

# Dick Smith X-4060/1 Floppy Disk Drives



The X-4060 and X-4061 Floppy Disk Drives offer reliable, fast storage of data on standard 5¼in soft sector minifloppy disks. Although primarily designed for use with the System 80 Mark 1 (X-4005) and System 80 Mark 2 (X-4100) computers, in both cases via either the X-4010 or X-4020 Expansion Units, they are also very suitable for use with the Tandy TRS-80 model 1 computer. The X-4060 and X-4061 offer outstanding data storage capacity at a price significantly lower than similar drives.

Both the X-4060 and X-4061 offer 40 tracks of storage and are compatible with either FM (single density) or MFM (double density) recording formats. This means that each drive can provide either 100K or 180K bytes of storage per disk, depending upon the disk controller used – far more than the 87.5K of storage available on most 35-track drives.

The X-4060 and X-4061 drives are pre-configured for the two drive addresses needed by most users. X-4060 is the first or 'primary' drive, configured as 'drive 0', while X-4061 is the first 'add-on' drive, configured as 'drive 1'. For a single drive system, you therefore use an X-4060, while for a two-drive system you use one X-4060 and one X-4061.

For three- and four-drive systems, the X-4061 drive can easily be reconfigured as a 'Drive 2' or a 'Drive 3'.

Both the X-4060 and X-4061 drives feature an inbuilt, fully regulated 240V power supply. Unlike other drives with integral power supply, the signal connector for the drives is extended to the back of the case, for convenient attachment of the drive to a standard 34-way multiplexing or 'daisy-chain' cable. Our X-3232 cable is ideal.

Other features of the drives include a rugged precision metal diecast chassis, opto-electronic sensors for increased reliability, a 'taut-band' head positioner for fast and accurate track-to-track access, an indicator LED to clearly show when the drive is 'busy' and an external colour scheme which matches the System 80 computers.

**Cat. X-4060/1**  
**\$499<sup>00</sup> ea.**

Including Tax

## Dick Smith Electronics Data Sheet



## OS-80/MICRODOS disk operating system

A low-cost BASIC disk operating system for expanded System 80 and TRS-80 systems which are running from 1 to 4 disk drives (either 35 or 40 track). A really easy to use DOS, designed especially for business and professional use. It communicates with the user and with user programs entirely by BASIC commands.

MICRODOS comes with five utility programs:

1. A Disk File Manager
2. A set of programs for formatting disks, making backup disks, checking the space left on disks etc.
3. A disk diagnostic program (to check suspect disks).
4. A 'patching' program, to allow MICRODOS to be easily updated as Percom improves it.
5. A simple data file program, which comes with a 'data file' which is also an explanation of MICRODOS!

All of these programs are written in BASIC, and can easily be listed, analysed and modified to suit a particular use.

Cat. X-3555 ..... \$35.00

## MICRODOS Machine Language Saving Utility

MICRODOS itself is primarily intended for use by people using programs written in BASIC, and does not allow machine language or "SYSTEM" programs to be saved on disk. This Utility program allows many SYSTEM programs to be saved, then reloaded as BASIC programs.

Cat. X-3560 ..... \$35.00

## Daisy-chain cable

The X-3232 'daisy-chain' cable is needed to connect from one to four X-4060/1 disk drives to the

disk controller in either the System 80 or TRS-80 expansion unit.

Cat. X-3232 ..... \$55.00

## TRS-80 DOS patch

The X-3550 DOS patch lets you use the 40-track facility of X-4060/1 drives with a standard 35-track TRS-80 DOS. This increases storage capacity from 87.5K per drive to 100K per drive (formatted).

Cat. X-3550 ..... \$20.00

## Double Density Adaptor

The Percom 'Doubler' (X-3540) is a dual density adaptor for either the System 80 or TRS-80 disk systems. It adds double-density (MFM) storage capabilities to these systems, while still retaining the ability to operate with normal single-density (FM) disks.

The Doubler consists of a small printed circuit board module which plugs into the disk controller chip socket of the computer's expansion unit. The original disk controller chip is then plugged into a socket on the Doubler, alongside the new double-density controller.

Supplied with the Doubler is a disk containing DBLDOS, a double density disk operating system whose commands and functions are virtually identical to those of TRSDOS. Also supplied is a detailed user manual which covers both installation of the doubler and use of DBLDOS.

Cat. X-3540 ..... \$229.00

## Double Density OS-80

A double-density version of the popular and easy to use OS-80 disk operating system, for those who prefer this to the DBLDOS supplied with the Doubler. Retains all OS-80 functions, many of which are enhanced.

Cat. X-3545 ..... \$72.50

## Specification

Single/double density disk drive with inbuilt power supply, for System 80, TRS-80 and similar computers.

Medium: ANSI standard 5¼in mini diskettes (soft sector).

Number of tracks: 40

Track density: 48 tpi

Rotational speed: 300rpm plus/minus 1.5%

Data transfer rate: 125 or 250K bits/second

Recording method: FM, or MFM

Average latency: 100ms

Head loading time: 35ms

Access time: 5ms track-to-track

Head settling time 15ms

Recording density: 2938/5876 bpi maximum

Head life: 20,000 hours

Media life:  $3 \times 10^6$  passes on a single track

Dimensions: 310 x 155 x 90mm

Mass: 3.8kg

Power consumption: 240V 50Hz, 18W max

Environmental: 10 to 40 degrees C

Environmental: 20 to 80% RH (non condensing)

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