Altair FDC+ as iCOM/Pertec FD360/FD3712

The iCOM/Pertec FD360, FD3712 and FD3812 drive cabinets are very rare, so running the software found in these folders on original hardware is not an option for most hobbyists. However, the Altair FDC+ can also be used to run most of the software found here on your S-100 computer. Drive type 8 on the FDC+ duplicates the operation of an FD360/FD3712 cabinet and interface using Shugart compatible 8" drives or 5.25"HD drives (1.2Mb drives like the Teac 55-GFR). Firmware version 1.8 or newer is required on the FDC+.

The default I/O address range on the FDC+ is 08h-0Ah to match the original Altair FDC. However, the I/O range used by FD360/FD3712 software is C0h-C1h. Unfortunately, changing the I/O address on the FDC+ requires cutting traces and adding a few jumper wires, so many hobbyists won't want to perform this modification. This leaves two options:

Option 1 – Leave the FDC+ at its default I/O address range (08h-0Ah)
> With no physical changes to the FDC+, you can run CP/M 2.2 found in the FDC+3712 folder. If nothing else, this gives you a system that is compatible with the IBM 3740 8" soft sector standard that was widely used as an exchange and archive format in the late 70s and early 80s.

Option 2 – Modify the FDC+ I/O address range to C0h-C1h
> When updated for the C0h-C1h I/O address range, all the software found in the FD3712 and FDOS (8 inch) folders will run as-is. This is the best way to go if you want to see what it was like to use FDOS and CP/M exactly as created for the FD360 and FD3712. See the FDC+ manual for instruction on how to change the I/O address.

Running Original Software with the FDC+ at C0h-C1h

The S-100 interface board provided with the FD360 and FD3712 included a PROM containing disk routines used by FDOS or CP/M as well as 1K of scratchpad RAM. This firmware was different for FDOS and CP/M. Since this S-100 interface board is not present when using the FDC+, the PROM firmware and scratchpad RAM must be provided using other hardware. The table below shows the PROM address, RAM address and the PROM file used for FDOS and CP/M. The PROM files are in the "Interface Board" folder.

O/S	PROM Address	RAM Address	PROM File
FDOS	C000-C3FF	C400-C7FF	FD3712-FDOS.HEX
CP/M	F000-F3FF	F400-F7FF	FD3712-CPM.HEX

You may find it difficult to find a PROM and RAM combination that allows this allocation of 1K of PROM and 1K of RAM on the boundaries shown. One option is to use the FLEX-64K RAM/PROM board or to simply use RAM and upload the PROM hex file from a terminal emulator before booting.