
Acorn SCSI and CD-ROM Filing System Release Note

The SCSI expansion card now provides support for CD-ROM. This release note describes the following:

- SCSI Filing System version 1.10
- CD-ROM Filing System version 2.21.

Installation note

This product requires RISC OS 3 (version 3.10) or later to be fitted to your computer. Should you need to upgrade, contact your supplier.

SCSI filing system

The SCSI expansion card hardware has been designed to minimise system bus bandwidth usage. This is particularly important when using the card in high-resolution screen modes and under RISC iX.

The RISC OS SCSI software provides high level support in the form of SCIFS (an ADFS-like filing system) for many CCS4B (Common Command Set 4B) SCSI disc drives and certain magneto-optical disc drives. It also provides low level access to the SCSI bus in the form of SCSI Driver, a generic interface which allows third parties to develop software to support other classes of SCSI devices, for example, tape back-up systems etc.

Under RISC OS, SCIFS does not support the use of more than one SCSI card in the same machine. However, RISC iX and the RISC OS SCSI Driver do support the use of multiple SCSI cards.

The points described overleaf should be noted about this version of the SCSI RISC OS software, in conjunction with the description given in the *SCSI Expansion Card User Guide*.

Supported SCSI devices

The SCSI *Expansion Card User Guide* gives guidelines for selecting suitable Common Command Set 4B (CCS4B) disc drives for use with the SCSI expansion card. In addition, the following drives have been found to work satisfactorily with the SCSI expansion card during normal use of SCSIFS:

Disc drives

- Conner CP30100 (120 MB)
- Conner CP3100 (100 MB)
- NEC DP3861 (109 MB)
- Acorn Stacking FileStore (E40S)
- Acorn Stacking FileStore (E60S)
- Fujitsu M22495A (333 MB)
- Rodime Ro3259T (250 MB)
- Micropolis 1578 (382 MB)
- Rodime Ro5180S (140 MB)
- Conner CP3200F-1 (200 MB)
- Rodime Ro3085S (60 MB)
- IBM WDS-3160 (160 MB)
- IBM WDS-380 (80 MB)
- CDC Wren IV

Magneto-optical drives

- Sony SMO-C501
- Maxstore Tahiti

The two magneto-optical disc drives are treated as fixed hard discs by SCSIFS; so you must dismount a disc using the *Dismount command before removing it from the drive.

Termination

This section only applies to users of issue 1 SCSI cards, that is, AKA30.

The issue 1 version of the SCSI expansion card uses three removable terminator packs rather than the plug-in PCB assembly used on later issue cards (and described in the *SCSI Expansion Card User Guide*). The three removable terminator packs should be used in exactly the same way as the plug-in PCB assembly, but note that pin 1 (marked with a dot) of each pack must be placed at the **opposite** end from that indicated (that is, the dot and writing on the terminator packs must face the SCSI connector).

Issue 1 SCSI expansion cards are not fitted with a second 50-way SCSI (boxed header type) connector and so cannot be used to provide a connection to a SCSI disc that is internal to the computer.

SCSI Filer

Version 1.10 of the SCSI Filer, as supplied in the ROM, supersedes earlier versions.

The SCSI Filer requires that each hard disc drive has a unique name. If a name is not unique, the system will become confused and disc operations will result in the error:

Error from SCSI filer: Ambiguous disc name

If you see this error message, dismount one of the drives and rename it, giving it a unique name. If a disc has been previously formatted and left as unnamed, you will need to give it a unique name in order to identify it.

When verifying from the desktop, the SCSI Filer reports defects as a byte offset and not as a sector offset. Use SCSIDM to map out any defects.

Note: RISC OS 3 (version 3.10) cannot address a disc larger than 512 MB in size.

SCSIDM

When sectioning a disc to include a RISC iX partition, specifying a RISC OS partition larger than the size of the disc causes SCSIDM to exit.

For further information describing the use of SCSIDM, please consult the *SCSI User Guide* and the *ReadMe* file on the Acorn SCSI and CD-ROM Utilities disc. You can read the *ReadMe* file by dragging it into a text editor such as !Edit.

Formatting

Do not attempt to access an unformatted SCSI disc (for example, by *Free or *Cat) before formatting and sectioning it with SCSIDM. If you do, or if SCSIDM reports 'Bad defect list' when attempting to select the device, leave SCSIDM and type *RmReInit SCSIIFS.

Do not re-format and section a mounted SCSI disc from the desktop CLI as the disc icon on the icon bar will not be updated and various timeout and error messages will result when attempting to dismount the 'old' disc.

CD-ROM filing system

Drives supported

The CD-ROM filing system will support the following CD-ROM drives:

Sony	CDU6111 and CDU6211. CDU561 and CDU6611 (but see the note on page 6 concerning these drives).
Philips	CM231 (but see the note on page 6 concerning this drive).
Toshiba	XM2200A.
Chinon	CDS-431 (also supplied by Cumana).
Hitachi	CDR1650S and CDR1750S (but see the notes on page 6 concerning these drives).

Due to the differences in vendor-unique commands between different CD-ROM drives, purchasers should satisfy themselves of the suitability of drives not listed above for use with CDFS.

Incorrectly-mastered CD-ROM discs

CDFS is a filing system for ISO9660 and High Sierra format CD-ROM discs. On some incorrectly-mastered CDs, which do not completely conform to the ISO 9660 standard, not all files within a directory can be seen from CDFS. If this problem occurs you should contact your CD-ROM disc supplier.

Dismounting CD-ROM discs

Data and mixed-mode CD-ROM discs should always be dismounted, using the icon bar menu option, **before** ejecting the disc from the drive. If you do not do so, you may get unpredictable errors.

Eject the disc and then re-insert it if you wish to change the environment under which you are accessing a CD-ROM (either RISC OS or PC Emulator).

When you dismount a CD-ROM disc on a system with multiple drives, you may get an error window asking you to insert the disc that you are trying to dismount. Should this happen, click on the **Cancel** button of the error window; the disc will then be successfully dismounted.

Points to note

Audio CDs

!CDPlayer is provided to access audio CDs. Attempts to access audio CDs as if they are data CD-ROM discs via CDFS may cause unpredictable results.

Sony CDU561 and CDU6611

If you are playing a CD using !CDPlayer, and after pausing the CD, you attempt to rewind or fast forward, the CD will instead stop, as if you had pressed the stop button.

Philips CM231

Early versions of CDFS SYS.DRV may exhibit problems with the Philips CM231 drive. If you encounter any difficulties, then please write to Acorn Customer Services requesting a copy of CDFS SYS.DRV version 1.02 or later.

Hitachi CDR1650S and CDR1750S

When a disc is inserted into the CD-ROM drive, the drive will perform an initialisation and read the *Table Of Contents* on the CD. If a command is sent to the drive during this initialisation, the drive may become confused and will not know that the disc has been changed. The drive may behave erratically until either you insert another disc or reset the drive.

This problem can be avoided by allowing the drive to complete its initialisation sequence before attempting to access it. This will take about five seconds.

You should not attempt to access directories on a mixed mode CD-ROM in the Hitachi 1650S and 1750S whilst it is playing audio.

***FileInfo and *Info**

*FileInfo and *Info commands are (incorrectly) case-specific and may display incorrect time and date information. *FileInfo may return 'Not found' on some files on some CD-ROM discs. Occasionally OSFILE 17 may return incorrect timestamp data for a directory the first time a particular directory is queried.

Level 4 Fileserver version 1.0

The following comments only apply to the Level 4 Fileserver version 1.0.

- If the CD-ROM disc name is greater than 16 characters in length it will not be possible explicitly to log on to such a disc.
- Unless CD-ROMs are mastered with public read access set, it may not be possible for users to access them over a network. Check this with the CD-ROM supplier before purchasing a disc you wish to access over a network.
- Level 4 Fileserver will only export the first 77 objects in a directory on a CD-ROM disc.
- Before making CD-ROM discs available over a network, purchasers should ensure that the licence conditions of the CD-ROM permit multi-user access.

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