

How to install Cheali Charger on a GTPower A6-10 200W charger

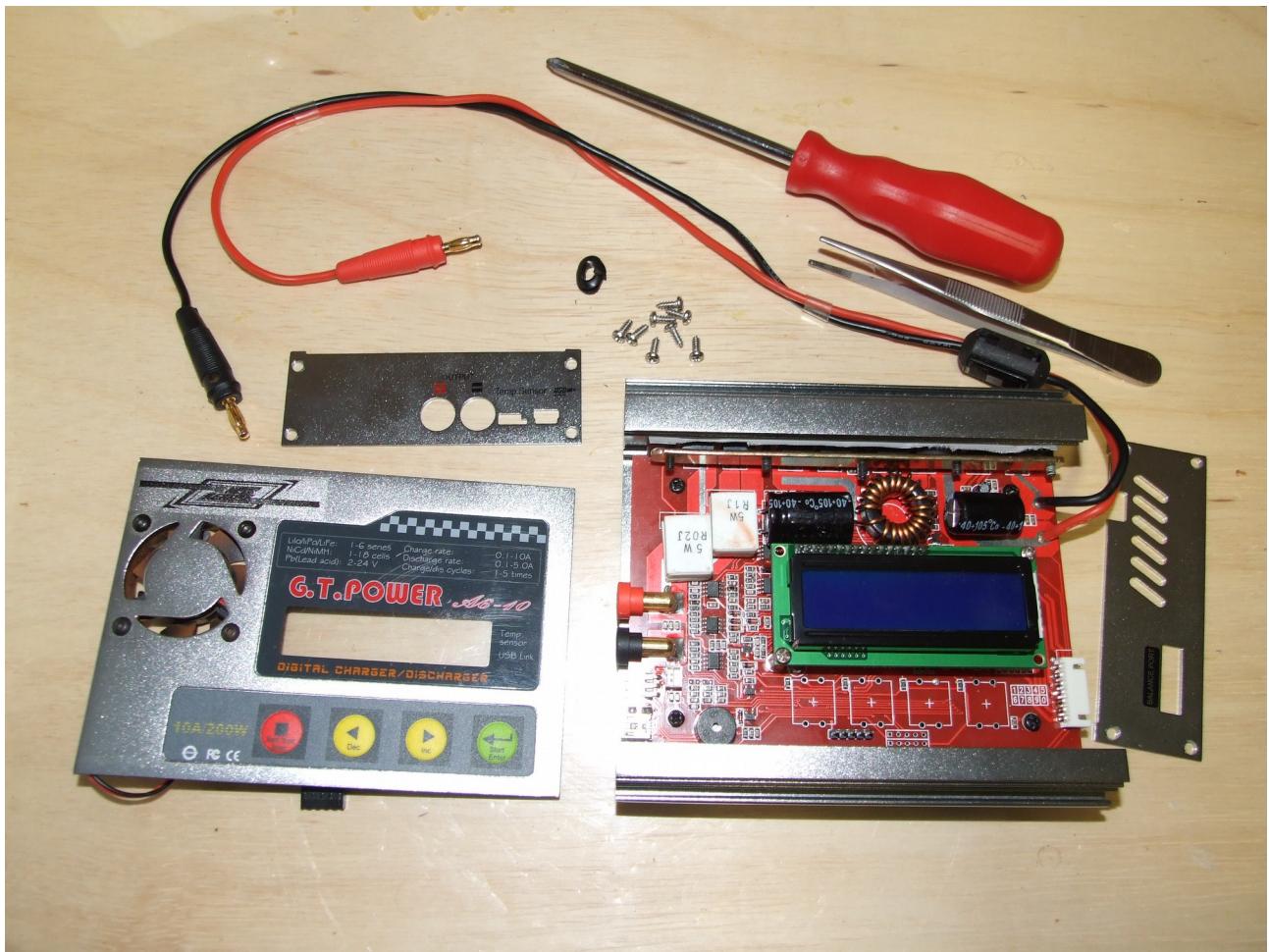


What you need

- A computer.
- An AVR programming card: the easiest to find is the “USBASP v2” for less than 5 euros on Aliexpress, Ebay, etc..
- Optionally, an USB extension cable to connect the computer to the programming card.
- Some breakable pins to connect the programming card cable to the charger board.
- Screwdrivers and big tweezers for charger disassembly.
- Your GTPower A6-10 of course!

Charger disassembly

- Remove the two lateral parts of the case.
- Disconnect the fan and the keyboard with big tweezers (do it slowly, it's a bit difficult).
- Slide the front panel. Be aware the fan doesn't touch/hit the screen: if it happens, slide by the other side.



Programming card installation on Windows 10

- Follow the tutorial at:

<https://openchrysalis.wordpress.com/2014/09/26/installing-usbasp-driver-software-in-windows-8-1/>

Note: Download the driver from the tutorial (the zip file)

For others OS, read: <http://www.fischl.de/usbasp/>

Flashing the charger

First step

- Create a folder on your hard disc, for example c:\cheali\

- Download AVRdude “avrdude-6.1-mingw32.zip” at:

<http://download.savannah.gnu.org/releases/avrdude/>

and extract it in c:\cheali\

- Go to:

<https://github.com/stawel/cheali-charger/tree/master/hex>

and download

https://raw.githubusercontent.com/stawel/cheali-charger/master/hex/cheali-charger-GTPowerA6-10_1.00-20150711_atmega32.hex

and

https://raw.githubusercontent.com/stawel/cheali-charger/master/hex/cheali-charger-GTPowerA6-10_1.00-20150711_atmega32.sha1

- Check the HEX file by following:

<https://github.com/stawel/cheali-charger#troubleshooting>

Note: If the command

`fciv.exe -sha1 -add cheali-charger-GTPowerA6-10_1.00-20150711_atmega32.hex`

doesn't work, try

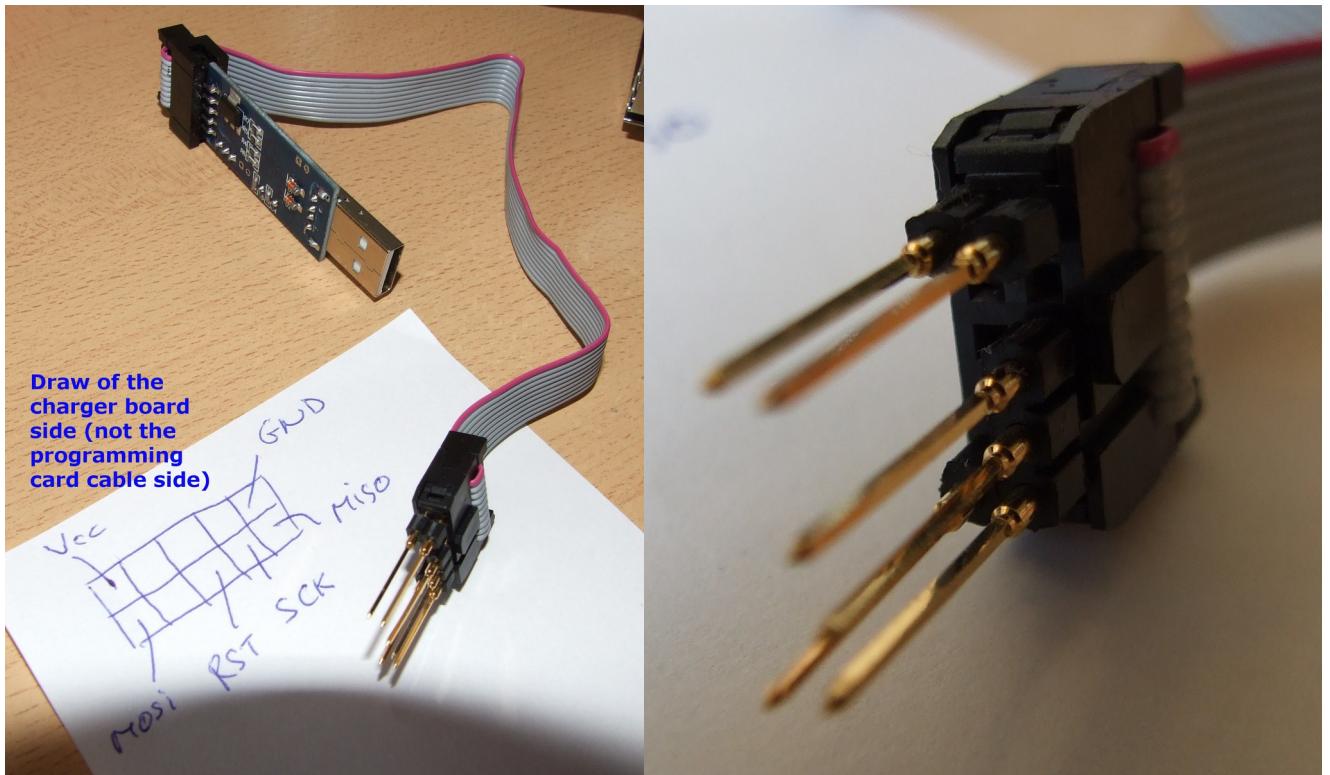
`fciv.exe cheali-charger-GTPowerA6-10_1.00-20150711_atmega32.hex`

and manually compare the checksum with the sha1 file (open sha1 file with Notepad)

- Disconnect your programming card from the computer.

- Set your programming card to 5v power supply with the good jumper.

- Insert breakable pins into the cable as showed in the pictures bellow:



Note: you can find the original tutorial here:

<https://github.com/stawel/cheali-charger/blob/master/docs/flashing.md#differences-between-versions>

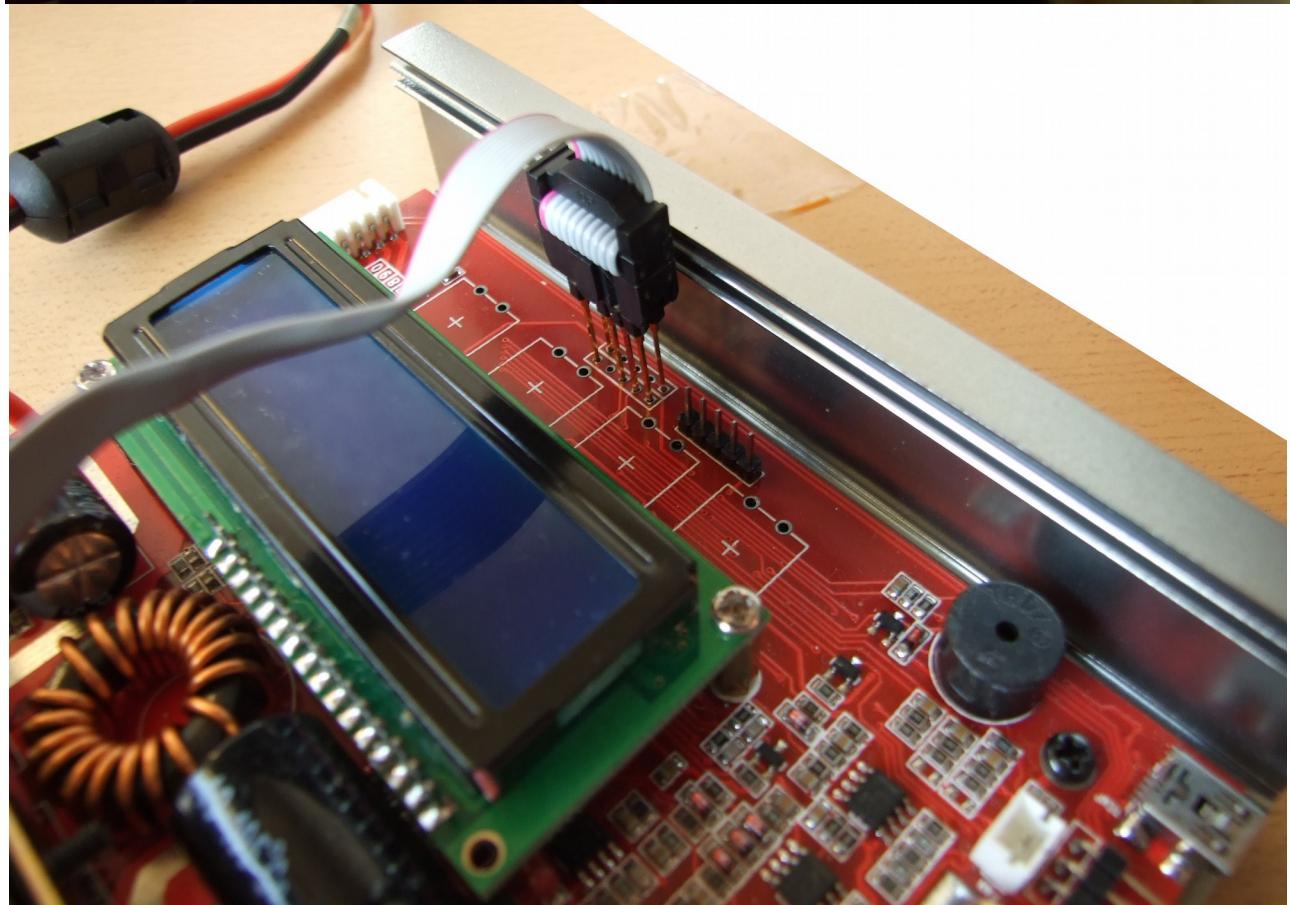
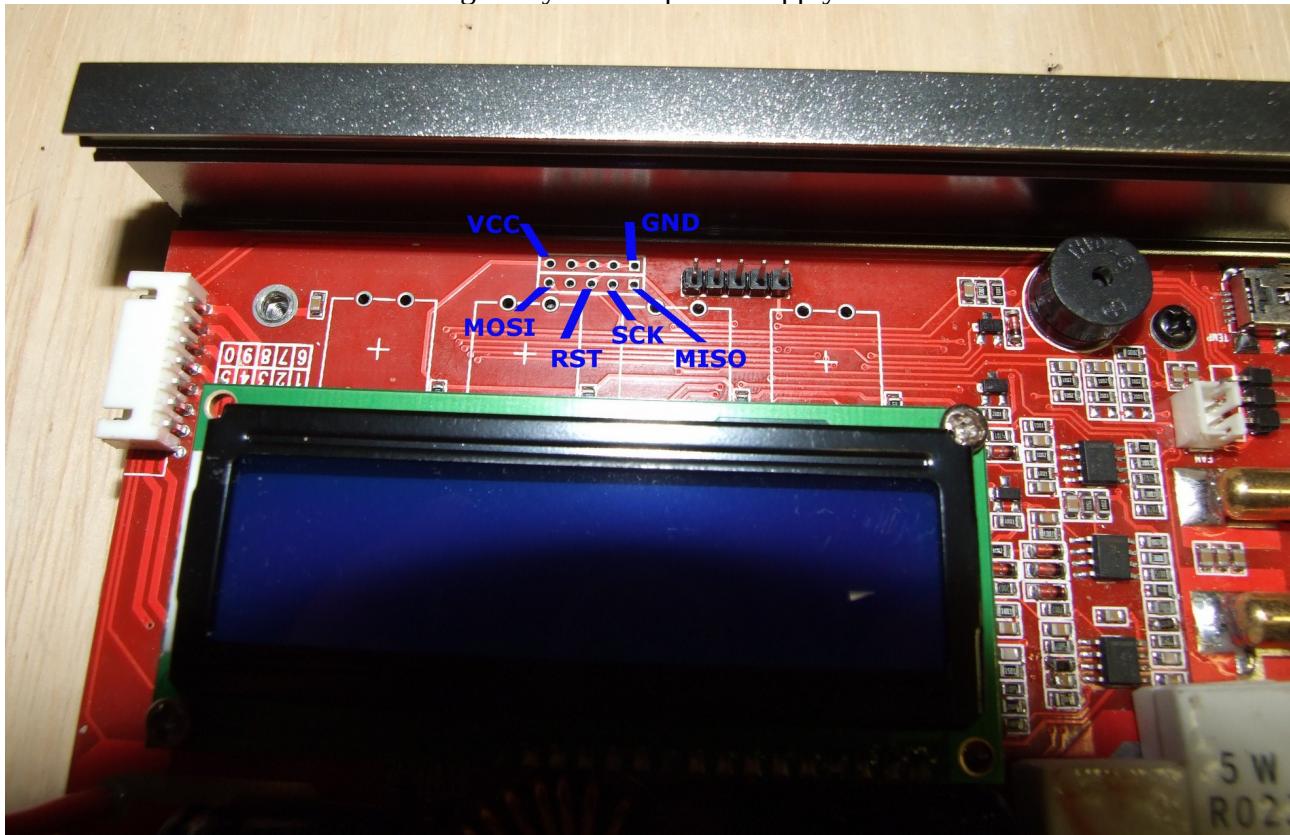
- Connect the programming card to your computer and check Vcc and GND with a voltmeter. If you make an error, you can burn your charger and/or your programmer.

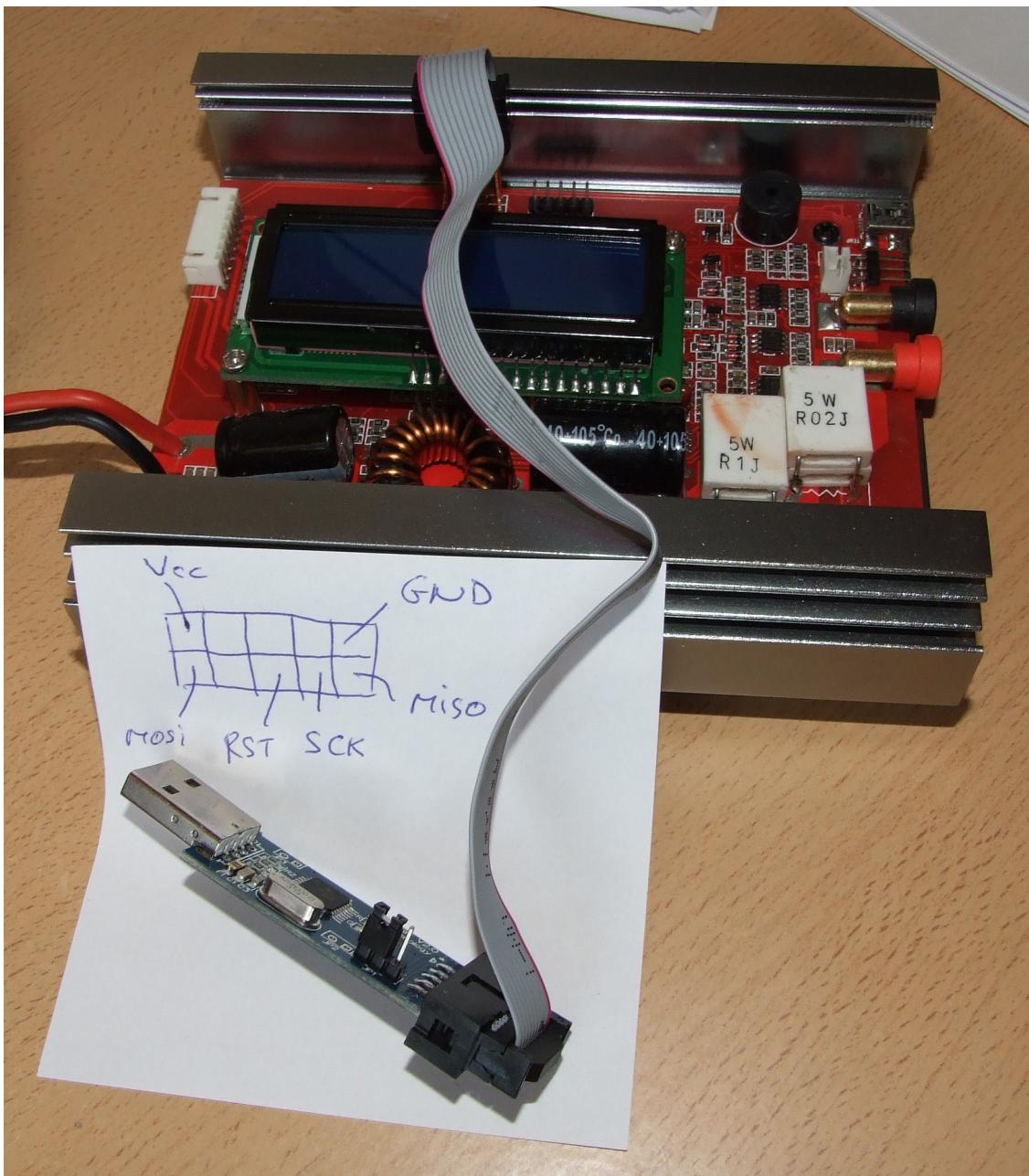
- Disconnect the card.

Let's go!

- Connect the programming card to the charger board by engaging the pins in the charger board holes (2 to 3 mm of deep, not more). You don't need to solder.

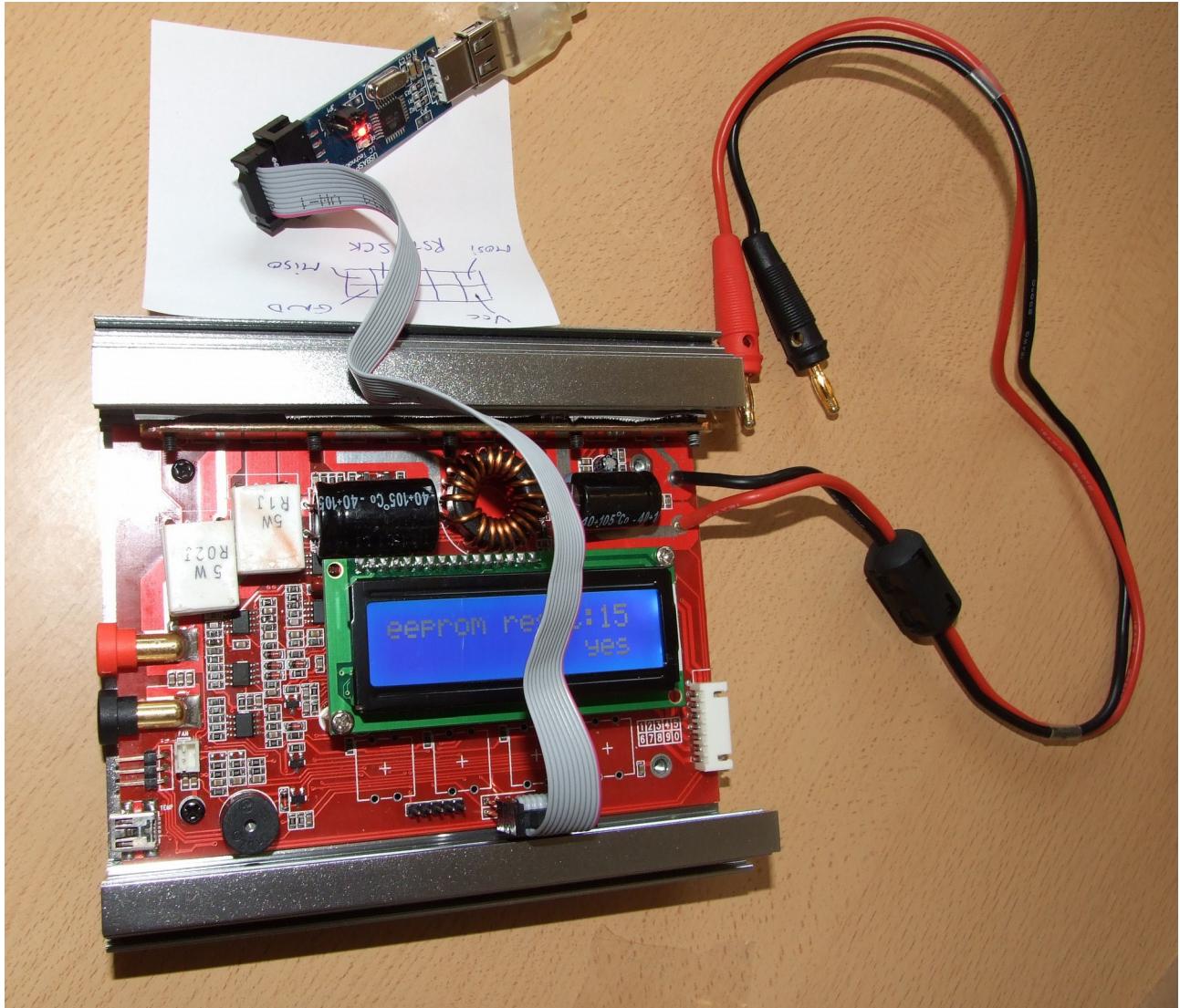
WARNING: Don't connect the charger to your 12v power supply.





- Connect the programming card to the computer.
- The charger starts and writes a low power supply message.
- In Windows command shell, in c:\cheali\ folder, execute (in one line):
`avrdude.exe -patmega32 -cusbasp -Uflash:r:flash.hex:r -Ulfuse:r:lfuse.hex:r
-Uhfuse:r:hfuse.hex:r -Ueprom:r:eprom.hex:r`
- The charger restarts automatically and writes the low power message again.
- Now, execute (in one line):
`avrdude.exe -patmega32 -cusbasp -Uflash:w:cheali-charger-GTPowerA6-10_1.00-
20150711_atmega32.hex:a`

- The charger restarts automatically and writes “eeprom reset:15 yes”



First test

- Connect the keyboard.
- Power the charger with your 12v power supply.
- Push the right button “start/enter” to reset the eeprom. Wait 5 seconds. If the charger asks for calibrate, it works!
- Disconnect the charger from the power supply.

Finish

- Re-assemble your charger (don't miss to reconnect the fan connector)
- Follow the calibration tutorial at:
<https://github.com/stawel/cheali-charger/blob/master/README.md#calibration>

Good bye!

PascalRZ (France) for Cheali Charger project by Paweł Stawicki
<https://github.com/stawel/cheali-charger>