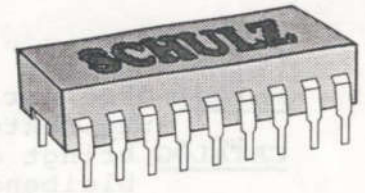


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Dear ZX - Friend,

thank you for your interest in Floppy - Disk - Controller for the ZX-81. The FDC is ready and can be purchased as a kit (or as built device).

What can you expect?

You receive a professional double sided PCB that is tin-plated, plated-through and with a solder resist mask. This makes soldering an easy job. Further you get all parts to build the FDC. This includes 14 IC, "K-RAM", a Siemens-Controller-IC and a 2K-Eprom containing complete ZX-DOS that will be described later in this manual. Also resistors, capacitors, connectors, bill of material and a placement plan.

To the connectors it would be preferable if you stated whether you plan to use the ZX-connector or the VG-64 connector.

Which commands are implemented in ZX-DOS?

The Disk-Operating-System is burnt into an Eprom and therefore is available at any time. Loading ZX-DOS from tape was out of question.

ZX-DOS has the following commands:

Command	Call
FORMAT	RAND USR 8192
CATALOG	RAND USR 8195
SAVE	RAND USR 8198
LOAD	RAND USR 8201
ERASE	RAND USR 8204

These five commands are sufficient for controlling the floppy.

At the moment only BASIC programmes can loaded/saved. A program to load and store files is being developed. ZX-DOS can handle 40 or 80 tracks and the capacity is 78K and max. 64 Files per disc.

40 tracks = 78K

80 tracks = 158K

How to use ZX-DOS?

After calling a command (e.g. "RAND USR 8192") a prompt will be shown on the screen. You have to enter a disc name for the disc (FORMAT) or a file name (LOAD/SAVE/ERASE). A maximum of 8 characters can be used. If less characters are used you have to fill the remaining characters with SPACE or NEWLINE. Everything else runs automatically. ZX-DOS takes care that every byte of the disc is used. If necessary it reorganizes the files.

<u>FORMAT</u>	writes a name to the disc and creates the tracks and sectors on the disc.
<u>CATALOG</u>	shows Diskname, filenames and remaining space on the screen. This takes about 1-2 seconds.
<u>SAVE</u>	saves a BASIC program to disk and writes filename and other parameters to the organisation sector.
<u>LOAD</u>	loads a BASIC file from disk into BASIC-RAM
<u>ERASE</u>	deletes a file from disk and reorganizes the remaining files.

Commands can be entered directly or from a program.

Example: 8000
 9000 RAND USR 8198
 9005 CLS
 9010 RUN

After entering GOTO 9000 the ZX-DOS prompt shows and you enter the file name. After reloading the program auto runs.

SAVE/LOAD without interaction is also possible:

Load: 8000
 9000 LET N\$ = "FILENAME"
 9010 FOR I = 1 TO 8
 9020 POKE(14722 + I), CODE N\$(I TO I)
 9030 NEXT I
 9040 RAND USR **9187**
 9050 RAND USR 9041

This loads a program (e.g. FILENAME). It can be used for loading the main program after a graphical loading screen or from a menu program.

Save: 8000
 9000 LET N\$ = "FILENAME"
 9010 FOR I = 1 TO 8
 9020 POKE(14722 + I), CODE N\$(I TO I)
 9030 NEXT I
 9040 RAND USR **8684**

With this loop at any part of the BASIC Program you save the program with variables (e.g. after updating the program).

In general ZX-DOS can be modified. The organisation sector contains more information (e.g. the length of the file). A commented assembler listing can be ordered on request.

Loading / saving take approximately 5-6 seconds for 16K.

(translated by paul(at)ZX81(dot)de)