

TECHNICAL DATA

FOR THE NEW MRI

CHASSIS MODEL C

RECEIVER ADJUSTMENTS

☐ ☐ **HORIZONTAL SYNCHRONISATION:** The receiver should be given a very weak signal, either by holding the aerial lead close to the aerial connector or by using a suitable attenuator. The slug in the horizontal oscillator coil should be set to a position midway between the two points at which synchronisation is lost. Check the setting by switching to another channel and back to the channel in use and see if synchronisation is still maintained.

VERTICAL LINEARITY AND HEIGHT: The control nearest the centre of the timebase printed board affects the top of the picture only, and should be adjusted so that cramping, fold over or stretching does not occur. The right hand potentiometer of the pair at the bottom of the timebase printed board is the fine vertical linearity control and should be adjusted to give the most accurate shape to the test pattern. The height control is the left hand potentiometer of the pair at the bottom of the timebase printed board and should be set to give a small amount of vertical overscan.

WIDTH AND A.G.C. CONTROLS: Refer to notice on receiver rear cover regarding adjustments. The width control affects both the E.H.T. and boost voltages. Advancing this control more than necessary for correct picture aspect ratio will reduce the life of some components.

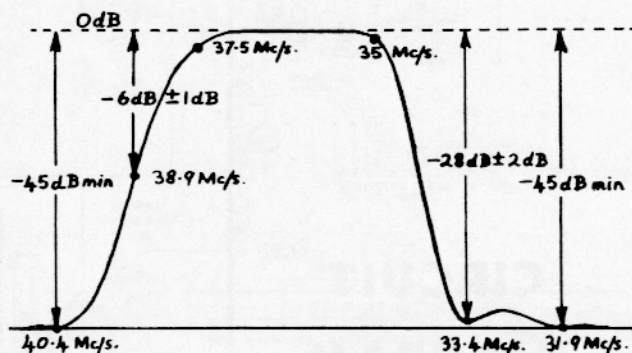
HORIZONTAL LINEARITY: Adjust by sliding the core in the linearity coil to the optimum position. The control has most effect on the left hand side of the picture.

VIDEO I.F. ALIGNMENT — WITH SWEEP GENERATOR AND OSCILLOSCOPE

- (1) Switch the tuner to a blank channel (11 or 12).
- (2) Connect a 4½-volt bias battery across the 1500pfd capacitor between the earthy end of the 1.8K grid resistor of the EF183 and pin nine of the EF183 (terminals for this purpose are provided on the printed board). The positive terminal of the battery should be connected to pin 9 of the EF183.
- (3) Connect an 18K resistor and a 1000pfd capacitor in series from the anode of the video amplifier valve (ECL84, pin 6) to earth. The capacitor goes to earth. Connect the oscilloscope across the capacitor.
- (4) Feed the sweep generator output to the control grid of the 3rd video I.F. valve (EF184) and adjust the cores of S15 and S16 for a symmetrical curve with peaks at approximately 34.5 and 38.5 Mc/s.
- (5) Connect the sweep generator output to the control grid of the 2nd video I.F. valve and adjust S13 and S14 for a symmetrical curve with peaks at approximately 35 and 38.5 Mc/s.
- (6) Connect the sweep generator output to the junction of coil S8 and capacitor C101 in the control grid circuit of the EF183 valve and tune the 33.4 Mc/s. trap (A.3.129.92).

Adjust S11 and S12 for a symmetrical curve as level as possible between 34.5 and 38.9 Mc/s.

- (7) Finally, couple the sweep generator to the mixer valve (PCF801) by removing the valve shield and fitting a copper sleeve ¼in. deep around the valve, taking care that the sleeve does not earth. Tune the 31.9 Mc/s. and 40.4 Mc/s. traps, which are S9 and S10 respectively. Adjust S7, S8 and the tuner output coil for a level response between 37.5 Mc/s. and 35 Mc/s. with 38.9 Mc/s. at 6 dB down. (See Fig. 1.)



SOUND I.F. ALIGNMENT AND DISCRIMINATOR ADJUSTMENT

If a standard television transmission is available a convenient alignment method for use in the field requires a V.T.V.M. only.

- (1) Tune in to a standard television transmission.
- (2) Connect a V.T.V.M., which is adjusted for centre zero and switched to a 1 or 1.5 volt D.C. range, between the sound discriminator side of capacitor C134 and earth. Adjust the slug, accessible through the centre hole in the sound discriminator screening can, for zero voltage.
- (3) Connect the V.T.V.M., switched to the minus 10 or 15-volt D.C. range, between the junction of R137, R147 and C127 (terminal is provided) and earth. Tune the slugs in I.F. transformers A3.129.89 and A3.129.90, also the slug accessible through the hole in the sound discriminator unit A3.300.51, which is nearest the bottom of the chassis, for maximum negative voltage.
- (4) Repeat all the above adjustments.

ADJUSTMENT OF 5.5 Mc/s. TRAP: This trap can be adjusted most conveniently in the field by making use of a standard television transmission.

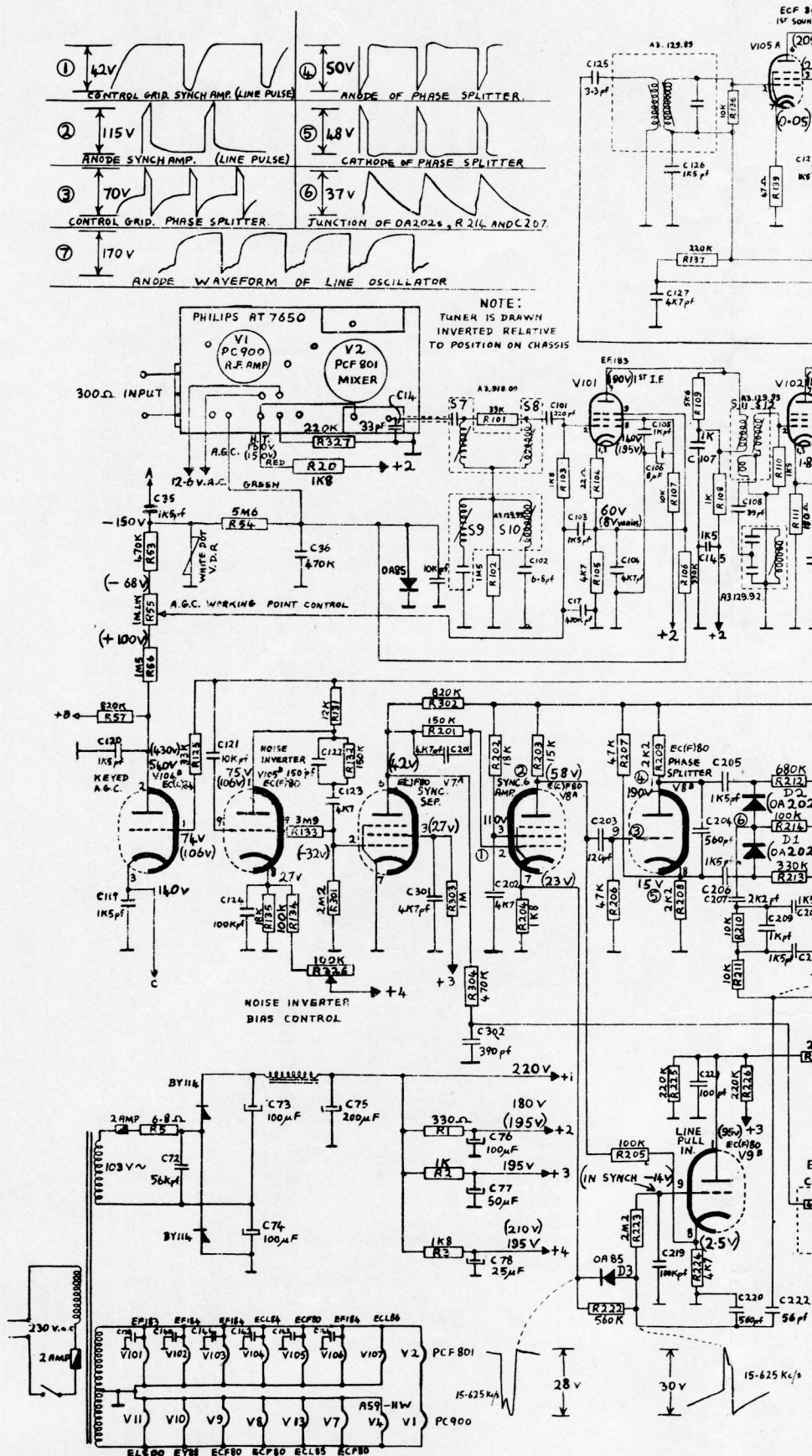
Adjust the fine tuning control until the picture is very close to break up.

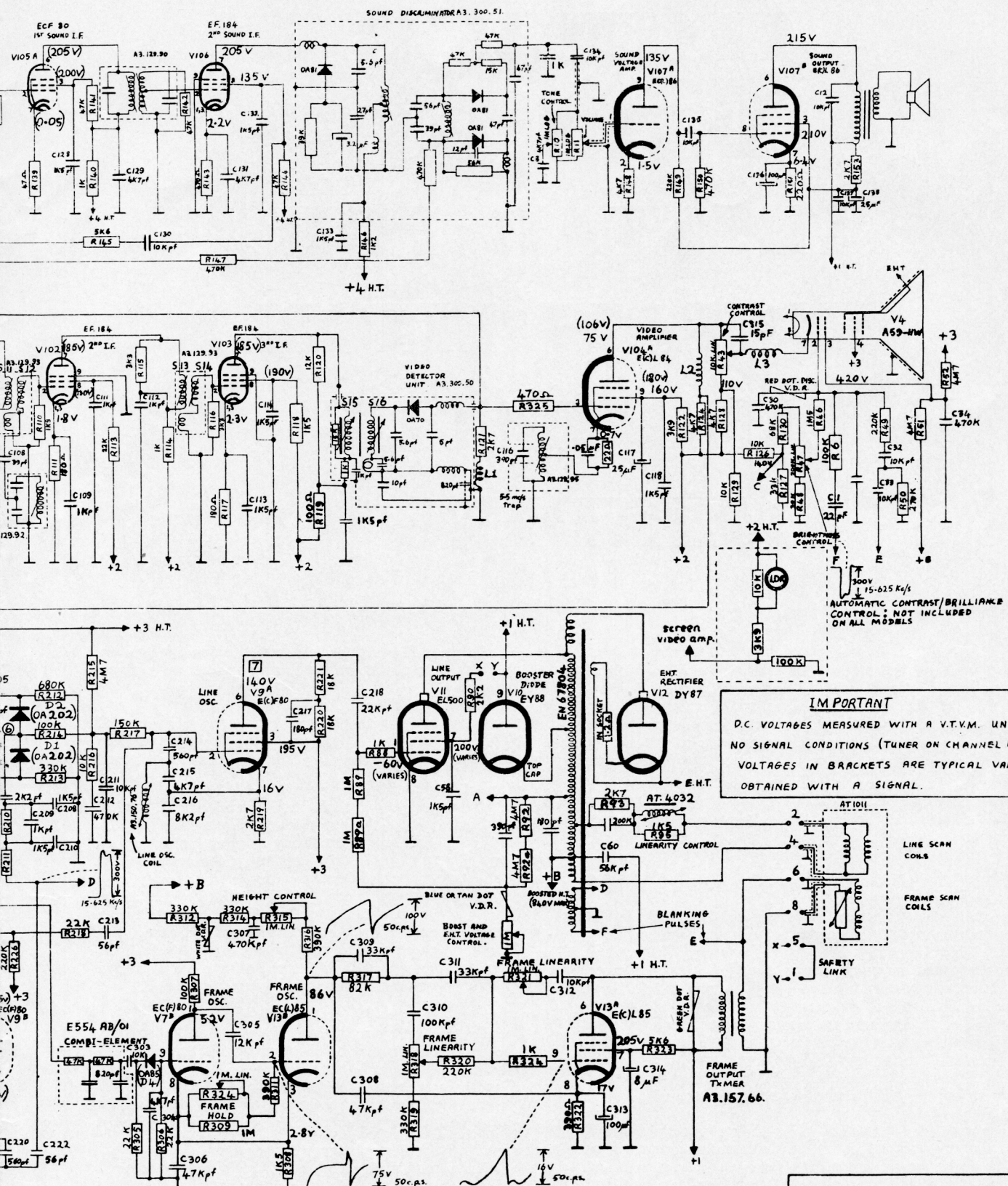
Set the slug in the 5.5 Mc/s. trap coil A3.129.95 for minimum visible 5.5 Mc/s. patterning on the picture.

MRI CHASSIS MODEL C

CIRCUIT DIAGRAM

Diagram and technical data prepared by the development and technical staff of Mowat Radio Industries and published in collaboration with the Home Appliance Sales and Servicing News.





MOWAT RADIO INDUSTRIES LTD
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PRINTED CIRCUIT I.F. & TIME BASE
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