

AHEAD WITHOUT A LEAD



The stylish modular amplifier from Meridian – much neater without all the connecting leads and cables

The Boothroyd Stuart partnership is at it again. Their's is a unique partnership; Bob Stuart working full time on hi-fi electronics and speaker design while Alan Boothroyd additionally conducts an industrial design consultancy outside his work on Boothroyd Stuart products. Together they have produced, at various times for various companies, winners like the Lecson pre/power amplifier combination (the only piece of hi-fi with a permanent place in the New York Metropolitan Museum of Modern Art), the Orpheus amplifiers and, for their own company, the range of Meridian active speakers and amplifiers.

Independently Alan Boothroyd has worked on projects as diverse as the case for the BBC Microcomputer, work for Acorn, the Sinclair Black Watch, Celestion's SL6 cosmetics and a fast food cafe for the Waterloo station concourse. These boys are not short of good ideas, only time!

Boothroyd Stuart's latest Meridian product, the Component Amplifier, the Meridian Modular or Zebra, as it is variously known to members of the trade, can be seen as the logical progression from the building brick approach taken with the 101/103/105 series of preamplifier and power supply/power amp blocks.

The basic unit of the older series of Meridian electronics was a length of aluminium extrusion which cleverly

became a range of products, a pre-amp, a tuner, power supply, stereo power amplifier, or single channel power amp. Bolted or stacked together, these became the product range for the 1970s for Boothroyd Stuart. Internally, the preamp in particular benefitted from further 'modularisation' in being able to incorporate plug-in input loading or special output modules, up to and including the IMCOS 'double modules' for definitive moving coil amplification.

The Meridian Component Amplifier breaks up the whole of the traditional amplification system and turns each stage into an independent module, which offers the greatest flexibility possible over input choice. As bought the amplifier comes with six basic modules. Starting from the left these are the mains input section, the switched power supply section, the discrete left and right channel power amplifiers, the single input module and the volume control module itself.

Additional modules ranging from an FM tuner to a headphone amplifier can be inserted into the amplification chain between the right channel power amp and the volume control. Two screws on the volume control module unlock the amplifier stack and allow the volume control to be pulled away from the next module in line revealing a 24-

way pin and socket arrangement.

The pins carry all the signals and control voltage necessary for the amplifier's operation. This Meridian call their Audio Bus Bar and its 24 gold pins are divided up between logic control, the send and return balanced audio lines to and from the volume control, balanced lines for the tape output, the various power supply lines and the earth lines for power, signal and logic circuitry.

The Meridian breaks up the whole of the traditional amplification system

The bus bar is the key to the unique flexibility of the Meridian Component Amplifier. As extra modules are added they can pass on the information by joining up with the bus bar, they can take power from it and regulate it to their own requirements if need be, they can send and receive signals from other modules but always they form part of the spinal chord of the unit — just like another vertebra locking into place with its blood and nerve supply.

But any audiophile is going to start questioning the replacement of stout phono sockets and quality plugs with tiny pins, and because the amp is modular doesn't this mean that there

are pins and sockets everywhere you don't need them?

To overcome all such problems the amplifier operates on balanced line principles, rather like professional microphones and mixing desks, where two cables carry the signal in reverse phase. Conventional signals use one cable for signal and a supposedly grounded return 'screen'. The balanced line working has been used by Meridian in the past for 'communication' between their preamplifiers and their active speaker systems in the past and so they are no strangers to this technique of signal handling.

Though the gold-plated pins and sockets are tiny compared with a phono plug and its sockets the contact area is really no smaller. The sockets chosen have sharp contacts which dig into the gold of the pins to produce the most favourable electrical contact. Additionally the balanced line operation chosen by Meridian works at constant current which effectively removes the last criticism along with the last possibility of distortion.

In practice, I found there was no degradation audible with the input unit placed next to the volume control or next to the power amp section, nor was there any audible difference taking out the two interposing modules though more than two could conceivably be audible.

The power supply side of the amplifier uses similar technology to the fabulously powerful yet miniature Carver Cube — magnetic field amplification. These switched power supplies operate at high frequencies (unlike conventional power supplies which operate at frequencies within the audio band and which therefore can hum). The power supply takes bites of energy from the mains and stores the energy in the field of a transformer which collapses into charging the power supply capacitors. The advantages of this system are that the transformer used can be small because of the switched regime under which it is operating. The weight and size saving on bulk transformers suits this technique to the slim modular cases of the MCA.

Taking a guided tour around the amplifier it's best to start with the socket for the main lead. The MCA is always in standby mode, rather like a TV set, until switched on, keeping the memory function on tone and source alive which I'll explain later. Also on the back of the mains input module is a 4mm socket for signal

earthing and a miniature jack socket which carries a logic signal (eventually to operate an active speaker package with the MCA system).

The front of the module gives us our first introduction to the door switching system designed by Alan Boothroyd. The door flaps of operating modules are hinged and carry protruberances on their rears to click the push switch carried on the inside of the module proper. This means that to switch the amp on, or to select any input for that matter, all the user has to do is to push lightly on the top left corner of the module door; a quiet click and lighting of the appropriate LED on the module show him that his wish has been obeyed.

The power supply module comes next and is featureless save for a glint of the screening can through the grille at the back of the case. The identical power amplifier modules are recognisable by their heat sink grilles to the rear of the case. On the back they both carry printed circuit board extension 4mm speaker sockets which offer firm and intimate connection for cables with the power output transistors.

The second of the two amplifier modules carries the legend 'Mono Memo' on its door actuator. One push and the whole amplification system, tuner included if connected, reverts to mono operation. Inside the module door are two red buttons for Tone and Source Memo, which can be used to program the amplifier as to which input it should select when switched on.

The sound was dynamic detailed, exciting and fully under control

The tone memory works in conjunction with a tone control module and offers an additional tone control setting memory. This means that when a particular source is selected which, in the opinion of the user, always requires the same kind of frequency shaping (treble cut to compensate for an overbright cartridge for instance) then when that input is selected the amplifier will automatically apply the chosen and preferred tone modification.

Next in line come the slim input modules which carry gold plated

phono sockets and where I would have liked to have seen more easily interpreted labelling for left and right inputs and more accurately installed shrouding as many of my phono plug bodies fouled on the shrouding on one side.

Each input module has its door switched select button but inside the door there is an additional button marked tape copy which is the 'send' command to a tape module that this is the input to record. This operation is independent of the input that has been chosen for audition and offers great flexibility.

The final module is always the volume control which has a wear resistant ABS plastics knobs (lessons learnt from the older Meridian finish I see!). On the back of this module is a 5 pin DIN balanced output.

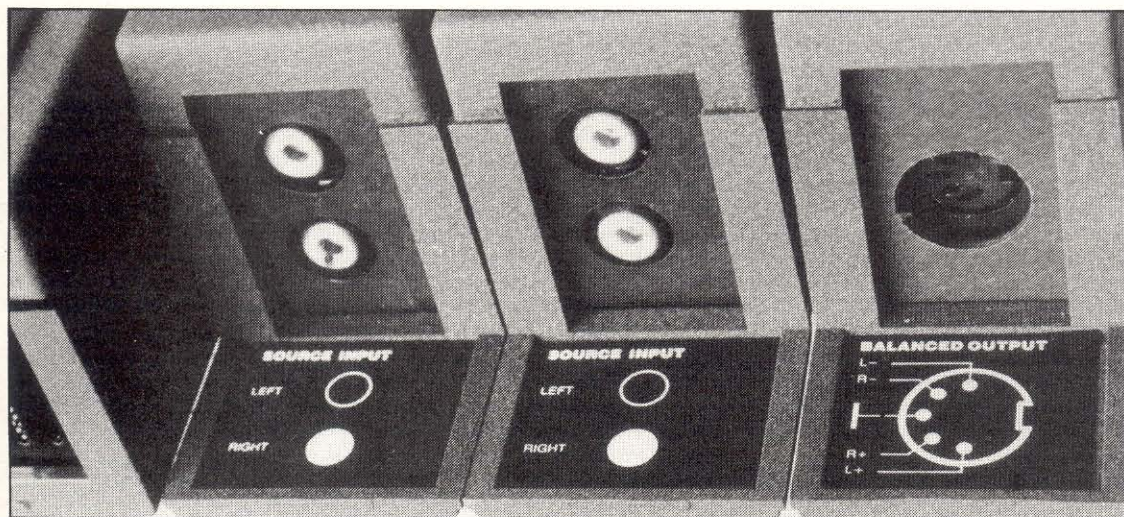
To build up on the basic one input amplifier requires the two screws in the end of the volume control to be undone (a 1p piece will do); this allows the volume control module to be slid off the bars to disconnect its sockets from the previous module's pins. The module to be added slides over the bars and mates with the 24-way pin block, the brass extender bars are screwed into place and spacing rings added before the cover on its pins is removed and the volume control slid into place and locked up with the retaining screws.

In this way up to 20 inputs and three tuner modules can be operated, limited only by the power supply; but more units than this have been assembled in the Meridian factory.

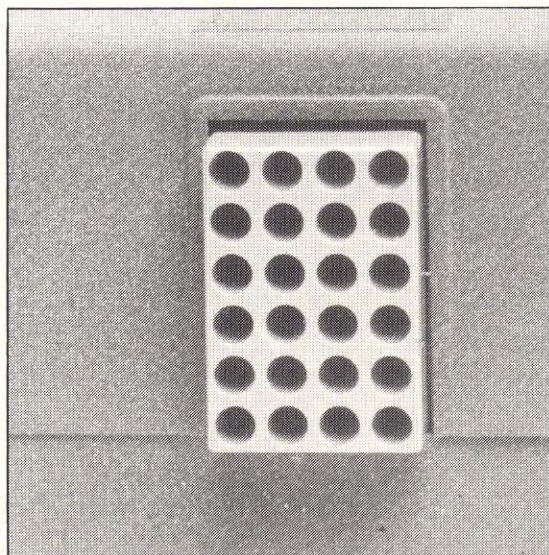
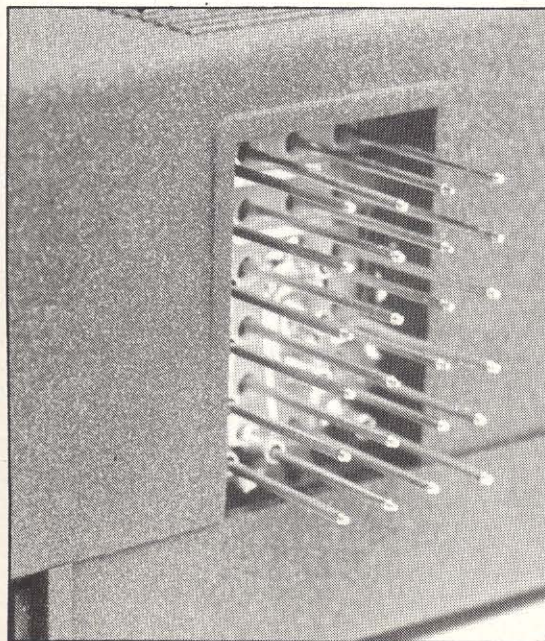
And now we've got the scope of the modular system sorted it could be appropriate to put prices to the amp. A one input amplifier costs £375 whether the one input is magnetic disc input, auxiliary, or Compact Disc. If a moving coil input is required at the outset then the basic amplifier will cost £395. Extra modules for magnetic, auxiliary or Compact Disc cost an additional £58. Moving coil inputs cost £78 while tape modules cost £68.

The tuner is expected to cost around £180 and should be available early in 1984. It will be FM only, with 8 station presets and a digital readout. For a further £175, an AM converter module will be available.

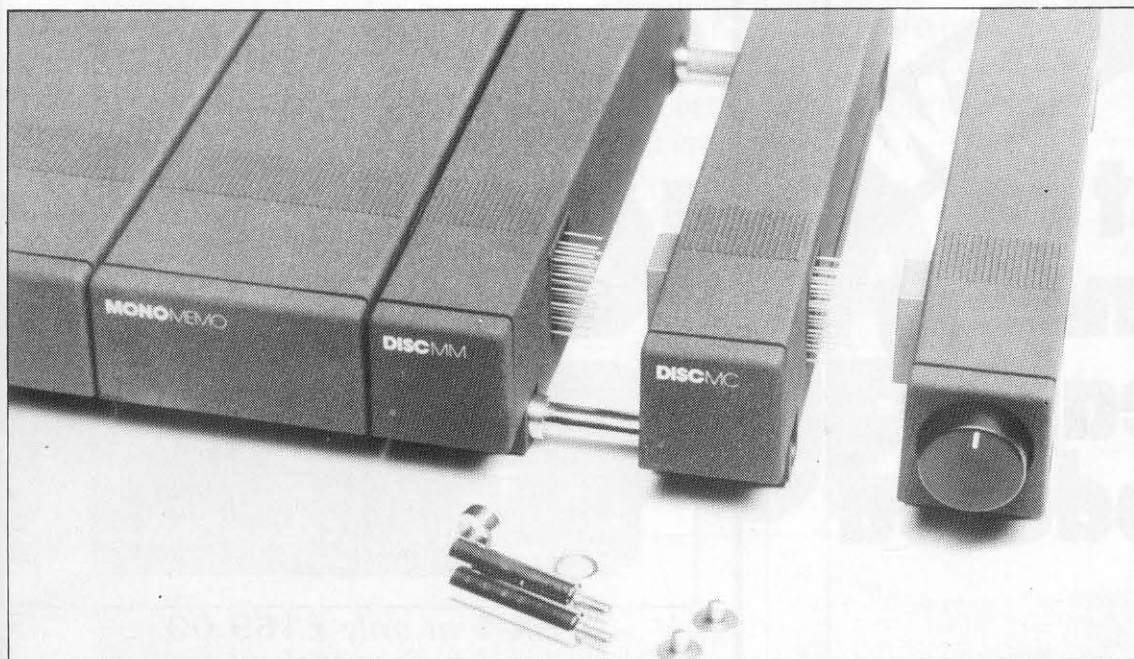
It is worth pointing out here and now a few things about the pricing structure of the MCA and its modules. The Auxiliary and Compact Disc modules are not the same. Boothroyd Stuart are of the opinion that Compact Disc benefits subjectively from equalisation. Their CD module offers a progressive treble cut ending up some 2.5dB down at 20kHz. The tape modules may appear overpriced at £68 for a simple buffer and switching unit for every Meridian module contains two boards, one for signal processing and one for control logic and so you are paying for the control logic that gives you that enormous flexibility.



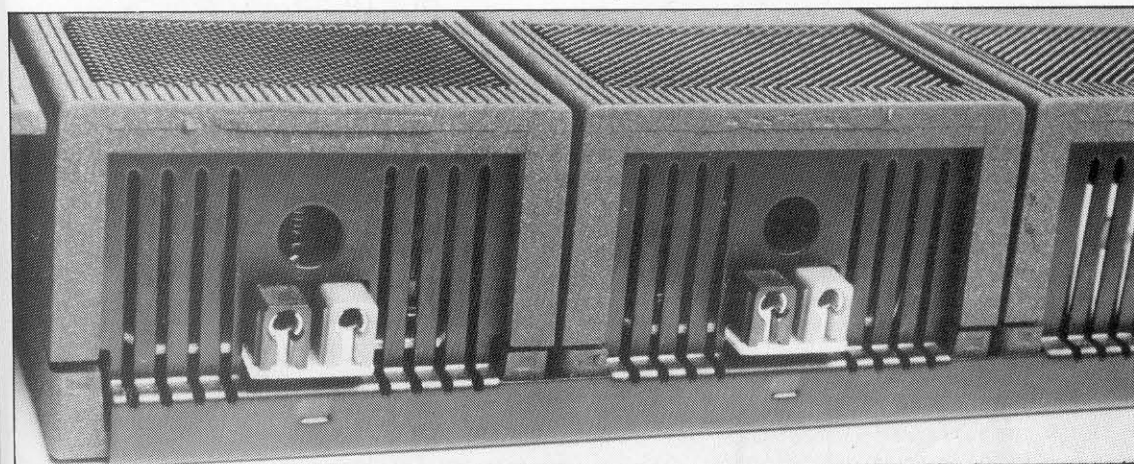
The individual input facilities of each of the modules — the phono sockets could have been more clearly labelled



Left, the gold-plated contact pins which form the basis of the revolutionary design. They lock into the sockets (above) to provide a good, solid connection



The secret of the Modular's versatility – the extendable rods allowing extra units to be added



Rear view of the power amplifiers – the now almost standard 4mm sockets are employed by the Modular Amplifier

The paper specification of the MCA states that it's a 35 watt amplifier. It doesn't sound like one. This amp has all the effortlessness and sheer driving guts of a conventional 75-100 watt design. Using what I think can be fairly described as the notoriously inefficient Celestion SL6 speakers the amplifier could push them to high levels, yet still retain sufficient headroom.

As impressive was the demonstration laid on by Meridian in the early days of the MCA fed by a Linn/Ittok/Asak turntable/arm/cartridge combination and feeding Linn Sara speakers. The sound was dynamic, detailed, exciting and fully under control, a feat not every amp can achieve.

My own listening tests were centred around a Linn turntable with an FR64fx arm and Koetsu Black moving coil cartridge used with the aforementioned SL6 loudspeakers. Additionally, a Marantz CD-63 Compact Disc player was used to feed signals to an Auxiliary (Flat) input module as I am in fundamental disagreement with BS Meridian about the need or desirability of

equalising CD as a medium rather than some software out of necessity. I'll come back to that.

The Meridian Component Amplifier proved impressively muscular on large scale orchestral material, driving the SL6s fully to reproduce a believable dynamic range without any sense of strain or undue effort. The MCA turned in a magnificent rendering of the EMI recording of Prokofiev's 2nd Piano Concerto with Dmitri Alexeev and the Royal Philharmonic under Yuri Temirkanov (catalogue number ASD 3871).

Recorded in Abbey Road No 1 studio with the piano a little too closely miked, the sound was astonishingly free — roaring to climactic crescendos from the faintest tinkle as the score demands. The 2nd Piano Concerto was claimed to have left its premier audience in 1913 'frozen with fright, hair standing on end'. Though thoroughly familiar with the work and aware of most of the musical onslaughts between 1913 and 1983, I was well frozen and suffered not a little pilo-erection as a result of playing this disc through the MCA. The ampli-

fier is truly a powerful and commanding unit.

Quite outstanding in this recording was the amplifier's ability to clothe the low piano notes with the necessary body and sheer 'projection'. Going backwards in time to earlier recordings, early Beatles songs came through in an unforced, easy manner. Poorly pressed discs seemed to present no problems in terms of noise. The MCA made no meal out of scratches or surface noise, passing the signal loud and clearly with no emphasis of ticks or clicks on the record.

Though thoroughly impressed with the MCA's performance on its disc input, I was less than happy with the results I achieved with CD material. Starting my auditioning with the new Phil Collins CD 'Hello I must Be Going' revealed (as expected) a taut and dramatically powerful bass performance way beyond expectations of a mere 35 watt amplifier. However, the vocals particularly in the opening track 'I Don't Care Anymore' had taken on a curious edgy unpleasantness quite like the digital glare that many

listeners have described with poor digital material.

The same kind of results were obtained with 'El Amore Brujo' by Manuel de Falla from the fabulously recorded Decca CD with Dutoit and the Montreal Symphony. I didn't find CD particularly natural or easy to listen to with the MCA. Clear, detailed, dramatic and powerful yes, but unfatiguing no. Hearing CD through the flat Auxiliary input I can well see why Meridian took a decision to offer an equalised CD dedicated module.

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My feeling is that they are curing the symptoms and not treating the cause. I maybe completely out of order saying so but I reckon that someone may well have underestimated the peak output potential of certain CD players, notably the Philips CD100/Marantz CD-63. My evidence for this is the level dependence of the 'blare' that upset my listening to CD through the MCA.

In summary I would say that Meridian have produced an amplifier of unique flexibility and highly acceptable styling, the charcoal grey finish being capable of blending with almost any domestic decor. The MCA owner can buy inputs as and when it suits him. With the prospect of a headphone module with response shaping, of dedicated video inputs for use with component TVs, of sophisticated tone controls and all the line inputs that anyone could want, who could resist?

On the negative side, I would point out that at £375 for a single input amplifier the MCA may be competitive but that once two disc, two tape and inputs for both tuner and CD have been added you are looking at an amplifier costing over £700. Intriguingly enough BS Meridian tell me that eight out of every ten MCAs sold are single input amps only and that two out of ten sold are CD only. Which does suggest that Meridian have got their marketing and price right.

On the disc side I found the MCA a thoroughly successful design offering some of the finest sounds and fully competitive with the new generation of high quality integrated designs from British manufacturers. Cosmetically the amp is unsurpassed though I must report slight intermittent switching problems with one door on one module.

Overall, a well finished and good sounding unit which will no doubt reach its full market potential when the promised active speaker package becomes available. It's good to see Britian marketing innovative and stylish products.