

How to Replace Your Tandy 1100FD Laptop Computer Floppy Disk Drive

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Disclaimer: The information contained herein worked for me, but use it at your own risk. If you do not possess basic electronic knowledge and skills, do not attempt this.

The problem: The floppy drive used in the 1100FD has a proprietary connector. It does not fit the standard 34 pin IDC ribbon cable used on desktop PCs. I had a hunch that a standard floppy drive could be adapted to the 1100FD if I only knew the pinout of the proprietary connector.

The solution: I bought a Tandy Service Manual (cost: \$50!), which contained the pinout of the proprietary floppy drive connector. Using this information, I made an adapter cable to connect a standard floppy drive. The cable is wired like this:

1100FD Connector (CN401) Pin	Function	Standard Floppy Drive Connector Pin
23	-INDEX	8
20	-MOTOR_ENABLE_A	10, 16
22	-DRIVE_SELECT_A	14
19	-DIRECTION	18
18	-STEP	20
16	-WRITE_DATA	22
14	-WRITE_GATE	24
13	-TRACK_0	26
12	-WRITE_PROTECT	28
11	-READ_DATA	30
9	-HEAD_SELECT	32
24	-DISK_CHANGE	34
1, 2, 4, 5	+5V	+5V (on power connector)
7, 8, 10, 15, 17	GND	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 31, GND (on power connector)

I do not recommend soldering to the flex cable that comes off of the motherboard. This type of cable does not tolerate the heat of soldering. To make the conversion cable, I desoldered the proprietary connector from the old floppy disk drive. Once this connector was removed, I cut and used the floppy drive end of a floppy disk cable and spread each conductor apart. Then I stripped the ends of the conductors and made the appropriate solder connections. Once this was done, I powered up the computer and tested the interface. It worked. **IMPORTANT:** be sure the drive select jumper on your floppy disk drive is set for drive unit 0.

Before you place the new drive into the drive bay, you must cut off the plastic spikes which are molded into the case bottom. Also, you must remove the faceplate of the drive. The faceplate is usually just snapped into place and retained by some plastic tabs. You can pull on these tabs to disengage each corner of the faceplate and then pull it off. Installing the mess back into the case is tricky. The bulk of the cable adapter must fit within the case. That means it must lay as flat as possible, less than 0.25 inch high. Even so, there is a slight bulge in the area of the case where the interface is positioned. It is not enough to prevent smooth open/close of LCD.

Be advised that even though you have replaced the old floppy drive (a 720K unit) with the new drive (a 1.44M unit), you will still be limited to the 720K format. This is due to the BIOS in the 1100FD which only supports 720K format.

That's it! Good luck!