



ZX2020

ZX81 Composite Video Mod

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The ZX2020 is a composite video mod for the Sinclair ZX81 computer. The idea is to bypass the existing RF module and change the RCA port on the RF module into a composite video out so the ZX81 can be used on more modern TVs that have either a SCART socket or a Composite Video socket. Usually denoted with a Yellow RCA socket.

WARNING: TO INSTALL THIS MOD YOU HAVE SOLDER AND DESOLDER COMPONENTS ON YOUR ZX81 AND IF NOT HANDLED WITH DUE CARE YOU COULD DAMAGE YOUR COMPUTER. ONLY INSTALL THIS MOD IF YOU ARE PROFICIENT AT DOING SUCH MODIFICATIONS. WE WILL NOT BE HELD LIABLE FOR ANY DAMAGES OCCURS WHILE THIS MODULE IS INSTALLED.

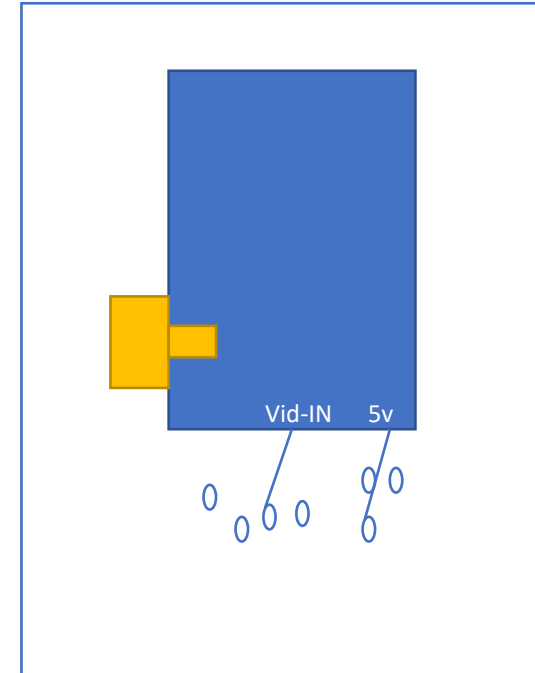
Installing the mod

- Step 1. Carefully remove the lid of the RF module and detach (or desolder) the resistor that is connected to the inner pin of the RCA socket.



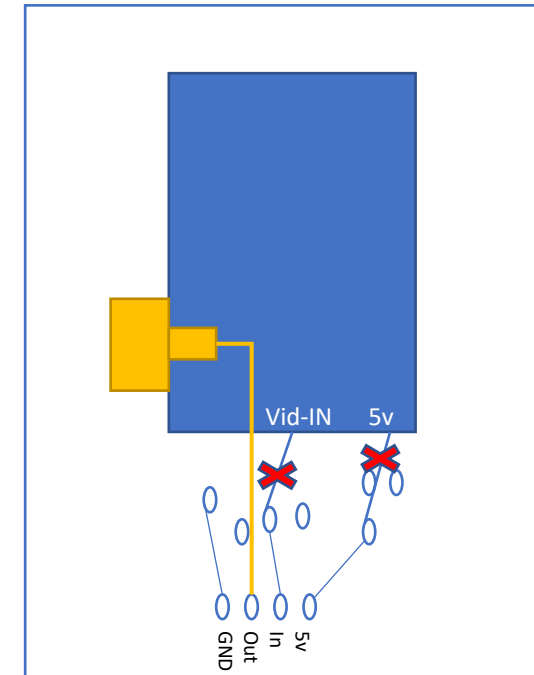
Installing the mod

- Step 2. The existing RF module has 2 wires going into it and takes a ground(GND) from the bottom of the board. The 2 wires are video-in which enters around the middle of the RF box and 5v which enters the RF box in the right bottom corner. These need to be detached from the RF box, but remember where they came from because we need them to feed the new mod.

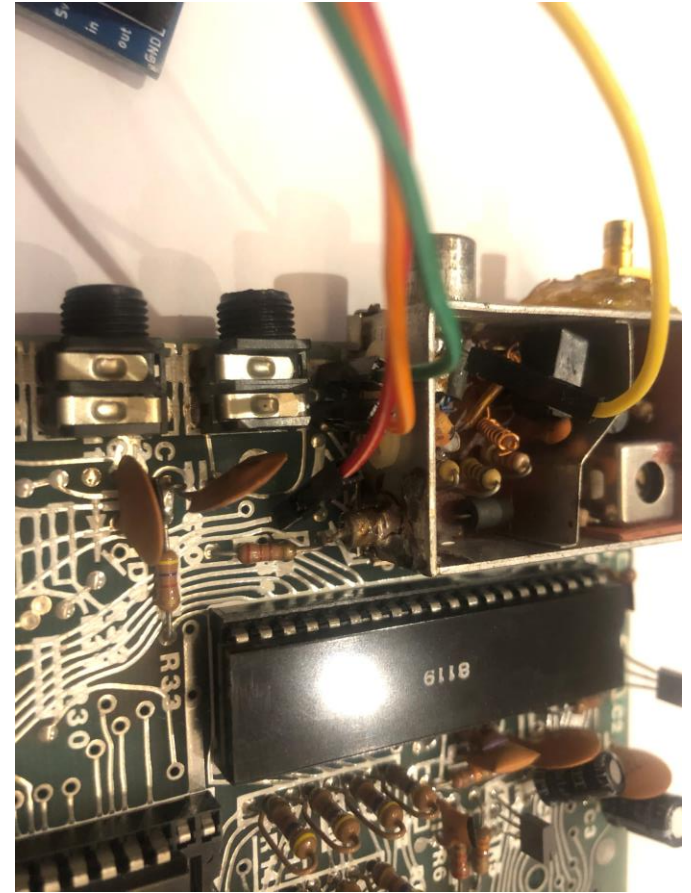
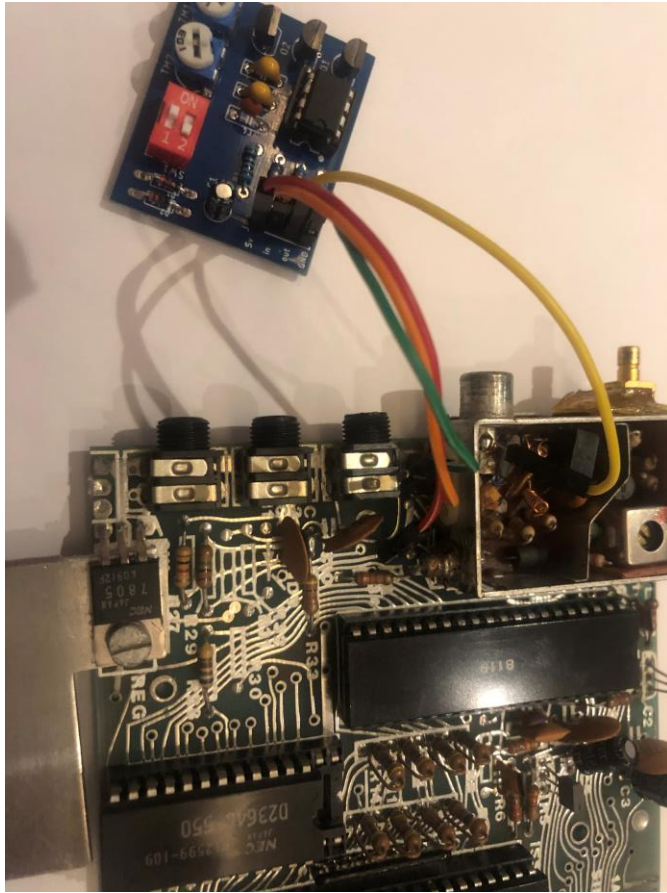


Installing the mod

- Step 3. You will notice 4 pins on the new mod labelled (5v, in, out, GND). The 5v pin needs to be connected (by soldering) to where the 5v line was before. IN needs to be connected where the video in was connected before. Out needs be connected to the inner pin on the RCA socket where we detached the resistor in Step 1 . You can take a ground(GND) from where it shows in the diagram or by soldering it to the RF box itself as its grounded.



Some example pictures



Operating the mod

- The mod offers 2 options for use:
 - ZX81 that requires a back porch function. With this option you can tweak the picture with the 2 trim pots TM1 and TM2
 - ZX81 that doesn't require a back porch function
- Choose which option you want by selecting them using the switches
 - 1on / 2off = back porch
 - 1off / 2on = no back porch

NOTE: THE MOD WILL NOT OPERATE IF BOTH SWITCHES ARE ON OR BOTH SWITCHES ARE OFF.

Final Note

- We cannot guarantee it will always work due to the age of the ZX81 machines but we have observed it operational with several units and people testing it on social media groups.
- The Mod is a hybrid of a 2 composite mods, and one of them is from the original zx.zigg.net work. Both mods have been extensively used for many years and we have brought them together in one module.

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