
THE ARIES SOLUTION

With the huge range of Beeb add-ons now available, compatibility has become a real headache. Every extra you buy your computer might lock you out from a host of others, even if it works with those you already possess.

The ARIES range, designed by BBC Micro experts, offers you the solution to upgrade nightmares. ARIES products are compatible with double-density disc controllers, modems, second processors, ECONET, hard discs, EPROM programmers and, of course, other members of the ARIES family! Several major companies now test all their products with ARIES-B20 to ensure compatibility.

PROFESSIONAL QUALITY

The ARIES range is designed to work with *all* BBC Micros, not just some of them. This means it has a sensible regard for the capacity of the power supply and the natural variations in critical timings between machines. All new ARIES products are subjected to stringent testing in extreme conditions before they are released on the market.

In quality of construction, the ARIES range sets a standard against which others are judged. Custom-made connectors eliminate the damage to the BBC machine caused by inferior products. There are no awkward flying leads, no soldered connections to be made. Units are electronically tested before, during and after manufacture. And all this is backed up by the ARIES 1-year no-quibble guarantee.

ARIES-B20 20K RAM Expansion

CRUSHED BETWEEN AN IRRESISTIBLE FORCE AND AN IMMOVABLE OBJECT?

If your high-resolution screen is squeezing you from one side, and your operating system from the other, isn't it time you tried the ARIES solution? ARIES-B20 is the board which banishes forever the conflict between screen graphics and program memory. "Bad mode" and "No room" become nightmares of the past when your Beeb possesses this unique expansion.

Unlike "Sideways-RAM" systems, ARIES-B20 offers you *transparent* access to 20K of extra memory, replacing the RAM swallowed up by the high-resolution graphics modes. The extra RAM is switched in completely automatically, meaning that existing software can make use of it *without modification*.

This means that if you're a programmer, you have up to 28K RAM available for BASIC, FORTH, LISP, BCPL, LOGO and COMAL programs in ANY SCREEN MODE. If you're a business user, the extra memory is used by VIEW, VIEWSHEET, WORDWISE and many other applications. And if you're a scientific type, you can get access to a massive 47K of data storage using the Acorn-approved ARIES *FX call.

FIVE-MINUTE FITTING

ARIES-B20 simply plugs into the processor socket on your BBC Micro – no flying leads to connect and no soldering. The system is supplied with a Sideways ROM which expands the operating system to deal with the extra memory. Because ARIES-B20 can be removed at any time without risk of damage to your computer, there are no problems with your guarantee.

WHAT THE PRESS SAID ABOUT ARIES-B20

'the most exciting add-on'

– Times Educational Supplement, March 1984

'a very professional product'

– A & B Computing, March/April 1984

'an attractive solution to the lack of sufficient memory on the Beeb'

– Beebug, March 1984

'this is an impressive piece of equipment in its own right and deserve to be taken seriously'

– Acorn User, April 1984

'the trouble with a paged RAM system is that the software has to be aware that it is there.

The Aries RAM board gets round this limitation brilliantly'

– The Micro User, June 1984

ARIES-B12 Sideways ROM Expansion

ARIES QUALITY – ARIES INGENUITY

The ARIES-B12 Sideways ROM board was designed in response to popular demand for a ROM expansion board which was well-designed and well-made, simple to install, reliable when fully-loaded and compatible with ARIES-B20.

The ARIES solution is not just all of the above, but also uniquely versatile – ARIES-B12 is the first ROM expansion which may be fitted either externally or internally.

For the business user or educationalist, the compact and secure internal fitting is ideal, with the ROM board tucked neatly inside the lid where it won't cause overheating problems.

The serious software developer and the hobbyist may prefer to mount the board externally, giving instant access to the sockets for experimental purposes. A zero-insertion force socket may be fitted to the board to enhance this mode of operation.

ROM, RAM, RELIABILITY

ARIES-B12 provides a total of twelve Sideways ROM sockets (the four in the original machine are replaced by the twelve on the board), all fully accessible by the MOS Sideways ROM system. In addition, there are two sockets for Sideways RAM, giving up to 16K of RAM using two 6264 static RAM chips.

The ARIES-B12 system consists of two parts: a large, detachable 'mother board' which carries the extension ROM sockets, and a small 'base board' on a short ribbon cable, which plugs into the existing Sideways ROM sockets. This two-board design eliminates the reliability problems previously associated with ribbon-cable based systems. Prototype ARIES-B12s have worked successfully with over a metre of cable!

Although the BBC Microcomputer operating system can support up to sixteen Sideways ROMs, ARIES-B12 imposes a limit of thirteen (including the Sideways RAM). This has been done quite deliberately, as we do not believe that the standard BBC Micro power supply is capable of reliably supporting sixteen ROMs plus ARIES-B20.

PLUG IN AND GO

ARIES-B12 simply plugs into the Sideways ROM sockets on your BBC Micro. A single cable connects it to ARIES-B20, eliminating untidy and unreliable techniques such as leads stuffed down beside chip legs or soldered directly to your machine.

If you haven't yet got ARIES-B-20, a small adaptor unit is available at nominal cost.

ARIES-B488 IEEE-488 Bus Interface

The IEEE-488 bus (also known as "GPIB" or "HP-IB") is the standard method of interconnecting programmable instrumentation and control equipment. Using the bus, up to 15 devices may be connected in a single high-speed data network.

Aries Computers' ARIES-B488 is an interface unit to enable the BBC Microcomputer to control and monitor IEEE-488 bus systems. Users of ARIES-B488 include AERE Harwell, British Aerospace, ICI, MIRA, University of Cambridge and University of Manchester.

Features of the unit:

- * Fully compatible with IEEE-488 1975/78 and IEEE-488A 1980
- * Handles all IEEE-488 functions
- * Full System Controller capabilities
- * Multiple controller capability with pass control
- * Data rate 60 Kbytes/sec (maximum), 25 Kbytes/sec (typical)

- * Interfaces to Hewlett Packard computers and peripherals
- * Interfaces to CBM (PET) computers and peripherals

- * Compact self-contained unit (190mm x 160mm x 50mm approx.)
- * Internal shielded mains power supply
- * Rugged custom-made metal case

- * 3 high intensity LED bus status indicators

- * Uses Acorn-approved 8 locations in 1MHz bus
- * Torch compatible

- * Software supplied for BBC BASIC (80-track disc or cassette)
- * Universal software kernel available for CP/M
- * Other software written to order

- * Simple interface to programs – no need to fill vital ROM sockets with support software
- * Support software does not interfere with use of disc files
- * Documented sources of all support software supplied to allow user modifications

- * Comprehensive professionally written tutorial guide and reference manual

- * 1 year warranty against defects in parts or manufacture

- * Price: £235.00 + VAT
- * Educational discounts available

Prospero Software Pascal and Fortran Compilers

for the BBC Microcomputer with Z80 Second Processor

Aries Computers is the official Prospero Software distributor for the BBC Microcomputer with Z80 Second Processor (both Acorn and Torch).

Prospero Software produces two compilers for the Z80 under CP/M: ProPascal and ProFortran. Aries Computers has added its own 'BBC Micro Support Library', giving access to the features and facilities of the BBC Micro's operating system, with particular emphasis on graphics.

Prospero Pascal was the first Pascal compiler for a micro to be validated to ISO 7185 by the British Standards Institution, achieving complete conformance, with no errors. To date, no other Pascal for micros has been validated.

Prospero Fortran is a complete implementation of the ANSI '66 standard (which forms the basis for the various 'Fortran IV' implementations), plus a number of features from the later 'Fortran 77' standard.

Both compilers generate true native machine code, rather than relying on a low-level interpreter. This results in dramatic run-time performance, rivalling that obtained by hand-coded Assembler programs. Independent benchmark tests show that they also generate smaller, faster code than competing products, particularly for numerical work.

Upgrade paths? Both compilers have options for strict checking for non-standard programs, so portability to other systems is guaranteed. In addition we can supply Prospero's versions of both compilers for the 8086 and 8088 processors with CP/M-86 and MSDOS (PCDOS) operating systems: in this case the source languages are virtually identical. 68000 support is also planned for 1984.

Aries Computers can supply both the Prospero compilers in appropriate disc formats for a very wide variety of machines besides Acorn and Torch. In addition a wide range of products from all the major micro software houses (word-processors, screen editors, macro assembler, overlay linker, cross assemblers, other languages) is available, with the emphasis being on support for the serious software writer.

HOW TO GET ARIES

NOW AVAILABLE THROUGH DEALERS!

To cope with the continuing growth of demand, the complete ARIES range has now been made available through selected dealers. Although ARIES products can be fitted by a complete layman in a matter of minutes, a fitting service is offered by approved dealers to those customers unwilling to delve inside the cases of their BBC Micros.

Naturally, Aries Computers will always be happy to offer support and advice directly to the user when necessary.

ARIES Range Hardware Requirements

ARIES-B20: BBC Microcomputer Model B; MOS 1.2; hardware plugs into CPU socket, software uses one Sideways ROM socket.

ARIES-B12: BBC Microcomputer Model B; MOS 1.2; hardware plugs into all four Sideways ROM sockets and connects to the ARIES-B20. Adaptor board 'ARIES-B12C' necessary where ARIES-B20 not fitted.

ARIES-B488: BBC Microcomputer Model B; MOS 1.2; hardware plugs into 1 MHz Bus.

ProPascal,

ProFortran: BBC Microcomputer with either Acorn Z80 Second Processor or Torch Z80 card.

NB: Although the ARIES range is designed for compatibility with other products, we strongly advise you to call to check the feasibility of your proposed combination.

Ordering Information

You may order any of the above products direct from Aries Computers at the address below. Your cheque will not be banked until stock is available to fill your order. If you are not completely satisfied with your purchase, we will refund your money in full, provided that you return the goods within 14 days of shipment, undamaged, and in their original packaging. Please allow 21 days for delivery.

The prices below include postage and packing. Please add £3.50 carriage for overseas orders. Educational and dealer discounts are available on all products. Prices and specifications may be subject to change without notice. See our current price list for other products available.

Product	Price (ex. VAT)	Price (inc. VAT)
ARIES-B20	£ 69.52	£ 79.95
ARIES-B12	£ 40.00	£ 46.00
ARIES-B12C	£ 5.00	£ 5.75
ARIES-B488	£235.00	£270.25
ProPascal*	£220.00	£253.00
ProFortran*	£220.00	£253.00

*Please specify Acorn or Torch format

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