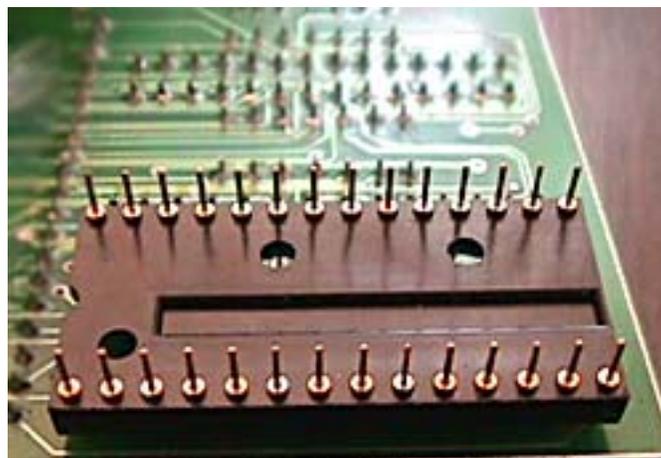


“HAPPY 1050” INSTALLATION GUIDE

COMPATIBLE WITH ALL ATARI 1050 DISK DRIVES

(OCR scan and new photos by classics@atarimax.com)





Step 1:

Install only in the Atari 1050 disk drive as shown above. Board is **not** compatible with any other Atari disk drive.

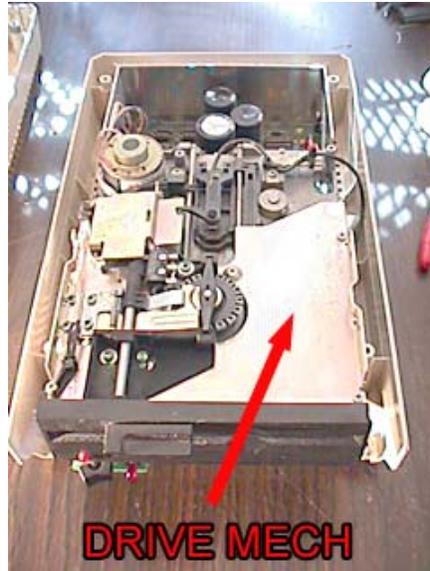
If any other drive upgrades are installed you should remove them first and make sure the drive is operating normally in its original factory configuration.



Step 2:

Disassemble the Atari 1050 drive by removing the 6 phillips screws on the bottom of the drive.

After screw removal, carefully turn the drive upright again and then remove the top half of the case by pulling the brown faceplate toward you and pulling the top shell of the drive upwards.



Step 3:

Once the top half of the drive is removed, you will need to move or remove the 1050 drive mechanism in order to access the controller PCB beneath it.

There are seven cable sets connecting the drive mechanism to the controller PCB.

There are five connectors at the rear-left, one at the rear-right, and one at the front-right.

Some drives have cables that are long enough to allow you to simply tip back the drive mechanism and work on the board beneath, but for most, you will need to remove the cables.

Make very careful notes about the order and orientation of the connectors when taking them off. You may want to take them off and replace them once before attempting to install the upgrade in order to make sure your notes are correct.

Re-installing these cables in the wrong order or orientation **will** result in the drive not working and could result in the drive or mechanism being **permanently damaged**.

There are photos at the end of this guide to help you reconnect your cables correctly if you make a mistake.



Step 4:

Once you have removed the drive mechanism you will need to remove the PCB from the bottom case. On most 1050's the PCB is held in place with two white plastic tabs. One of these tabs can be seen in the picture, above the word 'CPU' at the edge of the PCB.

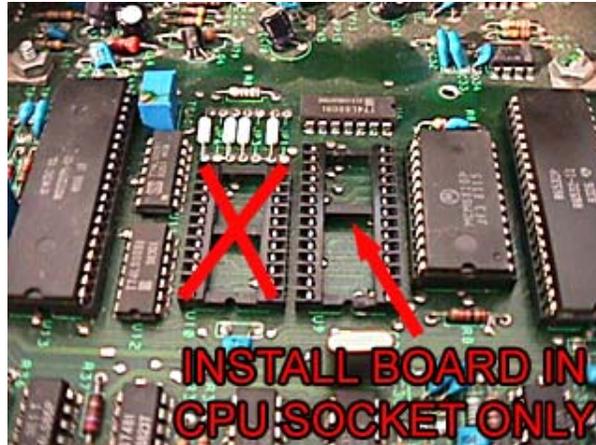
On some 1050's, the controller PCB is also secured by two tiny Phillips screws at the front-right of the drive.

Once you have removed the PCB, turn it over and **carefully** remove the RF cage using a pair of needle-nose pliers. Remove both the bottom plate and the cage covering the drive CPU.

Replace the PCB in the bottom case and re-secure it with the white tabs and screws. The drive should look similar to the photo above now.

Using a DIP-puller or a small flat-head screwdriver, **carefully** remove the CPU and PROM chips from their sockets. The PROM chip **may not be white**. It may look exactly like the CPU, but it will be in the socket shown.

Take special care not to damage the crystal in the tin can near the CPU while removing the chips.



Step 5:

Your upgrade board is static-sensitive and requires careful handling. Before proceeding, **UNPLUG ALL CABLES FROM THE 1050 DISK DRIVE**, including SIO cables.

Remove your upgrade board from its protective anti-static packaging, and carefully remove the anti-static foam protecting the gold interconnect on the bottom of the upgrade board.

The upgrade board comes with a gold header that lets the board plug right into the old CPU socket on the 1050 controller PCB.

Before proceeding look at the next page and see how the board should look after installation. The large CPU chip on the board should be facing the **REAR** of the drive, with the three smaller chips toward the front.

It is **very** important you insert this board carefully. You must align the gold pins with the CPU socket **exactly**. It is **very easy** to press the board into the socket wrong, with 2 pins hanging off one end and it will still look as if its installed right.

Once you have the board aligned properly, press it down gently but firmly into the socket slowly by pressing down on the chip mounted over the **center of the gold header**.

Verify the board is plugged in correctly and that no pins are bent before re-assembling the drive or testing it.

IF YOU ALIGN THE BOARD IN THE SOCKET INCORRECTLY OR INSTALL IT BACKWARDS, THE BOARD WILL BE DESTROYED. DAMAGED BOARDS CANNOT BE REPLACED.

Check and re-check your work carefully.



After installation, reassemble the drive by replacing the drive mechanism and screwing the front and top case back on.

The drive should operate normally when powered up. Load the run the Happy Rev-7 software and verify the drive upgrade is functional by running the Happy Diagnostic program.

Cable re-installation for 1050s with RED/BLACK connectors.

