

MacFloppy

| |
|----------------------|
| COLLABORATORS |
|----------------------|

| | | | |
|---------------|-----------------------------|-----------------|------------------|
| | <i>TITLE :</i> MacFloppy | | |
| <i>ACTION</i> | <i>NAME</i> | <i>DATE</i> | <i>SIGNATURE</i> |
| WRITTEN BY | | August 24, 2024 | |

| |
|-------------------------|
| REVISION HISTORY |
|-------------------------|

| | | | |
|--------|------|-------------|------|
| NUMBER | DATE | DESCRIPTION | NAME |
| | | | |

Contents

| | | |
|----------|---|----------|
| 1 | MacFloppy | 1 |
| 1.1 | Amiga Interface for Macintosh 800 KB disk drive | 1 |

Chapter 1

MacFloppy

1.1 Amiga Interface for Macintosh 800 KB disk drive

Amiga Interface for Macintosh 800 KB Disk Drive

This hardware project allows you to connect a 800KB disk drive from and Apple Macintosh to your Amiga.

This is a new release of the project, because there was a bug in the picture file in the earlier release. +5V and +12V were connected, which blew a fuse on my Amiga 2000 motherboard (the motherboard must be removed from the case to replace it, and that takes quite a long time :- ().

I do not know who made the original hack, but apart from the rather serious bug in the pic-file it is quite nice work.

I have totally redrawn the schematics, and shown a suggestion of how a PCB can be made. It is not a very professional layout, with a single sided board, and a lot of jumpers, but on the other hand, it is very easy to build for the less experienced (like myself ;-)).

I built the board and used it with a SONY MP-F51W-23 drive from a dead MacPlus. It works very fine with A-Max II. If you get a drive without a BD19 connector, note the orientation of the wires on the drive:

Upper row 19 17 15 13 11 9 7 5 3 1 <- pin one marked with a V
Lower row 20 18 16 14 12 10 8 6 4 2

Happy Soldering

send comments/suggestions to

Bjarne Rasmussen
Jordbrovej 15, 1.th.
DK-8200 Aarhus N
DENMARK - EUROPE
Rest of 1992: ↵

i5bras@aud.auc.dk

The rest of this document is the original text-file.

I. To build the interface, you will need:

1 - 74LS139 Dual 2 to 4 line converter !USE LS TYPE! Don't use HCT etc.!!!
 1 - 74LS393 Dual 4-bit binary counter !SUBSTITUTES NOT ALLOWED!
 2 - 1N4148 small signal diodes
 1 - DB23 Male (To Amiga)
 1 - DB23 Female (To external drive)
 1 - DB19 Female (To Mac Drive)
 1 - Box (Radio Shack #270-230)
 Wire, perf board etc.

II. Signal Lines:

| ----- DB-23 Male (Amiga) ----- | | ----- DB-19 Female (Mac) ----- | |
|--------------------------------------|------------------|--------------------------------------|------------|
| 1 Ready/ | 13 Side/ | 1 Gnd | 11 PH0 |
| 2 Read Data/ | 14 Write Prot./ | 2 Gnd | 12 PH1 |
| 3 Gnd | 15 Track 0/ | 3 Gnd | 13 PH2 |
| 4 Gnd | 16 Write Enable/ | 4 Gnd | 14 PH3 |
| 5 Gnd | 17 Write Data/ | 5 gnd (-12v) | 15 Wreq |
| 6 Gnd | 18 Step/ | 6 +5 volts | 16 HD sel |
| 7 Gnd | 19 Dir | 7 +12 Volts | 17 Enable2 |
| 8 Motor On/ | 20 Sel 3/ | 8 +12 Volts | 18 RD |
| 9 Sel 2/ | 21 Sel 1/ | 9 NC | 19 WD |
| 10 Reset/ | 22 Index/ | 10 PWM (nc) | |
| 11 Change/ | 23 +12 Volts | | |
| 12 +5 volts | | | |

*** Consult the picture when building this project, as it contains ***
 information not present in this file!

III. SIMPLIFIED Procedure:

Cut holes in the project case for the connectors. I put the DB23's on the ends and then mounted the DB19 on the "bottom" of the case. Thus, what was the top now became the bottom. If you align the connectors just right, you will be able to slide the interface into the computer without having to lift either the interface or the computer. I put some small rubber stick-on feet on the aluminum cover near the screws to act as feet.

You can make the interface single ended or with the pass-through for the external drive. When wiring up with the pass-through, note that all signals are connected between both Amiga connectors, except for the select lines. These lines are moved over by one. The SEL1 line goes to the interface circuitry, and the other select lines are moved to the next lower logical line on the pass through connector. I.E. SEL2 Amiga goes to SEL1 external etc. SEL3 is not connected.

If you decide that you don't want or need the pass-through, you may need to add 1k ohm pull up resistors on the signal lines of the DB-19 (pins 11 to 19) in order to get reliable operation. Wire the resistors with one lead

connected to the signal line, and the other connected to the +5v supply.

Almost any construction techniques will work, although I generally prefer point to point soldering on the perf boards with copper pads when building small projects. Use a fine wire such as wire wrap wire, and check your work!

IV. A few notes.....

REMEMBER! If you are adding this to your Amiga 1010 drive, the +12 V is NOT passed through by the A1010. You must modify the drive to do so. Verify that your particular drive(s) passes all lines by testing this interface at the computer and on the end of your daisy chain of drive(s). If it fails on the end of the drive, and not on the computer, then you need to trace the drives signal wires to find what line(s) are missing.

[Back To Main Menu](#)

[Back To Projects Menu](#)