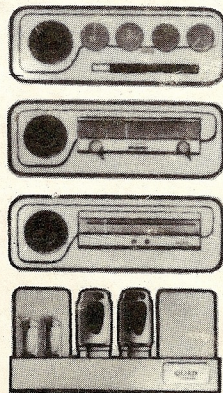


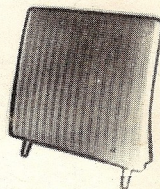
# Hi Fi YEAR BOOK

1964



**QUAD**

for the closest approach to the original sound



PICKUPS • MOTORS • TUNERS • SPEAKERS •  
AMPLIFIERS • MICROPHONES • RECORDERS

10/6

# Hi-Fi Year Book

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1964 Edition

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*Editor* - - MILES HENSLOW



*Published by*

MILES HENSLOW YEAR BOOKS LIMITED,  
99 MORTIMER STREET - - LONDON, W.1

Printed in Great Britain by Portia Press Ltd., London, W.1



**LEE PRODUCTS (GREAT BRITAIN) LTD.,**  
10-18 Clifton Street, London, E.C.2. Tel.:  
Bishopsgate 6711. Cables: Leprod, London.

**Dulci H4T-55 A.M./F.M. tuner.** Variable tuning. Range L.W., 1,100-1,800 m.; M.W., 195-550 m.; S.W., 6-18 Mc/s; F.M., 88-108 Mc/s. A.F.C. locks over 100 Kc/s. Ratio det. Tuning ind. EM84. Facilities for external multiplex connection. Aerial imp. 75 ohms. Output 8V adjustable. P.s.n. 200-250V AC. Size:  $12\frac{1}{8} \times 3\frac{1}{8} \times 10\frac{1}{4}$  in. Price: £24 7s. 6d. (U.K. purchase tax: £3 18s. 2d.).

**Dulci FMT-5 F.M. tuner.** Variable tuning. Range 88-108 Mc/s. A.F.C. locks over 100 Kc/s. Foster Seeley disc. Facilities for external multiplex connection. Aerial imp. 75 ohms. Output 10V adjustable. P.s.n. 200-250V AC. Size:  $12\frac{5}{8} \times 3\frac{3}{8} \times 9\frac{3}{4}$  in. Price: £18 13s. 6d. (U.K. purchase tax: £2 19s. 11d.).

★  
**LOWTHER MANUFACTURING CO.,**  
Lowther House, St. Mark's Road, Bromley, Kent. Tel.: Ravensbourne 5225. Cables: Lowther, Bromley.

**F.M. tuner Mk. V self-powered.** Twin gang tuning, horizontal scale. Range 87.5-108 Mc/s. A.F.C. Foster-Seeley disc. Switched ind. 50 c/s injection. Self-powered. Size:  $13\frac{1}{4} \times 5\frac{1}{2} \times 5$  in. Price: £24 10s. (U.K. purchase tax: £4 2s. 6d.).

**F.M. tuner Mk. V.** Variable tuning. Range 87.5-108 Mc/s. A.F.C. Foster-Seeley disc. Switched A.F.C. and hum check ind. P.s.n. 250V 30 mA; 6.3V 2 amps. Size:  $10\frac{1}{4} \times 4\frac{3}{4} \times 7$  in. Price: £22 (U.K. purchase tax: £3 14s. 1d.).

★  
**PAMPHONIC REPRODUCERS LTD.,** Westmoreland Road, London, N.W.9. Tel.: Colindale 7131.

**640 F.M. tuner.** Variable tuning. Range 86-103 Mc/s. Ratio det. Magic eye ind. P.s.n. 200V at 30 mA; 6.3V at 2 amps. Size (panel):  $9\frac{3}{16} \times 3\frac{3}{4}$  in. Price: £15 15s. (U.K. purchase tax: £2 12s. 6d.).

★  
**PIONEER ELECTRONICS CORPORATION.** Distributors: C. Hammond & Co. Ltd., 296 Kensington High Street, London, W.14. Tel.: Western 4343.

**MXA-1A multiplex adaptor.** Self-powered for use with most F.M. tuners. Price: £16 16s.

**PYE LTD., HIGH FIDELITY DIVISION,**  
P.O. Box 49, Cambridge. Tel.: Cambridge 58985. Cables: Pyrad, Cambridge.

**F.M. tuner Mozart HFT.109.** Variable tuning. Range 88-108 Mc/s. A.F.C. Self-powered. Size:  $10\frac{1}{2} \times 3\frac{3}{8} \times 5$  in. Price (chassis): £23 12s. 6d. (U.K. purchase tax: £3 5s. 3d.); (metal case): £25 14s. 6d. (U.K. purchase tax: £3 11s. 2d.).

★  
**RADFORD ELECTRONICS LTD.,** Ashton Vale Estate, Bristol 3. Tel.: Bristol 662301/2.

**FMT1 F.M. tuner.** Variable tuning. Range 88-108 Mc/s. M.E. ind. Multiplex facilities with additional insert. Aerial imp. 75 ohms unbalanced, 300 ohms balanced. Output up to 4V adjustable. Self-powered, 100-250V AC. Size:  $10\frac{1}{2} \times 3\frac{3}{8} \times 13$  in. Weight: 13 $\frac{1}{4}$  lb. Price: £30 (U.K. purchase tax: £5 12s. 6d.).

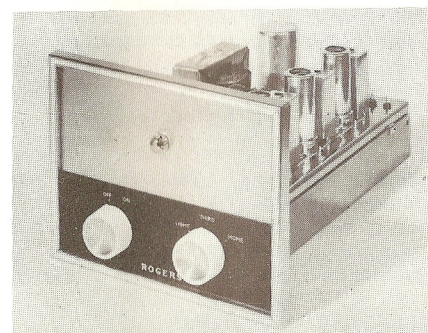
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**ROGERS DEVELOPMENT (ELECTRONICS), LTD.,** Rodevco Works, 4-14 Barmeston Road, Catford, S.E.6. Tel.: Hither Green 7424 and 4340. Cables: Rodevco, London.

**R.D. junior Mk. II variable F.M. tuner.** Variable tuning. Printed circuit coil pack. Range 87-107.5 Mc/s. A.G.C. Foster-Seeley disc. Twin limiters. Tuning ind. Twin cathode follower output. Self-powered. Provision for multiplex adaptor. Size:  $8\frac{5}{8} \times 5\frac{3}{8} \times 10\frac{3}{8}$  in. To operate with any Rogers control unit. Available in teak case to match HG88 Mk. II. Price (chassis model): £21 (U.K. purchase tax: £3 11s. 8d.); (teak case model): £24 7s. 6d. (U.K. purchase tax: £4 3s. 2d.).

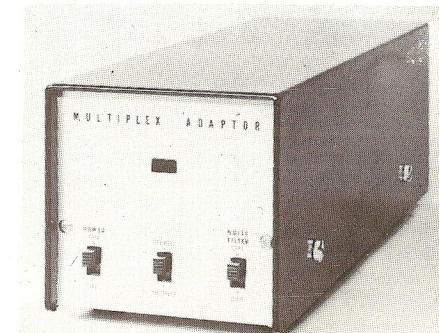
**Mk. II switched F.M. tuner.** Range 87-96 Mc/s. A.F.C. Foster-Seeley disc. Multiplex conversion facilities. Aerial imp. 70-90 ohms. Output 0.25V RMS. Self-powered. Size:  $6\frac{1}{8} \times 10 \times 4\frac{1}{8}$  in. Cathode follower output. Price: £15 16s. (U.K. purchase tax: £2 14s.).

★  
**SHERWOOD ELECTRONIC LABORATORIES, INC.,** U.S.A. Distributors: Audioson Ltd., Orchard House, Orchard Street, London, W.1. Tel.: Mayfair 5431.

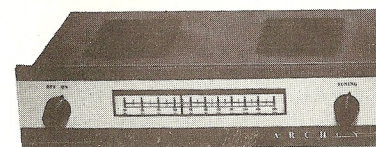
**S-3000 III F.M. tuner.** Variable tuning. Range 87.5-108.5 Mc/s. Foster-Seeley disc. A.G.C. provides inter-channel "hush". Zero-



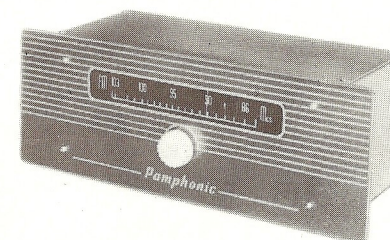
*Rogers Mk. II switched FM tuner*



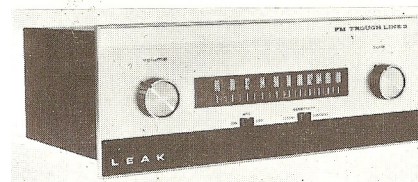
*Pioneer MXA-1A Multiplex adaptor*



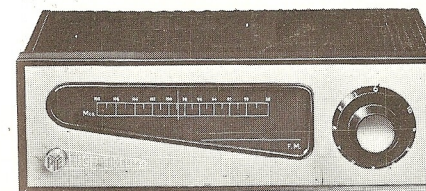
*Archon PF41 FM tuner*



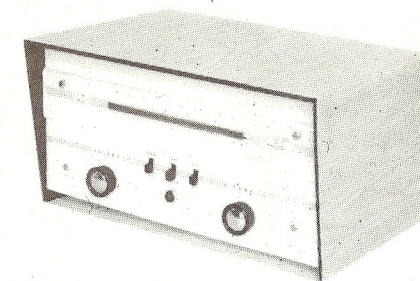
*Pamphonic FM 640 tuner*



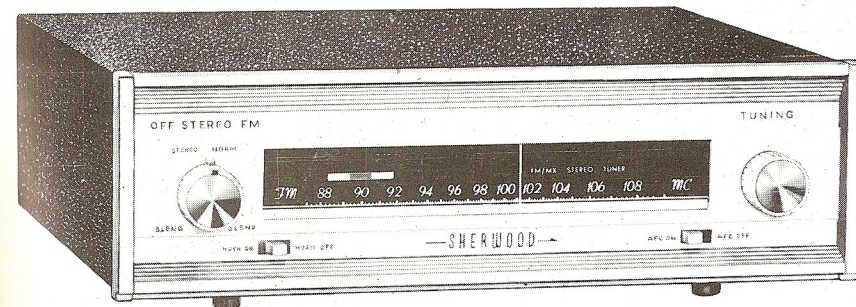
*Leak Troughline 3 FM tuner*



*Pye Mozart HFT109 FM*



*Lowther FM tuner Mk. V*



*Sherwood S-3000 III FM tuner with provision for Multiplex reception*



Size:  $12\frac{3}{4} \times 3\frac{3}{4} \times 5\frac{1}{2}$  in. Price: £10 10s. To operate with DPA-15 amplifier.



**LOWTHER MANUFACTURING CO.,** Lowther House, St. Mark's Road, Bromley, Kent. Tel.: Ravensbourne 5225. Cables: Lowther, Bromley.

**Lowther No. 2 control unit.** Inputs: mic. 15 mV; pu 15 mV; radio 250 mV. 4-pos. sel., treble, bass, vol., on/off. Mic./tape input socket. H.D. 0.1% on 1V RMS. H. and N. -60 dB. Size:  $10\frac{1}{4} \times 2\frac{1}{2} \times 3\frac{1}{2}$  in. To operate with LL15. Price: £10 10s.

**Lowther LL15 amplifier.** 16W. Dist. <0.1%. Input for spec. output 0.75V. Response 20-40,000 c/s  $\pm 1$  dB. Feedback 20 dB. N.L. -85 dB. Output imp. 16 ohms with adjustment. Output EL34s. Lowther Linear (screen and anode feedback). P.a.t. Size:  $12 \times 6 \times 6$  in. To operate with Mk. IV or No. 2 control units. Price: £27 10s.

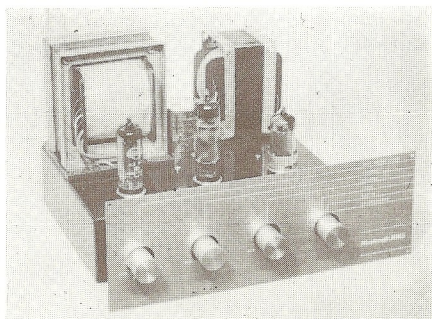
**Lowther LL26 amplifier.** 26W. Dist. <0.1%. Input for spec. output 0.75V. Response 20-70,000 c/s  $\pm 1$  dB. Feedback 22 dB. N.L. -90 dB. Output imp. 16 ohms with adjustment. Output EL34s. Lowther Linear. Size:  $11 \times 12 \times 7\frac{1}{2}$  in. Weight: 33 lb. To operate with Mk. IV control unit. Price: £47.

**Lowther Mk. IV control unit.** Inputs: mic. 3 mV; pickup 3 mV - 300 mV; radio and aux. 100 mV. 5-pos. sel., vol., bass, treble, filter, equalisation. Filters: 9, 7 and 4.5 Kc/s. H.D. <0.5%. H. and N. -65 dB. Output cathode follower 1V RMS. To operate with Lowther LL15 Mk. 1. Size:  $10\frac{1}{4} \times 4\frac{1}{8} \times 7$  in. Price: £20.

● **Lowther Mk. I stereo control unit.** Input as for master control unit Mk. IV. Tape input sockets. H.D. 0.1%. Dual low-pass filters. Dual output balanced and balance controls between channels. Size as Mk. IV. To operate with LL15S power amp. Price: £40.

● **Lowther LL15S stereo amplifier.** 16W output on each channel. Dist. 0.1%. Input for spec. output 0.75V. Response 20-40,000 c/s  $\pm 1$  dB. N.L. -85 dB. Output imp. 8.4 or 16 ohms. Output EL34. Lowther Linear. Size:  $11 \times 12 \times 7\frac{1}{2}$  in. To operate with Mk. I control unit. Price: £47.

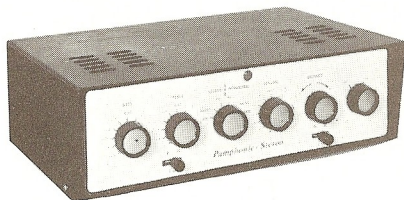
● **Lowther integrated stereo amplifier.** 12W per channel. Inputs: mic. 2 mV; pickup 2 mV; tape 100 mV; radio 100 mV; aux. 100 mV. H.D. 0.2% at 12W. Response 30-30,000 c/s  $\pm 1$  dB. N.L. -70 dB. Built-in oscillator for calibration. Output imp. 16 ohms, with adjustment. Price: £60; £64 with cabinet.



*Musicraft MM3 integrated*



*Ortofon KS601 integrated stereo*



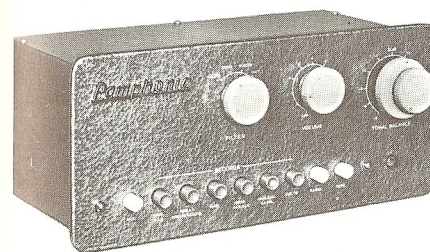
*Pamphonic 3000 integrated stereo*



*Pamphonic 3001 integrated stereo*



*Pamphonic 2001 amplifier*



*Pamphonic 1002B control unit*



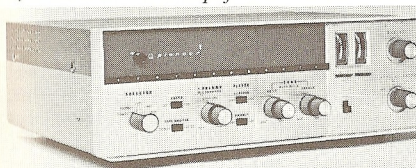
*Pye Mozart-HF10 amplifier*



*Pye Mozart stereo HFS20*



*Pye HS30T stereo amplifier*



*Pioneer SM-801 integrated stereo amplifier*

## AMPLIFIERS

**MARTIN ELECTRONICS LTD.** See Constructional Kits Section.



**METRO-SOUND MANUFACTURING CO. LTD.,** 19a Buckingham Road, London, N.1. Tel.: Clissold 8506/7. Cables: Metro-sound, London, N.1.

● **Pickup/microphone matching unit stereo pre-amplifier.** Transistorised. Input 0.05 mV, 2/50 ohms. Voltage gain 140. Response 20 c/s-30 Kc/s  $\pm 3$  dB. P.s.n. 9V battery, Type VT4, or equivalent. To operate with Ortofon SPUG, SPUG/E, SPU and SPU/E, and low impedance mics. Price: £7 10s.

● **De-luxe version,** with twin concentric precision w/w potentiometer. Price: £9 10s.



**MUSICRAFT AUDIO PRODUCTS LTD.,** 13 King Street, Richmond, Surrey. Tel.: Richmond 6798.

**M.M.3.** Integrated mono amplifier. Output 3W. Dist. 1%. F.R. 35 c/s-30 Kc/s. Feedback 20 dB. N.L. -55 dB. Output imp. 15 ohms. Output stages EL84. P.s.n. 230V AC. Inputs: pickup, radio, tape 100 mV. Controls: sel., bass, treble, vol. Size:  $8 \times 6 \times 6$  in. Price: £15 15s.



**ORTOFON.** Fonofilm Industri A/S Copenhagen. Distributed in the U.K. by Metro-Sound (Sales) Ltd., Bridge Works, Wallace Road, London, N.1. Tel.: Canonbury 8641. Cables: Metro-sound, London.

● **KS601 integrated stereo amplifier.** Pre-amp. details: Inputs F.M., tape, aux. 100 mV; mic. 2 mV; pickup 2 mV at 1 Kc/s. Controls: sel. switch, mono/stereo, vol., balance, bass, treble. Filter high-pass 20-10 c/s (adjustable).

Power amp. details: Output 15W per channel. Dist. less than 1%. Response 20 c/s-20 Kc/s  $\pm 1$  dB. Feedback 20 dB. Noise 7 mV at 3 ohm output. L.S. matching 3, 7 and 16 ohms. Output stages, two 6973s per channel. P.s.n. 220V AC on request, 110V AC. Price: £95.



**PAMPHONIC REPRODUCERS LTD.,** Westmoreland Road, London, N.W.9. Tel.: Colindale 7131.

**1002B control unit.** Inputs: mic. 2-3 mV; radio-tape 60 mV; pu 6-8 mV. Push-button sel. 9-pos. (6 gram.). Cut-off filter 4, 7, 12



Kc/s and "out". Terminals for tape input. H. and N. 60 dB below 0.5V. Size:  $10\frac{1}{2} \times 4\frac{1}{2} \times 7\frac{1}{2}$  in. To operate with 2001 power amp. Price: £25 4s.

**2001A control unit.** Inputs: 3-120 mV depending on input. 6-pos. sel. Pre-set level control for tape/radio. Cut-off filter at 4, 7, 12 Kc/s and "out". Loudness control. Tape input sockets. H. and N. 60 dB below 0.5V. To operate with 2001 power amp. Price: £12 12s.

**2001 amplifier.** Mono. Output 25W. Dist. at 1,000 c/s, 0.05% at 15W. Input for spec. output 0.5V. Response substantially flat 2-100,000 c/s. Feedback 28 dB. N.L. 90 dB below full output. Output imp. 3-75, 6-6, 10 and 15 ohms. Output KT66s. Ultra-linear. To operate with 2001A or 1002B control units. Price: £29 8s.

**3000 stereo amplifier.** Output 7.5W per channel. Dist. 0.5%. Inputs: radio 1V; tape 0.5V; pickup crystal stereo. Response 50-15,000 c/s. Feedback 20 dB. N.L. -57 dB. Output imp. 15 ohms each channel. Ultra-linear. Size:  $14 \times 9\frac{3}{4} \times 4\frac{1}{2}$  in. Price: £31 10s.

**Stereo amplifier Model 3001.** Output 7.5W. Dist. 0.5% at 1 Kc/s 6W. F.R. 40 c/s-20 Kc/s  $\pm 1$  dB. H. and N. -60 dB (all input sockets). Inputs: mag. pu 4-6 mV; 56 K; crystal pu 150 mV; 780 K; tape or radio 1, 400 mV; 100 K; tape or radio 2, 1V, 100 K. Output imp. 15 ohms. Output stages: ECL82 (2) per channel. Controls: bass, treble, vol., balance, sel. Free-standing, or mounted in cabinet. Size:  $13 \times 10\frac{1}{4} \times 4\frac{1}{2}$  in. Weight: 18 $\frac{1}{2}$  lb. Price: £38 10s.

**PIONEER ELECTRONICS CORPORATION.** Distributors: C. Hammond & Co. Ltd., 296 Kensington High Street, London, W.14. Tel.: Western 4343.

**SM-801.** Integrated stereo amplifier. 35W per channel. H.D. below 1%. Response 20 c/s-100 Kc/s  $\pm 1$  dB. S/N (mag. pu) better than 50 dB; (aux.) better than 60 dB. L.S. matching 8, 16 ohms (switchable). Output stages 7591s. Inputs: mag. pu 3-7 mV; crystal pu 24 mV; tape head 3.5 mV; mic. 3-7 mV; tuner 240 mV; aux. 240 mV; extra (with separate control) 3-5 mV. Controls: sel., tape monitor switch, vol., loudness, high- and low-pass filters, bass, treble, balance, earphone loudspeaker switch, mode sel. Speaker phase-reversing switch. Centre-channel output. Socket for earphones. P.s.n. 115, 230V (switchable). Free-standing. Size:  $16\frac{3}{8} \times 12\frac{3}{4} \times 5\frac{3}{4}$  in. Price: £78 15s.

**PERIOD HIGH FIDELITY LTD.,** 41 Beauchamp Place, Knightsbridge, London, S.W.3. Tel.: Knightsbridge 9258/9.

**Saville Double Six integrated stereo amplifier.** Inputs: pickup 5 and 100 mV; tape 100 mV; tuner 100 mV; mic. 4 mV. 6-pos. sel., bass, treble, balance, vol. controls. H.D. <0.2% at 1 Kc/s 4W. H. and N. better than -55 dB (main amp. better than -70 dB relative to nominal output. 6W per channel. Response 25-25,000 c/s  $\pm 1$  dB, ref. 1 Kc/s. Low-pass filter 5, 7 and 10 Kc/s. Filter slope control. 12dB feedback. Output imp. 15 ohms, or to order. Output ECL83s. Ultra-linear. Size:  $13 \times 8 \times 3\frac{3}{4}$  in. Price: £38 17s.

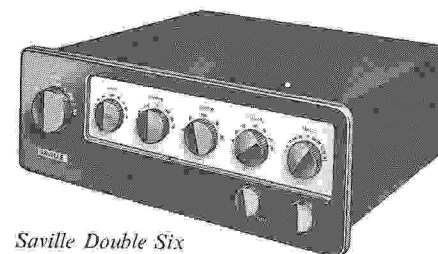
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**PYE LIMITED, HIGH FIDELITY DIVISION.** P.O. Box 49, Cambridge. Tel.: Cambridge 58985. Cables: Pyrad, Cambridge.

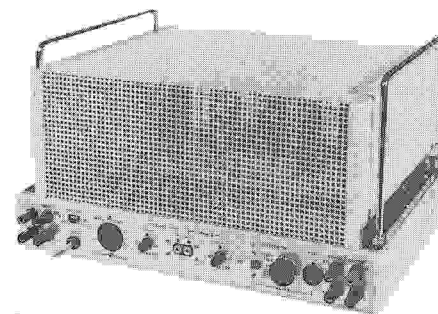
**HF10 Mozart self-contained control unit and power amplifier.** Inputs: tape 100 mV; radio 100 mV; pu 15, 8 and 8 mV on each of the 3 curves at 1,000 c/s, special compensation for all makes of pu. 5-pos. sel., treble, bass, vol., mains on/off, filter at 4, 7, 12 Kc/s and out. Tape replay socket. H.D. 0.3% at 1,000 c/s and 9W. H. and N. main amp. -70 dB; tape, radio -60 dB; pu -55 dB. Output 10W nom. Response 3-70,000 c/s  $\pm 3$  dB. Feedback 3 main loops over output stage 5, 8 and 14 dB. Output imp. 4, 8 and 15 ohms. Output one EL34. Integrated single-ended ultra-linear. Size:  $10\frac{1}{2} \times 5\frac{1}{2} \times 5\frac{1}{2}$  in. Price: £23 12s. 6d. Also available in metal case for shelf mounting. HF10M: £25 4s.

**Mozart stereo amplifier and control unit, HFS20.** Inputs: pick-up 7 mV; radio and tape 100 mV. Controls: col., bass, treble, balance, on/off, sel. switch. H. and N. -58 dB. 8W per channel nominal 9W max. Dist. 0.2%. Response 20 c/s-20 Kc/s  $\pm 2$  dB. Feedback 34 dB. Output imp. 4, 8 and 15 ohms. Output EL34. Size:  $4 \times 10\frac{1}{2} \times 11$  in. Price (chassis): £36 15s.; (metal cased): £38 6s. 6d. Mounted in cabinet with provision for motor (HFP3): £47 5s.

**HFS30T.** Integrated transistorised stereo amplifier. Output 15W at 15 ohms, 18W at 8 ohms. Dist. 0.7% total at 10W; 1% at 15W; over range 50 c/s-8 Kc/s. F.R. 15 c/s-35 Kc/s (pre-amp); 30 c/s-20 Kc/s (power amp). N.L. -65 dB (pre-amp), -95 dB (power amp). L.S. imp. 15, 8 ohms. P.s.n. 110-250V, 50-60 c/s. Inputs: mag. pu 7 mV; crystal-ceram. pu 120 mV; radio, aux. 100 mV. Controls: bass, treble, loudness, balance, high- and low-pass filters,



Saville Double Six



Radford ISTA 30 and ISTA 60

mono/stereo switch. Low-pass filter 6 dB/octave from 5 Kc/s; high-pass filter -3 dB at 50 c/s, slope increasing to 12 dB/octave. Available (as chassis  $11\frac{1}{2} \times 3\frac{1}{2} \times 8\frac{1}{2}$  in. behind front panel): £66 3s.; (or in veneered box  $12\frac{3}{4} \times 4\frac{3}{4} \times 8\frac{3}{4}$  in.): £71 8s.

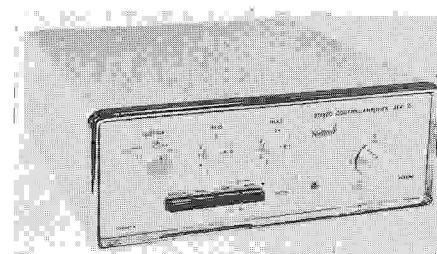
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**RADFORD ELECTRONICS LTD.,** Ashton Vale Estate, Bristol 3. Tel.: Bristol 662301/2.

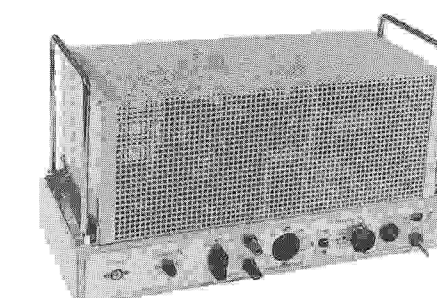
**SC4-10.** Transistorised integrated stereo amplifier. 15W, 16 ohms; 20W, 8 ohms. H.D. less than 0.1%. Inputs for mag. and ceram. pu, tuner, aux. L.S. matching 8 ohms. P.s.n. 110, 125, 140V or 220, 235, 250V. Size:  $10\frac{1}{2} \times 3\frac{3}{4} \times 13$  in. Weight: 20 lb. Free-standing. Controls: bass, treble, sel., vol., push-button functions. Price: £65.

**IMA 15.** Mono amplifier. 15W. H.D. 0.1% (15W); 1% (20W). Input for spec. output 500 mV at 4V variable. L.S. matching 4, 8, 16 ohms. P.s.n. 110, 125, 140V or 220, 235, 250V by tapping selection. Size:  $15 \times 6\frac{3}{4} \times 7\frac{3}{4}$  in. Weight: 18 lb. 3 oz. Price: £24 10s.

**IMA25.** Mono amplifier. 25W. H.D. 0.1% (25W); 1% (34W). Input for spec. output 500 mV to 4V variable. L.S. matching 4, 8, 16 ohms. P.s.n. 110, 125, 140V or 220, 235, 250V by tapping selection. Size:  $15 \times 6\frac{3}{4} \times 7\frac{3}{4}$  in. Weight: 24 lb. 5 oz. Price: £25.



Radford SC4-10 Integrated Amplifier



Radford IMA 15 and IMA 25

**ISTA15.** Stereo amplifier. 15W per channel. H.D. 0.1% (15W); 1% (20W). Input for spec. output 500 mV to 4V variable. L.S. matching 4, 8, 16 ohms. P.s.n. 110, 125, 140V or 220, 235, 250V by tapping selection. Size:  $15 \times 10\frac{3}{4} \times 7\frac{3}{4}$  in. Weight: 25 $\frac{1}{2}$  lb. Price: £42 10s.

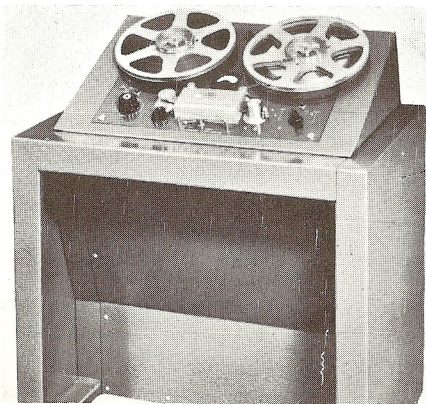
**ISTA30.** Stereo amplifier. 30W per channel. H.D. 0.1% (30W); 1% (40W). Other details as for ISTA15. Size:  $15 \times 12\frac{1}{4} \times 7\frac{1}{4}$  in. Weight: 46 lb. Price: £67 10s.

**ISTA60.** Stereo amplifier. 60W per channel. H.D. 0.1% (60W); 1% (75W). Other details as for ISTA15. Size:  $15 \times 12\frac{1}{4} \times 7\frac{3}{4}$  in. Weight: 48 lb. Price: £85.

**SC2 stereo control unit.** Inputs: pickup 4 mV 68 K; tape monitor 500 mV; aux. 1, 100 mV or 250 mV/250 K approximately; aux. 2, 250 mV or 500 mV/250 K approximately; Output 500 mV. Controls: treble, bass, vol., balance. Push-button sel. High-pass filters 35 c/s, low-pass 7 Kc/s. Response 40 c/s-20 Kc/s  $\pm 1$  dB. N.L. better than 65 dB. P.s.n. 5 mA 300V; 1.2 amps 6.3V. Cathode follower outputs, channel-to-channel fade balance control. To operate with ISTA15, ISTA30, ISTA60, or two IMA15 Mk. II and IMA25 Mk. II. Size:  $8\frac{1}{2} \times 10\frac{1}{2} \times 3\frac{3}{4}$  in. Price: £27 10s.

**SC3 stereo control unit, three channel.** Inputs: pickup and mic. 3 mV 68 K; tape monitor 500 mV; aux. 1, 100 mV or 250 mV;

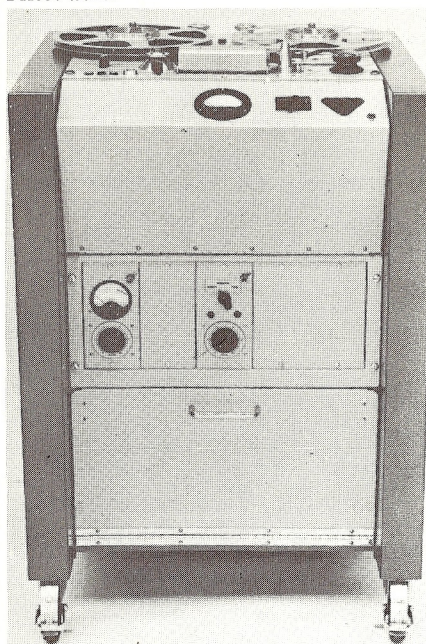




Leavers-Rich Series E console

**Model E.141.M.** Professional recorder console. Speeds 15 and  $7\frac{1}{2}$  i/s. Three motors.  $11\frac{1}{2}$  in. spools. F.R. 15 i/s and  $7\frac{1}{2}$  i/s, 50-15,000 c/s  $\pm 2$  dB. VU level meter. H. and N. -60 dB unweighted. W. and F. 0.06% at 15 i/s and  $7\frac{1}{2}$  i/s. Outlet from pre-amp at 600 ohms. Size:  $24 \times 24 \times 36$  in. Weight: 205 lb. Price: £640.

**Model E.141.P.** Two case portable version of E.141.M above. Size (recorder):  $21 \times 17 \times 11\frac{1}{2}$  in.; (amplifier):  $18\frac{3}{4} \times 14\frac{1}{2} \times 10\frac{3}{4}$  in. Weight (recorder): 71 lb.; (amplifier) 25 lb. Price: £615.



Leavers-Rich Model E.141.M

**Model E.141.R.** Rack mounting version of E.141.M above. Size:  $19 \times 17\frac{1}{2} \times 10$  in. Weight: 50 lb. Price: £545.

**Model E.242.M.** Professional dual channel recorder console. Three motors.  $11\frac{1}{2}$  in. spools. Speeds 15 and  $7\frac{1}{2}$  i/s. F.R. 15 i/s and  $7\frac{1}{2}$  i/s, 50-15,000 c/s  $\pm 2$  dB. VU level meter. H. and N. -60 dB unweighted. W. and F. 0.06% at 15 i/s and  $7\frac{1}{2}$  i/s. Outlet from pre-amp at 600 ohms. Size:  $24 \times 24 \times 36$  in. high. Weight: 210 lb. Price: £790.

**Model E.242.P.** Portable version of E.242.M above. Two cases. Size (recorder):  $21 \times 17 \times 11\frac{1}{2}$  in.; (amplifier):  $18\frac{3}{4} \times 14\frac{1}{2} \times 10\frac{3}{4}$  in. Weight (recorder): 71 lb.; (amplifier): 30 lb. Price: £765.

**Model E.242.R.** Rack mounting version of E.242.M above. Size:  $19 \times 17\frac{1}{2} \times 10$  in. Weight: 55 lb. Price: £675.



**PAMPHONIC REPRODUCERS LTD.,** Westmoreland Road, London, N.W.9. Tel.: Colindale 7131.

**Reflectograph Model A.** Semi-prof. recorder. Speeds  $7\frac{1}{2}$  and  $3\frac{3}{4}$  i/s. Three motors.  $8\frac{1}{4}$  in. spools. F.R.  $7\frac{1}{2}$  i/s 35-15,000 c/s;  $3\frac{3}{4}$  i/s 35-9,000 c/s both  $\pm 2$  dB. Level meter. H. and N. -55 dB. W. and F.  $<0.15\%$ . Outlet from pre-amp. Size:  $20 \times 16 \times 10$  in. Weight approx.: 50 lb. Price: £110 5s.

● **Model B.** Similar specification to Model A but fitted with  $\frac{1}{4}$  track heads and facility for playing back  $\frac{1}{4}$  track or  $\frac{1}{2}$  track pre-recorded stereo tapes with addition amplifier. Now only to special order. Price: £120 15s.

**Reflectograph Model D.**  $\frac{1}{2}$ -track tape player. Speeds  $7\frac{1}{2}$  and  $3\frac{3}{4}$  i/s. Three motors.  $8\frac{1}{4}$  in. spools. F.R.  $7\frac{1}{2}$  i/s 35-15,000 c/s;  $3\frac{3}{4}$  i/s 35-9,000 c/s, both  $\pm 3$  dB. H. and N. -50 dB. W. and F. 0.15%. Outlet from pre-amp. 250 mV. Size:  $20 \times 16 \times 10$  in. Weight approx.: 50 lb. Price: £78 15s.

**Reflectograph Model EA.**  $\frac{1}{2}$ -track tape player. Speeds  $7\frac{1}{2}$  or  $3\frac{3}{4}$  i/s to order. Three motors.  $8\frac{1}{4}$  in. spools. F.R. to NAB standard. H. and N. -50 dB. W. and F. 0.2% total. Output from pre-amp 250 mV. Automatic track reversal. Fitted with automatic start for clock control operation. Size:  $20 \times 16 \times 10$  in. Weight approx.: 50 lb. Price: £99 15s.

**Reflectograph Model S.** Semi-prof. recorder.  $\frac{1}{4}$ -track. Stacked erase, record and playback heads. Speeds  $7\frac{1}{2}$ ,  $3\frac{3}{4}$  i/s. W. and F. 0.13% at  $7\frac{1}{2}$  i/s, 0.18% at  $3\frac{3}{4}$  i/s. H. and N. -55 dB at 3% distortion. F.R. 35 c/s-15 Kc/s  $\pm 2$  dB,  $7\frac{1}{2}$  i/s; 35 c/s-10 Kc/s  $\pm 2$  dB,  $3\frac{3}{4}$  i/s. Replay char.  $7\frac{1}{2}$  i/s, CCIR;  $3\frac{3}{4}$  i/s, NARTB. Inputs: mic. 600 ohms balance or unbalanced as required, 6 mV; Radio not less than 10 K unbalanced 0.25V. Two outlets from stacked playback head, one from pre-amp. Three motors:  $8\frac{1}{4}$  in. spools, less than 45 seconds rewind. Level meter. Twin input mixers. Switched tracks. Plays back bottom track, but operator can record and playback on top track. On playback both tracks heard together. Size:  $20 \times 16 \times 10$  in. Weight approx.: 50 lb. Price (complete with phones and boom microphone): £125.



**PHILIPS.** Distributors: Peto Scott Electrical Instruments Ltd., 167-169 Wardour Street, London, W.1. Tel.: Gerrard 2911.

● **EL3566.** Professional recorder. Stereo/mono full and  $\frac{1}{2}$ -track. Speeds 15,  $7\frac{1}{2}$  i/s. W. and F. 15 i/s, 0.1%;  $7\frac{1}{2}$  i/s, 0.15%. H. and N. 15 i/s, better than -55 dB;  $7\frac{1}{2}$  i/s, better than -52 dB. F.R. 15 i/s, 60 c/s-10 Kc/s  $+0.2$  dB, 40 c/s-15 Kc/s  $+0.4$  dB;  $7\frac{1}{2}$  i/s, 60 c/s-8 Kc/s  $+0.2$  dB, 40 c/s-12 Kc/s  $+0.4$  dB. Replay char. CCIR. Inputs: mic. 0.1 mV, 400 ohms; line 150 mV, 100 K. Monitor (headphones) and line outputs. Three Papst motors. 11 in. spools. 2 min. rewind, 3,300 ft. VU meter. Provision for adding pilot-tone head. Time indicator in mins. and secs. Suitable for 19 in. rack mounting. Size (deck):  $20 \times 15\frac{1}{2} \times 10\frac{1}{2}$  in.; (amplifier, mono):  $20 \times 15\frac{1}{2} \times 5\frac{1}{4}$  in. Weight (deck): 60 lb.; (amp): 24 lb. Price on application.

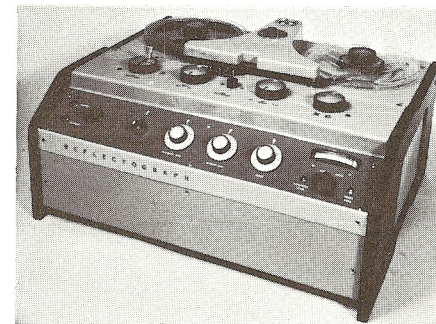


**REFLECTOGRAPH.** See Pamphonic Reproducers Ltd.



**REVOX (U.K. CONCESSIONAIRES) LTD.,** 296 Kensington High Street, London, W.14. Tel.: Western 4343.

● **Model 736.** Stereo recorder.  $\frac{1}{2}$  or  $\frac{1}{4}$ -track versions. Speeds  $7\frac{1}{2}$ ,  $3\frac{3}{4}$  i/s. W. and F. less than 0.1% at  $7\frac{1}{2}$  i/s. H. and N. -60 dB. F.R.  $7\frac{1}{2}$  i/s, 30 c/s-18 Kc/s  $+2.3$  dB;  $3\frac{3}{4}$  i/s, 40 c/s-12 Kc/s  $+2.3$  dB. Replay char. DIN. Inputs (3 per channel): mic. 3 mV, 2 megohms, diode 3-50



Reflectograph model S

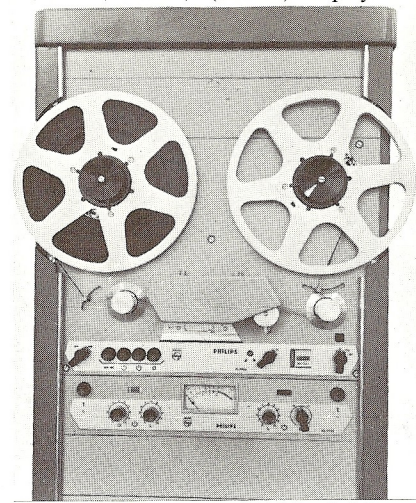
mV, 47 K; radio 50 mV, 1 megohm. Outlet from pre-amp. Three motors.  $10\frac{1}{2}$  in. NAB spool.  $1\frac{1}{2}$  min. rewind, 2,400 ft. 2 VU meters. Three heads, remote control, switchable tape tension, superimpose, mixing, echo, on and off tape monitoring, multiplay. Size:  $18\frac{1}{2} \times 12\frac{1}{4} \times 11\frac{1}{2}$  in. Weight: 45 lb. Price (chassis model): £123 18s.; (with portable case): £130 4s.

● **SP36.** Details as for Model 736, but different case. Price: £128.



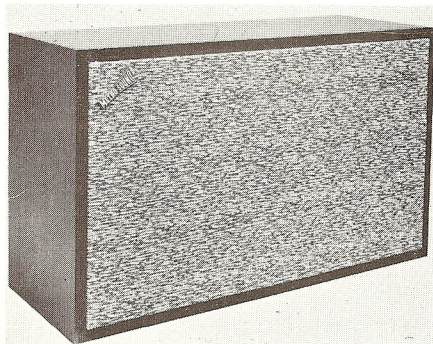
**SONY.** Distributors: Tellux Ltd., Avenue Works, Gallows Corner, Colchester Road, Romford, Essex. Tel.: Ingrebourne 43971.

● **TC500.** Stereo recorder.  $\frac{1}{4}$ -track. Speeds  $7\frac{1}{2}$ ,  $3\frac{3}{4}$  i/s. W. and F. less than 0.15%,  $7\frac{1}{2}$  i/s; less than 0.2%,  $3\frac{3}{4}$  i/s. F.R.  $7\frac{1}{2}$  i/s, 30 c/s-18 Kc/s;  $3\frac{3}{4}$  i/s, 30 c/s-13 Kc/s ( $\pm 2$  dB). Replay char.

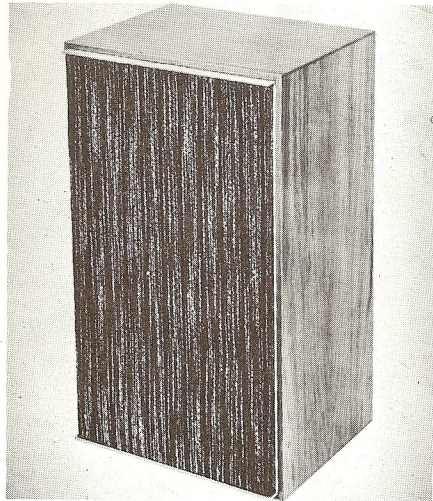


Philips Type EL 3566 Rack Mounted

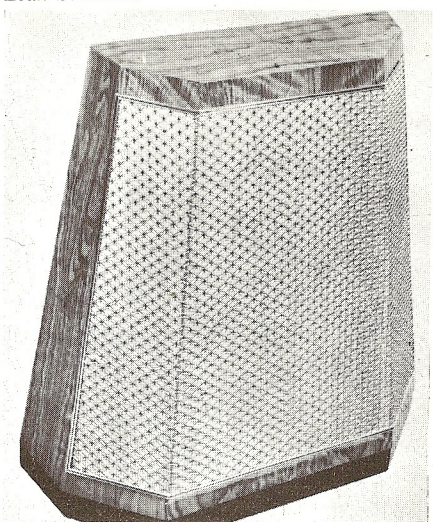




*Metro-sound Classic M.2*



*Leak Sandwich*



*Fane Quartet*

folded horn. Vertical on runners, or horizontal on 12 in. legs. One unit, 6 in. or 8 in. Rec. Lowther PM6. Response 40-18,000 c/s. Size  $32 \times 18\frac{1}{2} \times 14\frac{1}{2}$  in. Weight 60 lb. Price without unit £19 19s.

This enclosure is also available in a "Do-it-yourself" kit form. Price £14 14s. ex works.

**Audiovector.** Compound horn. Upward facing mid- and high-frequency horn with rear folded horn. One 6 in. unit. Acoustic crossover. Range 40-22,000 c/s. Rec. PM2 PM2 Mk. 11 or PM4. Size  $26\frac{1}{2} \times 19 \times 34$  in. Weight 75 lb. Price with specified units £96, without units £48.

**Acousta-twin.** Dual folded horn. Side facing and rear folded horn system for mono and stereo reproduction. Two PM6 or PM2 Mk. 3 6 in. drive units. Acoustic crossover. Response 40-18,000 c/s. Dimensions  $40 \times 16\frac{1}{2} \times 18$  in. Price £35 enclosure only. £72 16s. or £95 complete.

**Corner Acousta.** Folded horn. Rearward facing into corner. Bass outlets coupling into corner of room. One 6 in. high flux unit. Rec. Lowther PM6. F.R. 40 c/s-18 Kc/s. Size  $32 \times 9\frac{1}{2} \times 18$  in. Price (without unit) £19 19s.



**METRO-SOUND Manufacturing Co. Ltd.,** Bridge Works, Wallace Road, London, N.1. Tel.: Canonbury 8641. Cables: Metrosound, London, N.1.

**Classic M.1.** Complete system. Reflex. Forward-facing. Incorporates Cor-reflex system for increased frequency response. Two units: 12 in. bass, 5 in. treble. Crossover 1 Kc/s. F.R. 28 c/s-17.5 Kc/s. Size  $24 \times 14 \times 12\frac{1}{2}$  in. Price £36.

**Classic M.2.** Infinite baffle. Complete system. Forward-facing. Incorporates Cor-Reflex (as M.1). Two units:  $13 \times 8$  in. bass, 3 in. treble. Crossover 5 Kc/s. Response 35 c/s-18.5 Kc/s. Size  $10\frac{3}{4} \times 18\frac{1}{2} \times 7\frac{1}{4}$  in. Price £17 10s.



**MORDAUNT Sound Reproducers,** 1-3 Stanley Road, Napier Road, Bromley, Kent. Tel.: Ravensbourne 9212.

**Arundel Mark II.** Totally enclosed. Forward facing. Two units, 12 in. bass, ribbon

tweeter. Crossover 2,750 c/s. F.R. 30 c/s-25 Kc/s. H.C. 12/15 watts. Size  $33 \times 15 \times 11$  in. Weight 44 lb. Price £40 19s.

**Warwick.** Totally enclosed. Forward facing electrostatic/dynamic. Two units, 12 in. bass, push-pull electrostatic tweeter. Crossover 2 Kc/s. F.R. 50 c/s-20 Kc/s. H.C. 6/10 watts. Size  $31 \times 15 \times 11$  in. Weight 40 lb. Price £35 14s.

**Conway.** Totally enclosed. Forward facing. Two units, 12 in. bass, ribbon tweeter. Crossover 2,750 c/s. F.R. 25 c/s-25 Kc/s. H.C. 12/15 watts. Size  $36 \times 26\frac{1}{2} \times 12$  in. Weight 50 lb. Price £51 9s.

**Edinburgh.** Totally enclosed. Forward facing. Four units, two 12 in. bass units, two ribbon tweeters. Crossover 2,750 c/s. F.R. 25 c/s-25 Kc/s. H.C. 25/30 watts. Size  $36 \times 26\frac{1}{2} \times 12$  in. Weight 70 lb. Price £81 18s.

**Stirling.** Totally enclosed. Forward-facing. Two units: 12 in. bass,  $1\frac{1}{2}$  in. treble. Crossover 1,500 c/s. F.R. 40 c/s-16 Kc/s. Size  $29 \times 15 \times 11$  in. Price (with units) £30 9s.

**Bookcase.** Infinite baffle. Totally enclosed.



**MUSICRAFT Audio Products Ltd.,** 13 King Street, Richmond, Surrey. Tel.: Richmond 6798.

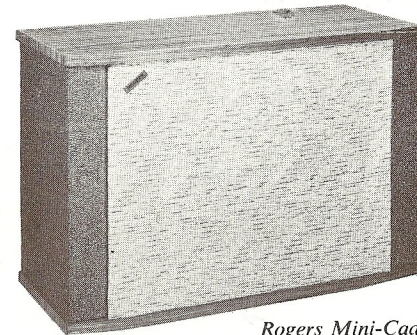
**F.E.H.** 6 ft. folded horn. Forward facing. Two units: 8 in. drive unit, 3 in. H.F. unit. Rec. Goodmans Axiote 8 in., Wharfedale Super 3 in. Crossover 5,000 c/s. F.R. 30 c/s-17 Kc/s. Size  $36 \times 20 \times 20$  in. Price £40 19s. (complete with speakers).

**Modular.** Complete forward-facing system, using double reflex enclosure principle for bass loading. Designed to match Modular tape and equipment cabinets. Two units: 8 in. bass, 3 in. treble. Crossover 3,000 c/s. F.R. 30 c/s-18 Kc/s. Price £19 19s.

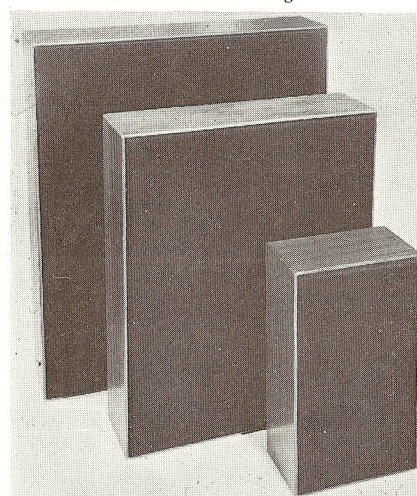


**PAMPHONIC REPRODUCERS Ltd.,** Westmoreland Road, London, N.W.9. Tel.: Colindale 7131.

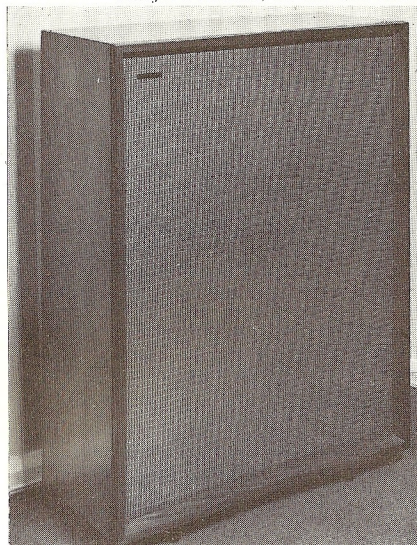
## SPEAKERS



*Rogers Mini-Cadet*

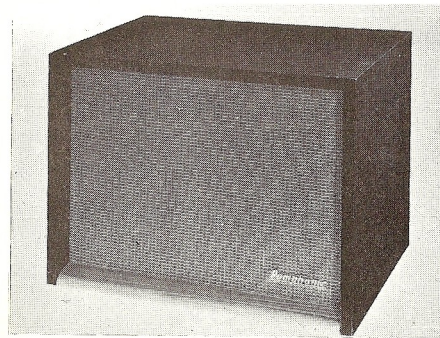


*Radford B.L.S., S.L.S. and A.L.S.*



*Mordaunt Edinburgh or Conway*





*Pamphonic S1*

**Pillar Type 778.** Tuned column. Forward facing H.F. unit and upward facing L.F. unit, 6½ in. (L.F.), 4 in. (H.F.). Crossover 1,000 c/s single section. Response 35 c/s to 12 Kc/s. Size 37½ × 12 × 12 in. Price £14 12s. 3d. (U.K. purchase tax £2 8s. 8d.).

**S.1.** Cabinet type, forward facing. Elliptical 10 × 6 in. concentric cone unit. Size 15 × 12 × 11 in. Price £9 (U.K. purchase tax £1 10s.).



**PYE LIMITED**, High Fidelity Division, P.O. Box 49, Cambridge. Tel.: Cambridge 58985. Cable: Pyrad, Cambridge.



*KEF Monitor*

**Mozart Minor HF9BS.** Distributed vent reflex. Two drive units, 12 in. bass and 10 × 6 in. elliptical. Air coupled in pat. arrangement. Crossover included. Response 50-15,000 c/s. Size 28 × 13 × 10½ in. Price £20 9s. 6d.



**RADFORD Electronics Ltd.**, Ashton Vale Estate, Bristol 3. Tel.: Bristol 662301/2.

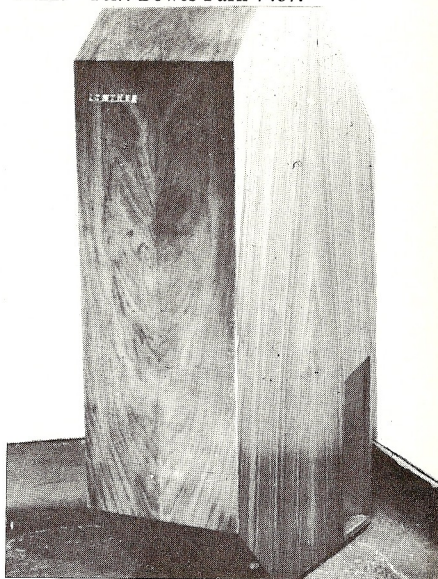
**B.L.S.** Bookshelf model. Sealed acoustic enclosure. Forward-facing. Two units: bass, KEF Type B139, rectangular flat piston; treble, Celestion HF1300. Imp. 8 or 16 ohms. H.C. 25 W. Response 80 c/s-15 Kc/s. Size 20 × 11½ × 7½ in. Weight 28 lbs. Price (complete with units) £24.

**S.L.S.** Studio model. Acoustic transmission line loading. Forward-facing. Three units: bass, KEF Type B139, rectangular flat piston; 2 × treble, Celestion HF1300. Imp. 8 ohms. H.C. 30 W. Response 30 c/s-15 Kc/s. Size 30 × 24 × 8 in. Weight 70 lbs. Price (complete with units) £42 10s.

**A.L.S.** Auditorium model. Details as for S.L.S. Size 36 × 30 × 8 in. Weight 105 lbs. Price £75.



**RECORD HOUSING**, Brook Road, London, N.22. Tel.: Bowes Park 7487.



*Lowther Corner Acoustia*

**Nordyk.** Reflex forward facing. One drive unit. Rec. 8-in. Goodmans and Wharfedale. Response 40-15,000 c/s. Price, cabinet only, £7 7s.

**Viking.** Reflex forward facing. Two drive units. 8 or 10-in. tweeter. Response 40-15,000 c/s. Size 32 × 19 × 12 in. Price, cabinet only, £11 11s.

**Strauss.** Reflex forward facing. Two drive units. 10 in. plus any tweeter. Rec. Goodmans Axiom 10. Response 40-15,000 c/s. Size 32 × 18 × 11 in. Price £11 19s.

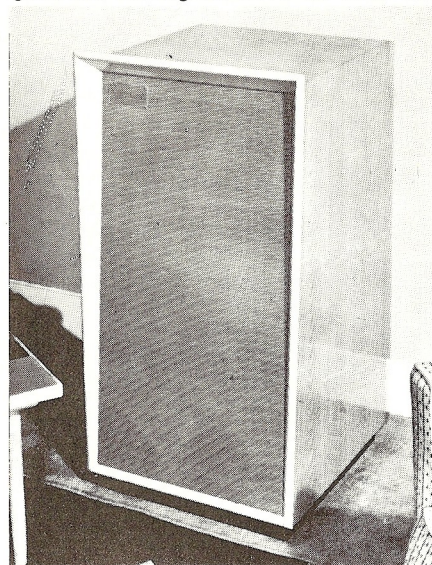
**Quarterwave.** Folded horn. Forward facing. Two units: 12 in. bass unit; Kelly ribbon speaker. Crossover included. F.R. 30 c/s-16 Kc/s. Size 32 × 18 × 11 in. Price approximately £37 16s.

**Lowline.** Folded Horn Enclosure. Forward facing. One 8 in. unit. Rec. Goodmans Axiote 8 or Wharfedale Super 8. Price to be announced.

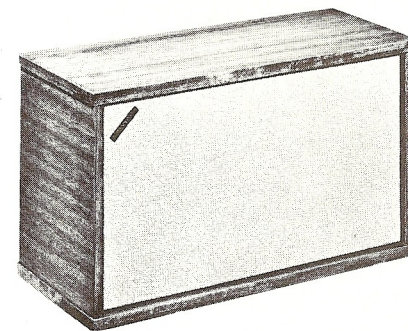


**ROGERS DEVELOPMENT (Electrical) Ltd.**, 4-14 Barmeston Road, Catford, London, S.E.6. Tel.: Hither Green 7424/4340. Cables: Rodevco, London, S.E.6.

**Cadet Mk. II Horn Speaker.** Folded horn gives rear loading on 8 × 5 in. main unit.



*Musicraft FEH*



*Tannoy III LCZ*

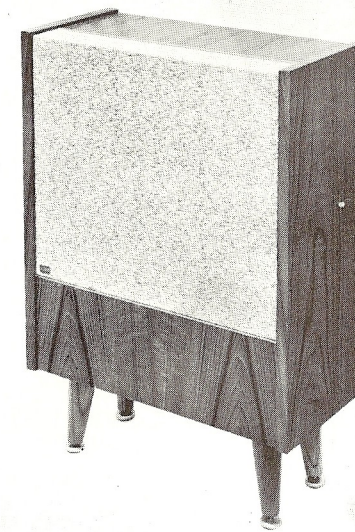
Middle frequencies from front of elliptical unit and highs from 3 in. unit. Crossover at 4 Kc/s. Response, 50 c/s-15 Kc/s. Impedance 15 ohms. Size 33½ × 20½ × 8½ in. Price £20 5s. (U.K. purchase tax £3 9s.).

**Mini-Cadet.** Infinite baffle. Complete system. Forward-facing. Two units: 12 in. bass, 3½ in. tweeter. Crossover included. F.R. 40 c/s-18 Kc/s. Size 20 × 13½ × 8½ in. Price £21.



**ROLA CELESTION Ltd.**, Ferry Works, Thames Ditton, Surrey. Tel.: Emberbrook 3402. Cables: Voicecoil, Thames Ditton.

A range of new speakers should be in production later in 1964, but at the time of going to press details were not available.



*Lockwood Mini-Slim*