

TECHNICAL DATA
for

"CHALLENGER"

Permanent Magnet Moving Coil Reproducer

Overall Diameter of Chassis	-	-	8½ ins.
Overall effective Diameter of Diaphragm	-	-	7¼ ins.
Extreme Depth of complete Unit	-	-	3¾ ins.
Total Weight of Unit bare	-	-	4½ lbs.
Total Weight of Unit packed in Carton	-	-	6 lbs.
Weight of Magnet	-	-	2¾ lbs.
Cobalt content of forged steel Magnet	-	-	15%.
Flux Density in gap per square centimetre	-	-	7,200 lines.
Total Lines	-	-	30,000
D.C. Resistance of Speech Coil (Standard Model)	-	-	4.7 ohms.
Impedance of Speech Coil (Standard Model) at 500 cycles	-	-	5.2 ohms.
Maximum power handling capacity	-	-	{ 3 watts undistorted A.C.

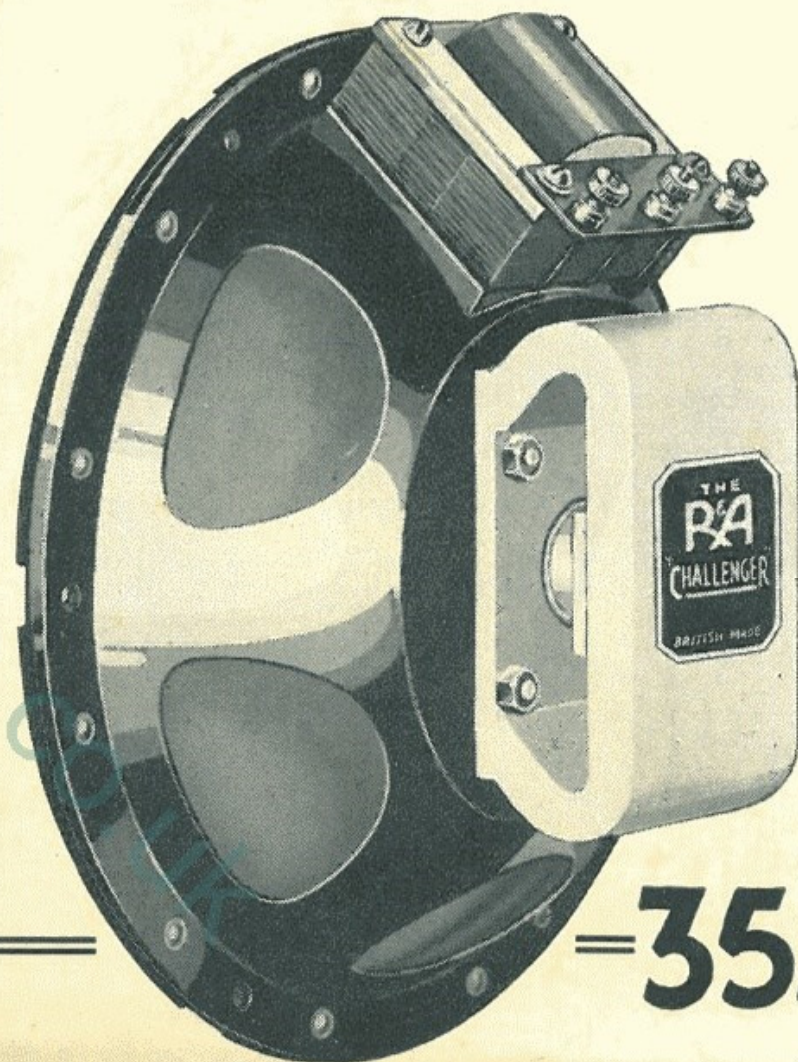


REPRODUCERS & AMPLIFIERS LTD.
FREDERICK STREET, WOLVERHAMPTON

Telephone: WOLVERHAMPTON 22241 (3 lines).
Telegrams: "AUDIO, WOLVERHAMPTON."

The "CHALLENGER" is stocked by dealers throughout the world.
Your dealer can supply you.

R&A
"CHALLENGER"



=35/-

The R & A "CHALLENGER"

These Moving Coil Reproducers are in the forefront of popularity due solely to their amazing performance in the true reproduction of speech and music.

The "Challenger" has many imitators so far as price and appearance are concerned, but has not been equalled in tonal beauty, in the rendering of orchestral music and solo instruments, nor in its ability to reproduce speech with absolute realism.

Indeed the "Challenger" has well merited the high tributes paid to it, not only by technical experts and the radio trade, but also by thousands of listeners who have written to us, and the technical press who, during the first four months of 1933, specified the "Challenger" for inclusion in no less than 51 constructional receivers of various types.

Your dealer will gladly demonstrate all or any of the types referred to in this leaflet. If temporarily out of stock, he can obtain at short notice.

Do not be put off with any other make.

There is no substitute for the R. & A. "Challenger."

Five models are available

'STANDARD' TYPE.—The widespread popularity of this model is a tribute to its remarkable tonal fidelity and life-like reproduction. It is fitted with a 3-ratio Transformer suitable for use with the majority of power, super-power and pentode valves. The fact that this Unit has been fitted by numerous commercial receiver manufacturers is abundant proof of its ability to render the finest performance possible.

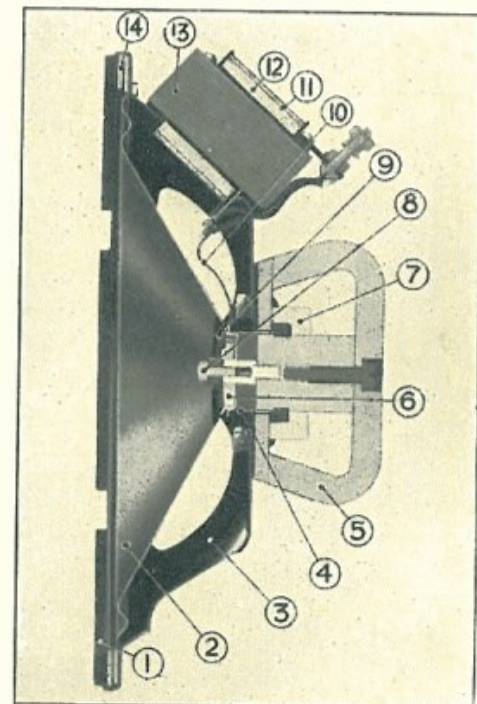
TYPE 'B8.'—This Unit is identical in appearance and performance to the 'Standard' model but is fitted with a special Transformer having a centre tapped primary for Class 'B' operation. The Transformer is designed to operate correctly with the Cossor 240 Class 'B' valve or other valves having similar characteristics.

TYPE 'B15.'—This Unit is identical in appearance and performance to the 'Standard' model but is fitted with a special Transformer having a centre tapped primary for Class 'B' operation. The Transformer is designed to operate correctly with the Cossor 220B, Mazda PD220 and Mullard PM2B valves, or other valves having similar characteristics.

TYPE 'Q.'—This Unit is identical in appearance and performance to the 'Standard' model, but is fitted with a Transformer having a centre tapped primary intended for a Quiescent Push Pull output. The plate load of the primary is 15,000 ohms, and it is, therefore, suitable for use with all valves most commonly used for Q.P.P. operation.

TYPE 'P.'—Many commercially built receivers now on the market in which a moving coil reproducer of either the permanent magnet or mains energised class is already incorporated necessitate a special high priced reproducer to match the load of the output from the extension terminals. To meet the public demand we have produced this model which is identical in appearance and performance to the 'Standard' model, but which has available 3 impedance ratios for matching purposes, i.e., 1.2 ohms, 2.3 ohms and 5.25 ohms. It is possible, therefore, to match the output with this Unit of all commercial receivers requiring an extension reproducer having an impedance of between 1 and 5.5 ohms.

EACH TYPE THIRTY-FIVE SHILLINGS COMPLETE



Sectional illustration showing the perfect construction of the "Challenger" Series.

1. Felt.
2. Diaphragm.
3. Chassis.
4. Speech Coil.
5. Magnet.
6. Speech Coil Pressure Ring.
7. Speech Coil Dust Excluding Washer.
8. Spider Locking Screw.
9. Centreing Spider.
10. Speech Coil Lead.
11. Transformer Secondary Winding.
12. Transformer Primary Winding.
13. Transformer Core.
14. Diaphragm Clamping Sector.

-the finest

value ever

offered!