

Floppy Disk Drives

TANDOS EPROM

The Tandos EPROM has two parts. In the first (lower) half is the Tandos routines. This resides in Microtan memory \$B000 - \$B7FF. The last (higher) half contains the DBASIC routines. This resides in Microtan memory \$A800-\$8FFF.

The Tandos EPROM includes the Seek and Restore routines. Both of these set the access delay interval. This give the floppy drive time to locate and settle before the next operation. For 3.5" and emulator drives the fastest access time is the most efficient. However for 5.25" floppy drives then the slowest access time is more appropriate to avoid seek errors. The EPROM locations that need adjusting are as follows:

Access time	6mS	12mS	20mS	30mS
Seek (\$B09D)	\$18	\$19	\$1A	\$1B
Restore (\$B1C0)	\$00	\$01	\$02	\$03

I use two EPROMs, one with the fastest settings for normal use and one with the slowest settings for when I occasionally use 5.25" floppy drives.

If reprogramming your Tandos EPROM it may also be useful to change the upper memory location limit if you want to load programs from disk to RAM locations between \$C000-\$EFFF (eg Tanex-Plus Page 8). Normally Tandos will not let you do this and will return a 'memory' error. To allow this operation, change EPROM location \$B3CD from \$C0 to \$F0.

Disk Definition

The very first sector on each Tandos disk (Track 0 Sector 1) is reserved for special system information. The first 8 Bytes \$0-\$7 provide the Disk Definition. These 8 bytes define the number of tracks available on each of the 8 disk drives permissible. Byte 0 refers to Drive 0 etc. A value of \$28 indicates a 40 track disk drive. The Disk Definition is loaded into RAM from the disk in Drive 0 whenever the system is Reset and is used to determine which devices are available and the number of tracks they handle (0 tracks indicates no drive). The Disk Definition may be amended by use of the [SYS](#) Tandos command. When a new disk is created, its Disk Definition should be checked and if necessary, updated immediately.

It is important that the Disk Definition loaded into RAM accurately reflects the current configuration, otherwise errors will occur and potentially disk corruption. Equally, it is important that only 40 track formatted disks are used in 40 track drives and 80 track formatted disks are used in 80 track drives.

If your system has a mixture of drive types or uses 40/80 track switchable drives, then it is helpful to label every floppy disk indicating whether it is formatted for 40 or 80 tracks and if it is to be used in Drive 0, then include the Disk Definition. I also include which drive the disk was formatted on as every floppy disk drive has a slightly different speed and track spacing. Some disks I have only operate error free when used on the drive that formatted them.