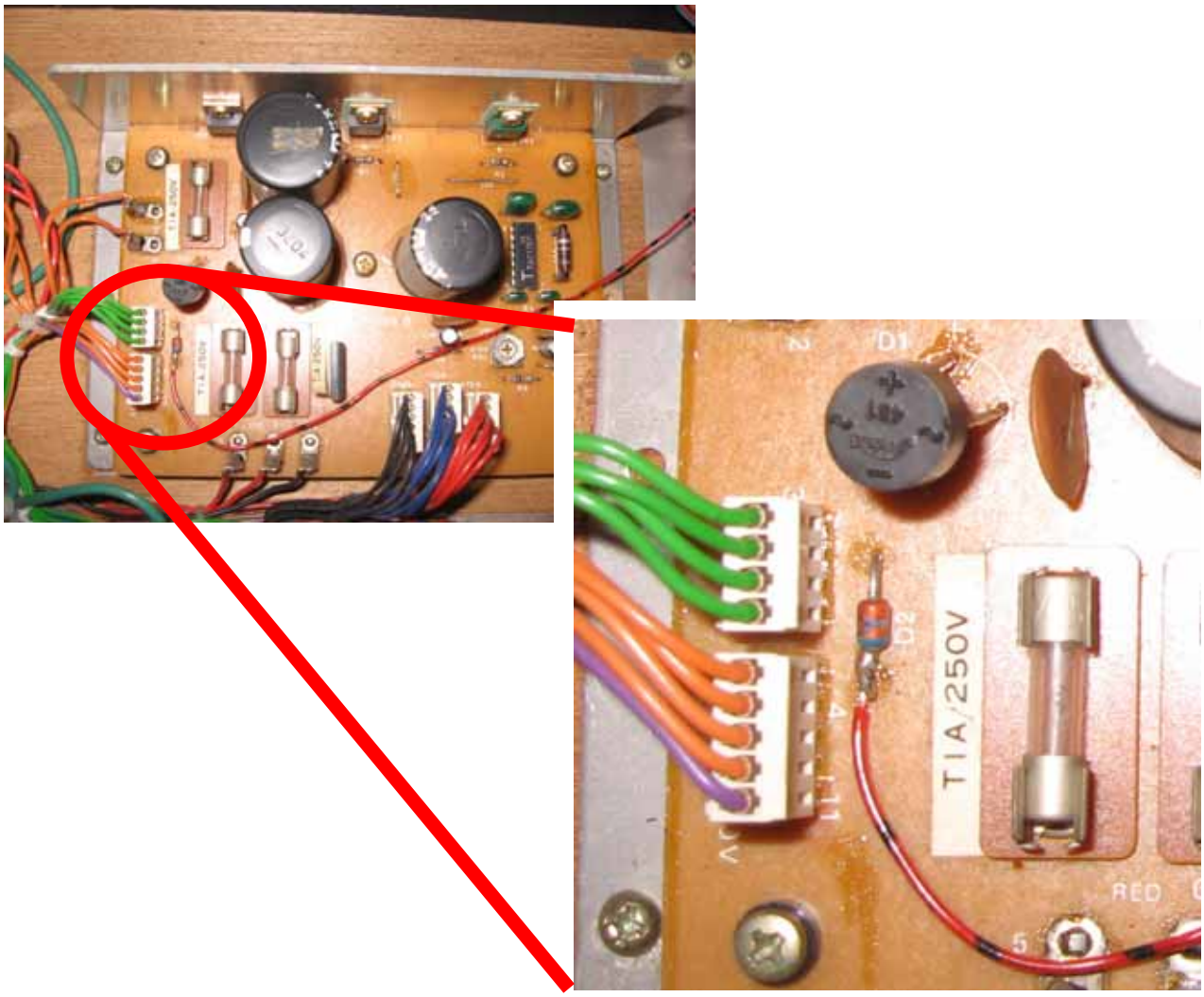
Step 7.

- Install the MDCB60 with its bracket in the JUNO60



Step 8.

- Locate the power-board in the JUNO60 and solder the 5v wire from the MDCB60 to the cathode-side of the diode. In the picture below you can see that the cathode-side is marked by a blue stripe.



Step 9.

- Close the JUNO60 and install the 4 side-screws.

Step 10.

- Power-up the JUNO60 , the LED on the MDCB60 should flash once.

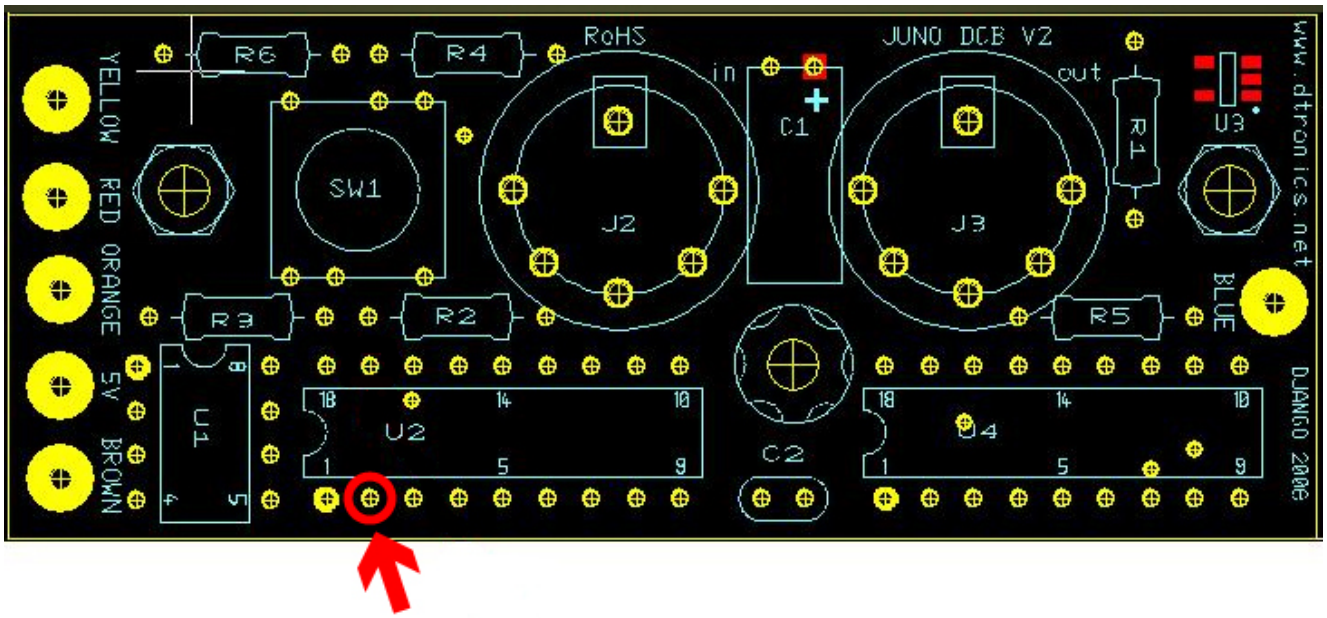
Installing the clock output on the MDCB60-V2

In version 2 of the MDBC60 is the possibility to generate a clock output as a arp clock for the juno or other devices.

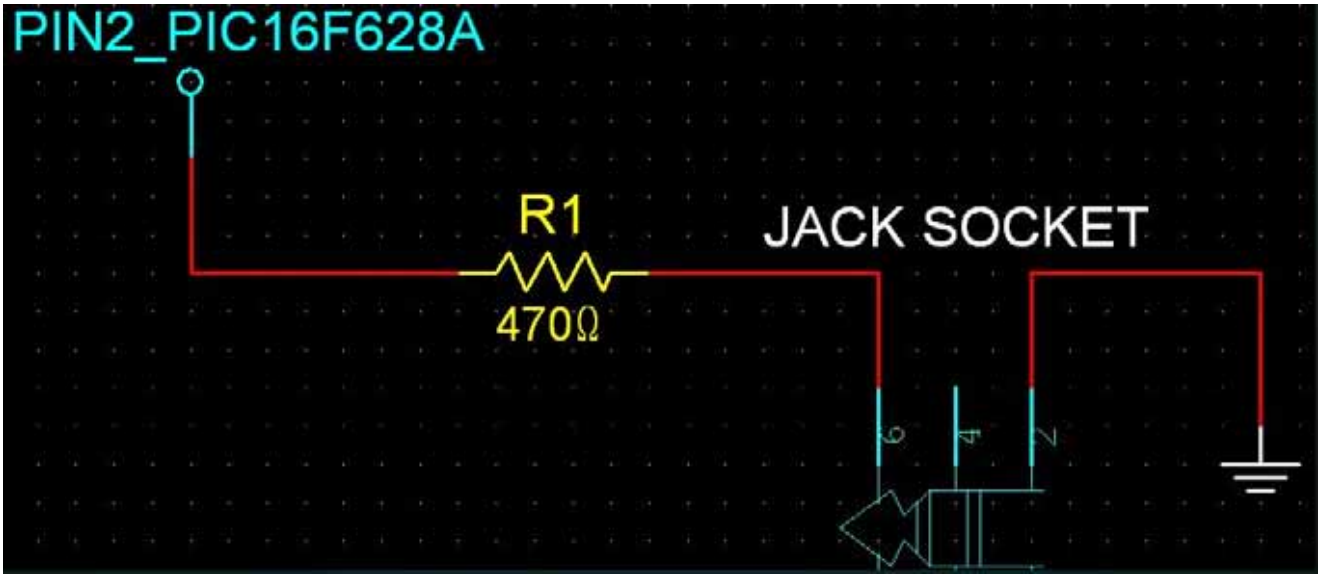
The clock output can be found on pin RA3 (pin number: 2 of the pic16f628a close to the pushbutton)

To use the clock output a wire must be soldered to pin number 17 on the PIC16F628a.

(ATTENTION THE PICTURE BELOW IS SHOWING THE TOP SITE OF THE PCB)



Use a minimum of 470 ohm resistor in series to a jack socket. (470 ohm to 1800ohm will work fine)
You can now use this output as a arp clock for the juno or other devices.



Operating instructions

Setting the midi channel:

- Connect a midi device to the MIDI-IN of the MDCB60, this can be a keyboard,synthesizer or pc with midi software.
- Hold the button on the MDCB60 and turn on the power of the JUNO60.
- The LED on the MDCB60 is now on.
- Play a note from the midi device, set on the midi channel you want to use with the MDCB60.
- The LED on the MDCB60 wil go off and the midi channel is set.
- Note: midi channel for IN and OUT are always the same.

The LED wil flash when the MDCB60 receives midi data on the midi-in port.

Clock output programming over sysex

SYSEX FORMAT: F0 3A 60 D1 D2 D3 D4 D5 F7

D1 MIDI CHANNEL (00=channel 1 / 0f=channel 16)
D2 JACK SPEED (midiclock divided by value 01 to ff)
D3 JACK RUN (00= alwys on, 01= only on when midi run is active)
D4 TRANSPOSE (WILL BE ADDED or SUBSTRACTED FROM MIDI NOTE)
D5 transpose up/down (01=ADD, 00=SUBSTRACT) if the transpose value exceeds the transpose range a overflow will occur.

Standard value = F0 3A 60 00 06 00 0C 00 F7

MIDI CH = 1
JACKSPEED = 24/6
JACKRUN = 0 = always on
TRANSPOSE = 0C = 1 octave down