

XTIDE build instructions

From VCWiki

Assembly instructions for the XTIDE 2 cards.

You will need:

- 1) XTIDE kit (pcb and components)
- 2) soldering iron (10-15w iron from radio shack will do)
- 3) solder (flux core works, whatever you can get for electronics work)
- 4) wire cutters
- 5) drill with small bits (for mounting the bracket to the card) - optional

1) Start with the sockets first.



Take the 10 sockets and fit them into the mounting holes, noting the direction tab/indent on the left side of each socket should match the silkscreen on the PCB. I lay all of the sockets in at the same time, then lay something flat over the top of them (I've used a CD-ROM before, or some thin, but stiff cardboard) and then while squeezing the PCB+CD together, flip the PCB over and carefully lay the CD down onto the table. Slowly slide the CD out from under the PCB without lifting up too much, so you can keep all of the sockets in their mounting holes.

Solder every pin of every socket down to the PCB. I won't give any advice on soldering here, you can watch some youtube videos for that. [How To Solder \(/web/20110404135344/http://www.youtube.com/watch?v=I_NU2ruzyc4\)](http://www.youtube.com/watch?v=I_NU2ruzyc4)

2) Install the resistor packs. (RR1 and RR2) Make note of the orientation of the packs; the printing on the device should face down toward the ISA connector. Throw a small piece of tape over the top of the pack connected to the socket below it to keep it in place when you flip the card over for soldering.

3) Install the headers.

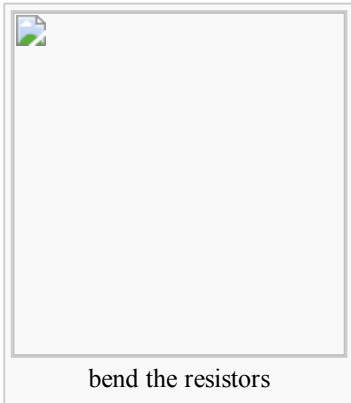


Place the 40 pin header in, with the longer side of the pins facing up out of the card. (that's where the IDE cable goes). Put the 14 pin header in at this time too. You may want to reuse that tape to help stick the connector down when you flip it over. Install the 2 pin connector just above U10 here, and figure out some way of doing the 3 pin header to the right of the IRQ select. Depending on your kit, you may or may not have received an actual single row, 3 pin header. You may have to break apart a 2 pin header to do get it to work. (or only install the L side of the 3 pin header, that's very likely the only one you're going to need)

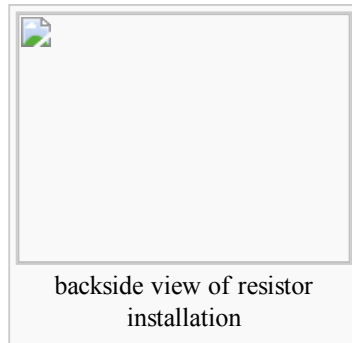
Tip: if you are installing the 3 pin header by using 1 and 1/2, two pin jumper headers, first install a two pin header, throw some tape over it, and solder it in place. Then take the single pin, insert it into the PCB, and then place a jumper over the single pin and 1 of the pins that you just soldered down. That will hold it in place right where it needs to be when you flip the card over. (as pictured)

4) Now install the dipswitch. While you're working on the switch, set the switches to DUUUUDUU for default 300 IO and D000 for memory range.

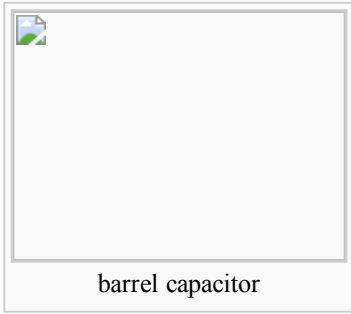
5) Install the 10 capacitors next to each socket. It does not matter which direction they are mounted; just mount them all the same direction for consistency. I traditionally do it with the printing on the capacitor facing toward the IDE connector. Slide the legs of the caps all the way through the holes, and bend them out on the other side to hold the cap in place before you solder it down.



6) Install the resistors at the same time as the caps. There are 6 resistors in R2-R7. They are all the same. The 7th resistor goes in R1, above the eeprom socket. Bend the legs into a U shape, with the resistor in the middle of the U and slide the legs through the holes. On the other side of the PCB, bend the legs out so the resistors are held in place when you flip the card. Solder everything down and trim the legs off the caps and resistors.



7) Install the large barrel capacitor in C0. This device is polarity sensitive! The + side of the capacitor is on the top of the board (where it says C0 on the silkscreen) and the negative side is on the "47uF" side of the silkscreen. The stripe on the capacitor itself denotes the negative leg.



8) Install the LED. Likewise with step 7, the LED is polarity sensitive. Notice that the round base of the LED itself is slightly flattened on one side. That side goes UP on the PCB. (near the "D" in LED printed on the silkscreen)



Finished with the soldering!

9) Install the ICs. Follow the printing on the silkscreen to know which IC you need in which position. Note that there is a small tab/indent on one side of the IC. Make sure that tab matches the tabs on the sockets, otherwise you'll end up putting a part in backwards and frying it. (all the tabs should be on the left side as you are facing the card, and all the printing on the ICs should be right-side up. You will likely have to bend the pins slightly to get the IC to fit into the socket. Lay the edge of each IC on the table and try to slightly bend the entire row of pins at the same time. Press each IC into the socket firmly, and

make sure that all the legs are going into the socket properly and not bending underneath the IC itself.

-- attach the bracket---

10) Install jumpers on pins JP1 and JP2, and K1 should be jumpered into the L position. At this time, the XTIDE does not use IRQs, so you can leave that jumper block empty.

11) Attach a hard drive cable to the IDE connector. Note that pin 1 of the cable (typically noted with a RED stripe on the cable) connects where the "1" is on the silkscreen. If your cable has 1 pin filled in, you may need to use the cutters to cut 1 pin off the header, or just bend that pin out of the way. It's not connected to anything and is used to help key the cable to the header.

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- This page was last modified on 28 November 2009, at 03:11.