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"TRADER" SERVICE SHEET 1285

PYE FENMAN II &

Table Receiver and Autoradiogram

EMPLYING four speakers and a tuning indicator, the Pye Fenman II is a 9-valve (plus rectifier) A.M./F.M. table receiver designed to operate from A.C. mains of 200-250V, 50 c/s. The bands covered are: A.M., 185-562m, 960-1,900m; F.M., 87.5-100 Mc/s.

Fenman II RG is a 5-speed autoradiogram employing a modified Fenman II chassis. Differences between the two models are explained in "General Notes" overleaf. The Fenman I is covered in Service Sheet 1287.

Release date, both models, May, 1955. Original prices: Fenman II, £30 4s 2d; Fenman II RG, £67 11s 5d; Purchase tax extra.

CIRCUIT DESCRIPTION

A.M. aerial input is coupled via I.F.F. rejector **L9**, **G16** and common impedance of **G17** to aerial tuning coils **L10** (M.W.)

and **L11** (L.W.). **V3** is a triode heptode valve operating as frequency changer with external coupling.

Oscillator anode coils **L13** (M.W.) and **L14** (L.W.) are tuned by **G32**. Parallel trimming by **G28** (M.W.) and **G30** (L.W.); series tracking by **G27** (M.W.) and **G26** (L.W.). Reaction coupling from the oscillator grid circuit via the common impedance of the trackers, with additional coupling on M.W. via **L12**.

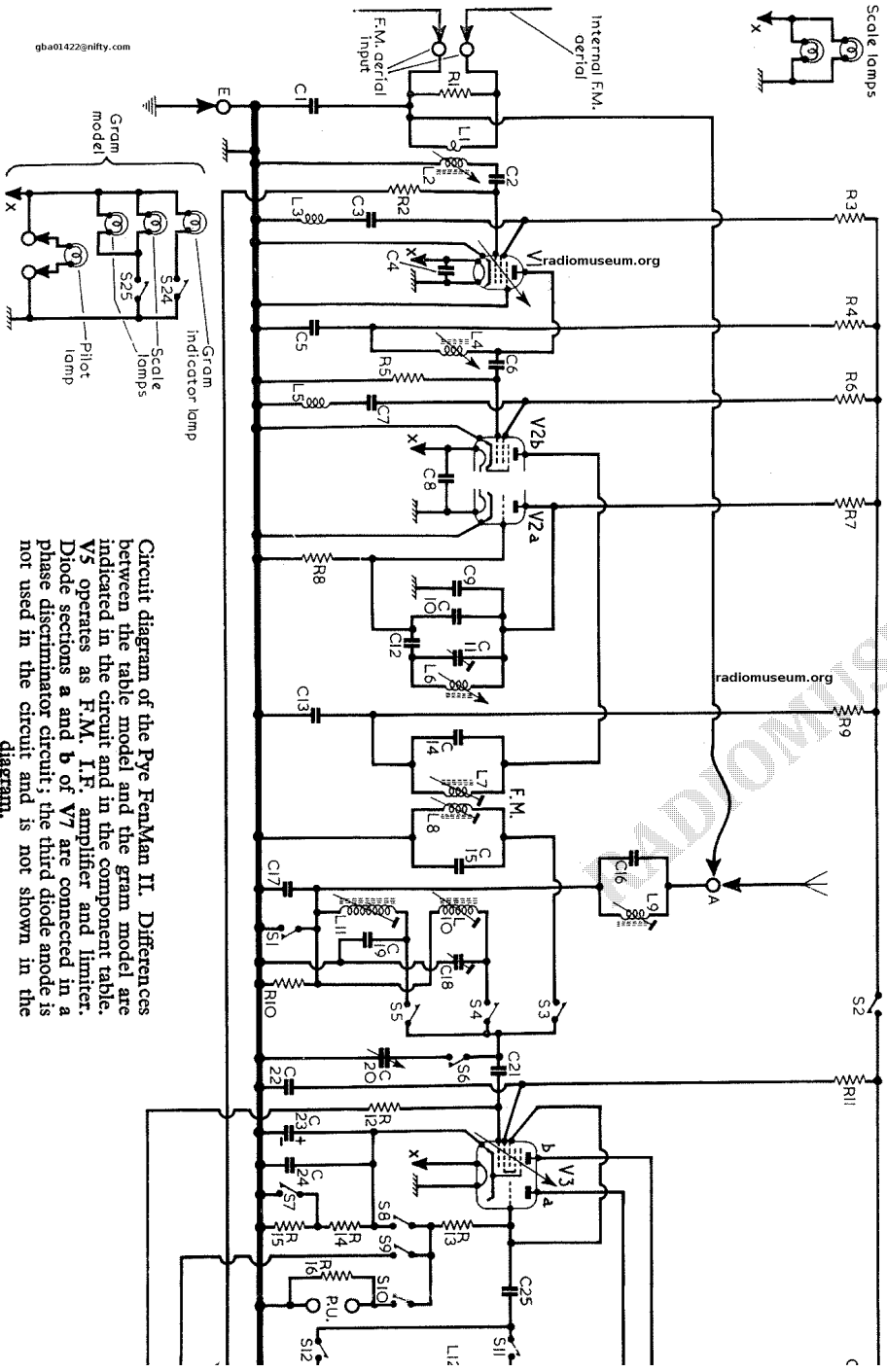
V4 is a variable-am. R.F. pentode operating as I.F. amplifier with tuned transformer couplings **L15**, **L16** and **L21**, **L22**. **L16** is coupled to **V4** control grid circuit via **G35**, **G36** and F.M. winding **L18**.

A.M. intermediate frequency 470 kc/s. One diode section of double diode triode valve **V6** operates as detector. Audio frequency component in its output is developed across **R28** and is passed via treble tone control circuit **G55**, **R34**, **G56** and 5-position bass tone control circuit comprising **C62**, **C63** and switches **S20-S22**

and volume control **R38** to triode section of **V6**, which operates as A.F. amplifier. Second diode section of **V6** is fed via **G61** from **V4** anode circuit, and the resulting D.C. potential developed across **R46** is fed back as bias via **S19** to **V3b**, **V4** giving automatic gain control on the A.M. bands.

Provision is made for the connection of a Gramophone pick-up, whose output is fed via **S10** to **V3a**, which operates as A.F. amplifier. **S7** opens to increase **V3a** bias via **R15**. **V3a** output is coupled via tone corrector **R29**, **G32**, **R30**, **R33**, **G53**, and **S18** to the tone control circuits.

Output of **V6** is resistance-capacitance coupled via **R45**, **G77**, **R61**, **R60** to **V8**, which together with **V9** operates in the push-pull output circuit. A proportion of the output of **V6**, that developed across **R60** in potential divider **R61**, **R60** is fed via phase inverter valve **V7c** to **V9**. **R60** and **R61** attenuate the input to the phase inverter in order to compensate for amplification of the signal in this stage.



Circuit diagram of the Pye Fenman II. Differences between the table model and in the component table. **V5** operates as F.M. I.F. amplifier and limiter. Diode sections a and b of **V7** are connected in a phase discriminator circuit; the third diode anode is not used in the circuit and is not shown in the diagram.