

Disk Controller Model 226 - Diskotek

Firmware Revision 226.6 and later.

7110 DX

Main features: Addressing for 7 drives per controller.

Restrictions:

Drives 0 and 4 must have same number of heads and sectors.

Drives 1 and 5 must have same number of heads and sectors.

Drives 2 and 6 must have same number of heads and sectors.

Reason: There are only 4 set of switches on board.

Generation of disk partition address.

Controller address:	1st, 26	000060
	2nd, 27	000260
	3rd, 22	000160
	4th, 23	000360
	5th, 24	000020
	6th, 25	000120
	7th, 45	000220
	8th, 46	000320

Drive Number adder:	drive 0	000000
	drive 1	000002
	drive 2	000004
	drive 3	000006
	drive 4	000010
	drive 5	000012
	drive 6	000014

Number of heads in partition:	1	000001
	2	000400
	4	001000
	8	002000
	16	004000

Starting head # of partition:	2	010000
	4	020000
	8	040000
	16	100000

Post-it <sup>™</sup> Fax Note	7671	Date	# of pages ▶
To	MATT WEBER	From	STEVE OLAH
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Phone #		Phone #	
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Low level formatting of disks:

A disk of maybe formatted into 2080 or 512 bytes/sector. Proceed as follows:

On the controller set the switches:

Set the NUMBER OF HEADS for each drive

Set the NUMBER OF SECTORS per track for each drive

Reset SW2 at locations 127, 128, 129, 130 for 2080 byte sectors

Set SW2 at locations 127, 128, 129, 130 for 512 byte sectors

Reset SW1, SW2, SW3, SW4 at location 89.

Set DEVICE ADDRESS to 27 (or as desired).

Install controller.

Power up system.

Power up drive.

Boot system.

Set the FORMAT ENABLE switch for the particular drive.

(FORMAT ENABLE switches are located next to the SCSI connector)

Type: AD 660 (2 heads, drive 0, for second controller).

Computer will respond one of two ways:

660 IS NOT A PRIMOS PARTITION - disk is low level formatted, -  
reset format enable switch, skip to the MAKE program.

DRIVE NOT READY - disk is low level formatting, check light on  
drive. If it stays on, do not disturb. The low level format takes  
about 20 to 40 minutes to finish. Wait for prompt. Reset FORMAT  
ENABLE switch. The 16 LED's next to the SCSI connector will display:  
0000 XXXX XXXX XXXX. This is a hex number of the number of available  
blocks divided by 256. Convert to decimal, multiply by 256 for  
capacity.

You may type AD 660 again.

It should say: 660 IS NOT A PRIMOS PARTITION.

Now you are ready to go into the MAKE program.

For assistance, call Steve at 310-214-3637

Disk Controller 226 / 7010.

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Switch Settings for firmware FD.15:

DEVICE ADDRESS:       26 for first controller  
                      27 for second controller  
                      22  
                      23

DEVICE ID:            126 (hard wired)

SECTORS/TRACK       for each drive, locations 103, 104, 105, 106  
NUMBER OF HEADS   for each drive, locations 127, 128, 129, 130

SECTOR SIZE for each drive, SW2 at locations 127, 128, 129, 130  
reset for disk sector size of 2080 bytes  
\* set for disk sector size of 512 bytes

\* The controller uses 5 disk sectors of 512 bytes for each Prime sector of 2080 bytes. 18 percent of disk space is wasted.

The controller converts the Cylinder, Head, Sector address information supplied by the operating system into Record number required by the SCSI device as follows:

Record # = Cylinder address x NUMBER OF HEADS x SECTORS/TRACK  
          + Head address x SECTORS/TRACK  
          + Sector address

The SECTORS/TRACK and NUMBER OF HEADS are determined by the disk type (-DT XYZ) used to partition the drive.

FMT ENA: Low Level Format Enabled.  
          Set the switch of the appropriate drive ONLY.

Location 89:

SW1 not used, reset  
SW2 not used, reset  
SW3 if set, converts drive# into LUN# on drive 0  
SW4 self test loop only, reset.