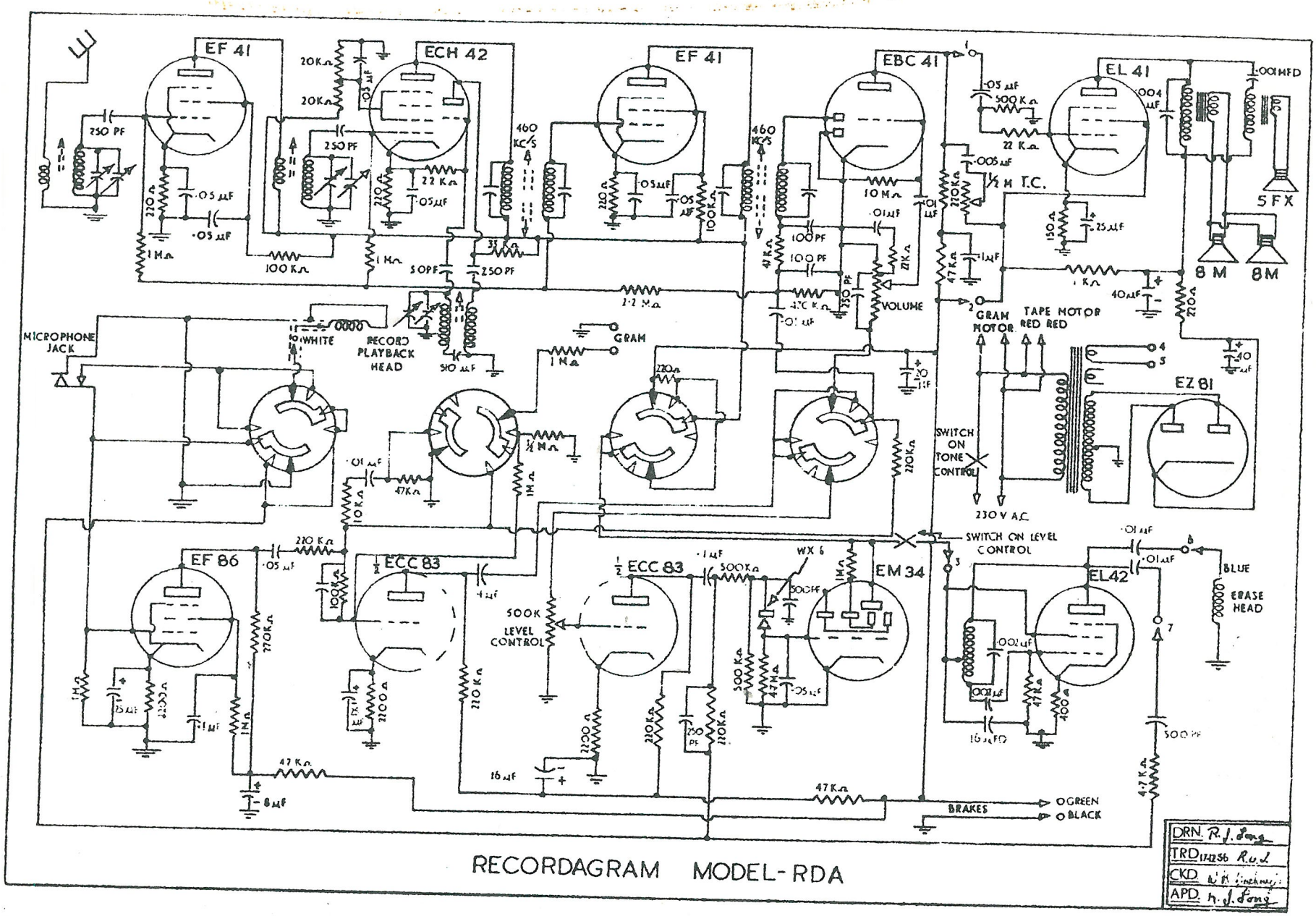

RDA

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RDA

ALIGNMENT OF SHORT WAVE AND BAND-SPREAD BANDS

Each of these 7 bands is peaked at near the centre of the dial on oscillator, aerial and converter circuits by means of the coil slugs. The frequencies chosen are as follows:—

6.1 M/C, 7.15 MC, 9.6 M/C, 11.8 M/C, 15.2 M/C, 17.8 M/C, 21.5 M/C.

NOTE—The aerial circuit should always be finally touched up on all bands with an aerial giving approximately the same loading as the customers' aerial will give. Namely long or short.

R.F. SENSITIVITIES

Overall R.F. Sensitivity on medium wave B/C band at dial setting of 1.5 M/C. Both tone controls fully clockwise. Signal generator coupled via dummy load to aerial and earth terminals. Low frequency speaker disconnected and power output meter inserted with built-in load set at 8.4 ohms.

Sensitivity better than 0.2 micro volts for 50 milli volts of output.

EXTENSION SPEAKER

Provision has been made for feeding an extension speaker. By means of a 3-position switch on the front panel it is possible to have either:—

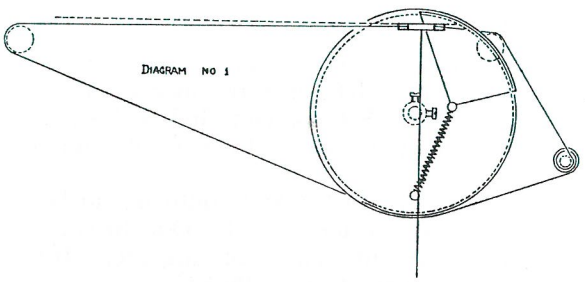
1. Local speakers only.
2. Local speakers plus remote speaker.
3. Remote speaker only.

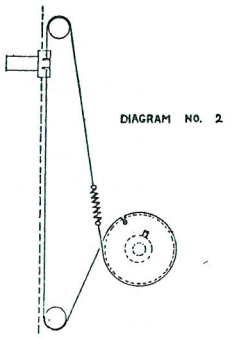
TAPE RECORDER FACILITIES

Two jacks are provided to enable a tape recorder to be used with the Concertgrand.

INVERSE FEEDBACK

Approximately 24 DB of feedback is used which provides adequate damping on the moving parts of the bass reproducer, whilst bringing the amplifier distortion percentages down to a very low level.





RESTRINGING OF DIAL CORDS

DIAGRAM 1. This diagram views the cord from the front of the chassis and the main points to watch are:—

1. Dial pointer on calibration dot just past .55 M/C.
2. Gang fully closed.
3. Drum should be in position shown in diagram 1.
4. Cord should have 2½ turns around spindle.
5. Approximate length cord required is 56 inches.

DIAGRAM 2. This views the cord from the front of the chassis also. The approximate length of cord is 22 inches. Diagram shows drum on switch shaft and the indicator in the gram. position.

RDA

VOLTAGES APPEARING BETWEEN VALVE PINS AND EARTH

(Tuned off signal, aerial and earth shorted). Underlined readings taken on a VTVM. Other readings on a 20K ohms per volt multi-meter.

VALVE PIN No.	1	2	3	4	5	6	7	8
EF41	0	166	NC	NC	78	—2.4	0	6.3v. A.C.
ECH42	0	220	127	13.5	88	—2.4	0	6.3v. A.C.
ECC40 P.4. amp.	0	203	150	151	150	0	4.4	6.3v. A.C.
EAF42	0	220	—1.4	0	83	—2.4	0	6.3v. A.C.
ECC40 Demodulator	0	224	50	58	224	0	8.2	6.3v. A.C.
EF86	67	1.7v.	1.7v.	6.3v. A.C.	0	117	1.7	1.7
EL41 (Phase Inverter)	0	185	NC	NC	185	16.5	24v.	6.3v. A.C.
EL41s (Output Stage)	0	260	NC	NC	230	0	5.5	6.3v. A.C.
5Z4G	NC	300v. D.C. & 5v. A.C.	NC	260v. A.C.	NC	260v. A.C.	NC	NC
DM70	2.3	NC	NC	1.2v.	2.4	NC	NC	97.5

D.C. RESISTANCES IN OHMS Band 1 2

AER. Coil Prim	19.0	9.8 ahms	1st 1FT Primary 16 ohms	Secondary 16 ohms	
„ „ Sec.	3.4	1.2 ohms	2nd 1FT Primary 15.5 ohms	Secondary 15.5 ohms	
CONVT. Coil Prim	18.5	10.0 ohms	Power Xformer Prim.	17.5 ohms	
„ „ Sec.	3.5	1.25 ohms	„ „ Sec.	130.0 ohms	
OSC. „ Prim	.75	.5 ohms	Main Output XFMR Prim.	400	
„ „ Sec.	2.3	1.2 ohms	High Freq. Output XFMR Prim.	75	

ALIGNMENT PROCEDURE

Adjust volume control for maximum gain. Adjust signal generator output to no higher than is necessary to obtain output meter reading. Feed generator thorugh Dummy Load.

ALIGNMENT OF 1.F. (460 KC.) Set receiver dial to 550 KC. Couple generator to grid of 1F Valve (EAF42) and adjust both slugs of 1FT2 for maximum. Repeat several times. Couple generator to grid of converter (ECH42) and short oscillator out. Repeat procedure with 1FT1. Finally retouch 1FT2 for maximum. Unshort oscillator.

ALIGNMENT MEDIUM WAVE B/C BAND

Connect signal generator to aerial and earth terminals. Set receiver dial and signal generator to 1.4 M/C and adjust B/C. osc. trimmer for peak. Adjust aerial and mixer trimmers to peak also. Set receiver dial and signal generator to 0.6 M/C and adjust osc. coil slug to peak. Repeat with aerial and mixer coil slugs.

Repeat this alignment procedure at 1.4 M/C and 0.6 M/C until no further improvement can be obtained. Check calibrations across dial. Due to slight differences in gang condensers a slightly different choice of alignment frequencies may give better calibration. Namely 1300 KC and 600 KC.

ALIGNMENT OF THE SHIP TO SHORE & 80 METER AMATEUR BAND

Set receiver dial and sig. gen. to 4.0 M/C and peak osc. aerial and converter trimmers.

Set receiver dial and sig. gen. to 1.7 M/C and peak osc. aerial and converter coil slugs.

Repeat many times as with MW B/C until no further improvement obtainable. Check calibration for accuracy and if necessary realign using a slightly different high frequency alignment point, 3.5 M/C for instance and see if any improvement occurs.