

SPENDOR BC1 MONITOR LOUDSPEAKER

MANUFACTURER'S SPECIFICATION:

BC1 Loudspeaker. **Frequency response:** 60 Hz to 14 kHz ± 3 dB. **Power rating:** 8 W RMS continuous, 20 W programme. **Nominal impedance:** 9 ohms. **LF unit:** 200 mm plastic cone. **HF unit:** Celestion *HF 1300*. **Finish:** Teak, Tygan grille. **Input connections:** Terminals. **Weight:** 13 kg. **Dimensions:** 630 x 300 x 300 mm. **Price:** £52 10s (retail, including purchase tax).

BC1A Loudspeaker with internal Spendor M2019 amplifier and rear-panel gain control. **Mains input:** Bulgin three-pin. **Weight:** 15 kg. **Price:** £62 10s (unbalanced input), £65 10s (balanced input).

MANUFACTURER: Spendor Audio Systems,
22 Station Road, Redhill, Surrey (Tel. 71-64772)

PROFESSIONAL quality at a non-professional price.' This was the stated aim of the Spendor Sound System and I was therefore interested to test a pair of their small monitor loudspeakers with this in mind.

There are difficulties in reviewing a speaker system, as at present it is difficult to measure all the parameters; those we can measure need a lot of elaborate equipment. We know that if a speaker's frequency response curve is really bad, then the speaker will sound coloured, but the converse does not apply: a speaker with a flat response can sound dreadful and some of them do. The impedance curve is important in so far as some amplifiers are fussy about their loading, though except in extreme cases this tells us little about the sound we are likely to get. Distortion curves can also be taken.

These measurements are useful at the design stage as, if a speaker does not sound right, they may indicate the reason. By the time the model is in production, however, what we really need to know is how well it does its job. Here there is no substitute for listening tests. These tests present problems as well, if one is to be fair and accurate. It would obviously be wrong to test in domestic surroundings using domestic equipment a speaker designed for professional use.

In addition to obtaining the frequency response and impedance curves mentioned above, I used the following equipment to try and make a meaningful assessment of a speaker's performance. Philips *Pro 20* recorder and 38 cm/s stereo master tapes, Quad *303*, AKG *C24*, recording studio with musicians prepared to assist, and a listening room near enough for the original sound to be compared quickly with the sound reproduced from the speakers.

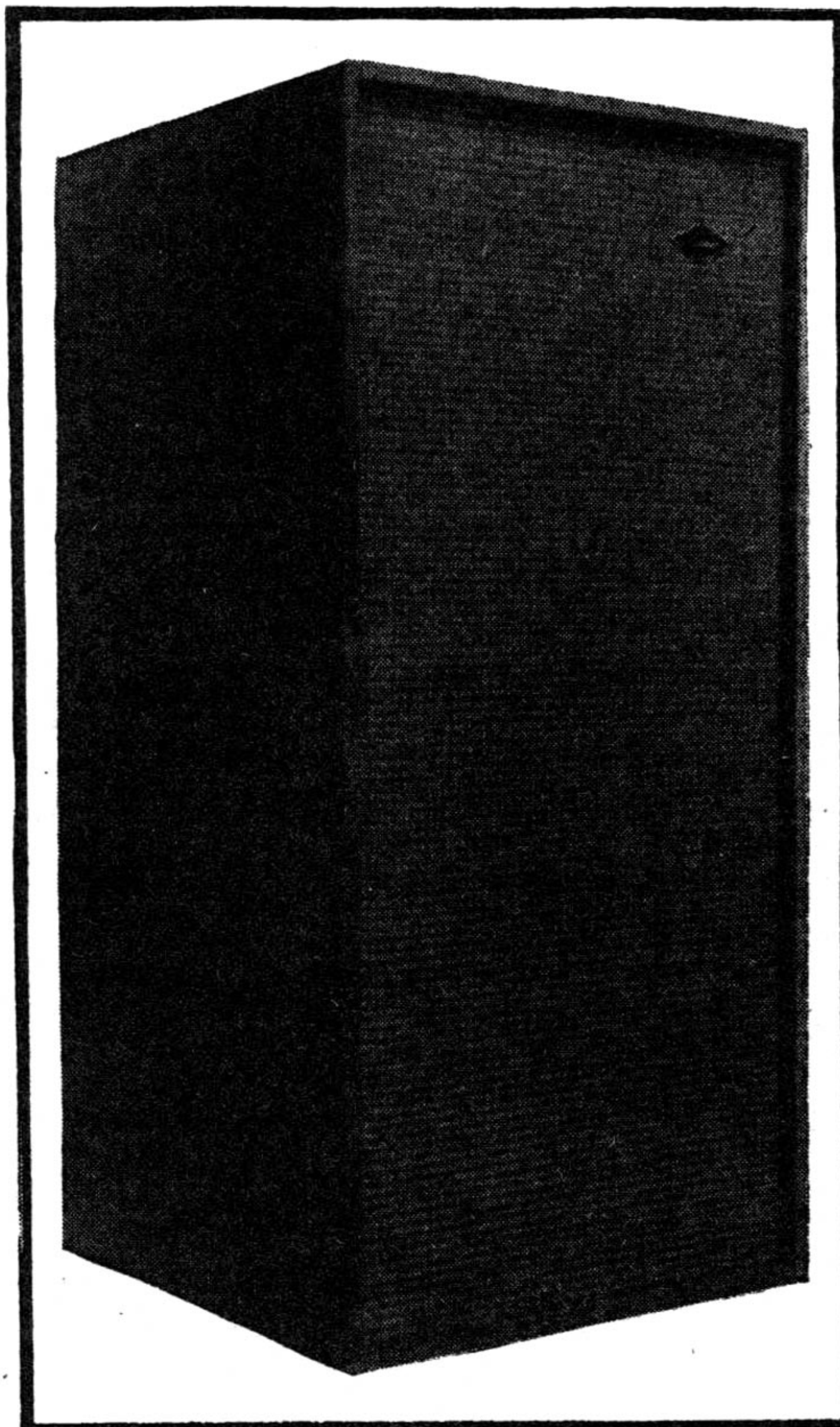
I used the tapes as it is seldom possible to arrange a direct comparison between repro-

duced and live sound on a wide enough variety of music. Also, if any of the tapes have known imperfections, it is useful to hear if the speakers pick them up.

It is obviously important for monitoring that a speaker should reproduce the signal fed into it. While speakers that mask tape hiss and disc surface noise might be pleasant in the home, they would not be adequate in the studio.

I also fed signals from disc (Decca/Garrard *301*) and from a Quad stereo tuner, so that I could hear the speaker on as wide a range of programmes as possible.

I like to make a comparison with other high



quality monitor speakers, as this can tell a little about the relative qualities of the systems, though this is no substitute for comparison with the real thing. It is easy to fall into the trap of thinking that the speaker system one likes and uses most is the ideal by which all others should be judged—the results of a recent *Which?* report on 'hi-fi' show the dangers of this approach.

Finally I like to invite friends with keen hearing to listen with me and make their comments. It is surprising how often others hear something one has missed.

The Spendor speakers are small by monitor standards having a volume of only 56 litres (two cubic feet) in a 300 x 300 x 600 mm cabinet. The drivers are a specially designed 200 mm unit with a plastic cone and surround, and a Celestion *HF 1300* tweeter. The system has an elaborate crossover and frequency correction network. The speakers can be obtained with their own 20 W amplifiers

mounted in the cabinet, or without. I understand that no attempt has been made to match amplifier and speaker, the manufacturers claiming that this is not necessary. The cabinets are made of 9 mm veneered plywood, with a small vent.

This design gets away from the thick heavy wood construction in favour of a lighter panel, well damped, to avoid post-transient ringing. The manufacturers claim that a plastic cone has enabled them to overcome several faults inherent in paper construction.

My first impression of the speakers, listening to a tape I keep for the purpose, was of a clear clean sound, particularly in the treble. There was very much more bass than I would expect from a speaker of this size with no sign of 'muddiness'. The test tape contains a variety of items and these are listed together with my comments on the speakers' performance.

Organ. This is a new instrument with a very bright tone and plenty of bass, except that it has no 32 foot stop. Reproduced faithfully with pleasing clarity and just the right 'edge' on the brighter stops.

Folk singer with guitar. No signs of distortion, obviously the transient response is good, though the voice sounded less 'mellow' than I remembered it.

Dance orchestra. The right sort of bite to the brass.

Unaccompanied choral singing. Very clean with no trace of colouration. This is a section where many speakers fall down by giving a

'nasal' quality to the sound which is not true to life. The Spondor speakers were the best I have heard on this section.

Speech. Another testing section. Very natural speech reproduction with no chestiness on male speech.

Piano. Beautifully clear and clean, particularly in the upper registers but slightly lacking in 'warmth'.

Wind Band. Clean and clear as on the other tracks; the reproduced piccolo was the nearest I have heard to the real thing.

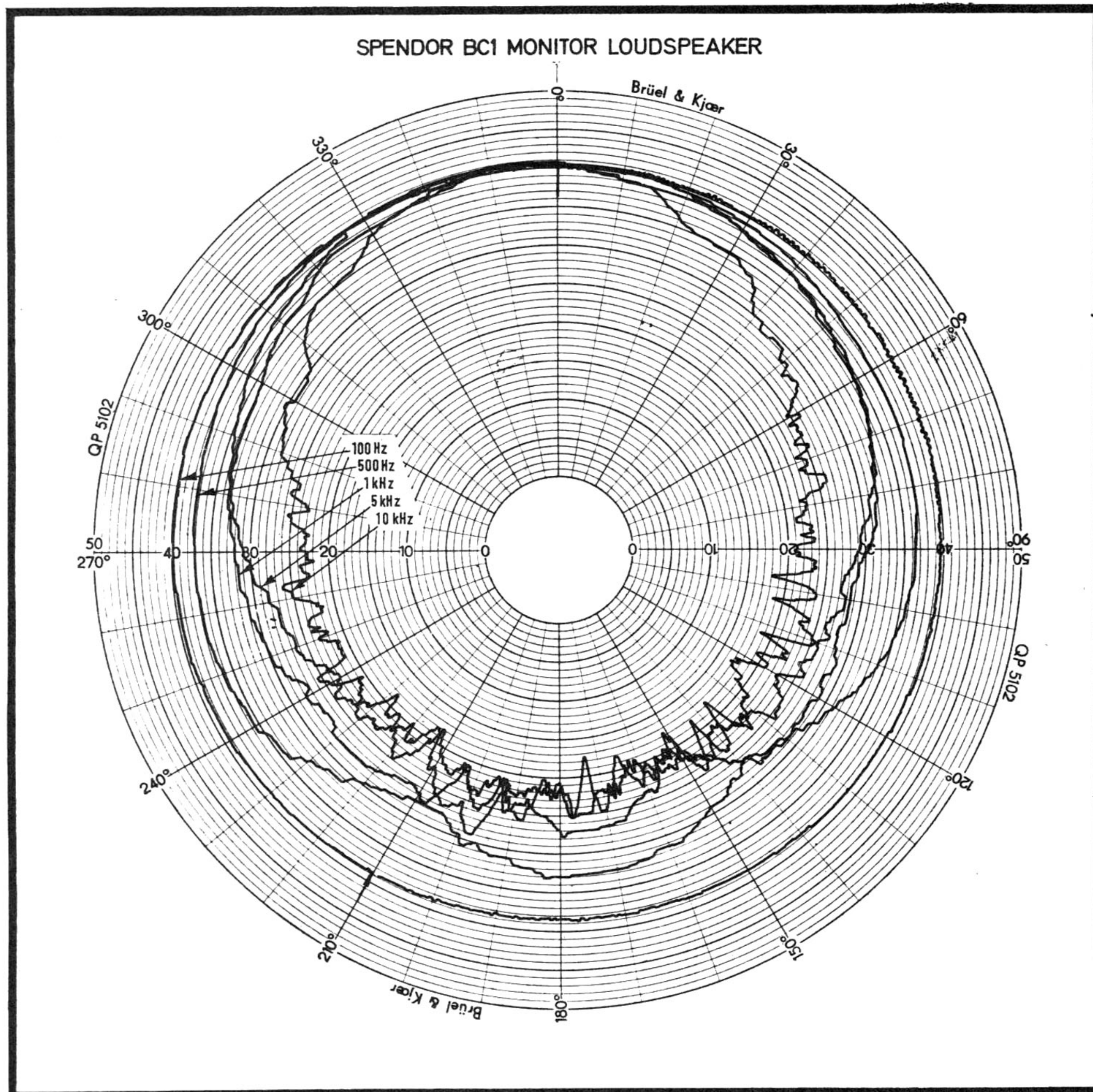
String Orchestra. Slightly lacking in 'warmth' for my taste.

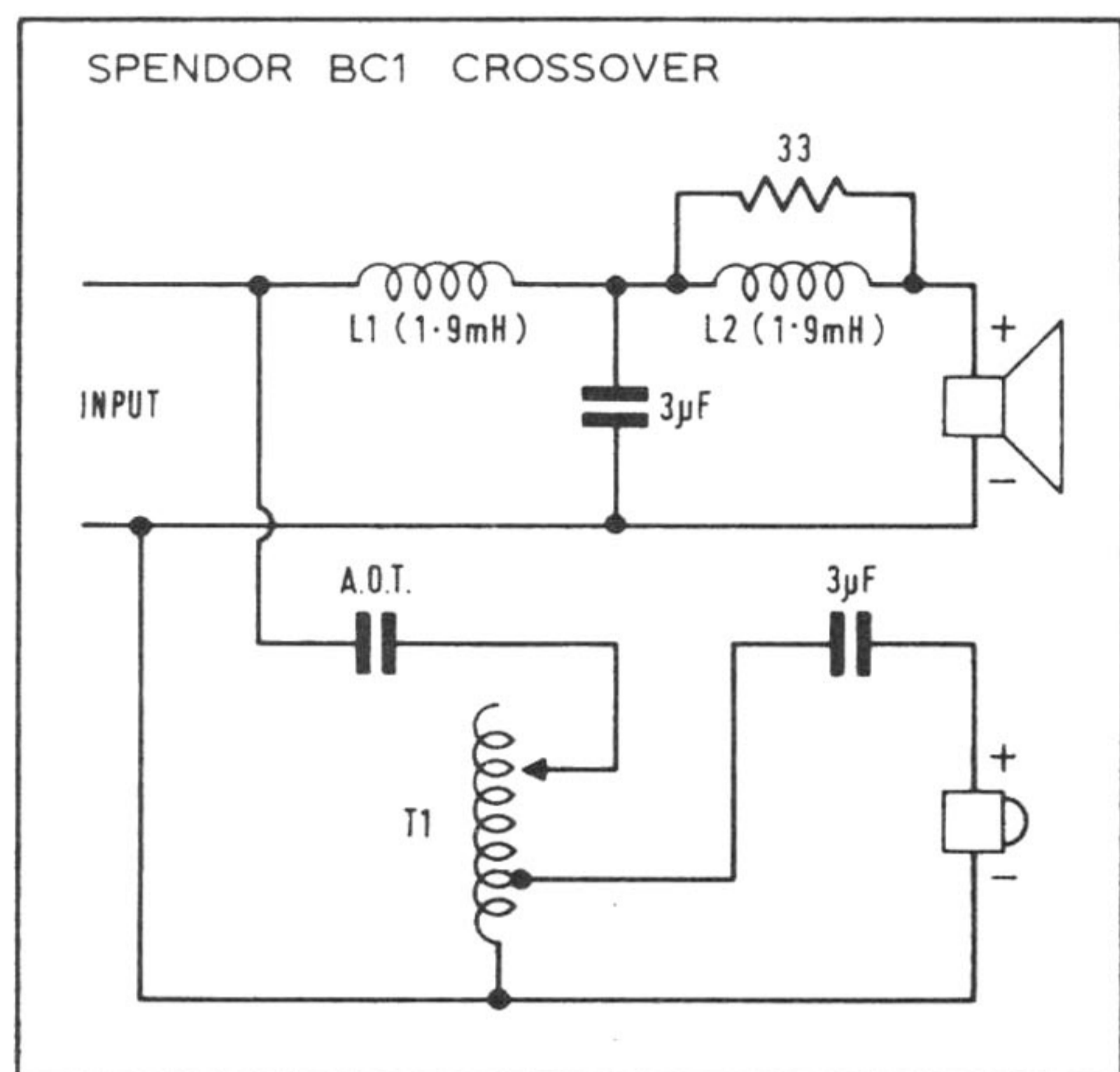
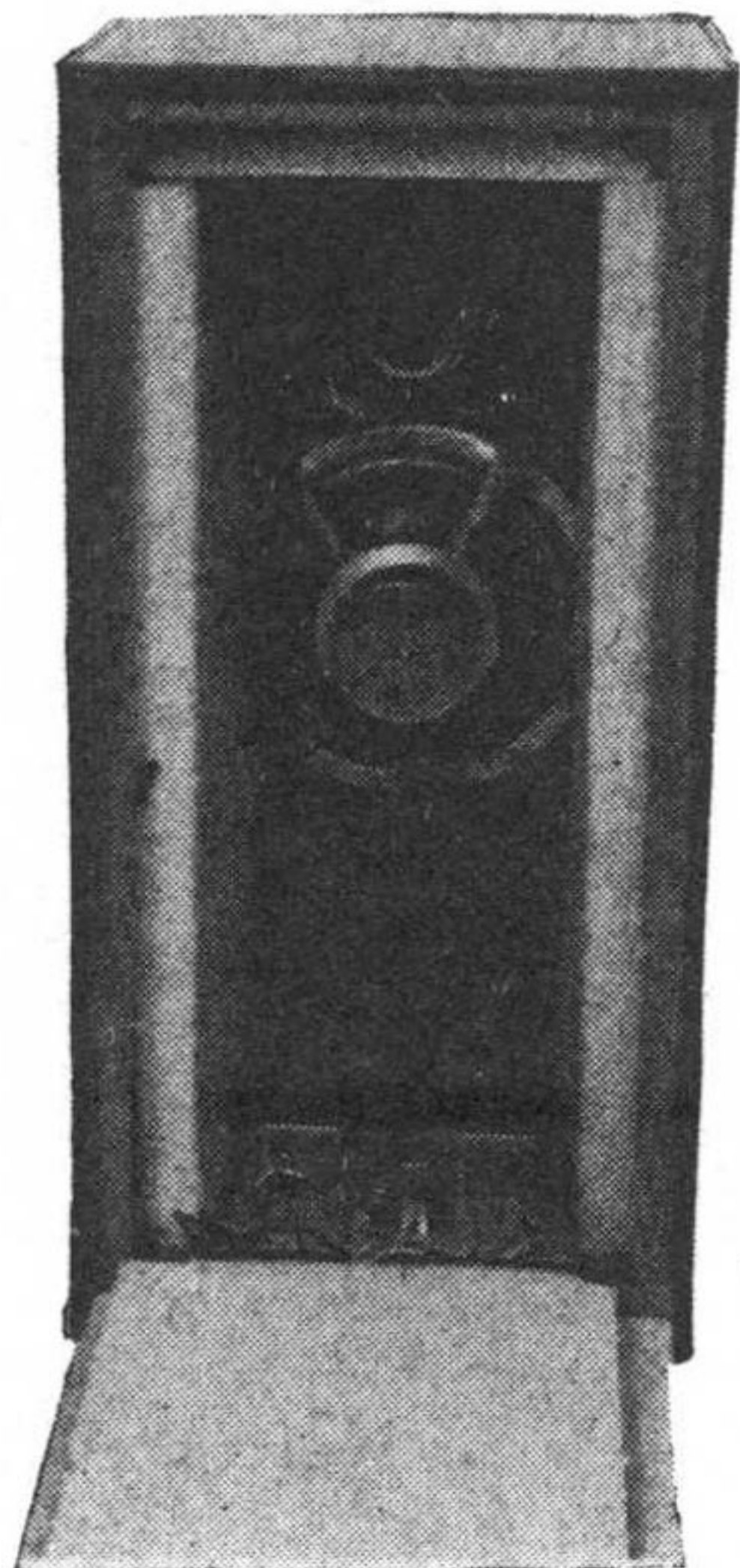
Full orchestra. This is not a very testing section as most speakers cope with it. While these speakers handled the climaxes well, they would not handle enough power for monitoring in a large studio. They would, however, be satisfactory in a small control room or average size living room.

Bells and percussion. Excellent transient response. Extended listening tests using disc and radio inputs as well as tape confirmed my first favourable impressions. If there seemed to be faults in reproduction, they could always be traced to the original source and not the speaker.

I found the Spondors very critical of programme faults though they are not very efficient transducers. The gain setting on the Quad control unit had to be much higher than with other speaker systems I have used.

My comparisons with other high quality
(continued overleaf)





monitor systems, some of them custom built regardless of expense, showed the Spendors to be in the very top class, and in most cases they showed up faults in the other systems.

The frequency response and impedance curves show that this speaker should not have any vices. It is particularly smooth in the middle and upper registers, with a firm bass down to about 40 Hz. It lacks the extreme bass of some larger monitors though this would only be noticeable on rare occasions.

I have used a pair of Spendors for monitoring during recording sessions and find their small size an advantage for location work since they fit easily on the back seat of a car.

Comparison with live sound was the most convincing I have heard. The effect on piano music particularly interested me as I had felt that the 38 cm/s tapes were lacking in warmth, as already mentioned. When I stood close to the C24 in the studio, I realised that the speakers were in fact reproducing what the microphone was hearing. A little more care in mike placement and switching from cardioid to cottage loaf made all the difference. I have now replaced the piano recording on the speaker test tape with one made in the improved position.

Direct comparison with live speech and other types of music was equally satisfactory and the speakers again showed themselves more true to life than any others I have heard.

The 200 mm units have plates in front with a slit of optimum width to give a better polar response without affecting frequency response. The polar diagram shows how well this has been achieved.

All listening tests were conducted with speakers clear of the walls and away from room corners to avoid as much as possible the coloration that would otherwise have occurred. The Spendors are designed to stand on small tables about 15 cm above the floor. Used in this way the Spendors set a new standard in small-speaker sound reproduction and give better results than many much larger and more expensive speakers. I can thoroughly recommend them to anyone who does not want to listen at painfully high levels.

John Shuttleworth

SPENDOR BC1 MONITOR LOUDSPEAKER

