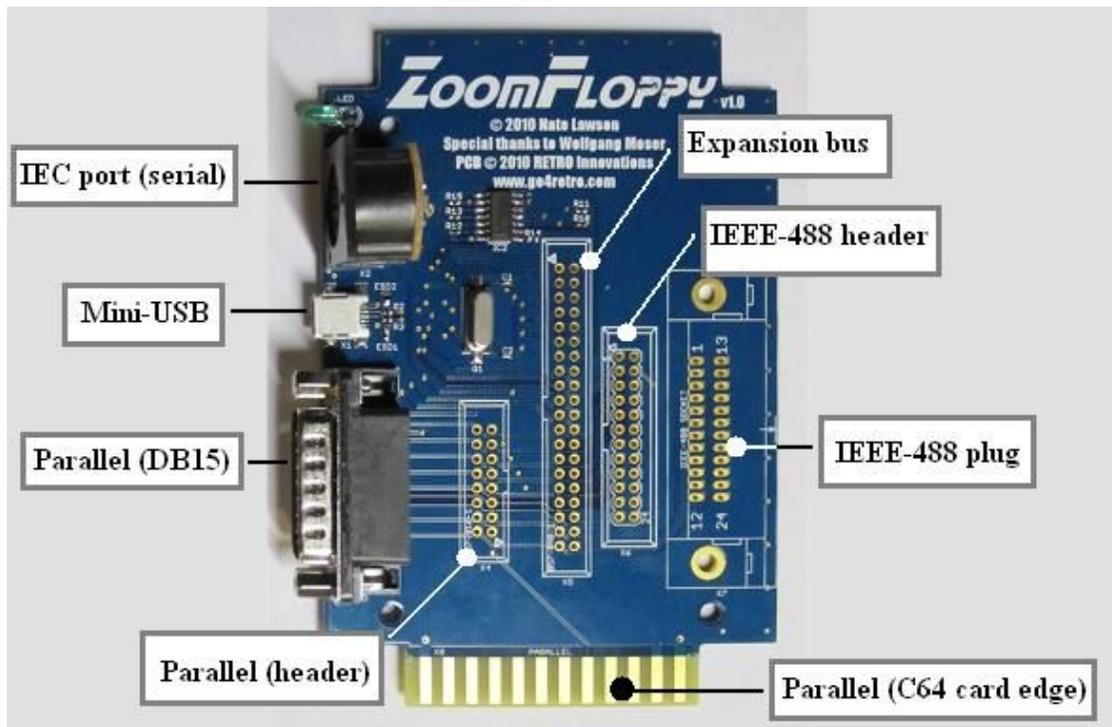


Instruction Links:

- General thread on using ZoomFloppy:
<https://www.lemon64.com/forum/viewtopic.php?p=793477>
- ZoomFloppy manual: <http://www.root.org/~nate/c64/ZoomFloppy-Manual-2.0.pdf>
- OpenCBM installation: <https://opencbm.trikaliotis.net/opencbm-8.html>
- ZoomFloppy Introduction w/ link to CBM: <http://www.go4retro.com/products/zoomfloppy/>
- C64 + Copy Protection <http://root.org/~nate/c64/>
- ZoomFloppy Case make files: <https://www.thingiverse.com/thing:2549678>
- Video of setup (with 1541): <https://www.youtube.com/watch?v=rdAzAIPkbf4>
- Video setup (with 1571): https://www.youtube.com/watch?v=ZKGzetLJ2_I
- Lemon64 thread on 1571 + ZoomFloppy*:
<https://www.lemon64.com/forum/viewtopic.php?p=779911&sid=ca71820bccaa13a3d2eac7a748d7979e>
- Basic 7.0: <https://www.c64-wiki.com/wiki/BASIC>
- <https://www.c64-wiki.com/wiki/C64>
- C64 Basic v 2.0 commands: <https://www.c64-wiki.com/wiki/C64-Commands>
- C64 compatibility mode for C128:
<https://wpguru.co.uk/2018/05/how-to-enter-c64-mode-on-a-commodore-128/>
- Commodore128 Programmer's Guide:
<https://www.pagetable.com/docs/Commodore%20128%20Programmer's%20Reference%20Guide.pdf>
- Windows 10 driver issue:
<http://cbm-hackers.2304266.n4.nabble.com/zoomfloppy-with-windows-10-td4663304.html>
- **Link to NC Archivist Report:** Trujillo, S. M. (2013). Living Legacies: Recovering Data from 5¼" Floppy Disk Storage Media for the Commodore 64. Journal for the Society of North Carolina Archivists, 10(2).
http://www.ncarchivists.org/wp-content/uploads/2017/08/JSNCA_2013_Vol10No2.pdf
- Linux Zoomfloppy Install Instructions:

ZoomFloppy Diagram



Necessary peripherals and software:

- Mini USB to USB
- 6pin cable

Connect 1571 to C128

- Monitor
- C128 Computer/keyboard
- 1571 drive
- Joystick
- AC adapter

OpenCBM versions installed:

- OpenCBM 2.0: <http://www.root.org/~nate/c64/xum1541/index.html> (this isn't working on the W10 machine)
 - Make sure to uninstall this fully before installing anything else
- OpenCBM 0.4.99.99 <https://opencbm.trikaliotis.net/> (haven't tried)

C128 Setup with 1571 drive

- **Boot C128 into C64 compatibility mode**
 - Hold down the C= key (Commodore key, bottom left), then reset or turn on the machine. This will boot the C128 in C64 mode. At the same time, a connected

1571 drive will automatically be switched into 1541 compatibility mode. This can be useful if your game relies on a real 1541 drive (for whatever reason), or if you have a broken 1571 on which the seance read/write head isn't working well.

Run game

- First run Load command
 - LOAD "\$",8 loads the disk directory
- After load command, LIST to list file directory
- RUN - run program

Software Installation

Software for Computer to set up ZoomFloppy

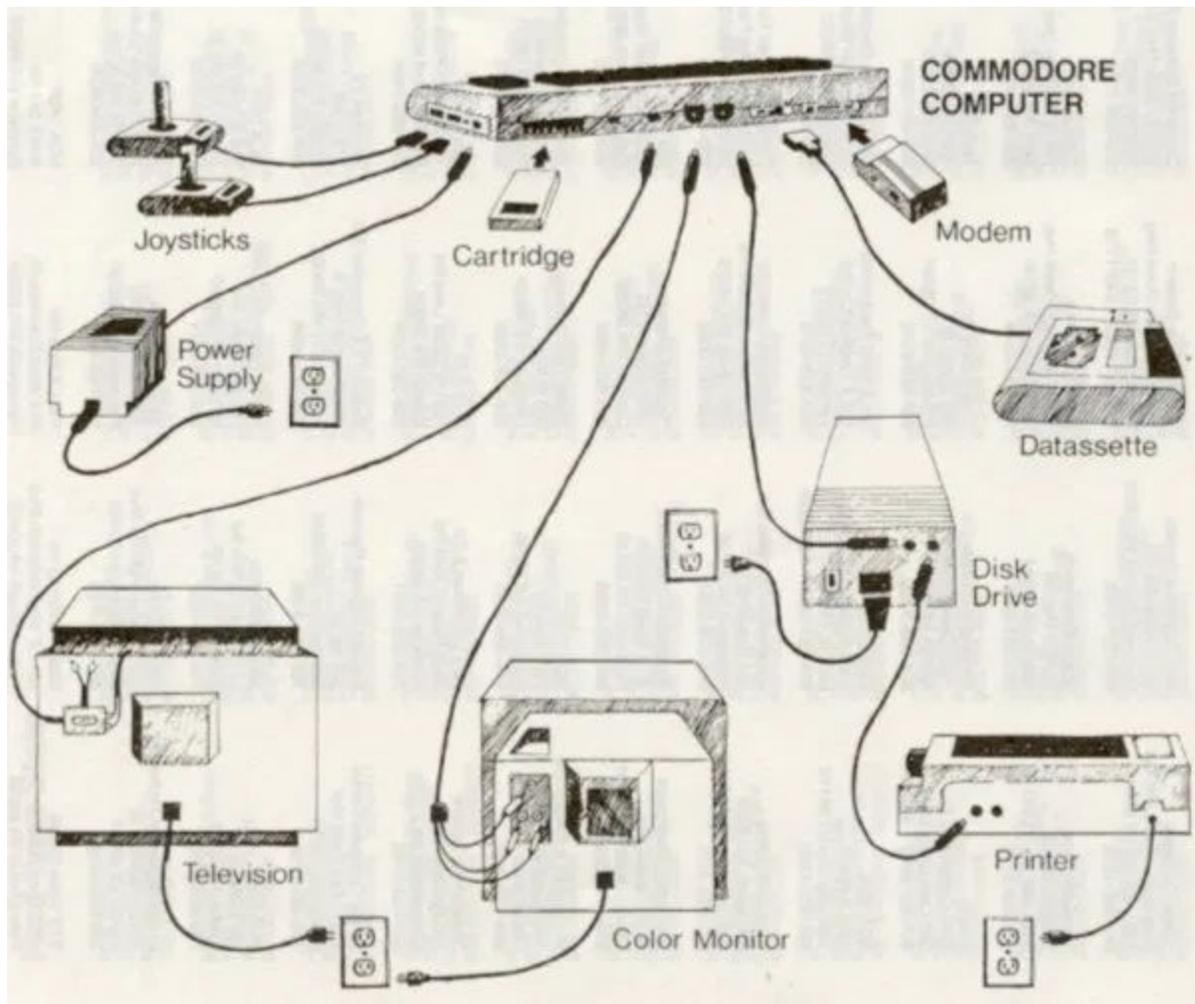
1. Install OpenCBM (completed)
2. Disable digital signature information (must do it before reboot):
<https://www.urtech.ca/2016/01/solved-the-third-party-inf-does-not-contain-digital-signature-information/> (completed)
3. Next step: Plug in the ZoomFloppy via USB and install the Windows driver

Cleaning

Connect ZoomFloppy to computer and drive

1. Start with drive off and ZoomFloppy unplugged from the PC's USB
2. Plug in all cable(s) between ZoomFloppy and drive
 - a. Minimal viable setup
 - i. Mini-usb to USB
 - ii. 6-pin cable
 - b. High-performance w/ parallel cable: three ways to connect drive and ZoomFloppy
 - i. C64 cartridge plug to DB15-M cable, it attaches to the card edge at the bottom of the ZoomFloppy
 - ii. DB15-F to DB15-M cable. This connects to the DB15 plug on the left side of the ZoomFloppy
 - iii. Solder a 2x8 header onto connector X4
3. Plug in ZoomFloppy via USB
4. Turn on drive power switch(es)

Commodore 64/128 Setup:



Following this diagram will help set up the Commodore system. Make sure power is turned off while connecting the power supply to the Commodore and electrical outlet. Make sure that the RGB switch is pressed down on the Commodore monitor, otherwise you will just have a blank screen.

Note on the monitor: from what I can find online, the power switch on the commodore breaking is a common occurrence. Repairing it requires a new switch and the ability to solder the power wires onto the new switch, as seen here:

<http://www.retro-commodore.eu/2014/04/12/c1084-power-switch-replacement/>

Games Tried

- [Fast Hack'Em](#)
 - C64 nibbler
- Beach Head (wiki | [manual](#))
 - Syntax errors
- Speedscript
 - File not found error; nothing on disk or disk is messed up?
- Loan Analysis
 - Could get into load but it loaded gibberish

Notes and Errors

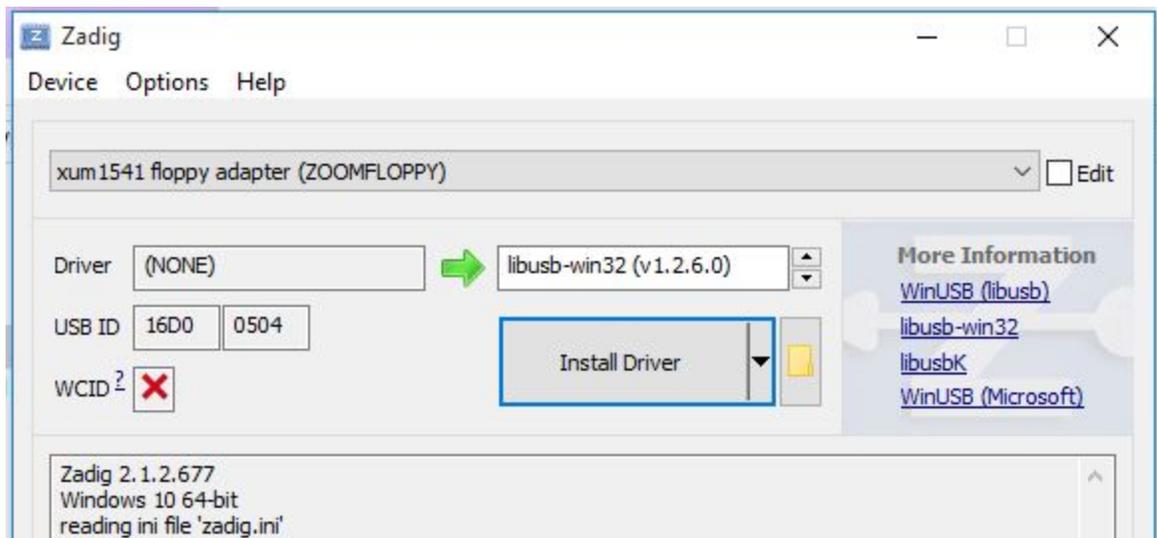
- Direct mode only error
 - <https://mirror.thelifeofkenneth.com/sites/remotecpu.com/Commodore/Reference%20Material/Books/C128%20Programming%20Books/Advanced%20Commodore%20128%20Graphics%20And%20Sound%20Programming.pdf>
- Syntax error
 - At 0
 - At 3154
- Once we changed compatibility modes, we were able to see the splash pages for game but could never actually get the games to load and run. Why???

Commodore 64/128 Imaging Workflow:

Installation and First time setup:

Step One: Install Software:

1. Install the Zoomfloppy driver, using Zadig, a free driver installation tool available here <http://zadig.akeo.ie/>
 - a. Unzip the download file and launch the tool. It may require admin access in order to run.
 - b. Make sure your zoomfloppy is connected by USB to your PC
 - c. Zadig should tell you it found the "xum1541 floppy adapter", and that it wants to install the libusb-win32 driver. The USB id is 16D0 (vendor) and 0504 (product). It should look like this:



- d. If it doesn't, select "Options" and make sure that "List all devices" is checked
- e. Once all of the settings are correct, press 'Install Driver'

2. Install OpenCBM, downloaded from

<https://spiro.trikaliotis.net/Download/opencbm-0.4.99.99/opencbm-0.4.99.99.zip> (if this link is broken, check <https://spiro.trikaliotis.net/opencbm#download> for other download mirrors)

- a. Unzip the OpenCBM package to a directory of your choice.
- b. Open a CLI of your choice (Cmd.exe by default) and navigate to the directory you just unpacked (cd "directory path")
- c. Run the command "install zoomfloppy"
- d. Add the OpenCBM directory to your machine's path, if possible. For details on how to do this, see [here](#)

3. Install CBMXfer (a GUI frontend for OpenCBM), downloaded from

<http://www.6502.org/users/sjgray/software/cbmxf/cbmxf.html> (Recommend the 1.00 Version)

- a. After unzipping the package, run the installer. When it prompts you to select where to install it, make sure to install it to your OpenCBM directory.

Copying Files and Programs:

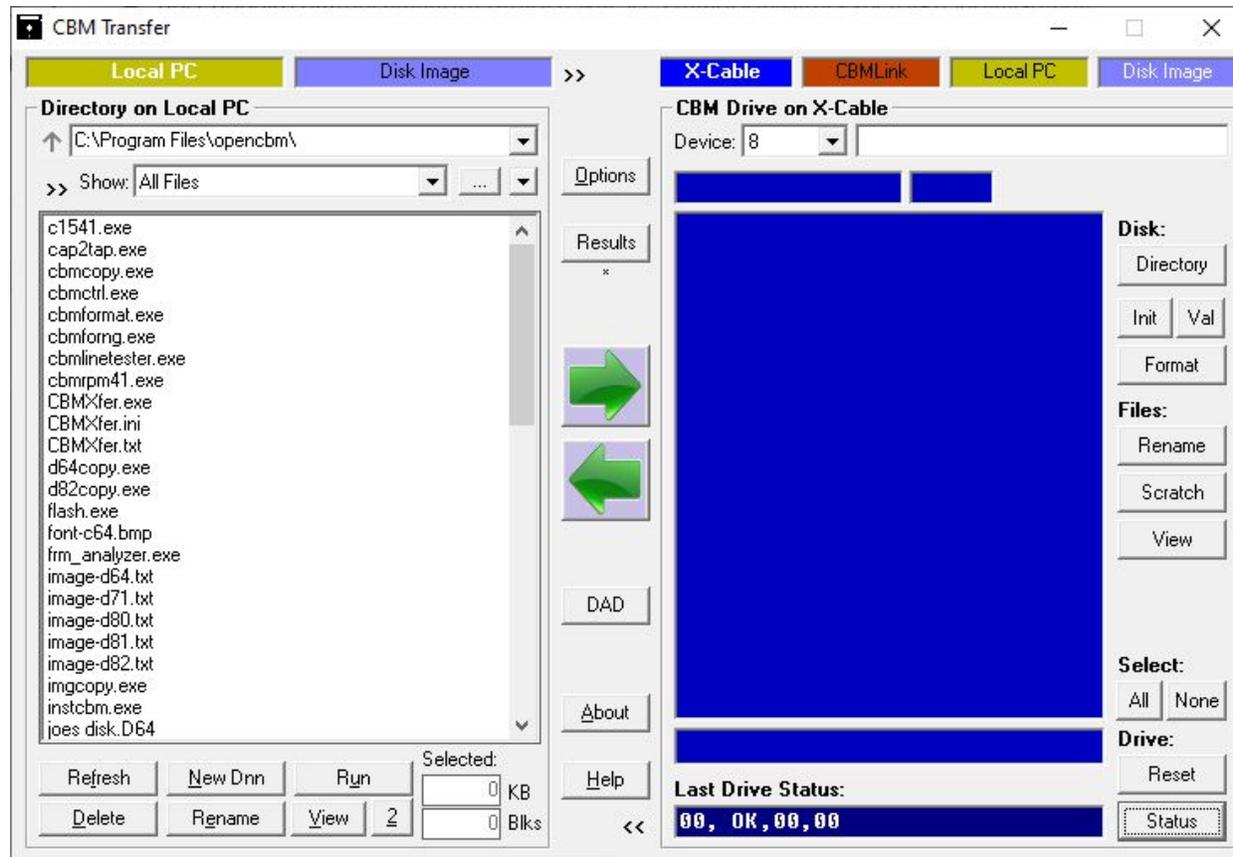
1. Setup:

- a. Starting with everything unplugged, plug your zoomfloppy into your C64/128 drive using the 6-Pin cable.
- b. Plug the zoomfloppy into the PC via the USB to micro-USB cable.
- c. Turn on the C64/128 Floppy drive
- d. Open a CLI and run the command `cbmctrl detect` (make sure to navigate to the OpenCBM directory if you did not add it to your machine's PATH)
- e. This should return a printout with any detected devices. If your device does not appear, something is wrong and you should go back through the

installation/setup again. (make sure to uninstall OpenCBM and CBMXfer before reinstalling them)

2. Copying

a. Launch CBMXfer:



- Click "X-Cable" on the top right half of the screen:
- Click status twice, the drive should return "00, 0K, 00, 00"
- Insert the disk into the drive. Close the latch on the drive
- Make sure the "Directory on Local PC" is set to where you'd like the copied image or program to go
- If copying an entire image, simply click the large green arrow pointing toward the PC side of the screen (this is the bottom one). It will prompt you and confirm you want to image the entire disk, and also may ask you for what tool you want to use (in the case of a disk it is having trouble reading). Select the default option.
- If copying a single program, click the "Directory" button to get a list of programs on the disk, and then highlight the program you want to copy, before pressing the green arrow.

3. Disconnecting the zoomfloppy

- Shut off power to the C64/128 Floppy Drive. Remove any disks still in the drive.
- Disconnect the zoomfloppy from the floppy drive
- Disconnect the zoomfloppy from the windows PC

