

## Recovering a Bricked Chuwi Hi12 caused by Corrupt Bios

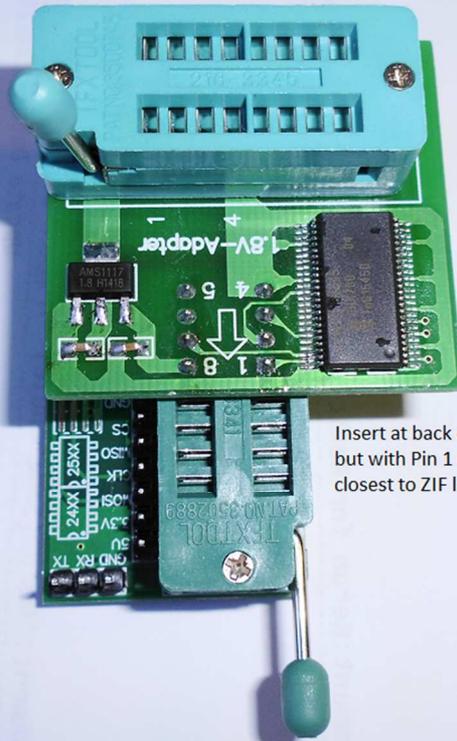
BIOS corruption occurs when something goes wrong during a firmware update process. Either the wrong BIOS file was flashed or the process got interrupted by usb stick removed or tablet powered off too soon. When this happens the tablet will not be able to turn on anymore so you cannot re-flash the BIOS by the usual means – instead you will need to open the tablet and flash the BIOS using an external usb programmer connected to another computer.

The BIOS chip in the Hi12 is a Winbond W25Q64FW. It is a 1.8v chip and most cheap programmers are 3.3v so you will need a 1.8v adapter.

### Tools Required

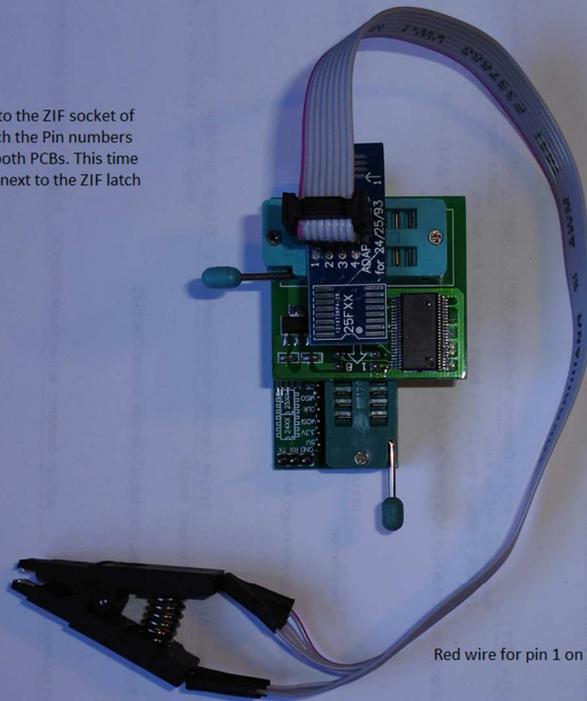


1.8 V adapter inserted into CH341a



Insert at back of ZIF socket but with Pin 1 on adapter closest to ZIF latch

Insert Test Clip into the ZIF socket of the adapter. Match the Pin numbers silk screened on both PCBs. This time pin 1 will be right next to the ZIF latch



Red wire of clip to pin 1

Red wire for pin 1 on clip

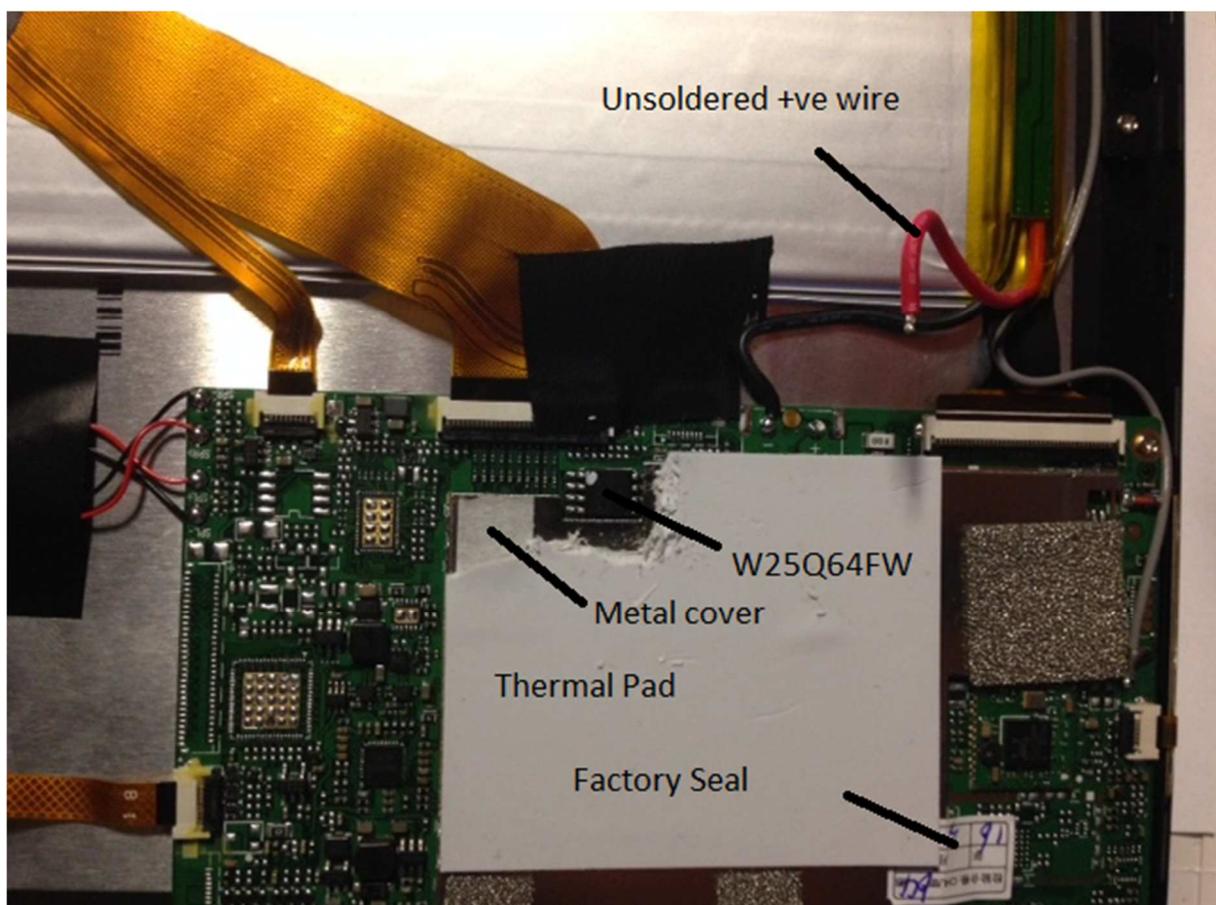
To open the Tablet, first remove any microsd card or plugs.

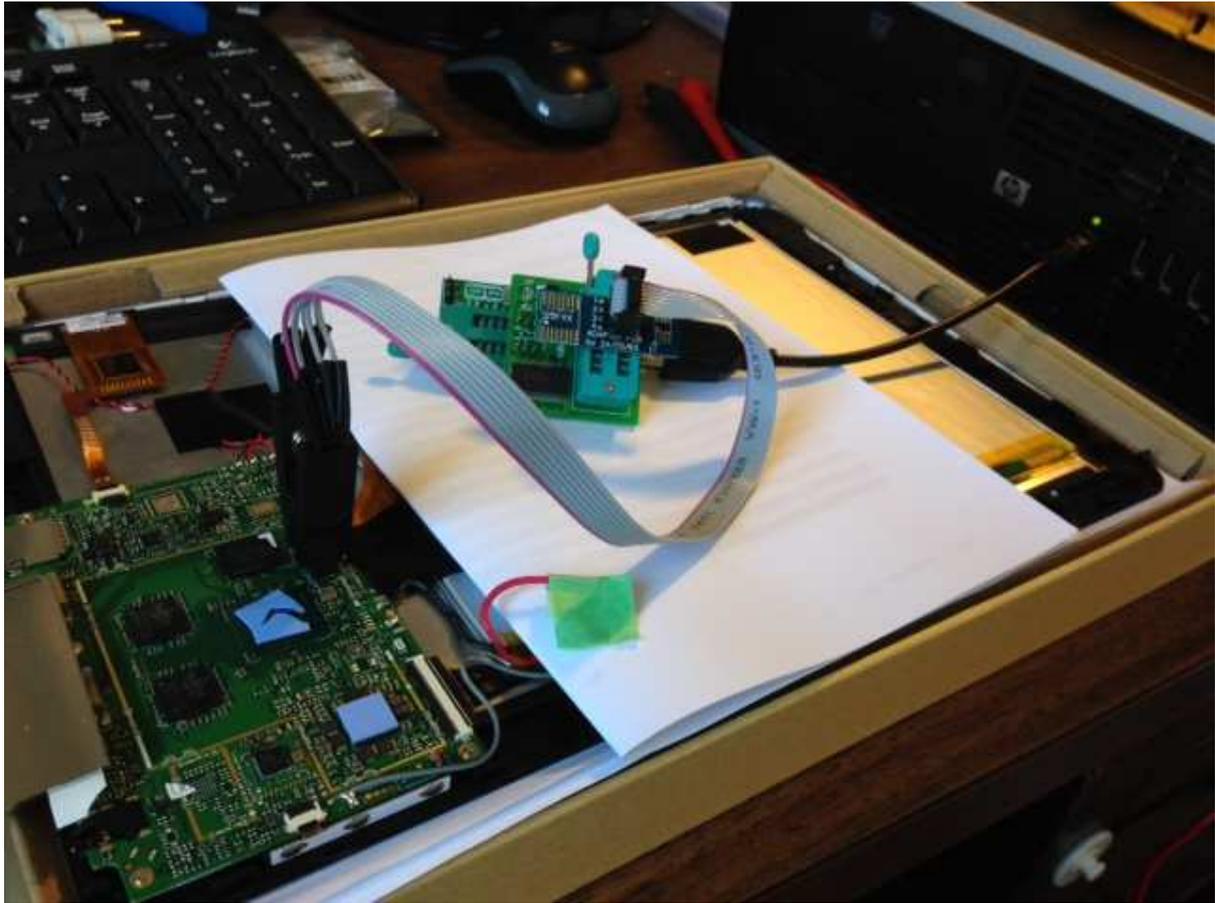
Remove the four corner Torx T3 screws and place in a container for safe keeping.

Using a guitar pick or similar pry tool work your way around the edge of the metal back cover to gently pry it away from the screen edge.

After removing the back, peel back the black tape covering the wire from the battery so you can unsolder the red positive wire. Wrap the end with a bit of tape to prevent accidental shorts.

The BIOS chip is hidden under the CPU thermal pad. I cut away the corner of the pad but you will also need to hinge open the metal cover.





Before connecting the Test Clip you will need to get the software working on another computer. You will need at least version 1.29 of the CH341a software that has support for the W25Q64FW chip as posted by Richard in this thread:

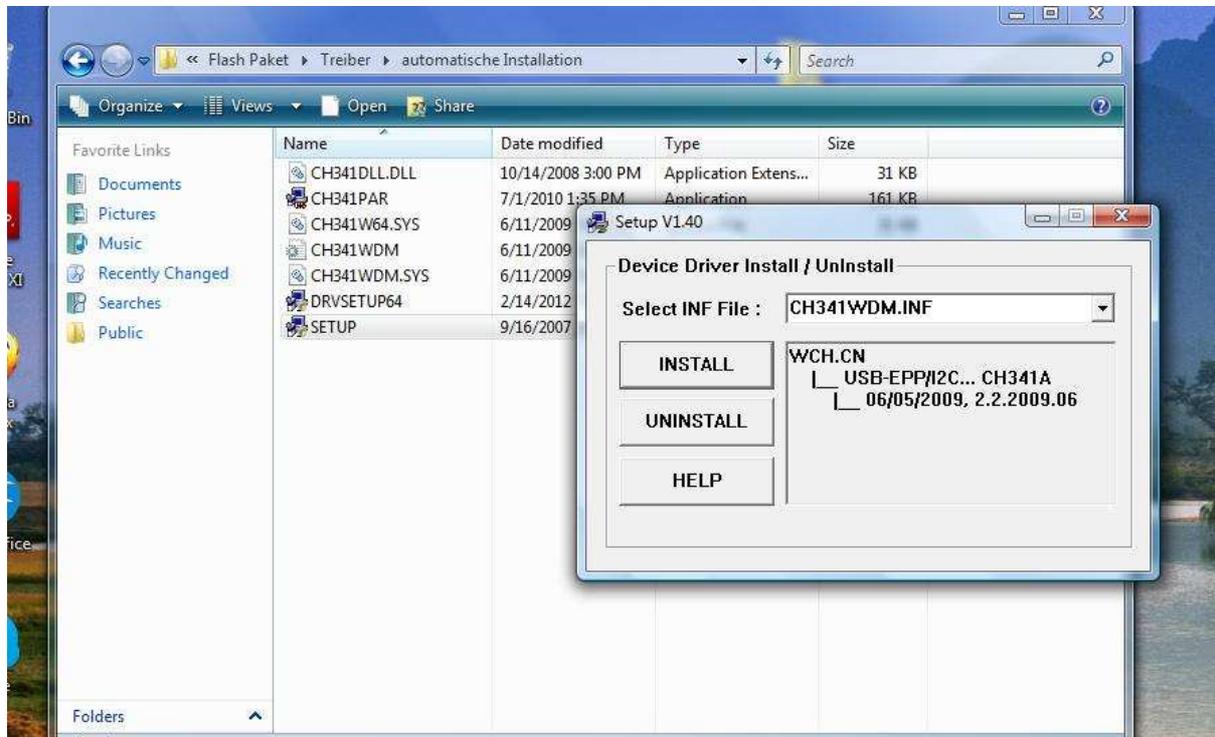
<http://techttablets.com/forum/topic/bricked-trying-bios-update/page/3/>

But first you will need the driver. I used the one in the flash package posted by Chris in these links:

<http://techttablets.com/forum/topic/dual-os-version-announced/page/2/#post-27702>

<https://mega.nz/#!7B4Anbza!CNW5BsyKKFKLrLg53Xx2OrhSDuZ0qwn5mVNHsgQj-eM>

Plug the CH341 into your computer. Unzip the flash packet posted by Chris but don't install ver 1.18 as it's too old. Open the Treiber folder (I think German for driver) and run the driver setup:



I used an old computer as it's not a signed driver and will have trouble with Windows later than win 7. Someone may know a link to an updated driver.

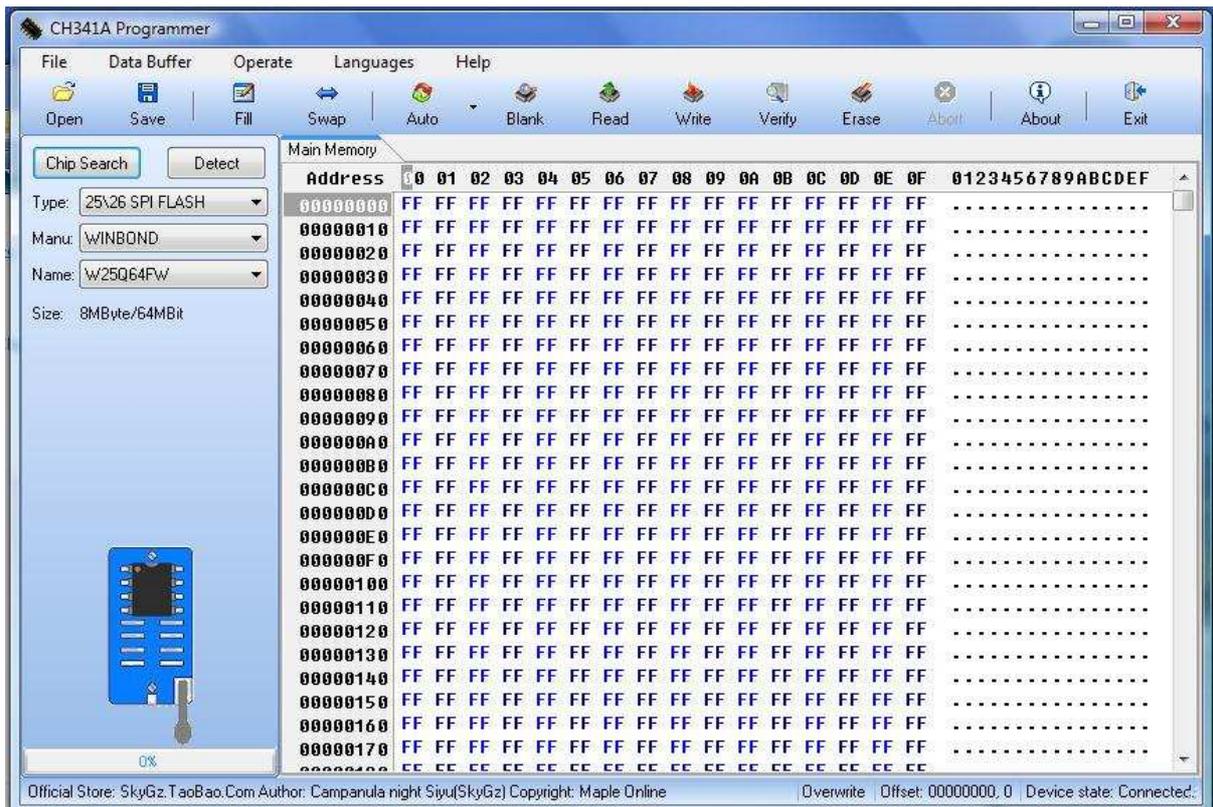
Accept the warning



Then install the version 1.29 software you downloaded separately.

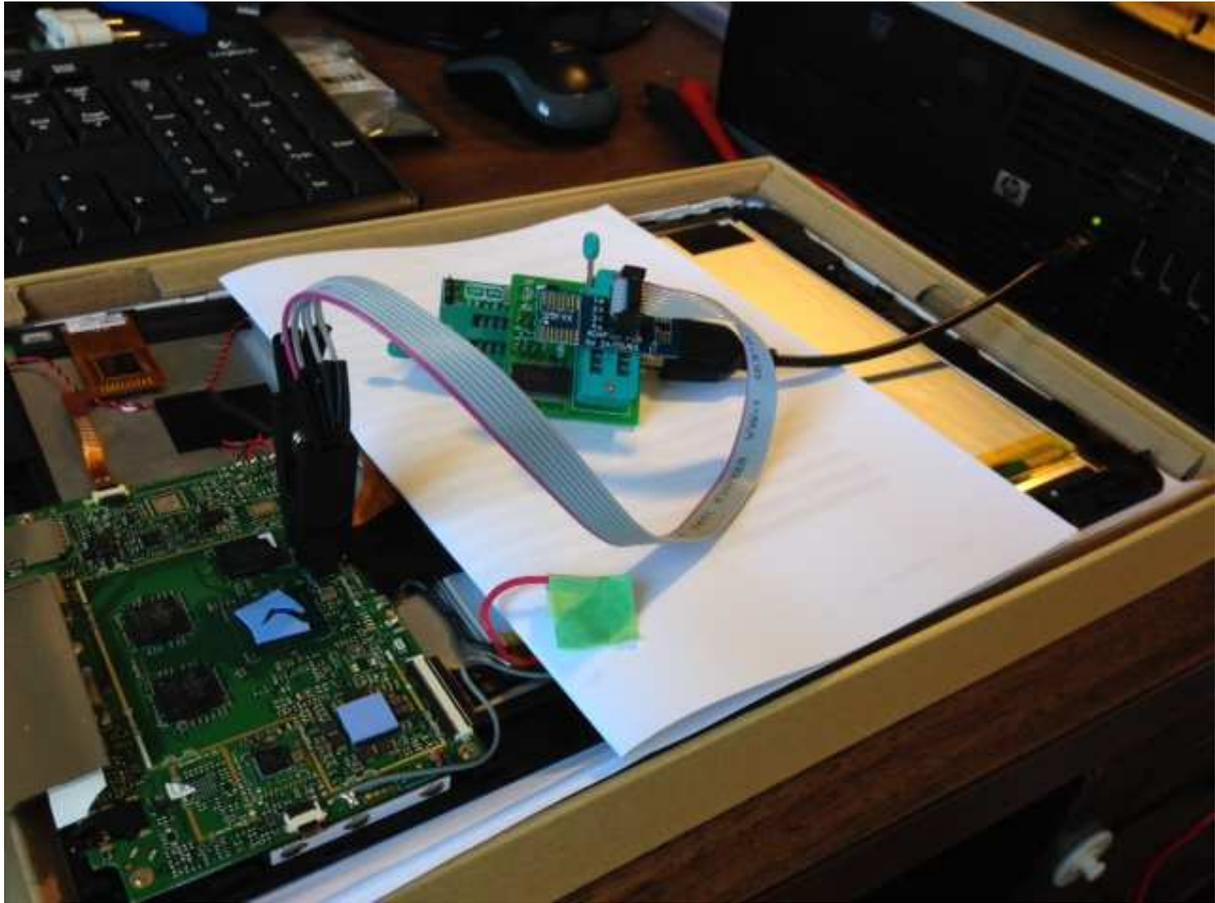
I still got a warning about the driver when I opened the software but I clicked OK and it worked.





Make sure the correct chip is selected as shown.

I would now unplug the usb while you attach the Test Clip to the BIOS chip making sure the red wire is positioned at pin 1 indicated by dot on chip.



Plug usb back in and make sure you see device connected in bottom corner.

Click the detect button and you should see additional information about your chip indicating good connection with test clip.

At this point you could do a read and save a backup of your chip but if it's not even booting there's not much point in that.

Click Erase to wipe the chip

Click Blank to check the chip is blank

Open the BIOS file you want to flash. Please refer to these links and be sure to get the right one for your version of Hi12 (single or dual boot).

<http://forum.chuwi.com/thread-1160-1-1.html> Dual Boot

<http://forum.chuwi.com/thread-277-1-1.html> (old single boot Win 10)

Unzip the BIOS rar but you only need bios.bin for this method of flashing so discard the rest:

efi	5/05/2016 10:21 a....	File folder	
afuefi.efi	24/06/2015 11:50 a...	EFI File	315 KB
afuefix64.efi	24/06/2015 11:49 a...	EFI File	368 KB
afuwin.exe	24/06/2015 11:44 a...	Application	301 KB
afuwingui.exe	24/06/2015 11:46 a...	Application	541 KB
afuwinguix64.exe	24/06/2015 11:47 a...	Application	713 KB
afuwinx64.exe	24/06/2015 11:48 a...	Application	366 KB
amifldr32.sys	5/12/2014 2:58 a.m.	System file	14 KB
amifldr64.sys	5/12/2014 2:58 a.m.	System file	18 KB
bios.bin	29/04/2016 8:40 a....	BIN File	8,192 KB
E4D6_HI-122LP.223	29/04/2016 8:40 a....	223 File	8,192 KB
startup.nsh	28/04/2016 7:36 p....	NSH File	1 KB

Once the file has loaded, click Write to send it to the chip and then click verify to check.

Some more links:

CH341a

<http://www.banggood.com/CH341A-24-25-Series-EEPROM-Flash-BIOS-DVD-USB-Programmer-p-929338.html>

Test Clip

<http://www.banggood.com/SOP8-SOIC8-Test-Clip-With-Cable-For-EEPROM-93CXX-25CXX-24CXX-p-924051.html>

Search Aliexpress or other for:

1.8V Adapter, SPI Flash Memory SOP8, DIP8

