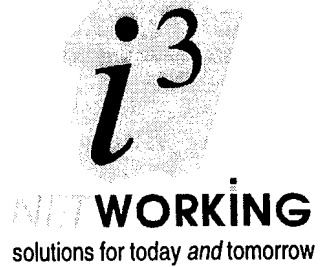


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# EtherLan 512

Ethernet Card  
for A5000/A7000 and  
Risc PC computers

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## Installation Instructions

**SAFETY WARNING!**

Before opening the computer's case switch off the computer and remove its power lead from the wall socket.

**DO NOT** reconnect the power lead to the wall socket until you have replaced and secured the cover of the computer.

**DO NOT** make any adjustments inside the computer while the power lead is connected to the wall socket.

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## Applicability

The i3 EtherLan 512 is designed specifically for the Acorn A5000 computers and fits into any of its internal expansion slots. It is also suitable for use in the older A300 series, A400 series and similar computers (e.g. the A310, A420, A540 and R260), but please refer to the section on Requirements for more information about use with these older computers.

The EtherLan 512 may also be used in an expansion slot of a Rise PC 600/700 and A7000. The Etherlan 602 card (which fits in the Rise PC's special network slot) will normally be the preferred choice for these computers; however:

- If you want to connect your Rise PC or A7000 to Econet (e.g. because you want it to act as an AUN Gateway between your Ethernet and an Econet) then the Econet interface must occupy the network slot, and you will use an EtherLan 512 card to provide the connection to Ethernet.
- If your Rise PC/A7000 is to be connected to two or more Ethernet segments (e.g. in order to act as an i3 Avignon Bridge or an AUN Gateway between the segments') then one connection will normally be made using an EtherLan 602 card in the network slot, and the second connection made using an EtherLan 512 card.

## Packaging

You will have been supplied with:

- These installation instructions, along with the EtherLan User Guide.
- The EtherLan 512 interface card, packed in an antistatic bag.
- Two M3 securing screws, metal 'T' piece and half-width blanking plate.

Do not remove the interface card from its antistatic bag until you have read through these instructions; pay particular attention to the notes on Static Electricity.

## Requirements

*(See also General Requirements in the User Guide)*

1. On the earlier A3xx and A4x0 machines the MEMC 1 A upgrade must have been installed.
2. A3xx computers must have been fitted with an expansion backplane. Only an expansion backplane manufactured using a 4-layer Printed Circuit Board (PCB) should be used; a backplane with a fan is strongly recommended.

## Installation

Before starting the installation please read all the instructions carefully. Note the safety warning on the front cover. If you do not feel confident to carry out this upgrade please take the card and your computer to an authorised dealer, who will install it for you. A charge may be made by the dealer for performing this service; any such charge will be entirely at the dealers discretion.

You will need a familiarity with the RISC OS desktop and command line interface (\* prompt) to complete the installation and configuration; if necessary refer to the Acorn RISC OS 3 *User Guide* for further information. You will need a Pozidriv No. 1 (or similar) screwdriver to perform the installation.

NOTE: The installation of the EtherLan 512 card is undertaken at the sole risk of the person carrying out the upgrade. i3 cannot accept liability for damage caused to the product during installation, whether or not the procedure was carried out in accordance with the instructions in this document.

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*Avignon* may be used to link up to nine Ethernet segments through a single computer, with very high performance; Gateway can only link two segments.

## Static Electricity

Most electronic devices can be damaged by static electricity. To reduce the possibility of damage to your EtherLan 512 please note the following points:

- Avoid working in areas where there are man-made fibres, such as nylon carpets, and avoid wearing nylon clothing when carrying out the installation.
- If possible, wear an anti-static wrist strap while carrying out the installation <sup>2</sup>. If you do not have access to such a wrist strap then discharge yourself to the earth of the mains supply to which the computer had been connected. This is best done by touching the metal case of a piece of equipment which is plugged into a mains socket.
- Avoid touching the pins of the circuit board or its components during fitting. Always hold the circuit board by its edges. If you need to put the circuit board down then either replace it in its antistatic bag or lay it on top of that bag.

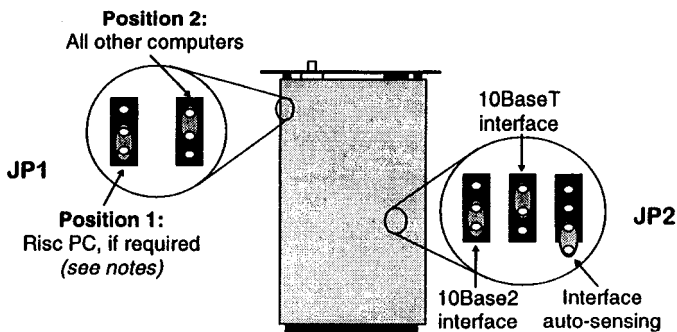
## Installing the EtherLan 512

The EtherLan 512 can be installed in an A5000 Archimedes computer, Acorn RiscPC 600/700, A7000 and any other Archimedes with the 16-bit expansion slot (A420, A540, etc.). It can be installed in any of the computer's expansion slots. If you have to remove a double width back panel to install the EtherLan card then you will need to use the single width blanking plate and back panel tee piece (supplied) to cover the hole left behind.

### Selecting the card jumper links (machine and network type)

Before you install the EtherLan card you must locate and check the positions of the jumpers JP1 and JP2 (see *Figure 1*). Refer to the Important Note after *Stage 5* of the next section to determine the correct position for JP1.

JP2 will force the EtherLan card to use *either* its IOBase2 (BNC) connection *or* its IOBaseT (RJ45) connection, according to its position. If the link is left off, or installed on only one of the pins (see diagram below) then the card will auto-select which connector to use each time the computer is powered on or reset. This auto-selection is described in the *User Guide*. Remove the card from its packaging and lay it on its anti-static bag while you check/alter the link setting. All the link setting options are shown in the diagram below.



*Figure 1*

<sup>2</sup> The special earthing connector supplied with the wrist strap should always be connected to the earth of the same mains supply as the computer was previously plugged into.

## Fitting the Interface Card

1. Disconnect the computer from the mains supply and open its case.
2. Remove an expansion card back panel. It will be easier to add additional cards if you use the bottom expansion slot(s) first. With the Rise PC refer to the instructions in the *Welcome Guide*; for other computers simply unscrew the retaining screws at either side of the panel.
3. Looking inside the computer, align the card over the appropriate expansion socket.
4. Apply gentle but firm pressure to push the card into the expansion socket. When the card has been pushed fully into the socket the back panel of the card should be flush with the case of the computer.
5. Secure one end of the back panel of the card to the computer case, using one of the screws provided. On the RisePC and A7000 both sides of the backpanel must be screwed in at this point.

If you have removed a double width back panel then you will now need to install the single width blanking plate to cover the hole left behind. Screw the supplied 'T' piece to the free side of the Etherlan 512 back panel, using the remaining screw provided. The single width blanking plate can now be screwed to the computer case and 'T' piece.

**Important Note:** Stage 5 is *very important*. The international standards for Ethernet (IEEE802.3) stipulate that adapter card must have a connection to the computer's chassis ground. On an Archimedes this can only be provided by the back panel. Consequently on the EtherLan 512 the back panel forms part of an electrical circuit to chassis ground via the case of the computer, and it is *essential* that the back panel is properly screwed in. A RiscPC must *either* have a backpanel chassis grounding bracket installed, *or* have jumper JP1 fitted in position 1 (as shown in Figure 1). All other computers should have JP 1 fitted in position 2.

6. Reassemble the computer and re-connect it to the mains.

Refer to the *EtherLan User Guide* for details of configuring the computer and testing the installed card.

## Removing the EtherLan 512

Removing an EtherLan 512 card is the reverse of the installation procedure. Remember to observe anti-static precautions and disconnect the computer from the mains before opening its case. To remove the card, gently lever it out at either side; the card should slide out of the socket. DO NOT use any sharp or pointed objects to perform this operation or you are very likely to damage the computer as well as the card. Make sure you replace the blanking plate in the back of the computer. Always store the EtherLan 512 card in an anti-static bag.

**Dealer Stamp**

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