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## CAA XXWE Installation Instructions

### Introduction

This document details the installation of an external SCSI hard drive for the Archimedes A3000, 300 and 400 series computers.

The kit you have been supplied with should contain the following:

- 1 x hard disk drive in metal case with power supply
- 1 x set of instructions
- 1 x warranty card

### Fitting the Hard Drive

The SCSI cable should be plugged into the SCSI interface card at one end, and either socket on the hard drive at the other. All connectors will only fit one way round, so it is not possible to plug these in incorrectly. However, if the plugs do not fit easily then they should not be forced, as they may be incorrectly aligned.

Plug the hard drive in to the mains supply and switch it on, followed by the computer. The green 'power' lamp at the lower right of the front panel will light to show that power is being supplied to the drive. The drive will not be formatted, so refer to the instructions and formatter utility supplied with SCSI interface card. The drive responds as a SCSI device two (see below). The formatter will need to know this before it can access the drive. When the drive is accessed, the red 'active' lamp at the lower left of the front panel will light. The drive or computer should never be switched off or reset while this lamp is lit, otherwise the data on the drive may be corrupted.

Once formatted, the drive is ready for use, and is accessed from the icon bar in the same way as any storage device on the Archimedes.

When switched off the drive automatically parks its own heads. There is therefore no need to use a separate head parking utility, but if one is used, the drive may also switch its own motor off. When restarting the motor, after this or normal power off, the drive will take approximately ten seconds to reinitialise, as the motor has to come up to the correct speed before the drive can be accessed. Subsequent accesses will be at full speed.

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## SCSI Device ID

Every device on a SCSI system is given a unique device identification number. This includes the SCSI interface card, which is usually device seven. The number is used by the computer to tell the SCSI devices which one should respond to the Read or Write request. It is therefore essential that all devices have a different number, or clashes would result and the system would not work correctly. The \*Devices command will give the device ID along with other information for all the attached devices. This command will hang if two devices are clashing.

The hard drive is supplied set as a device two and will be reported as such by the \*Devices command. It should not be necessary to change this, but there are jumper settings on the circuit board of the drive for this purpose. These are marked A0, A1 and A2 and are pairs of pins which can be joined with jumper connectors. The settings are made as a binary code with A0 as the lowest significant bit, allowing any device ID from zero to seven to be set. As supplied, only A1 will be linked giving an ID of two. If any external devices are to be added, their ID's must be checked, and changed if necessary.

The table below shows what device ID number is set for each combination of jumper settings:

A '0' in the table denotes no jumper in place

A '1' in the table denotes jumper in place

<u>A0</u>	<u>A1</u>	<u>A2</u>	<u>ID</u>
0	0	0	<b>0</b>
1	0	0	<b>1</b>
0	1	0	<b>2</b> Standard setting for external drive
1	1	0	<b>3</b>
0	0	1	<b>4</b>
1	0	1	<b>5</b>
0	1	1	<b>6</b>
1	1	1	<b>7</b> Reserved for SCSI interface card

## Terminations

A complete SCSI set-up should have terminating resistors at each end of the system. This includes the SCSI interface, as it is also a SCSI device, and this will usually be supplied with terminations fitted. As SCSI devices are added by daisy chaining, the system can be seen as being a single cable with devices at various points along the cable. The two devices at either end of this cable will therefore need to be terminated.

If this hard drive is the only device on the system, it and the interface must both be terminated. If extra devices are added, only the last one on the cable should be terminated. This drive comes with terminating resistors fitted, but these can be removed if necessary. The resistors are mounted in three sockets on the under-side of the circuit board. These sockets are marked RN201, RN202, and RN203. The three resistor packs each have a single row of eight pins. These will pull out, but note their orientation in case they need to be replaced.

If you are in doubt about any of this, please contact either your dealer or Cumana.