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I put a lot of time into producing these files which is why you are met with this page when you open the file.

In order to generate this file, I need to scan the pages, split the double pages and remove any edge marks such as punch holes, clean up the pages, set the relevant pages to be all the same size and alignment. I then run Omnipage (OCR) to generate the searchable text and then generate the pdf file.

Hopefully after all that, I end up with a presentable file. If you find missing pages, pages in the wrong order, anything else wrong with the file or simply want to make a comment, please drop me a line (see above).

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Colin Hinson

In the village of Blunham, Bedfordshire, UK.

578956. L/A. CHAMBERS. A.G.

A3. FLIGHT. APPS. SQDN.

2 WING. No 2. R.S.

R.A.F.

CRANWELL.

LINGS.

Finals. Basic.

✓ Monday 13th March.
(morning)

General Studies

Monday 13th March.
(afternoon)

✓ Maths

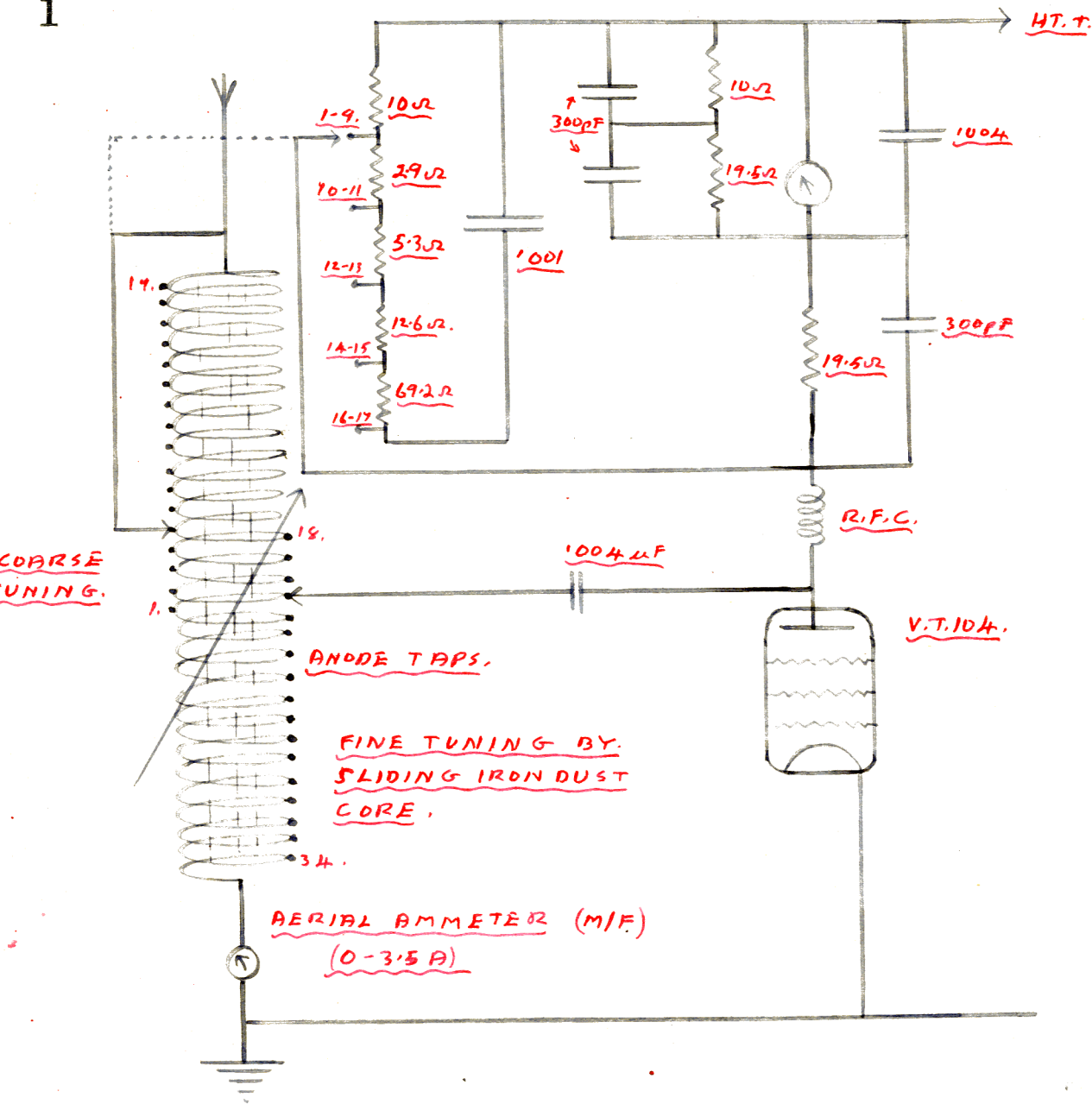
Tuesday 14th March.
(morning)

Historical

Wednesday 15th March.
(morning).

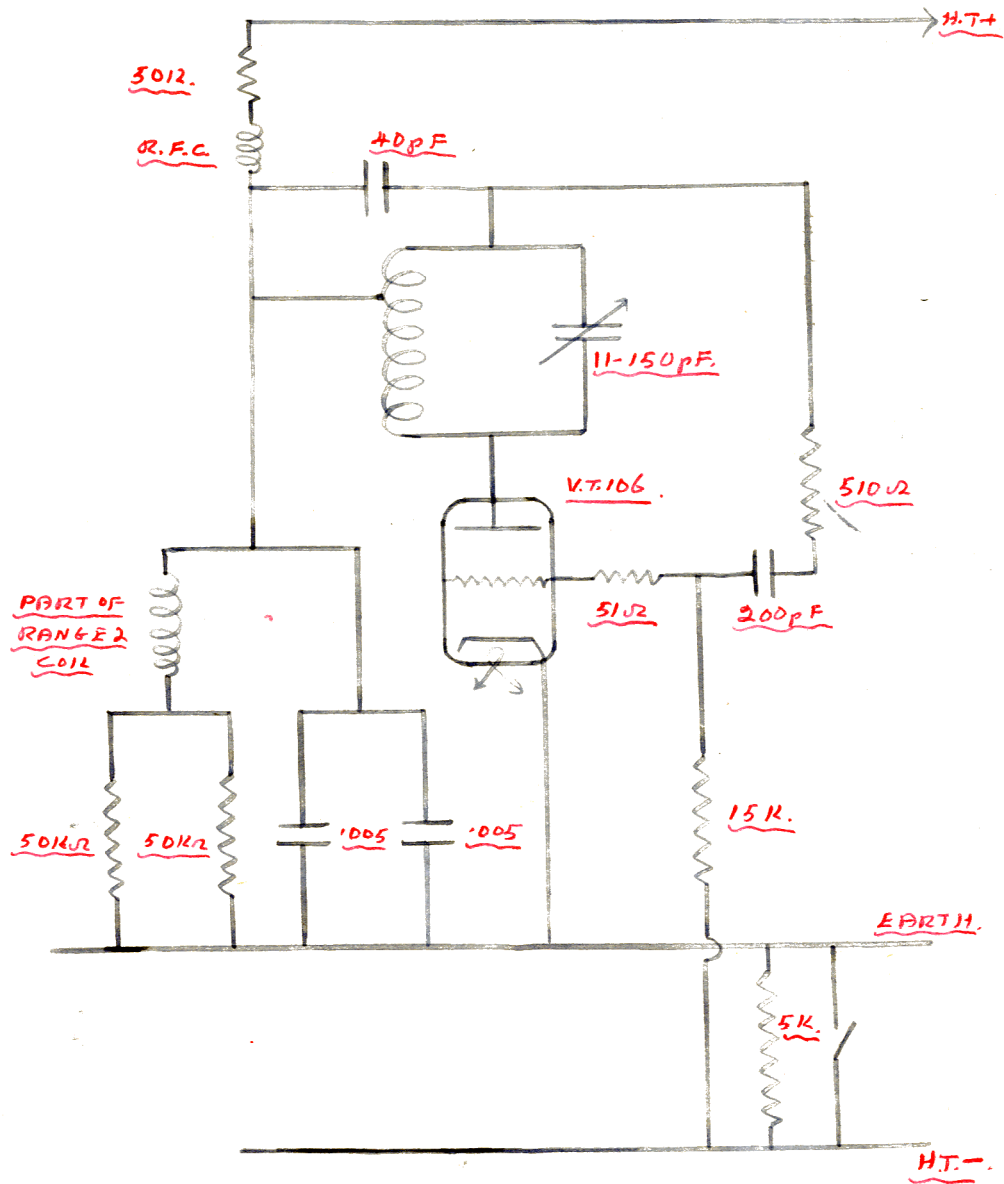
Pages 1-13. Marconi G-P Transmitter. T.1154.
Pages 16-20. Marconi G-P Receiver. R.1155.
Pages 21-22. A.1134.
Pages 23-24. W.1191.
Page 25. X-tal Monitor Type 2.
Page 26. Bendix Bomber. 'Boston' Installation.
Page 27-28. Bendix Rx. RA-100.
Page 29. Rx. Power Supplies. Heater Sect.
Page 30. Transmitter TA-12B.
Page 31. Dynamotor Modulator. MP-28B.
Page 32. Ac. Loading Unit. Key Relay, P.A. Section Sect.
Page 33. Control Unit MR-9B.
Page 34. RELAY Circuits. (Bendix)
Page 35. Switching & Relay Sects of Bendix.
Page 36. Interphone amplifier 3611.
Page 37. TA-12B. Freq. Selector. Station Box 3616.
Page 40
Page 41. Typical G/S. Rect. & Unit
Page 42. Relay Sects of Type 'B' Rect.
Page 43. Transmitter 1084.
Page 44. Remote Controls Type 3.
Page 45. amplifier. A1104.
Page 46. Crystal Monitor Type 1.
Page 47. Remote Controls Type 88.
Page 48. Remote Controls Type 88.
Page 49. Transmitter, T.1190.
Page 50. T.1190 coils. & X-tal Fundamentals.

Page 51. T.1190. Mods. for use as M.O.P.A. + etc.
Page 52. Power Unit Type 11.
Page 53. R.C.A. G/S. Tx. T.1149.
Page 54. Crystal Filter + Noise Limiter Sect. R.1188
Page 55. R.C.A. Sub-Modulator. MI 4149.
Page 56. TR.1196. Block Diagram.
Pages 57-58. R.C.A. Rx. R.1188.
Page 59. T.R. 9H. Tx. T.1138
Page 60. T.R. 9H. Rx. R.1139.
Page 61. TR.1196. Tx. Type 22.
Page 62. TR.1196. Rx. Type 25
Page 63. TR.1196. Selector Mech.
Page 64. V.H.F. Aircraft. T.R. 1133 B. T.1136A.
Page 65-66. TR.1137, B. R.1225. & P.T.T. Mod?
Page 67. TR.1133. A.1135.
Page 68. Step By Step Selector.
Page 69-70. Electric Controller Type 2. Power Unit. 2A.
Page 71-72. Selector Mech. - Volts Stabilizer Sect. 1133.
Page 73-74. Test Set Type 5B. Test Set Type 11. R.1225. Osc.
Page 75-76. T.R. 1143. Block Diag. & Tx. Type 18. (H43).
Page 77-78. T.R. 1143. Rx. Type 19. & Selector/Driver Sect.
Page 79-80. T.R. 1143. Tx. Type 17. & S.B.A. Block Schematic
Page 81-82. Marker Rx. R.1125A. & Test Osc. Type 12
Page 83-84. Main Beacon Rx. 1124A. & A.V.C. & Ground Meter
Page 85-86. V.H.F. G/S. Tx. T.1131. & Sub-Mod & Amp.
Page 87-88. R.F. P.U. Type 9. & Mod. P.U. Type 8.
Page 89-90. R.1132A. A.V.C. Sect. & S.V. Type 3. R.1132A.

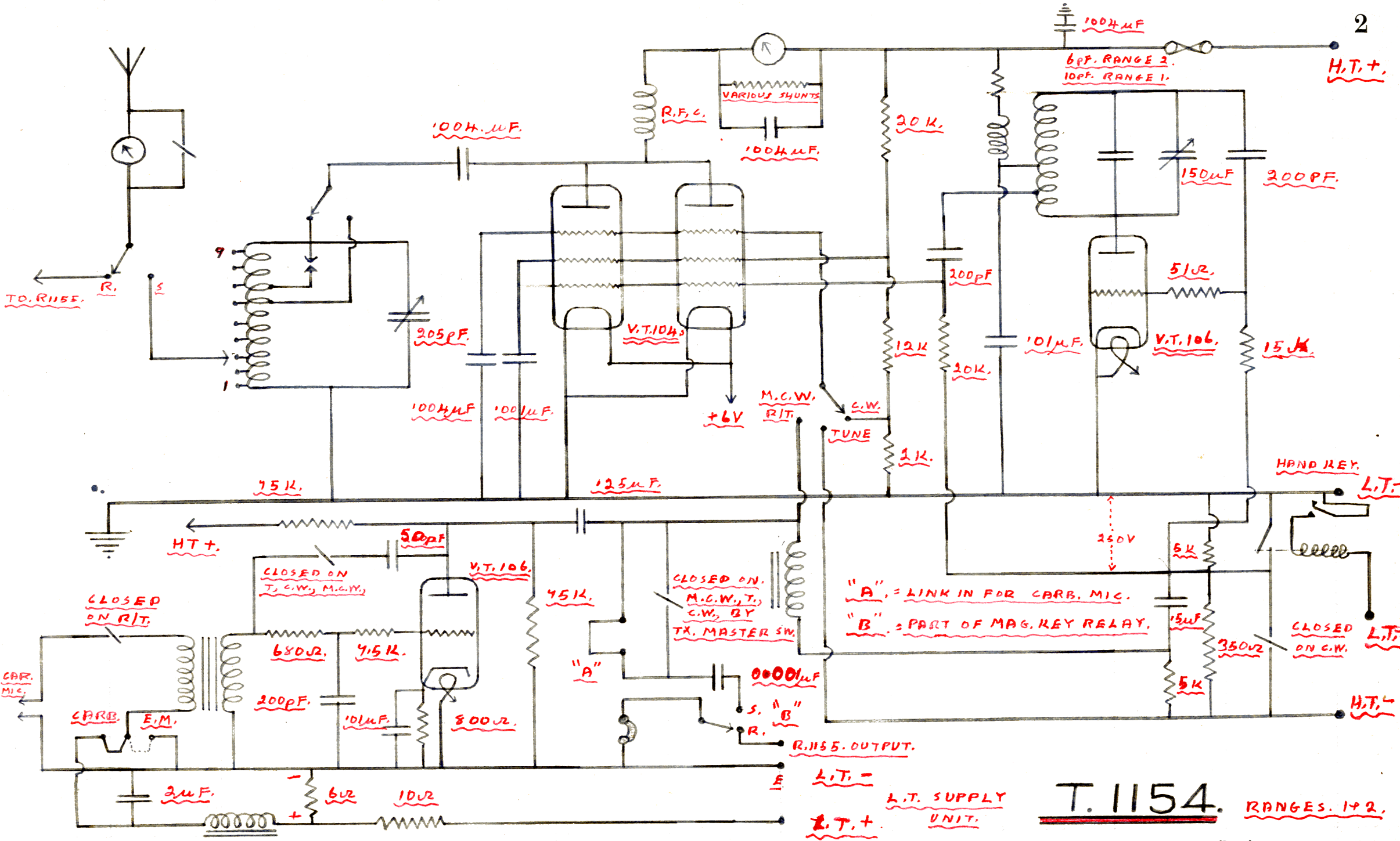


P.A.

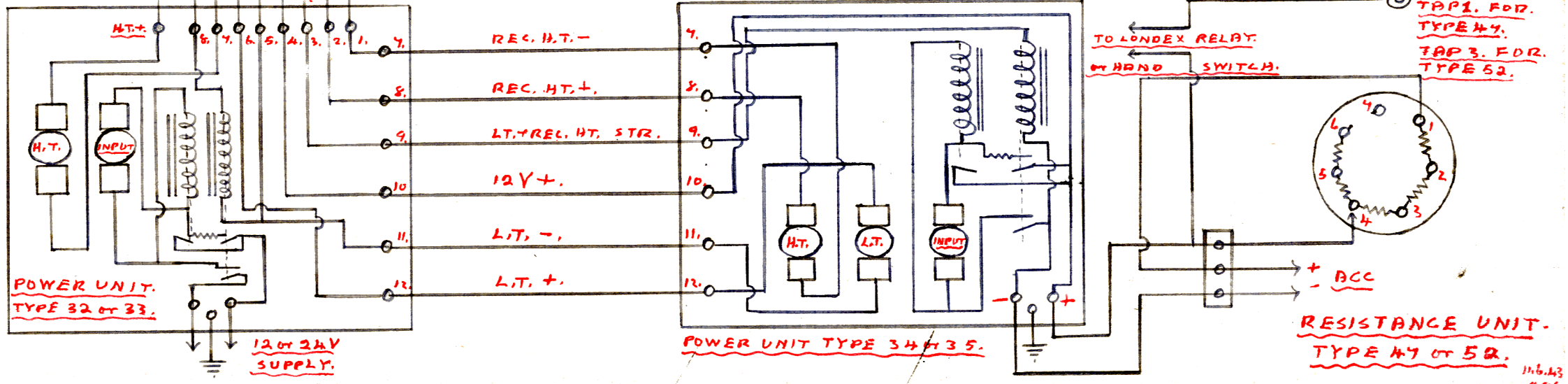
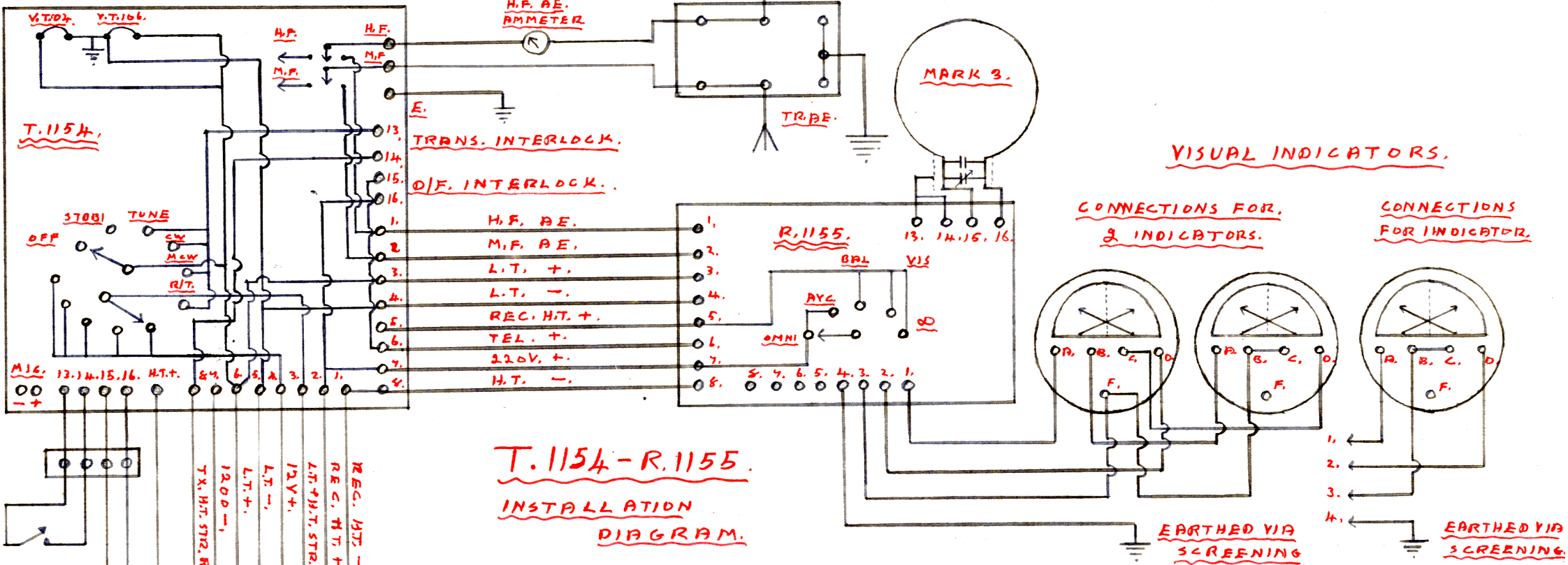
T. 1154,
RANGE 3.
Diagram 2.



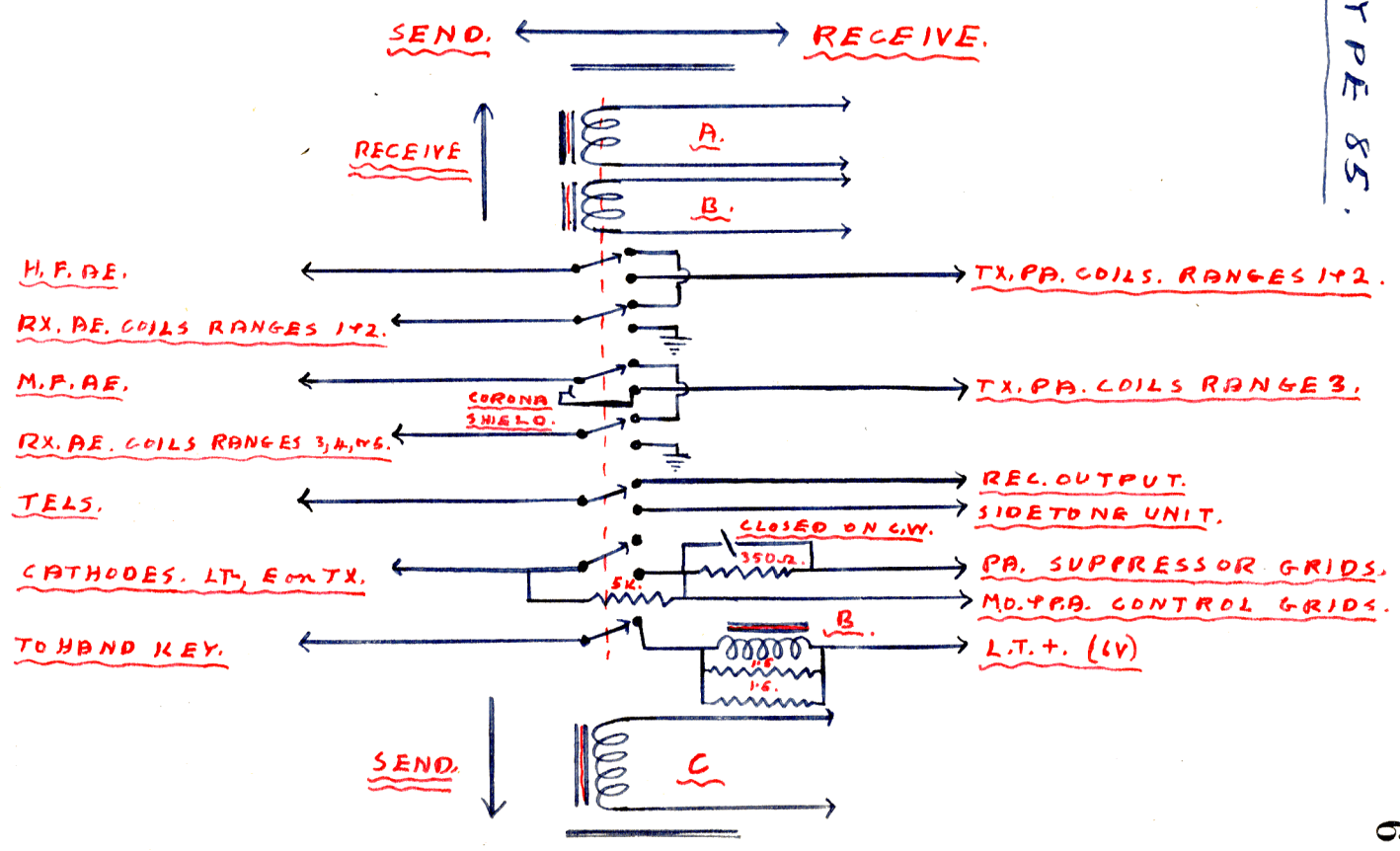
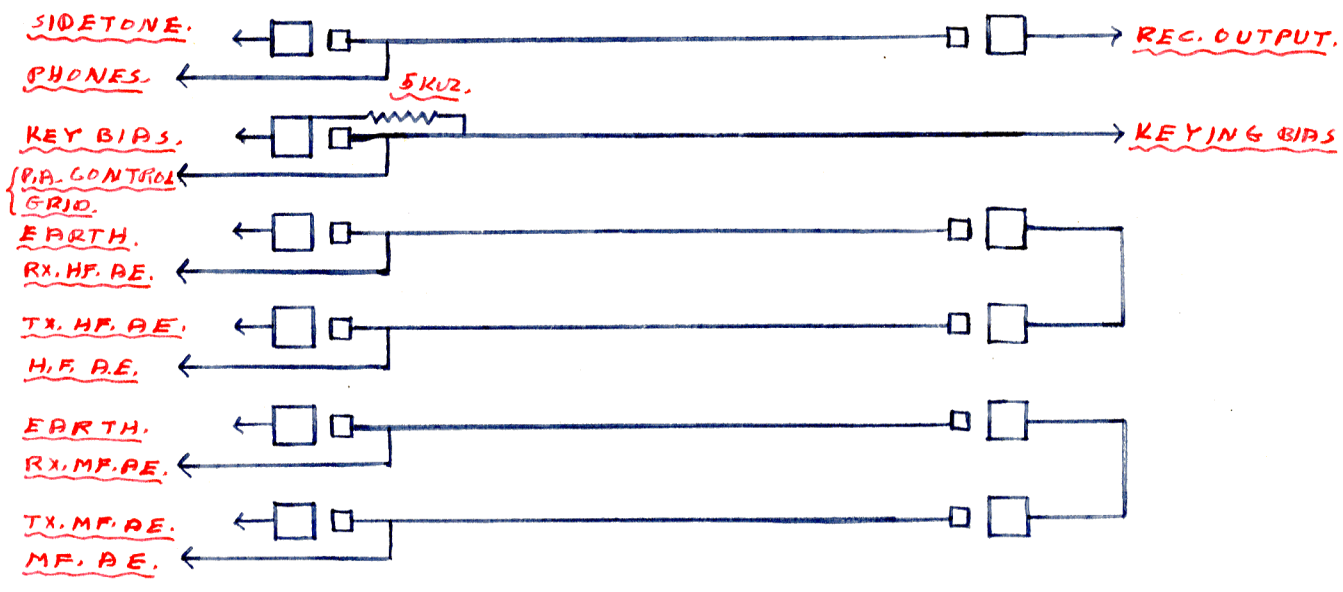
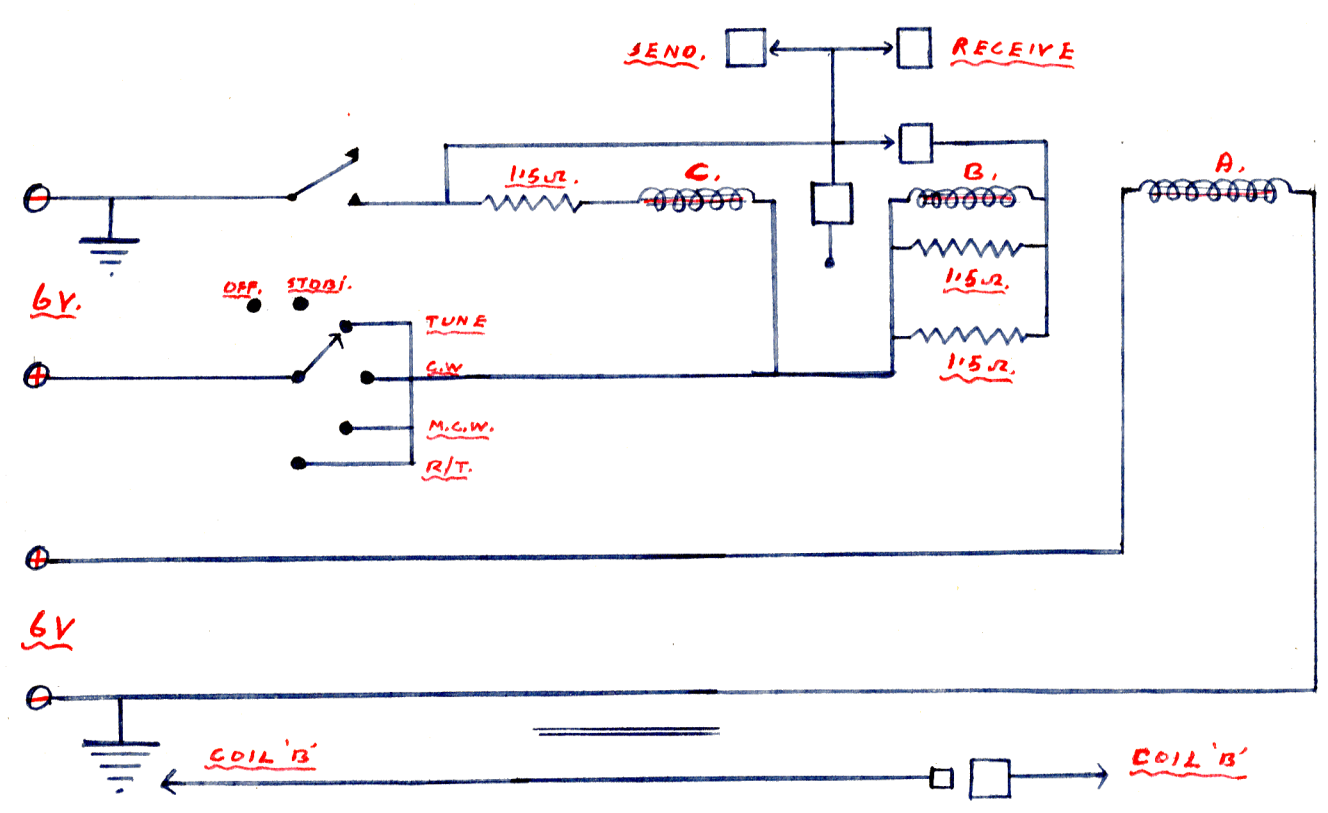
M.O.



TRANSMIT. ← RECEIVE.



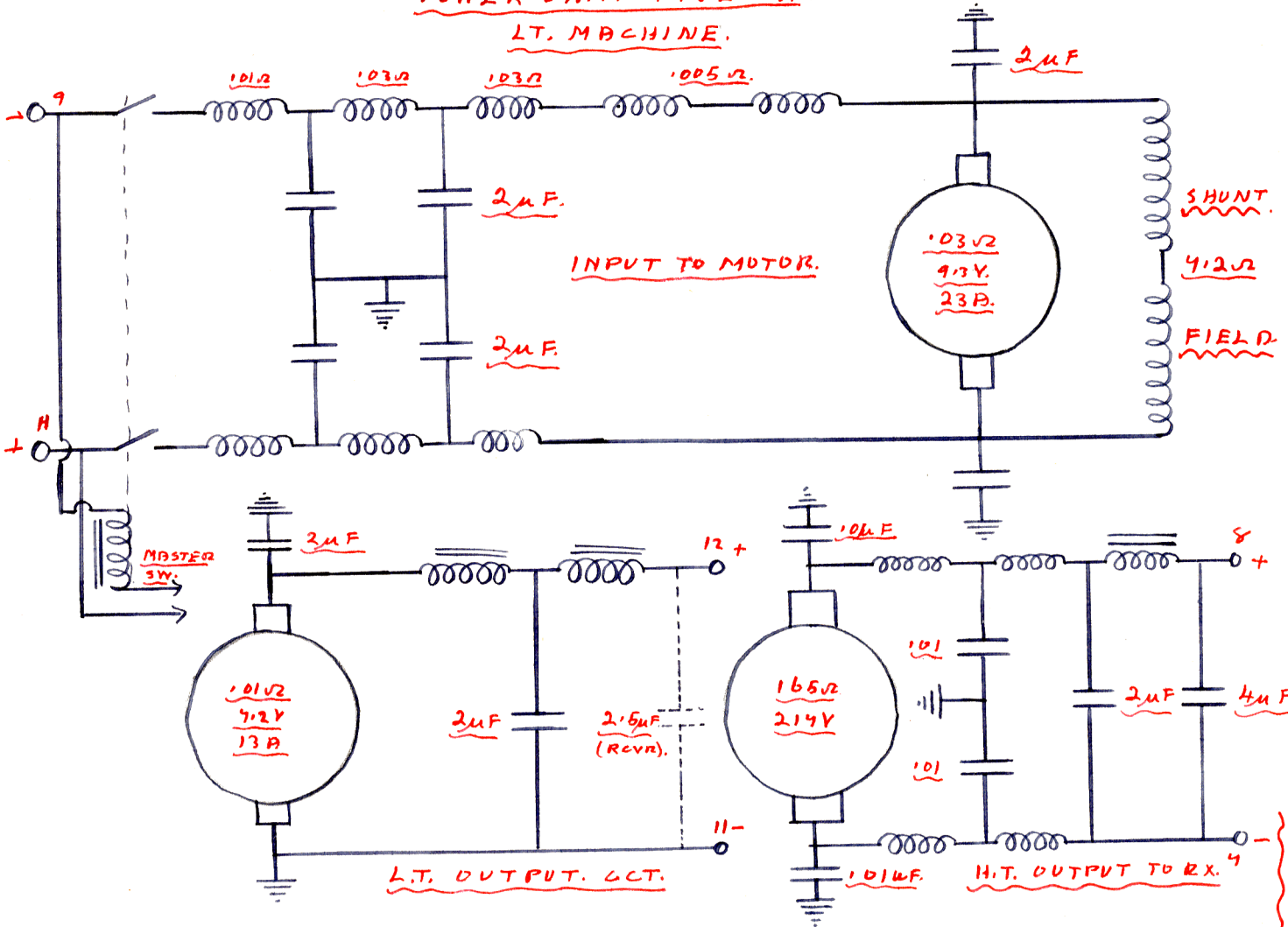
MAGNETIC KEY RELAY. TYPE 85.



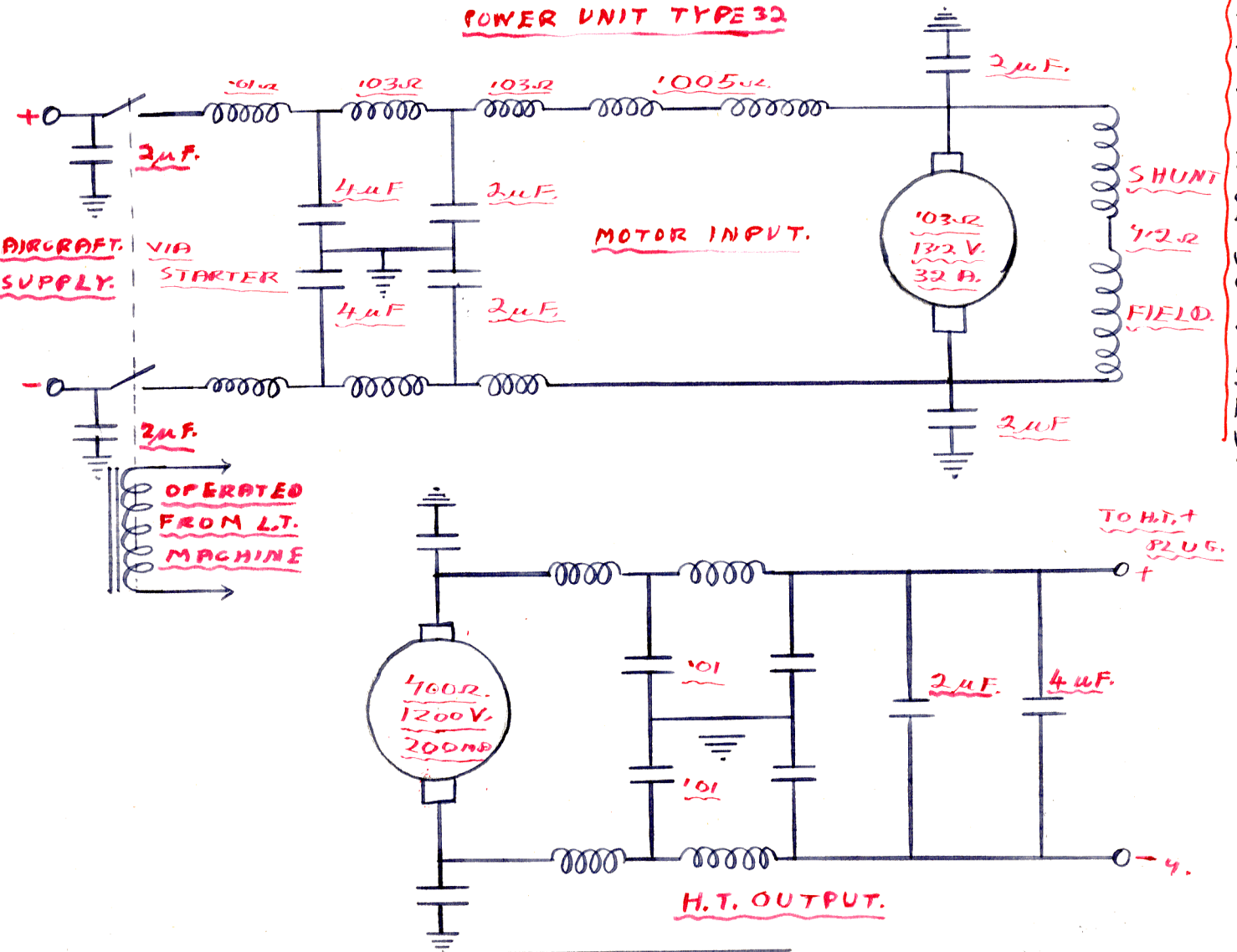
Drawing 5.

POWER UNIT. TYPE 34.

LT. MACHINE.



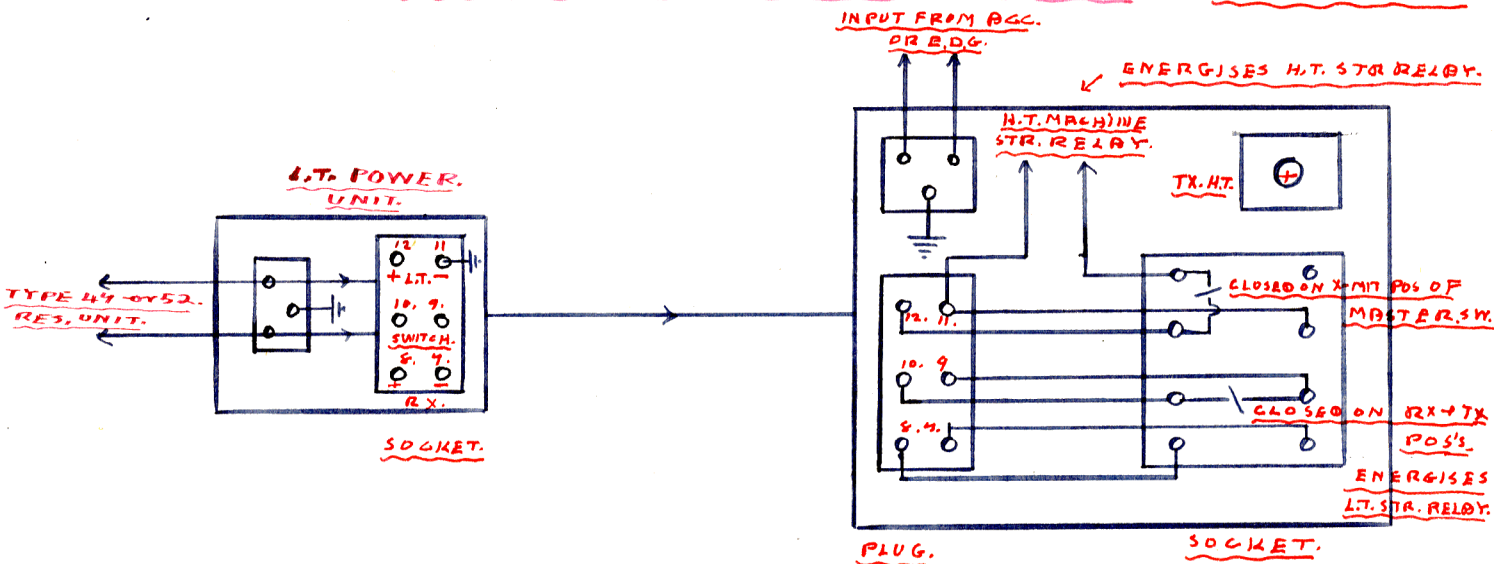
POWER UNIT TYPE 32



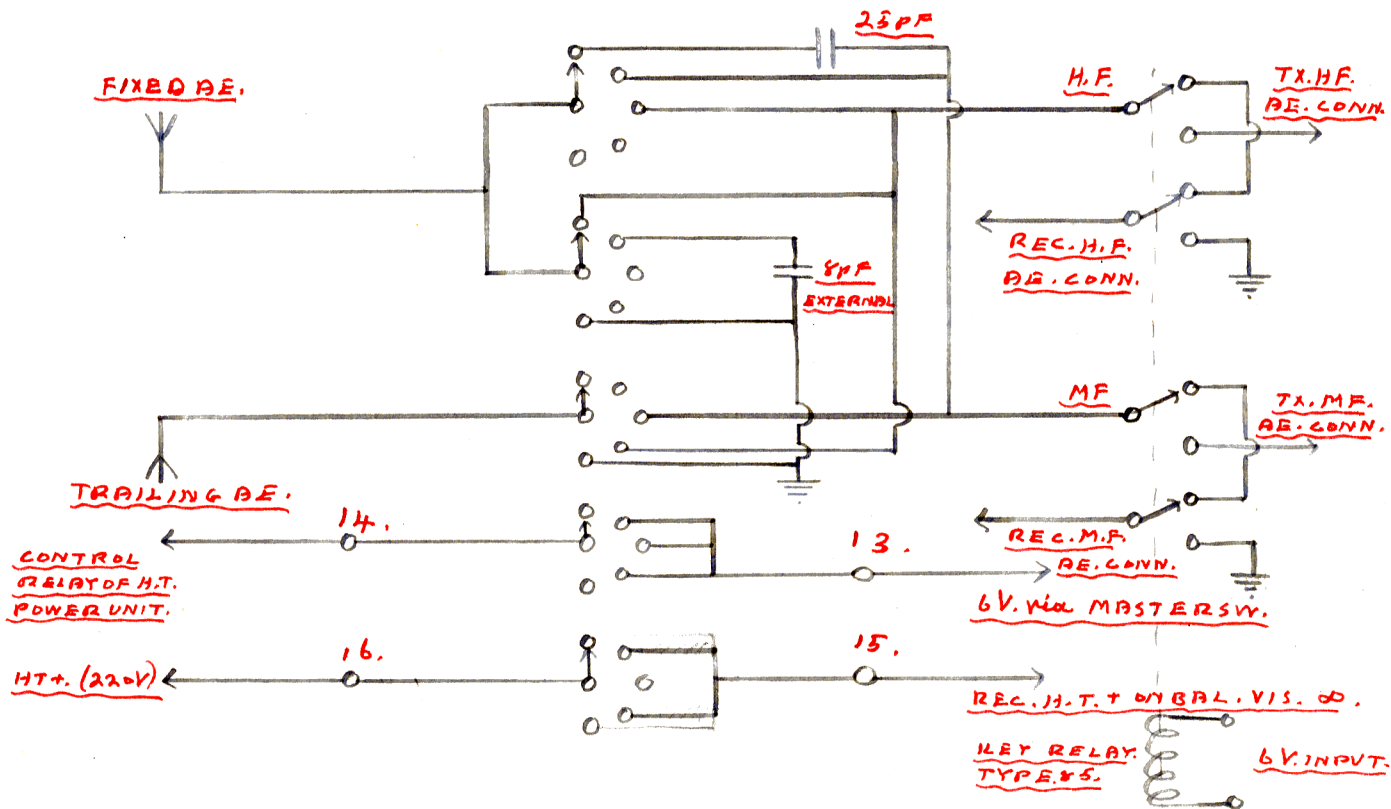
MERCONI POWER SUPPLIES.

G.P. POWER UNIT. PLUG CONNECTIONS.

H.T. POWER UNIT.

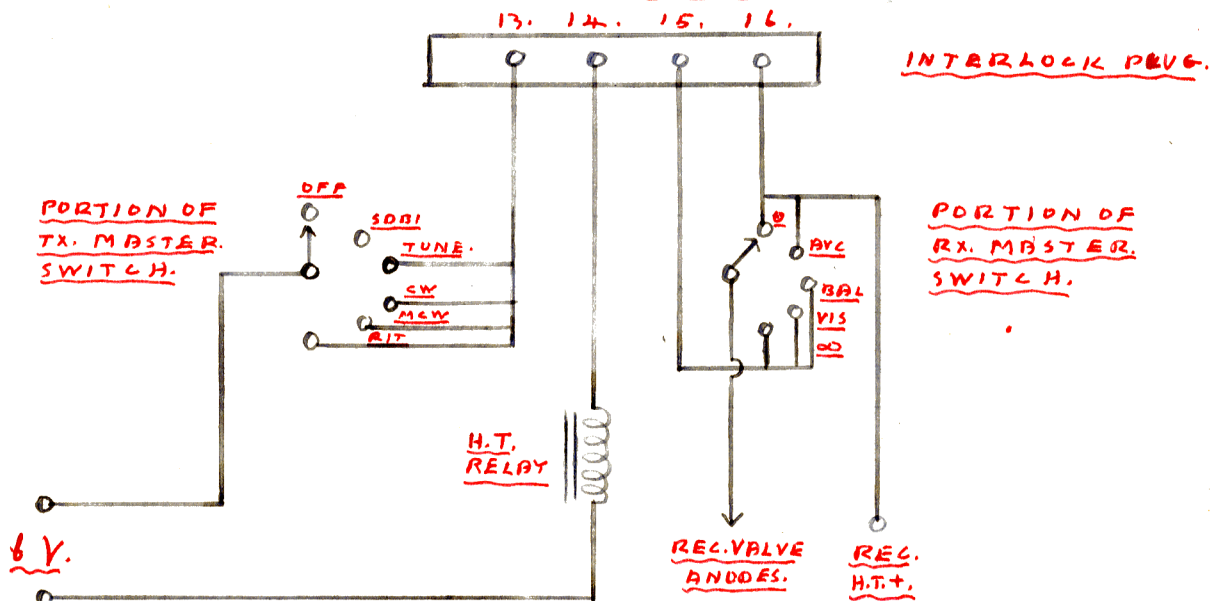


TYPE '5' SERIAL SWITCH.



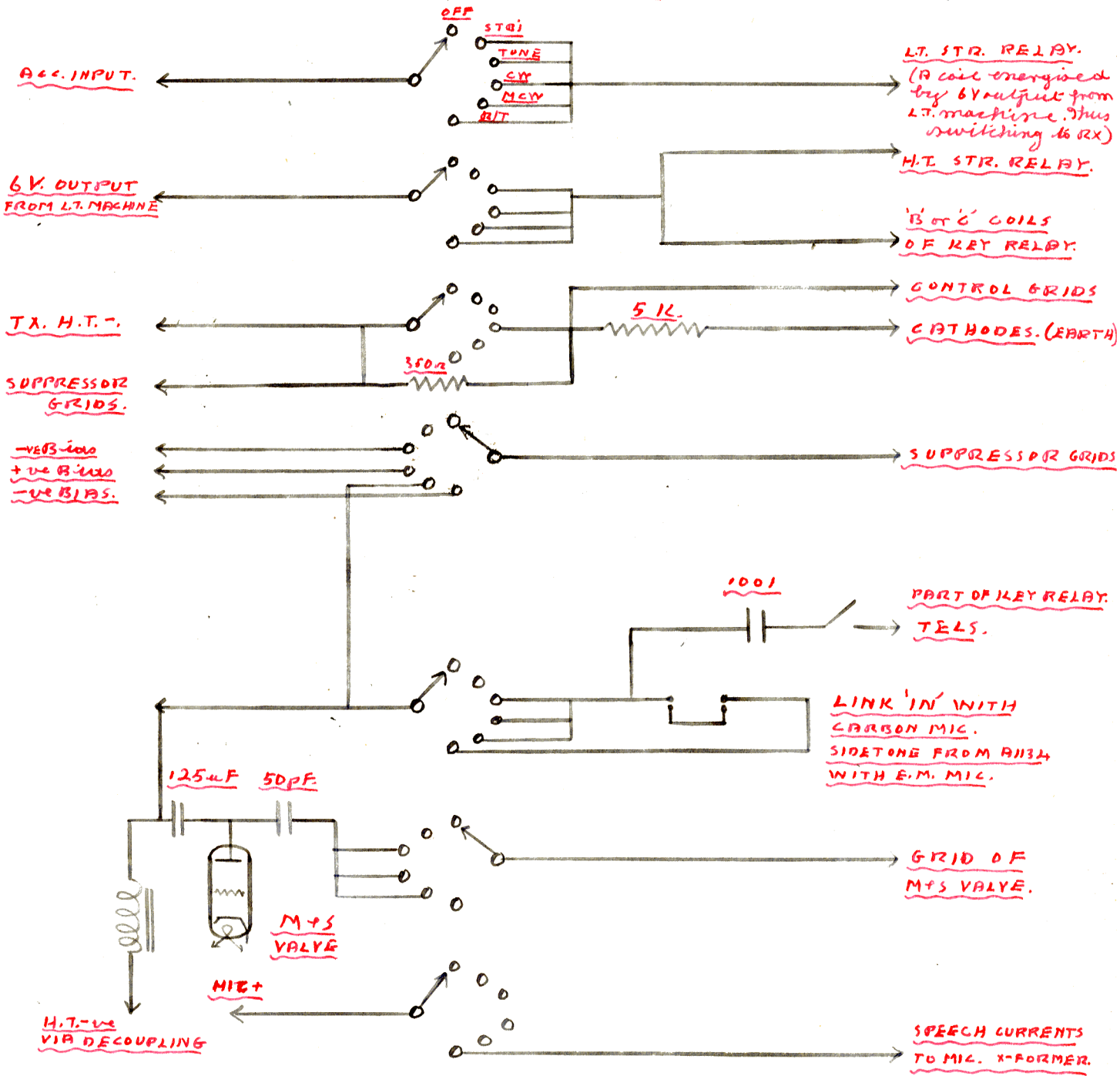
INTERLOCK. CONNECTIONS.

CORRESPONDING TO 13, 14, 15, 16, ON '5' DIAGRAM.



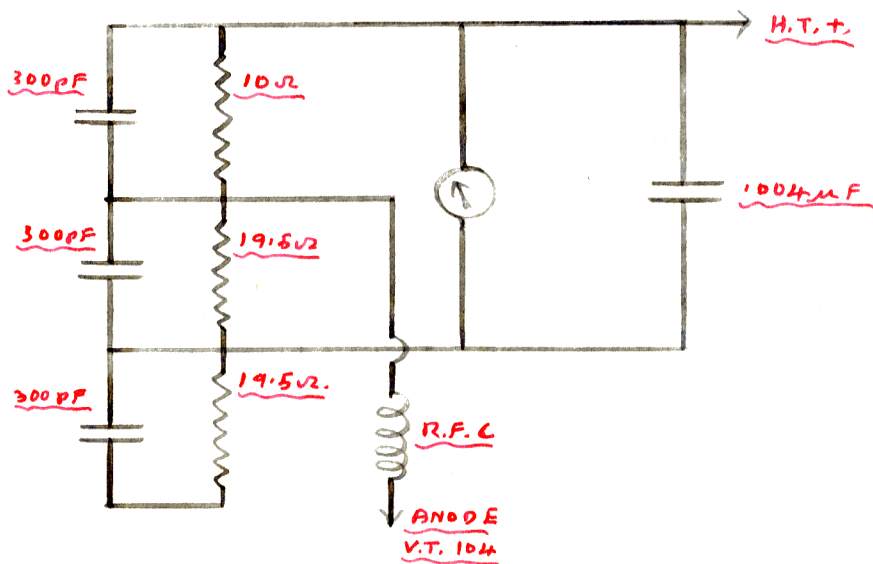
T. 1134. MASTER SWITCH.

Diagram H.

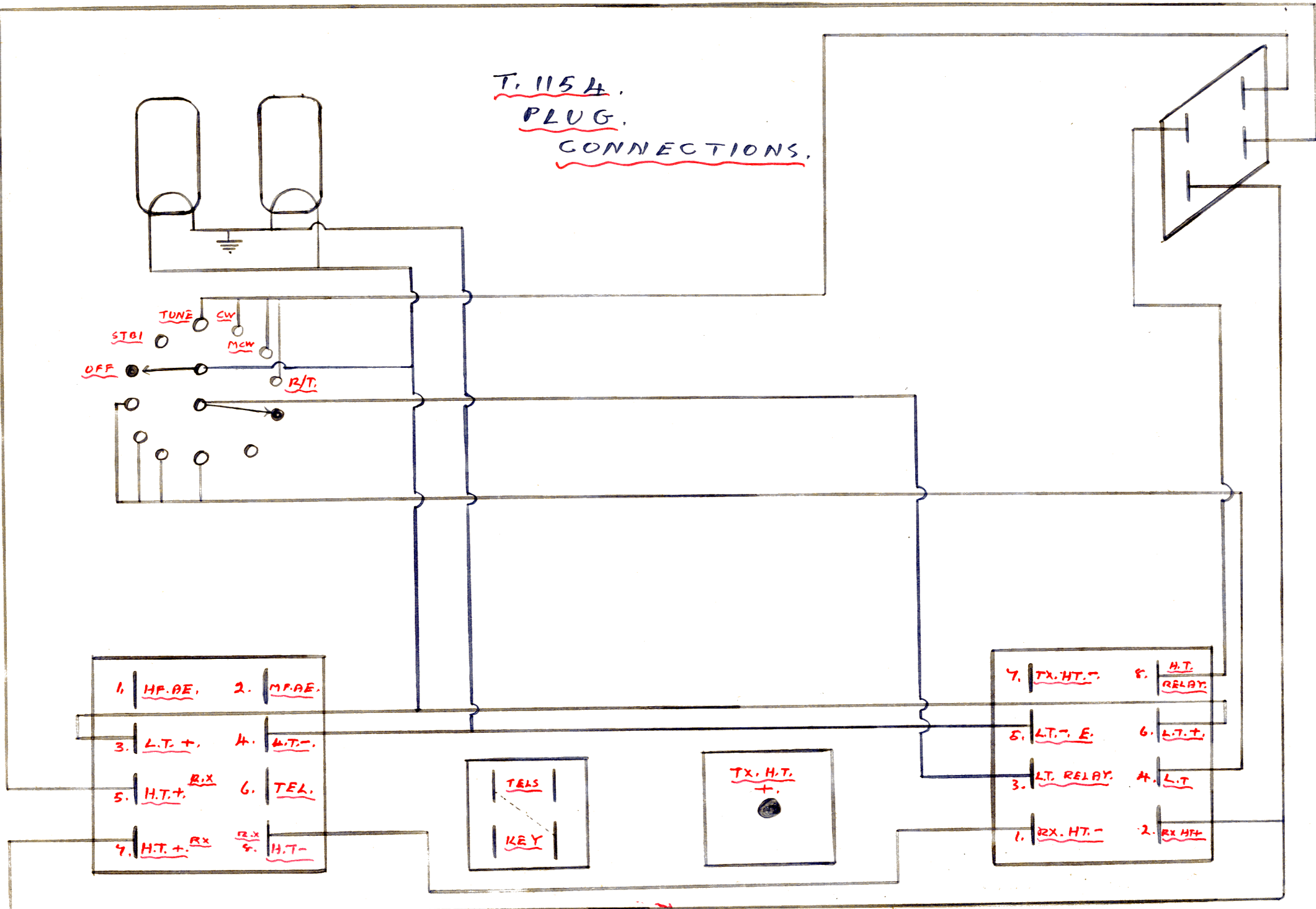


CIRCUIT OF INPUT METER.

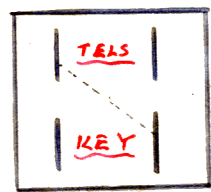
RANGES 1 & 2.



T. 1154.
PLUG.
CONNECTIONS.



| | |
|---------------------------------|---------------------------------|
| 1. <u>HF. AE.</u> | 2. <u>MF. AE.</u> |
| 3. <u>L.T. +.</u> | 4. <u>H.T. -.</u> |
| 5. <u>H.T. +.</u> ^{RX} | 6. <u>TEL.</u> |
| 7. <u>H.T. +.</u> ^{RX} | 8. <u>H.T. -.</u> ^{RX} |

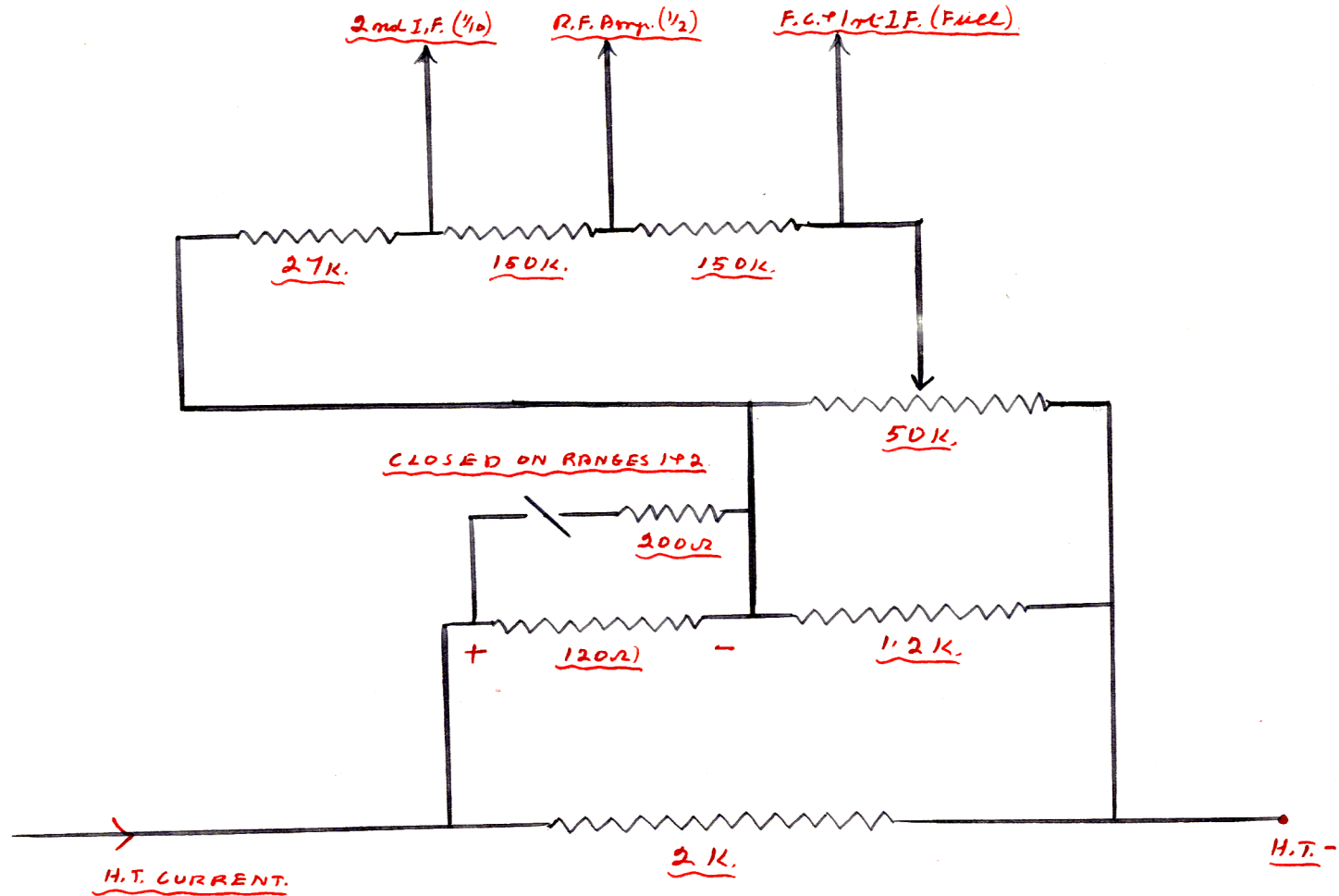


| | |
|-----------------------|-----------------------|
| 7. <u>TX. H.T. -.</u> | 8. <u>H.T. RELAY.</u> |
| 5. <u>L.T. - E.</u> | 6. <u>L.T. T.</u> |
| 3. <u>L.T. RELAY.</u> | 4. <u>L.T.</u> |
| 1. <u>RX. H.T. -.</u> | 2. <u>RX H.F.</u> |

R. 1155.

COMMUNICATIONS

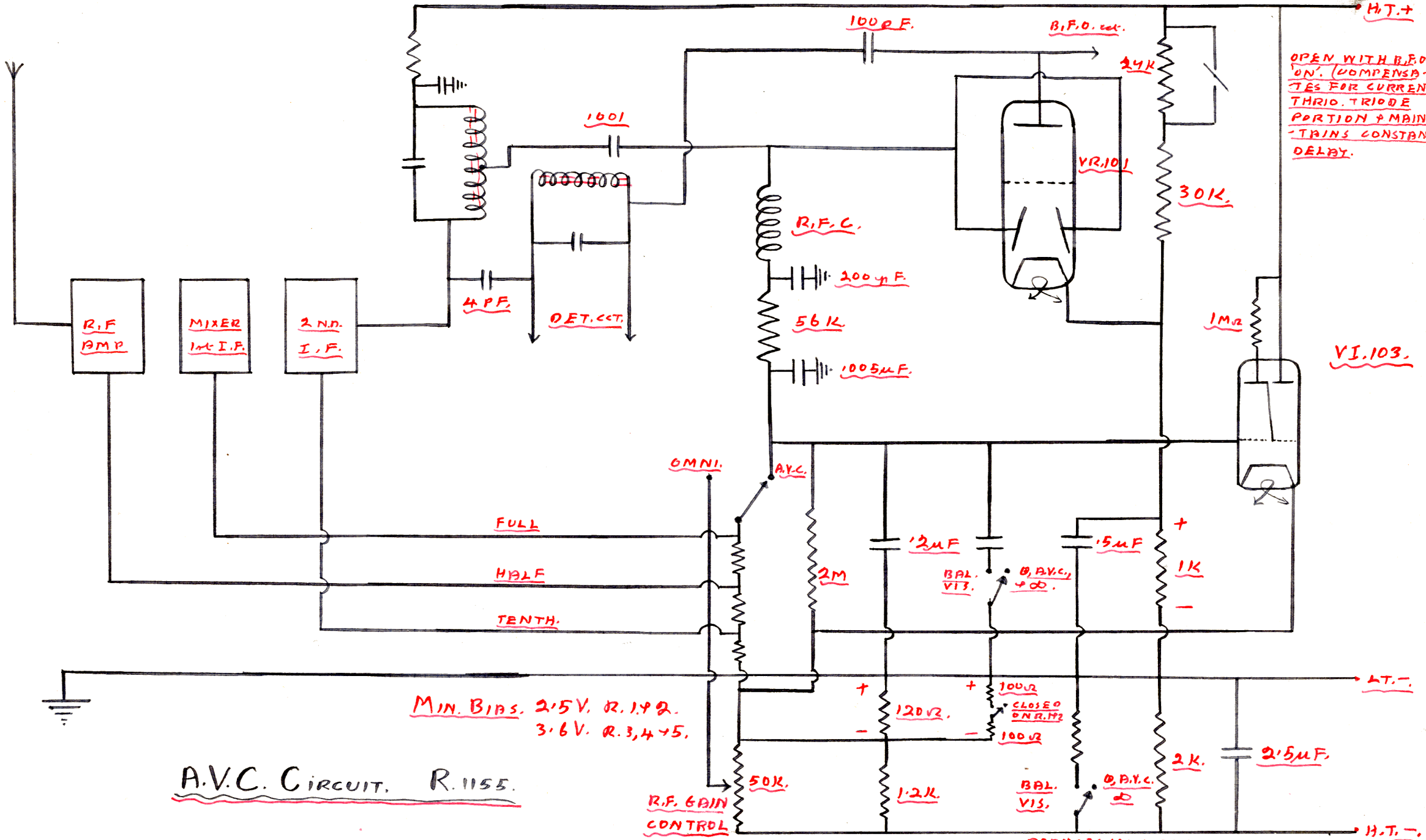
CIRCUIT.



MIN. BIAS { V.D. 3.6V on R. 3, 4 & 5.
ON ALL { V.D. 2.5V on R. 1 & 2.
VALVES

MARCONI. R. 1155.

R/F MANUAL GAIN
CONTROL.
ON OMNI.



OPEN WITH B.F.O. ON. (COMPENSATES FOR CURRENT TRIODE PORTION & MAIN-TRINS CONSTANT DELAY.)

VI.103.

MIN. BIAS. 2.5V. R. 1+2.
3.6V. R. 3,4+5.

A.V.C. CIRCUIT. R.1155.

R.F. GAIN CONTROL

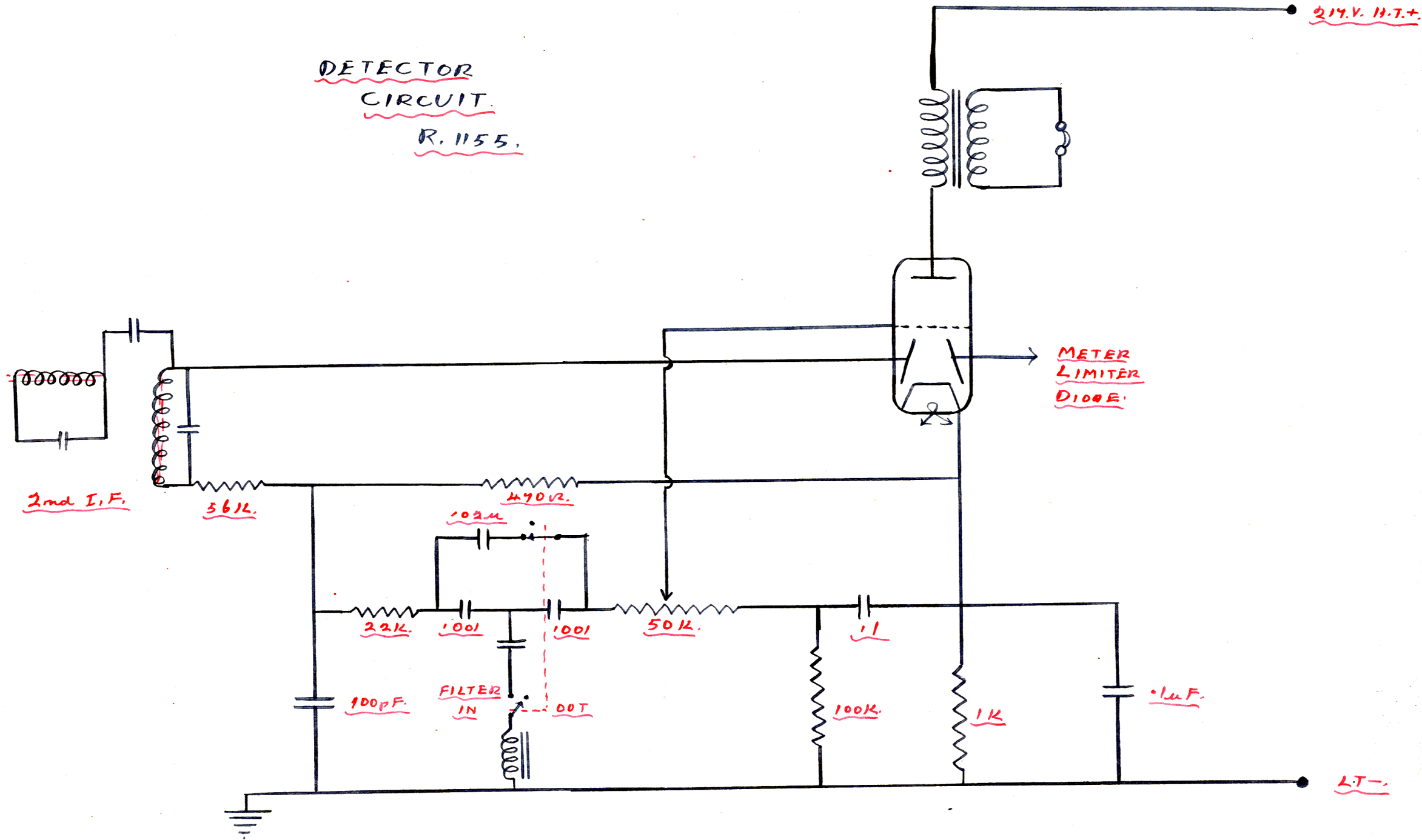
REDUCES MIN. BIAS TO 1.5V m1+2, 2.5V m3,4+5.

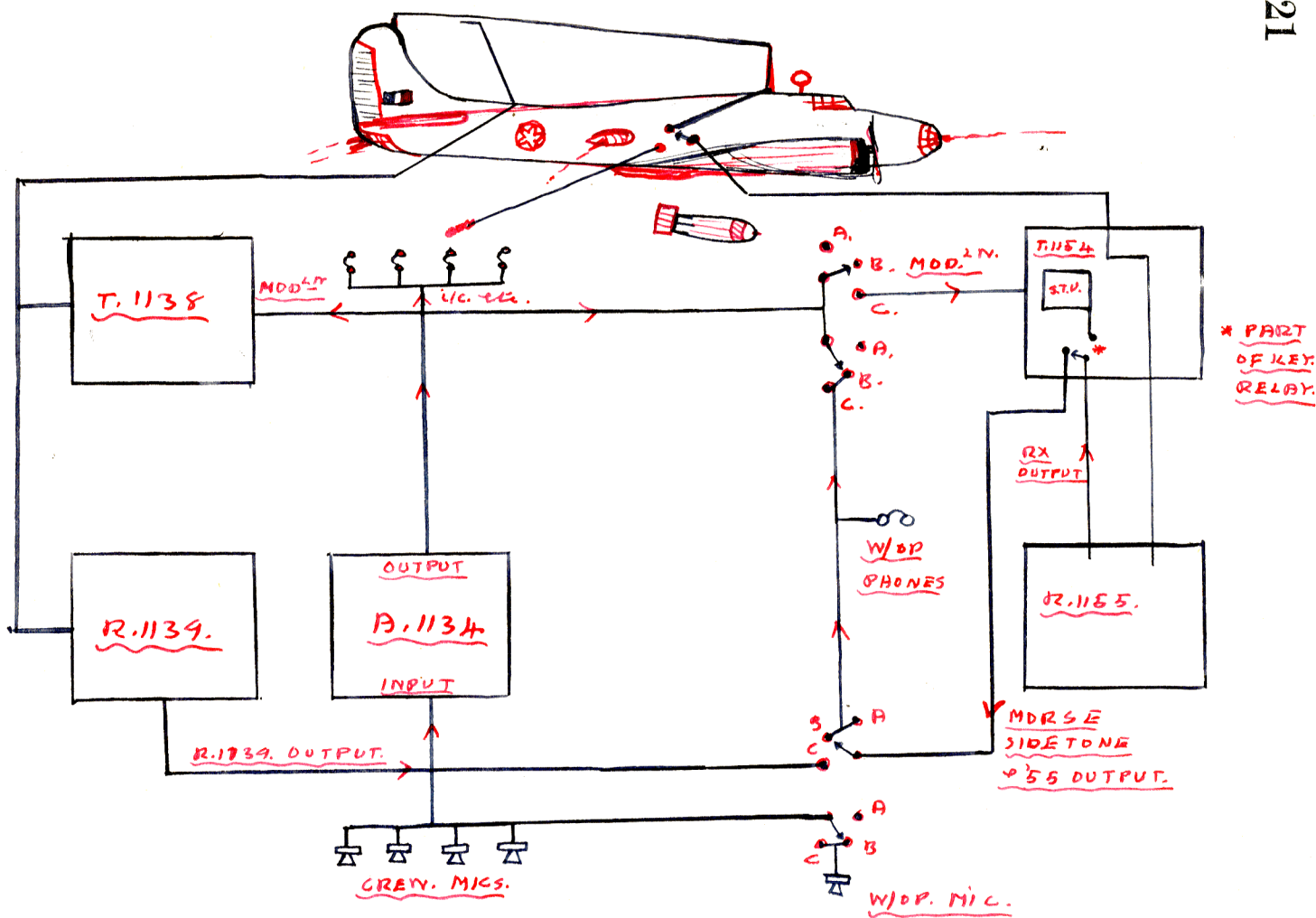
H.T. +

H.T. -

H.T. -

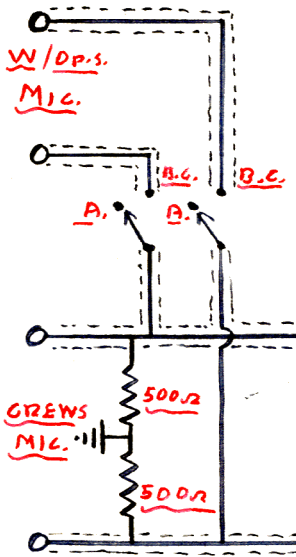
DETECTOR
CIRCUIT.
R. 1155.





| KEY SWITCH POSN | OPERATOR. | | | CREW. | | |
|-----------------|--------------|------|------|-------|------|------|
| | G.P. | T.R. | i/c. | G.P. | T.R. | i/c. |
| A | M/T. | - | - | - | R/T. | i/c. |
| B | M/T. | R/T. | i/c. | - | R/T. | i/c. |
| C | W/T. R/T. | R/T. | i/c. | R/T. | R/T. | i/c. |

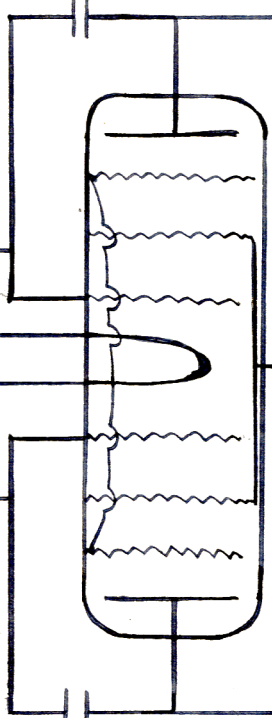
A 1134



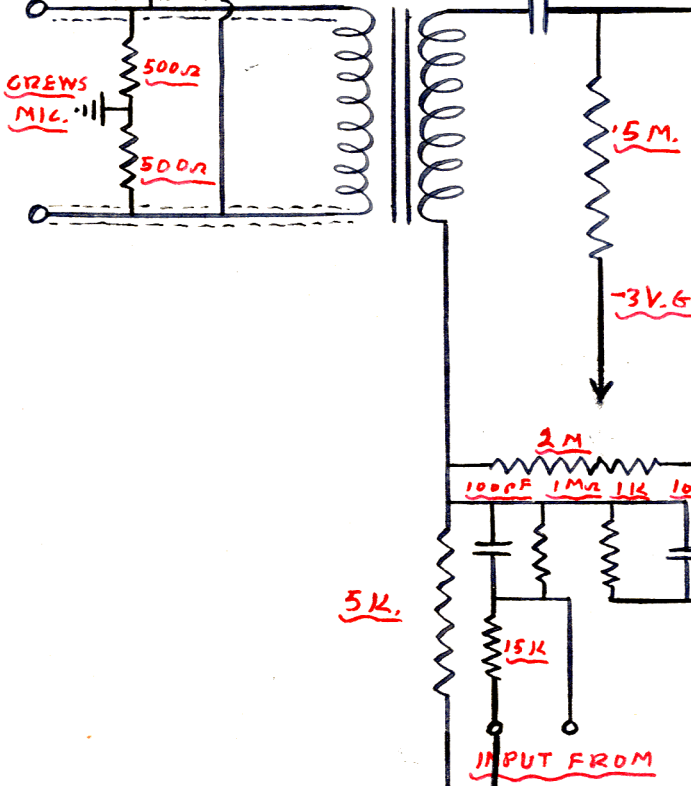
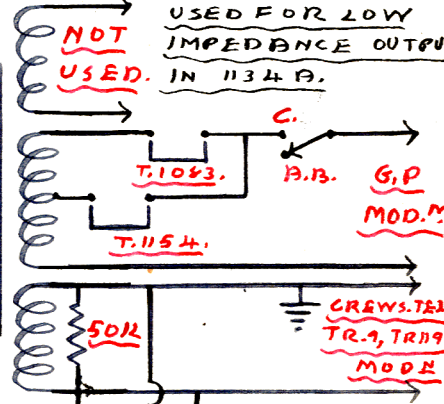
ATTENDATES BELOW 300 Hz 500nF



ATTENDATES ABOVE 50PF 2500 Hz - VR.35.

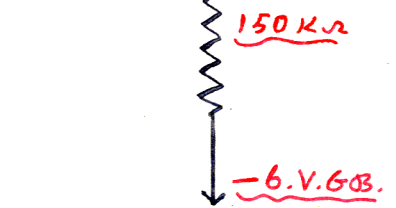


NOT USED. USED FOR LOW IMPEDANCE OUTPUT IN 1134A.



R.1139.

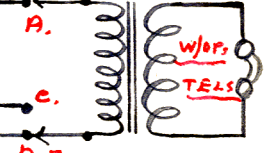
L.T.+



R.1155.

L.T.+

50nF



ON/OFF

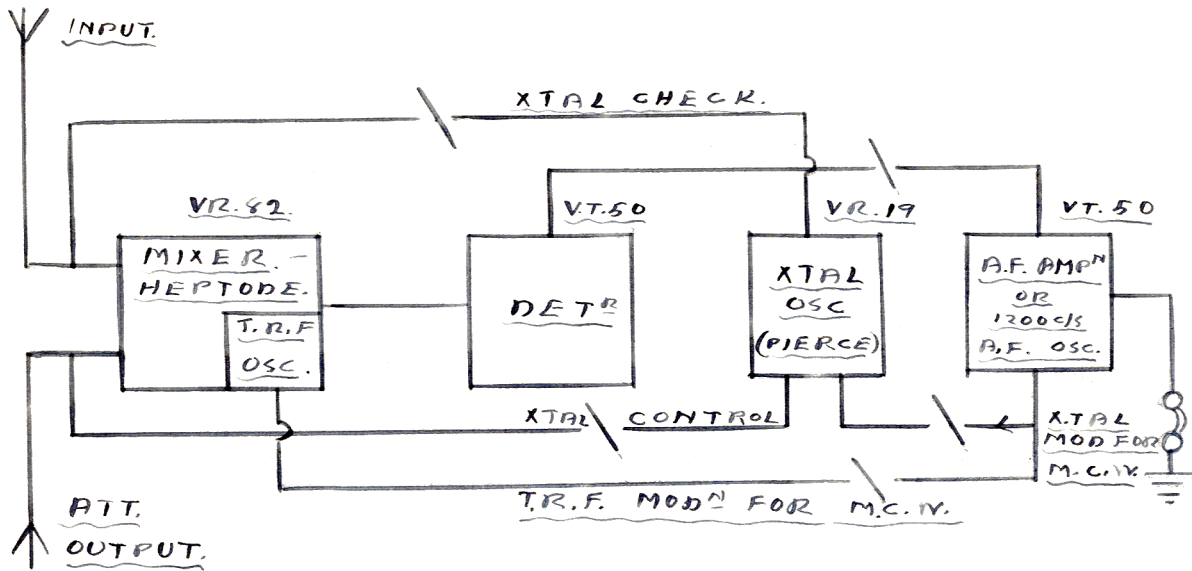
LAMP

G.B.E.

HT. - L.T.

L.T.+

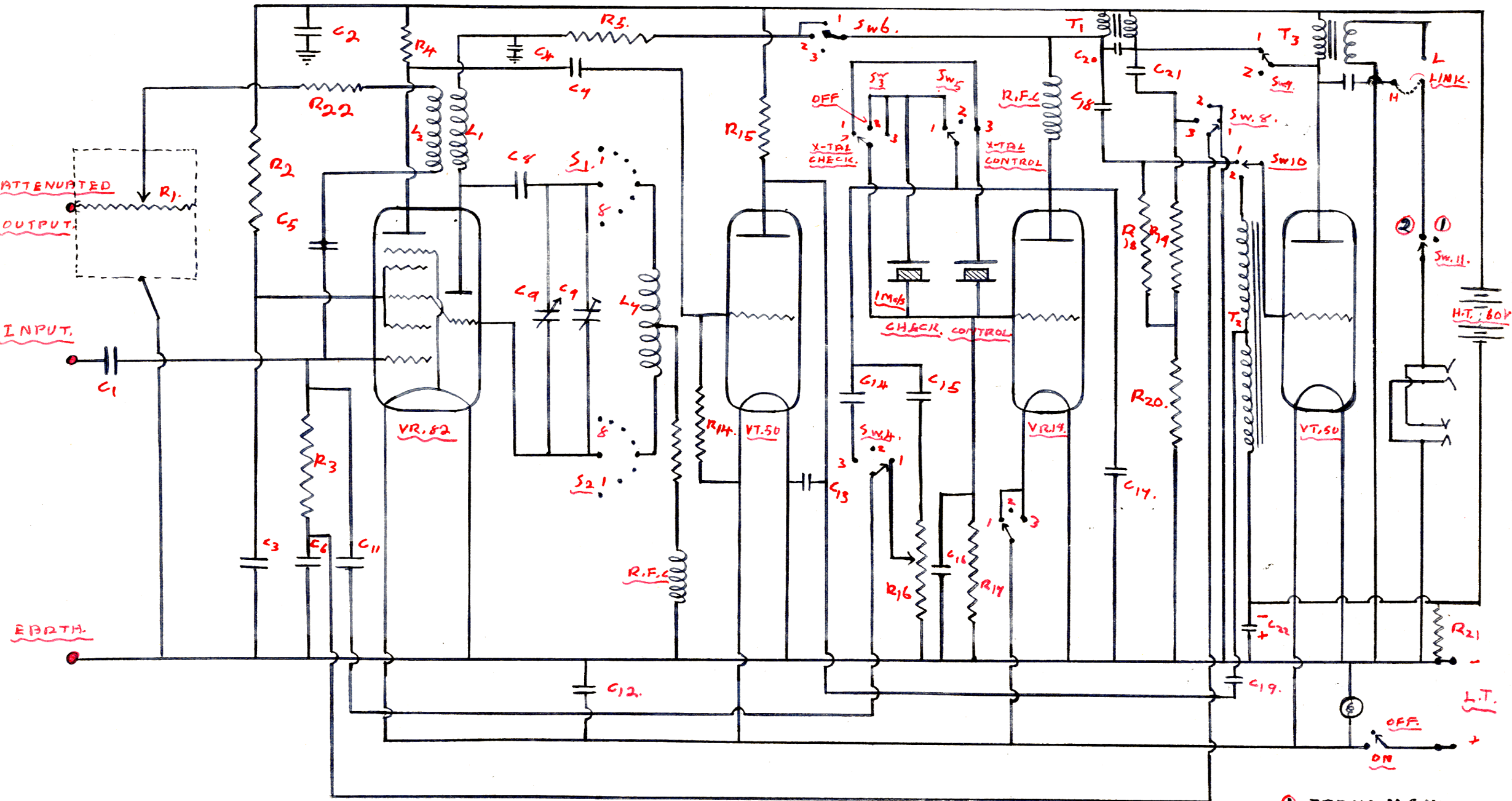
H.T.+
120V.



BLOCK DIAGRAM, W. 1191.

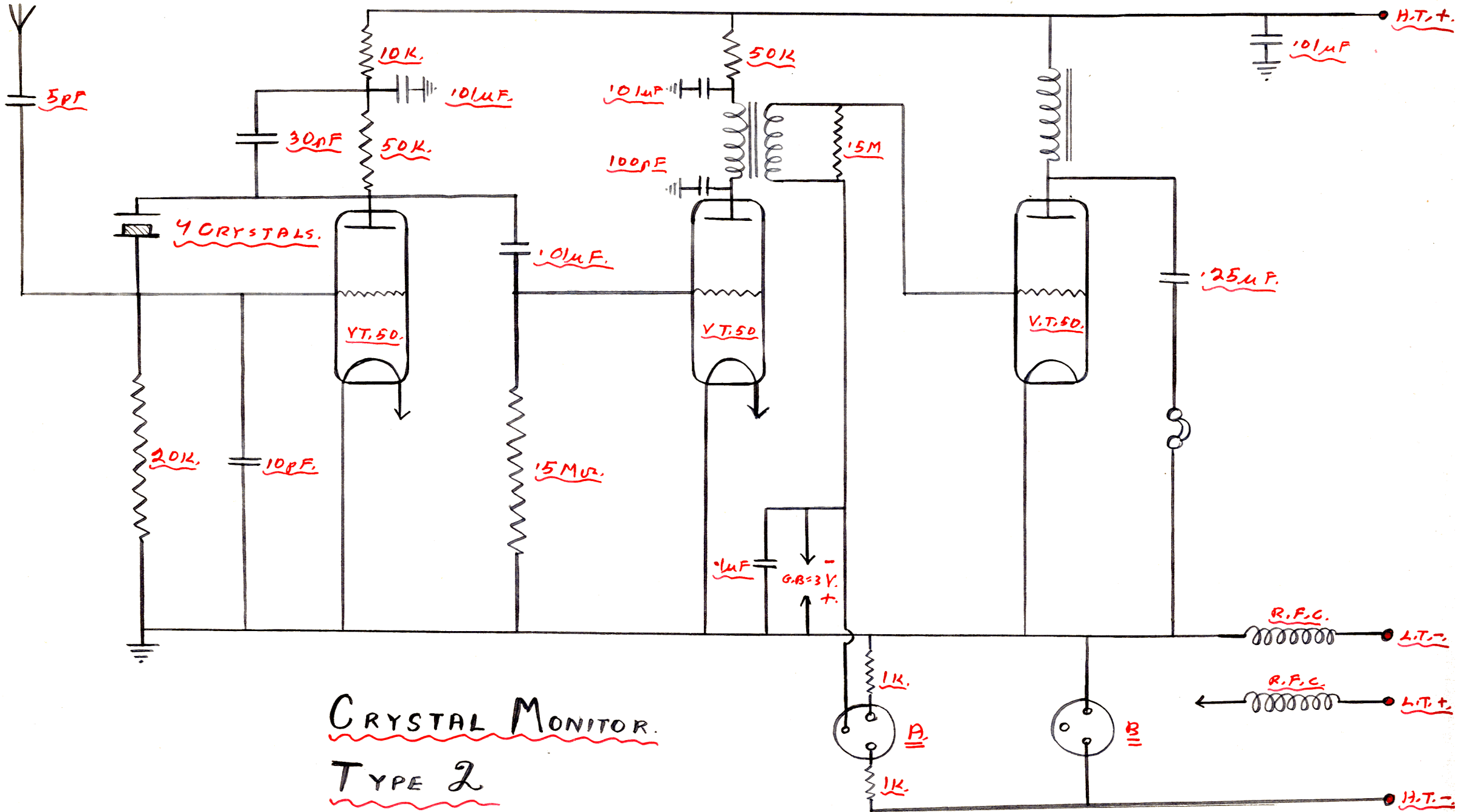
W. 1191. COMPONENT VALUES.

| No. | VALUE. | No. | VALUE. |
|-----------------|---------|-----------------|------------------|
| C ₁ | 3, PF. | R ₁ | 1K. |
| C ₂ | 500 " | R ₂ | 100K. |
| C ₃ | 500 " | R ₃ | 50 " |
| C ₄ | 500 " | R ₄ | 50 " |
| C ₅ | 2. " | R ₅ | 15 " |
| C ₆ | 500 " | R ₆ | |
| C ₇ | 500 " | R ₇ | |
| C ₈ | 500 " | R ₈ | |
| C ₉ | 175 " | R ₉ | <u>RANGE</u> |
| C ₁₀ | 50 μF. | R ₁₀ | |
| C ₁₁ | 500 " " | R ₁₁ | <u>RESISTORS</u> |
| C ₁₂ | 200 " | R ₁₂ | |
| C ₁₃ | 5. " | R ₁₃ | |
| C ₁₄ | 50 " | R ₁₄ | |
| C ₁₅ | 10 " | R ₁₅ | 50K. |
| C ₁₆ | 10 " | R ₁₆ | 1.MΩ. |
| C ₁₇ | 1002 μF | R ₁₇ | 2.MΩ. |
| C ₁₈ | 102 " | R ₁₈ | 250K. |
| C ₁₉ | 101 " | R ₁₉ | 40 " |
| C ₂₀ | 1 " | R ₂₀ | 10 " |
| C ₂₁ | 250 " | R ₂₁ | 300Ω. |
| C ₂₂ | 1 " | R ₂₂ | 500Ω. |
| C ₂₃ | 8 μF. | — | |



WAVE METER. V1191.

- ①. TRANS. M.C.W.
- ②. TRANS. C.W. + REC.



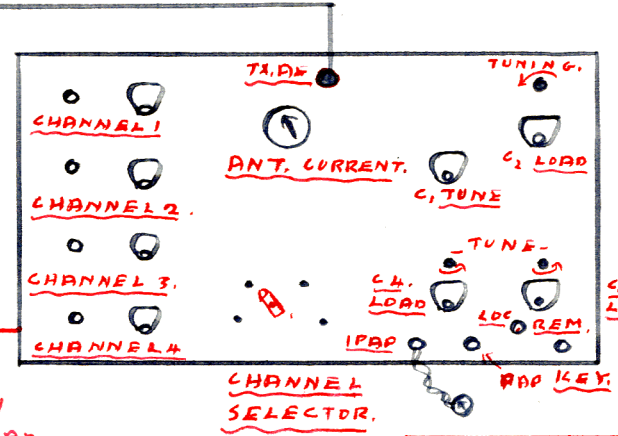
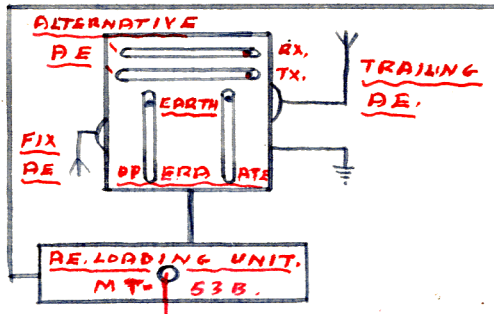
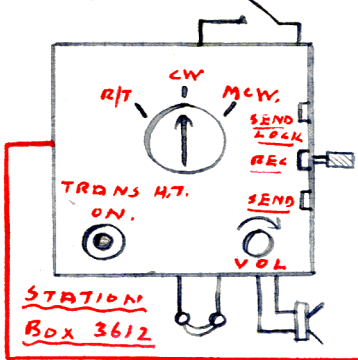
CRYSTAL MONITOR.
TYPE 2

BENDIX. (BOMBER) LAY-OUT.

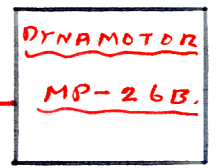
AE. SWITCH TYPE 3931A.

WIRELESS OPERATORS POSITION.

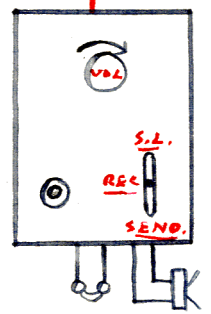
PILOT'S POSITION.



TRANSMITTER.
TA-12B.



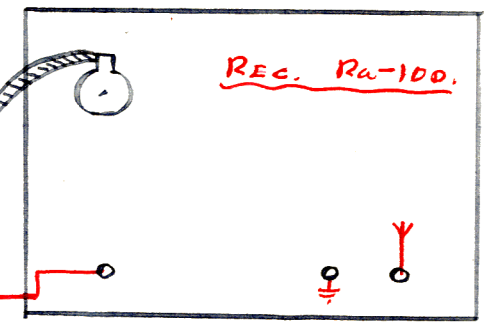
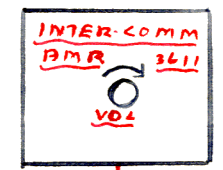
BOMB-AIMERS' POSITION.



RADIO JUNCTION BOX.

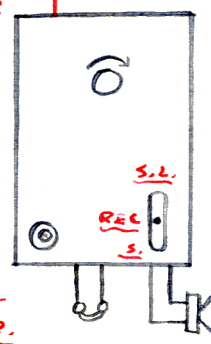
JUNCT. BOX.

JUNCT BOX NOT IN BOSTON GEAR.

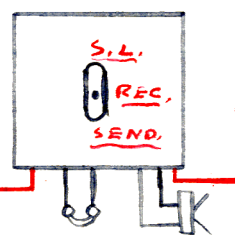


REC. TUNING CABLE

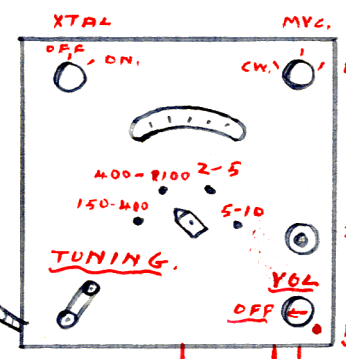
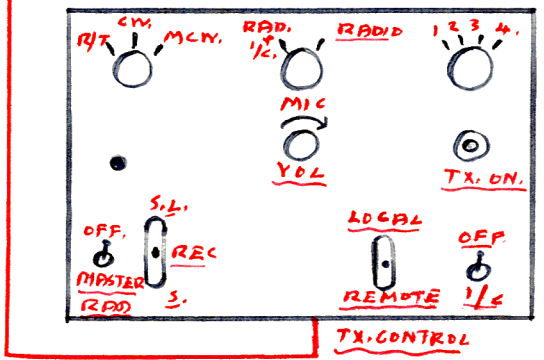
REAR GUNNER'S POSITION.



AUXILIARY STATION BOX 3615.



CONTROL UNIT 3616.



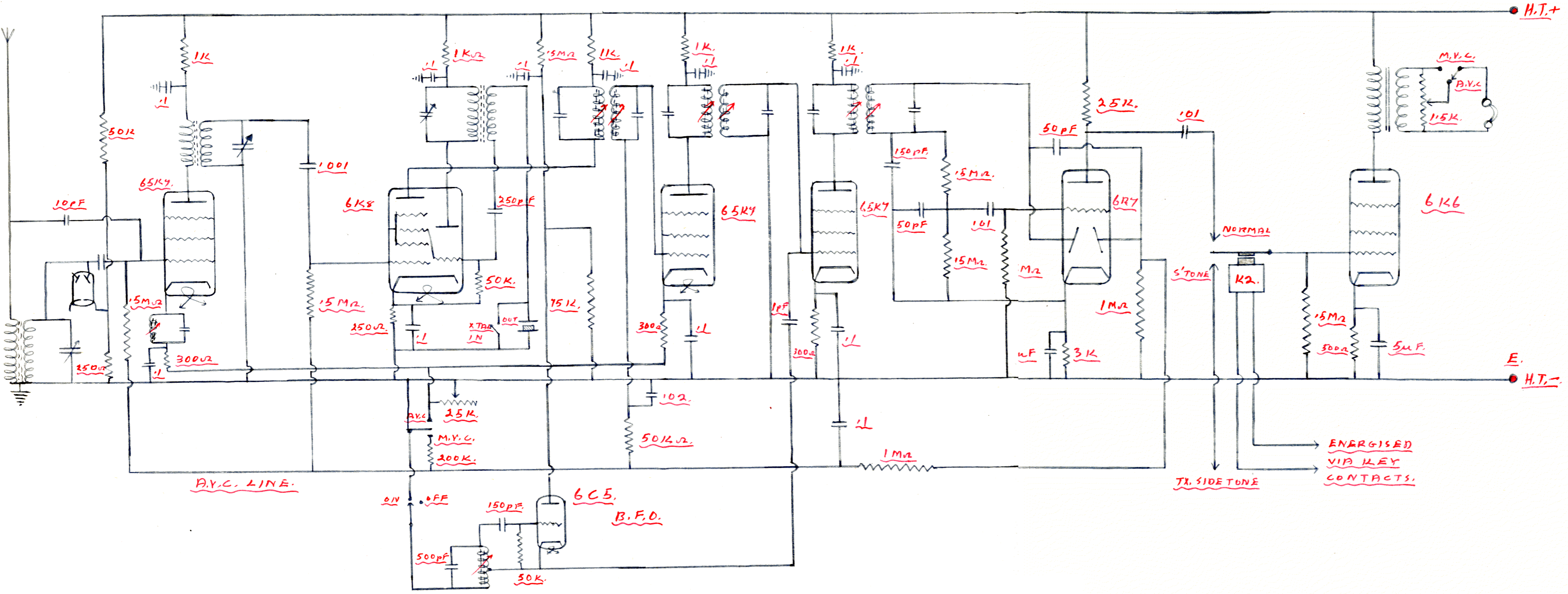
M.R.-9B.

TEST PHONES.

BENDIX BOMBER EQUIPMENT.
(BOSTON III)

BENDIX RECEIVER.
RA-100.

NOTE:-
SCREEN AND SUPPRESSOR.
GRID CONNECTIONS
OMITTED.



H.T. +

E. H.T. -

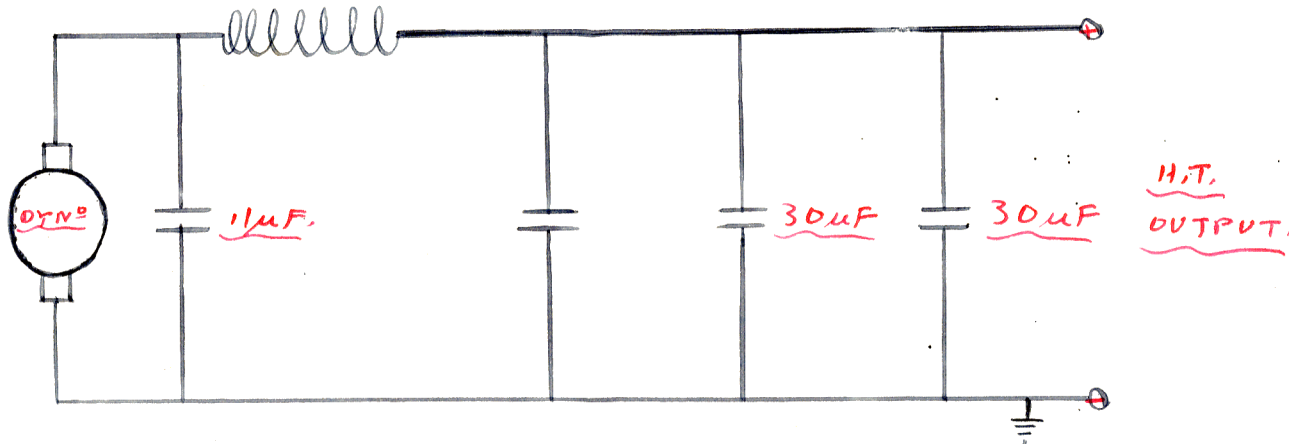
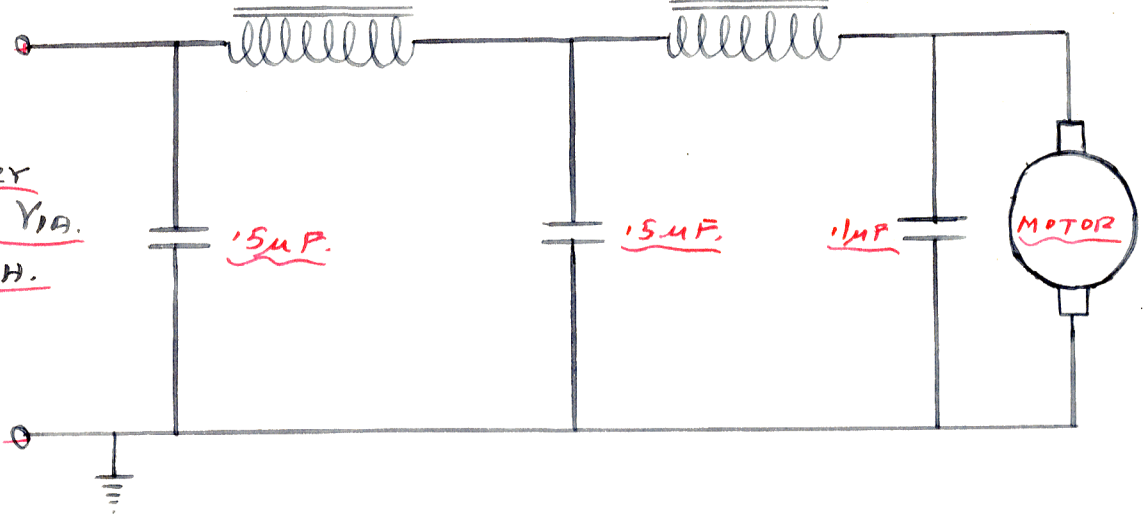
D.V.C. LINE.

TX. SIDE TONE
ENERGISED VIA KEY CONTACTS.

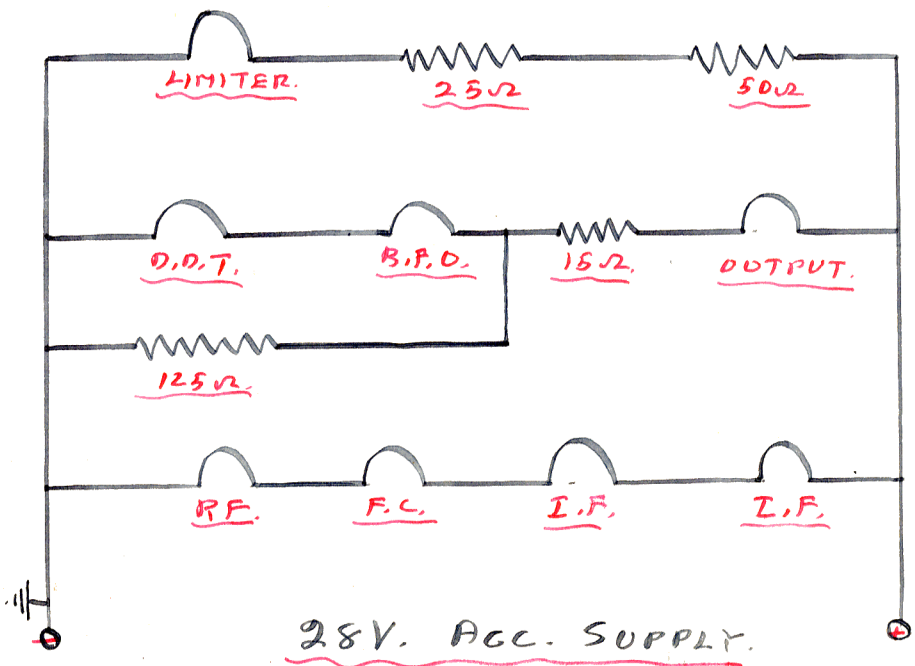
RX. POWER SUPPLIES.

INPUT. 28V. 1.6A.
OUTPUT. 230V. 100mA.

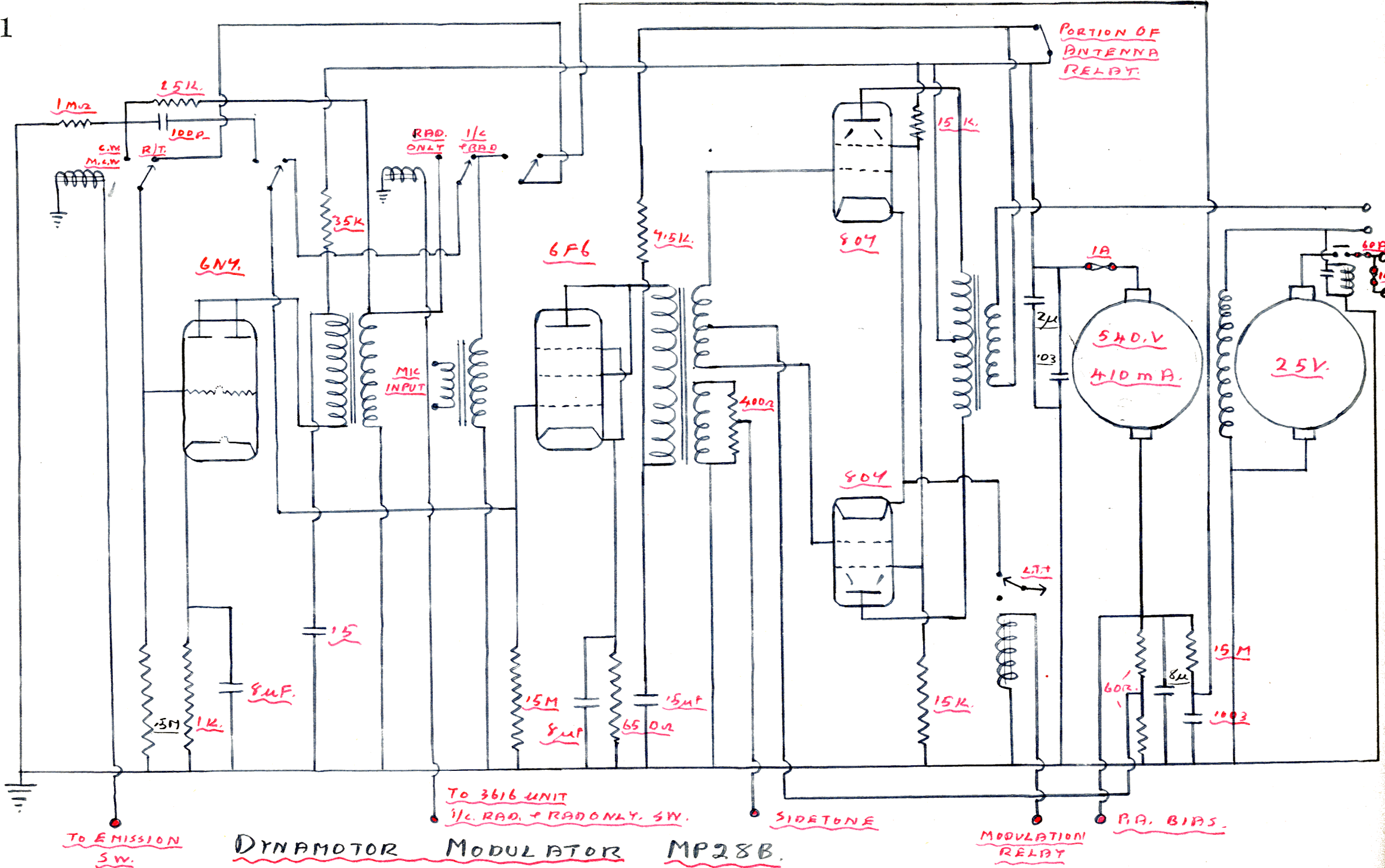
BATTERY INPUT VIA SWITCH.



HEATER. CCT. ARRANGEMENTS.



28V. ACC. SUPPLY.



PORTION OF ANTENNA RELAY

TO EMISSION SW.

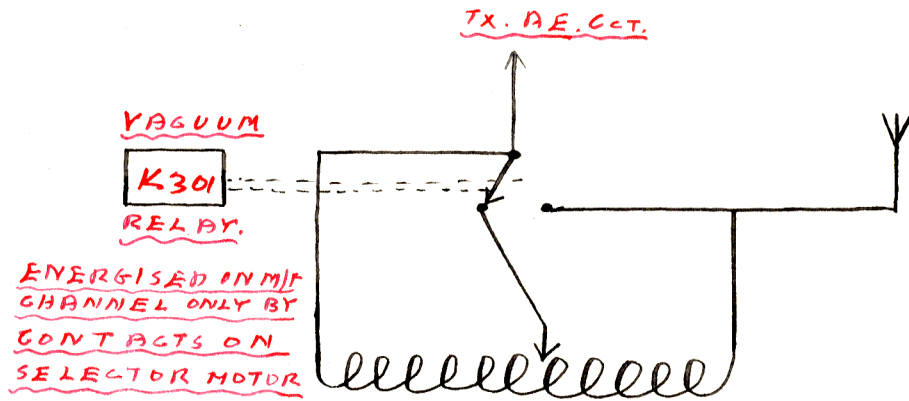
DYNAMOTOR MODULATOR MP28B.

TO 3616 UNIT
1/2 RAD. + RAD ONLY. SW.

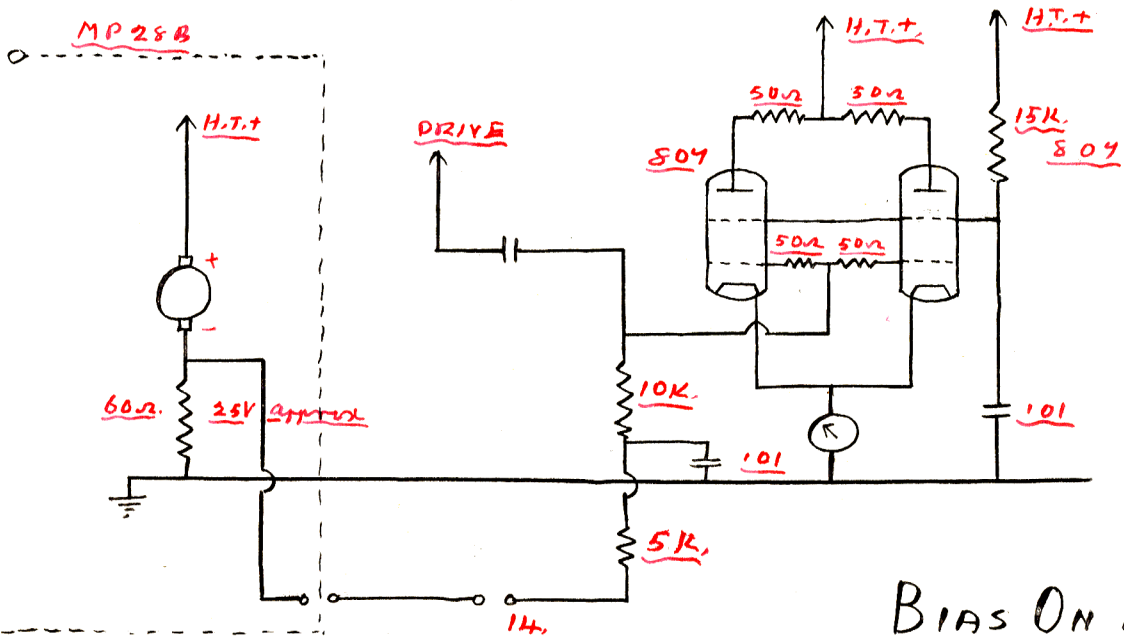
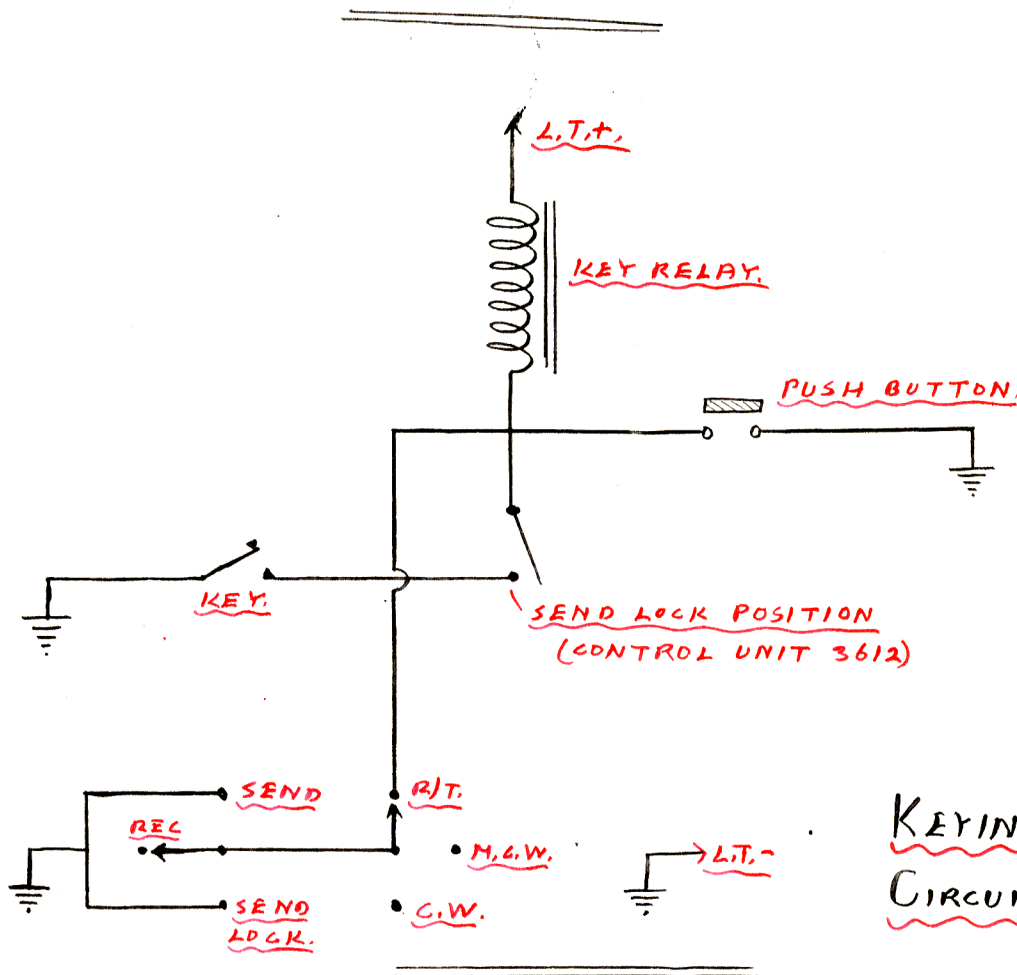
SIDETONE

MODULATION RELAY

P.A. BIPS.

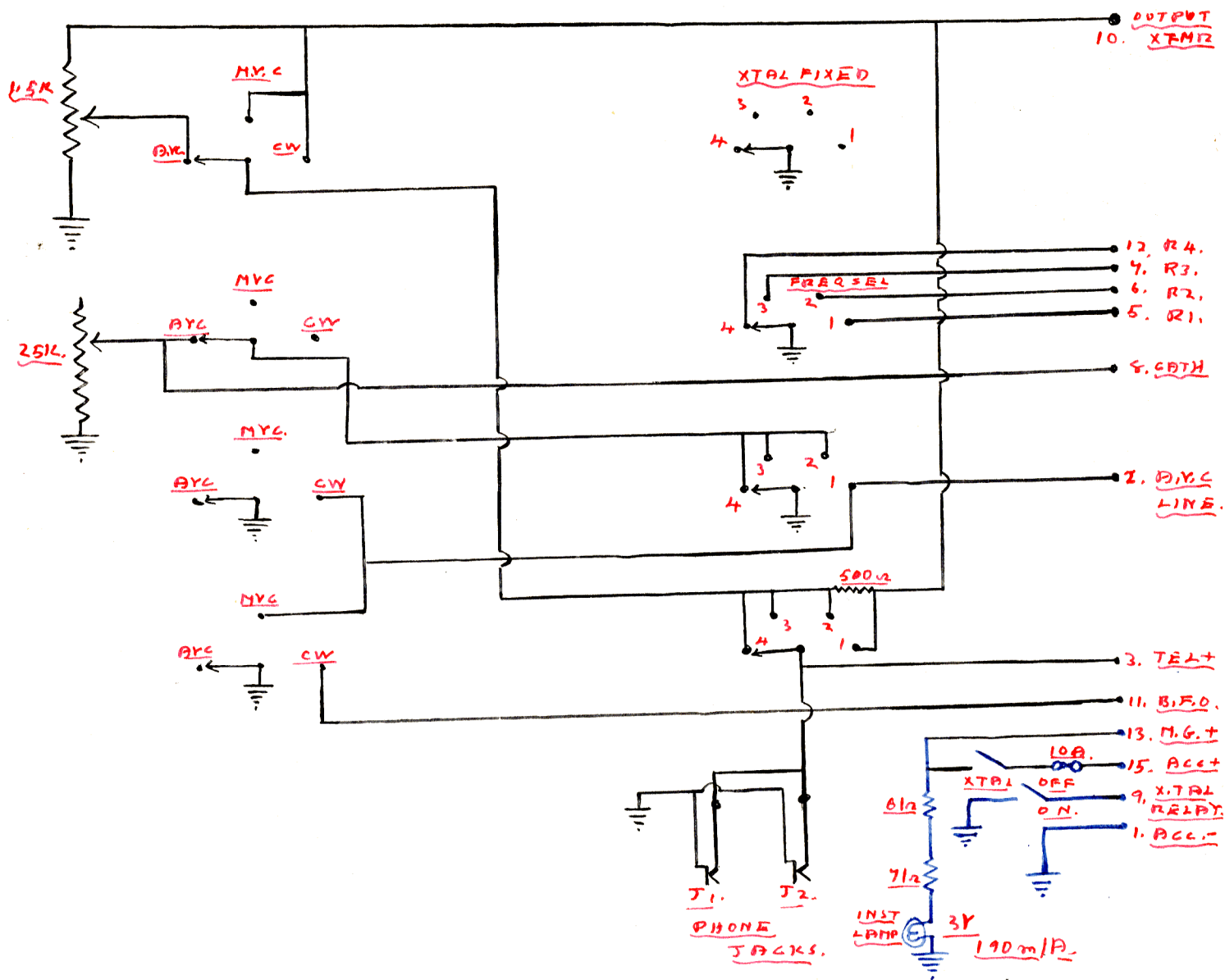


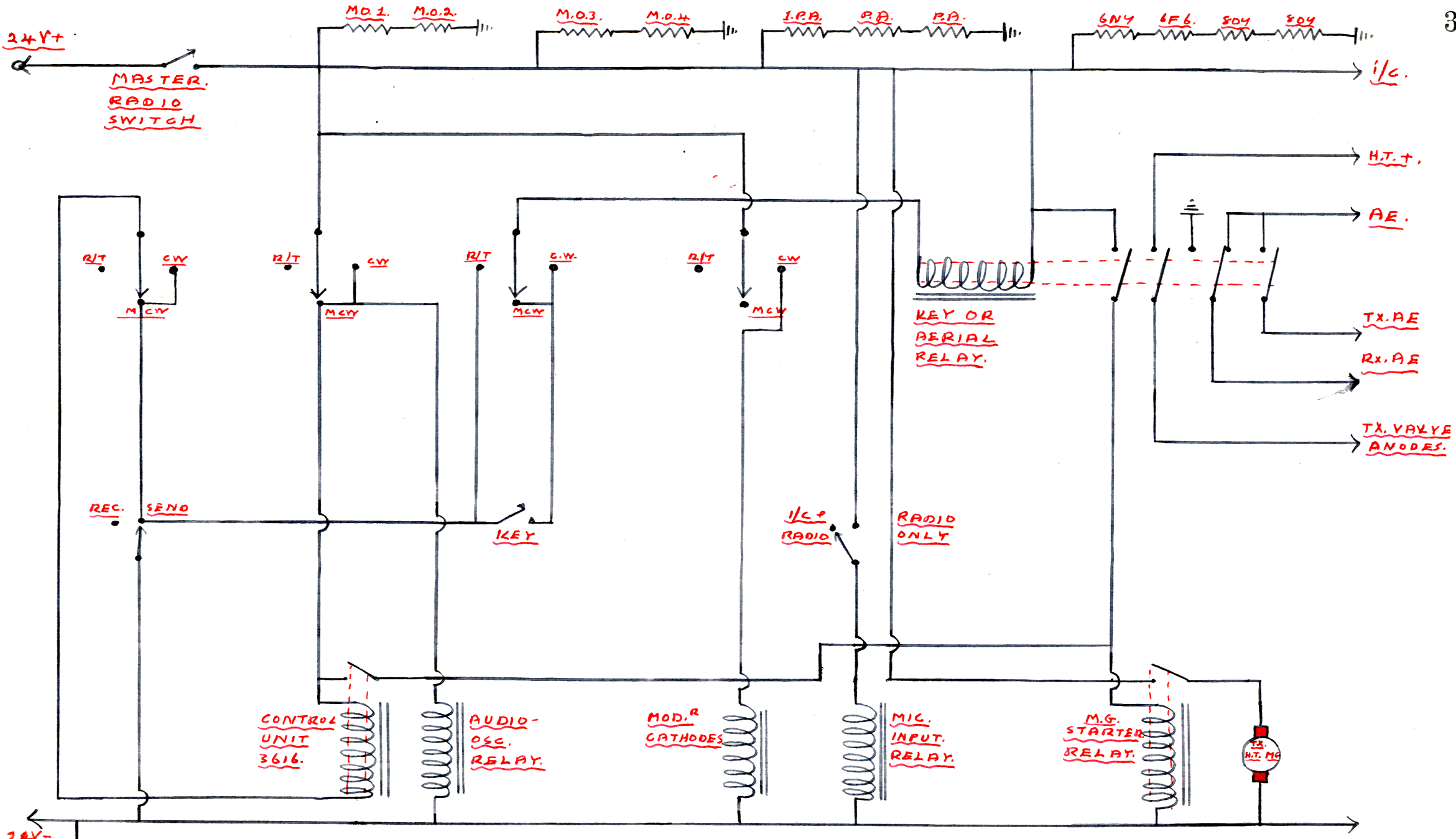
MT 58B ANTENNA LOADING UNIT.



CONTROL UNIT MR-9B.

CS
CS

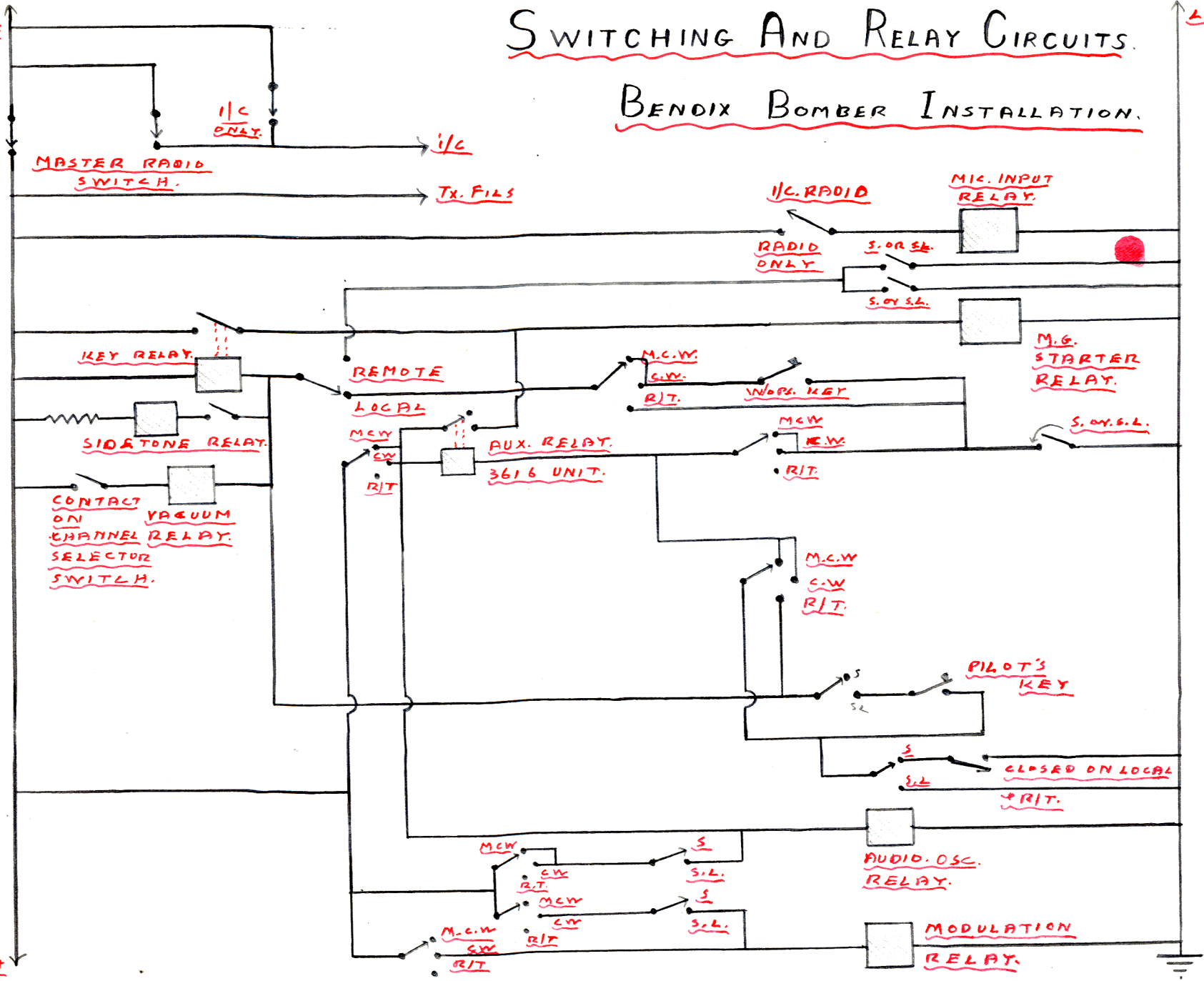




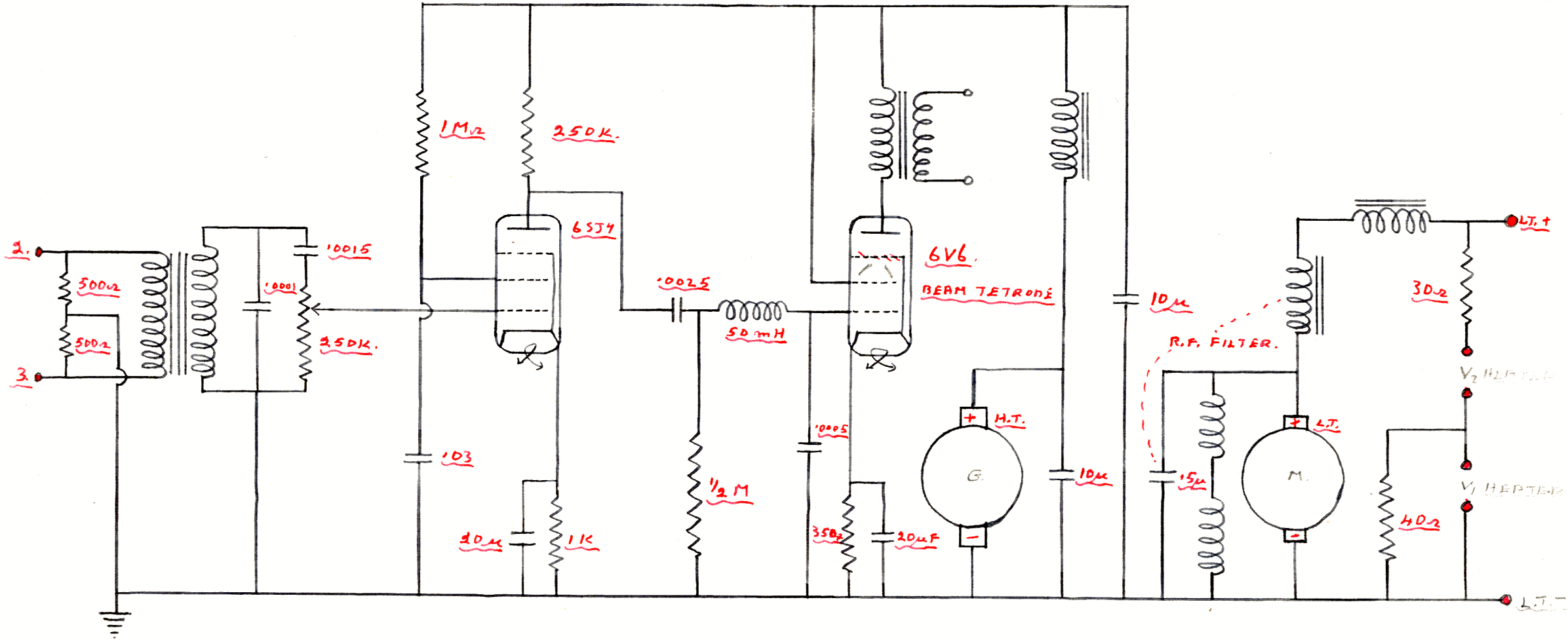
RELAY CIRCUITS. (BENDIX BOSTON INSTALLATION)

SWITCHING AND RELAY CIRCUITS.

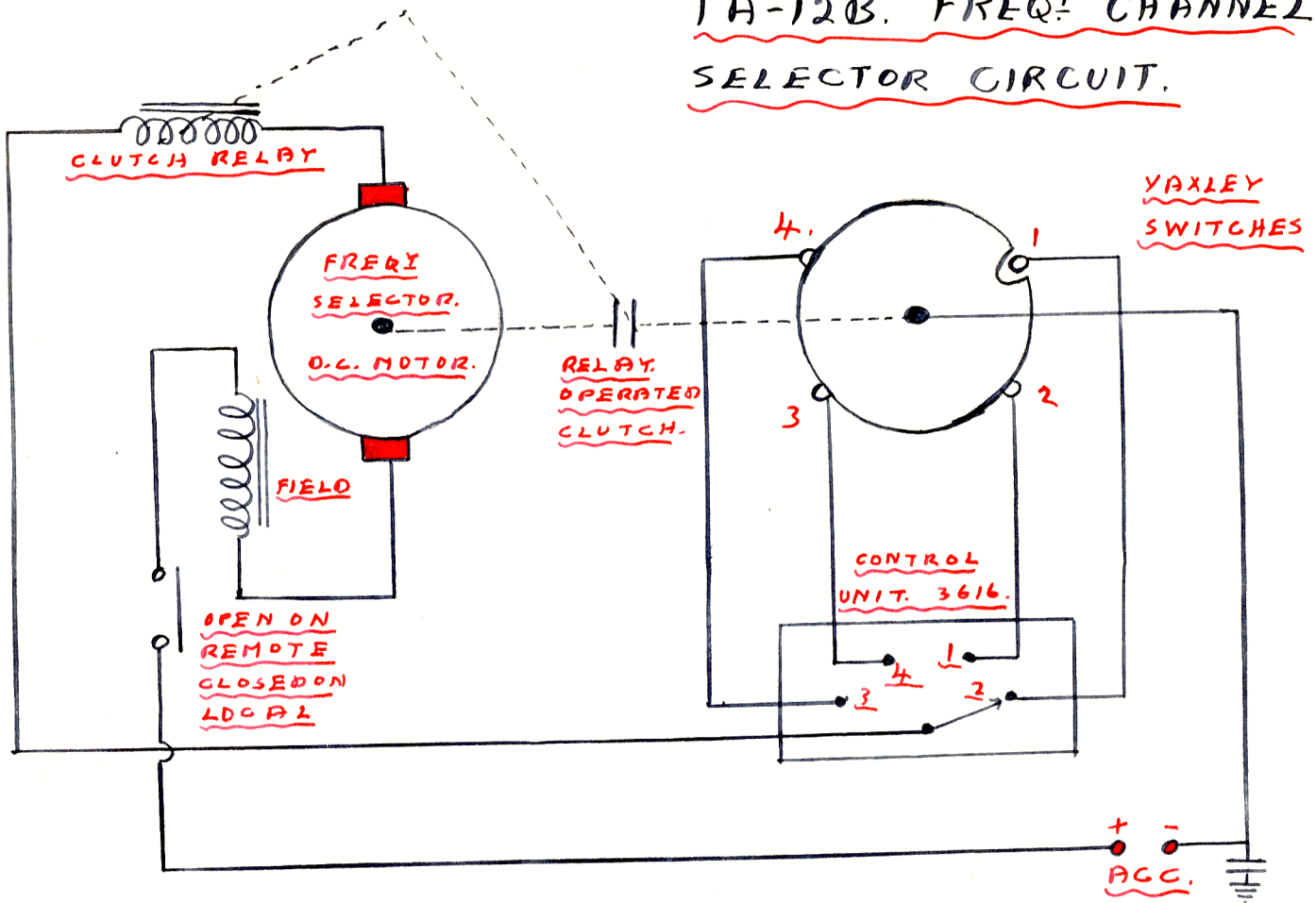
BENDIX BOMBER INSTALLATION.



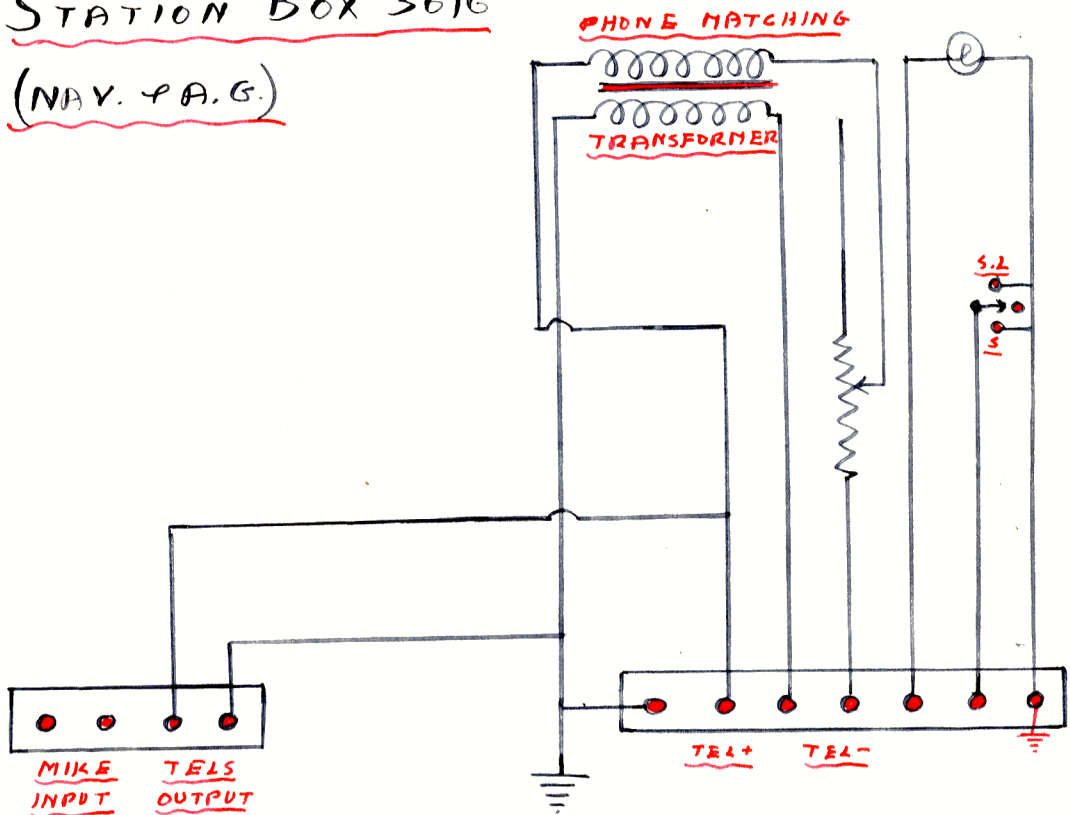
INTERPHONE AMPLIFIER 3611.

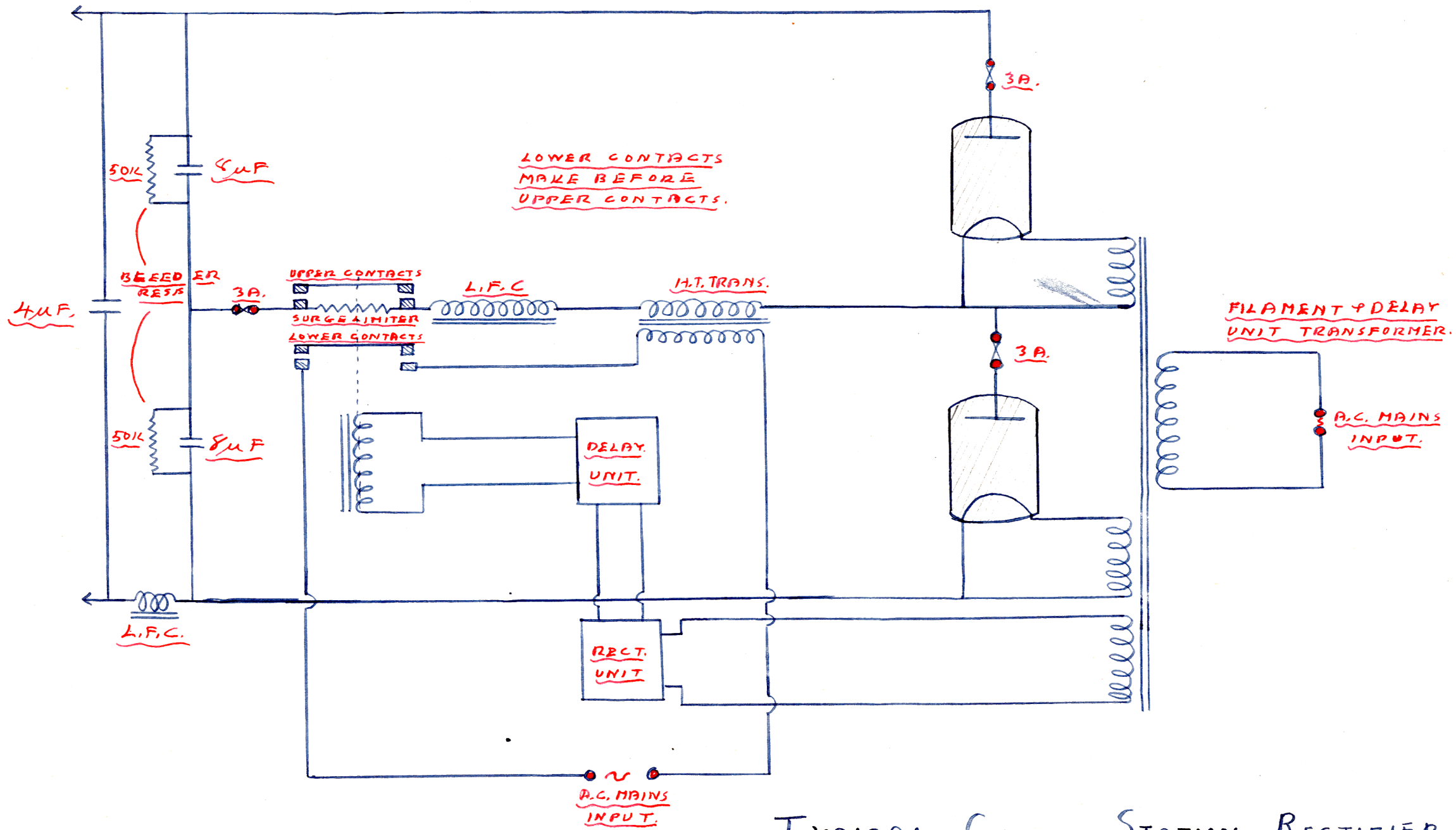


TA-12B. FREQ. CHANNEL
SELECTOR CIRCUIT.



STATION BOX 3616
(NAV. P.A.G.)

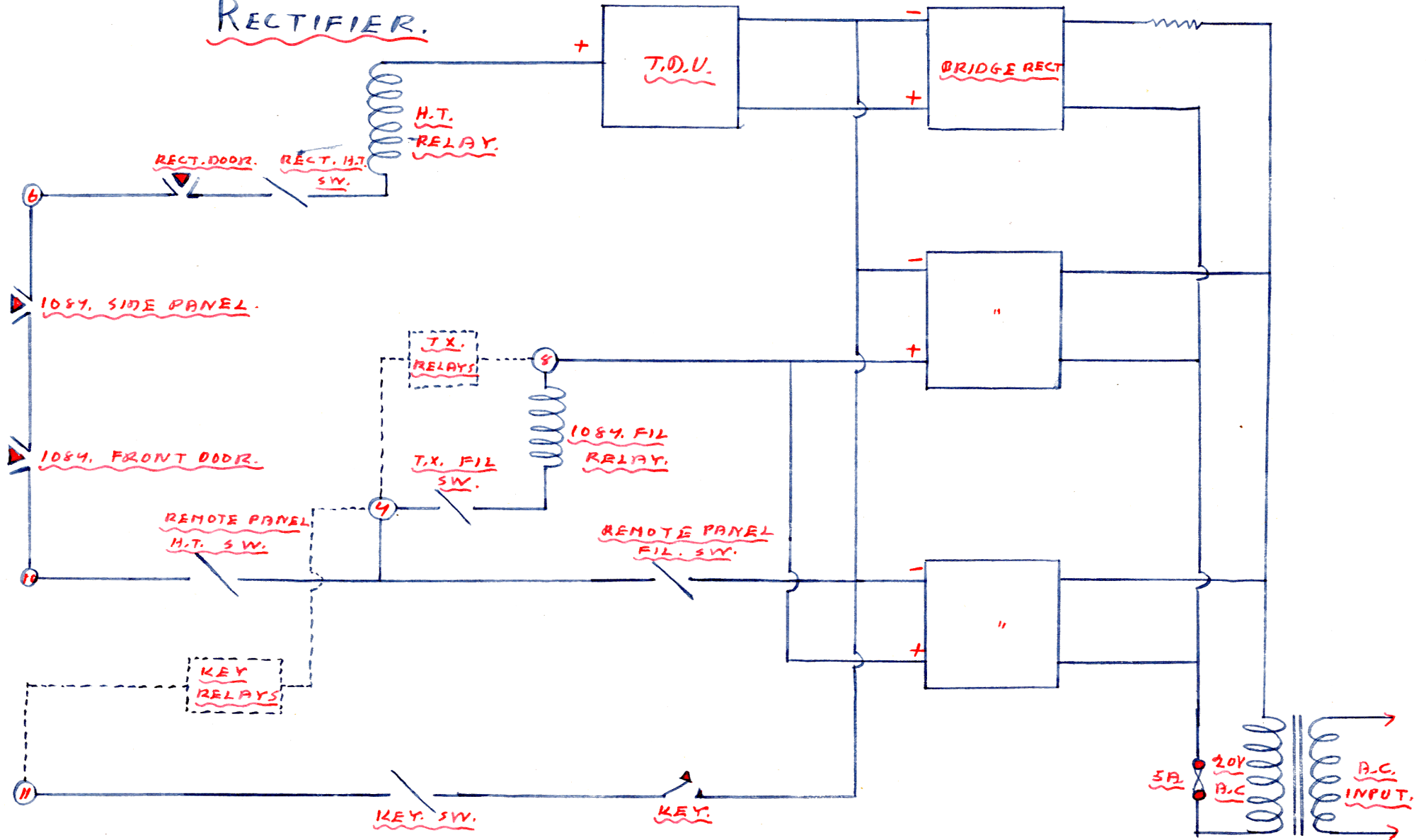




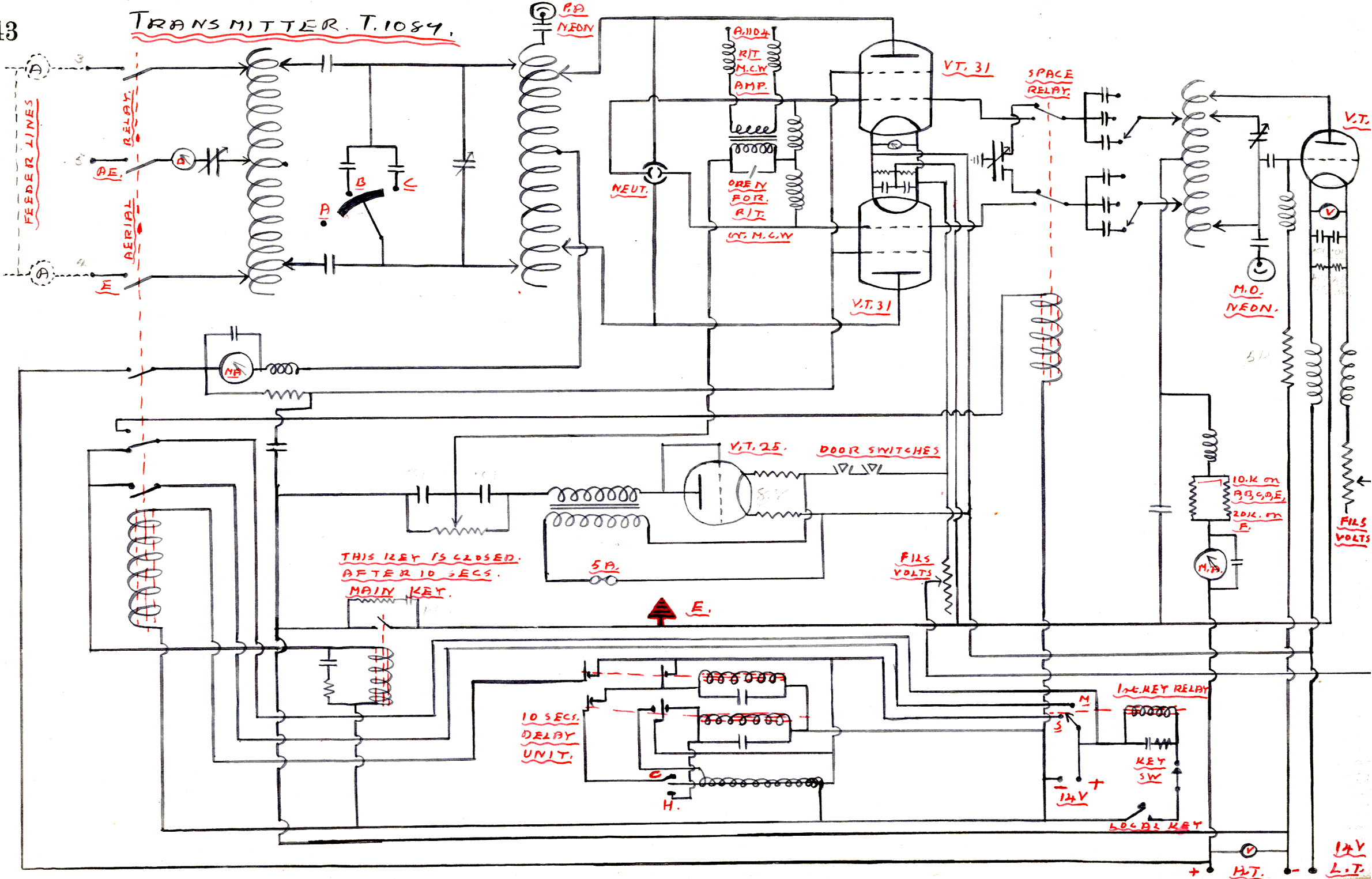
TYPICAL GROUND STATION RECTIFIER SET.

RELAY CTS. OF TYPE "B"

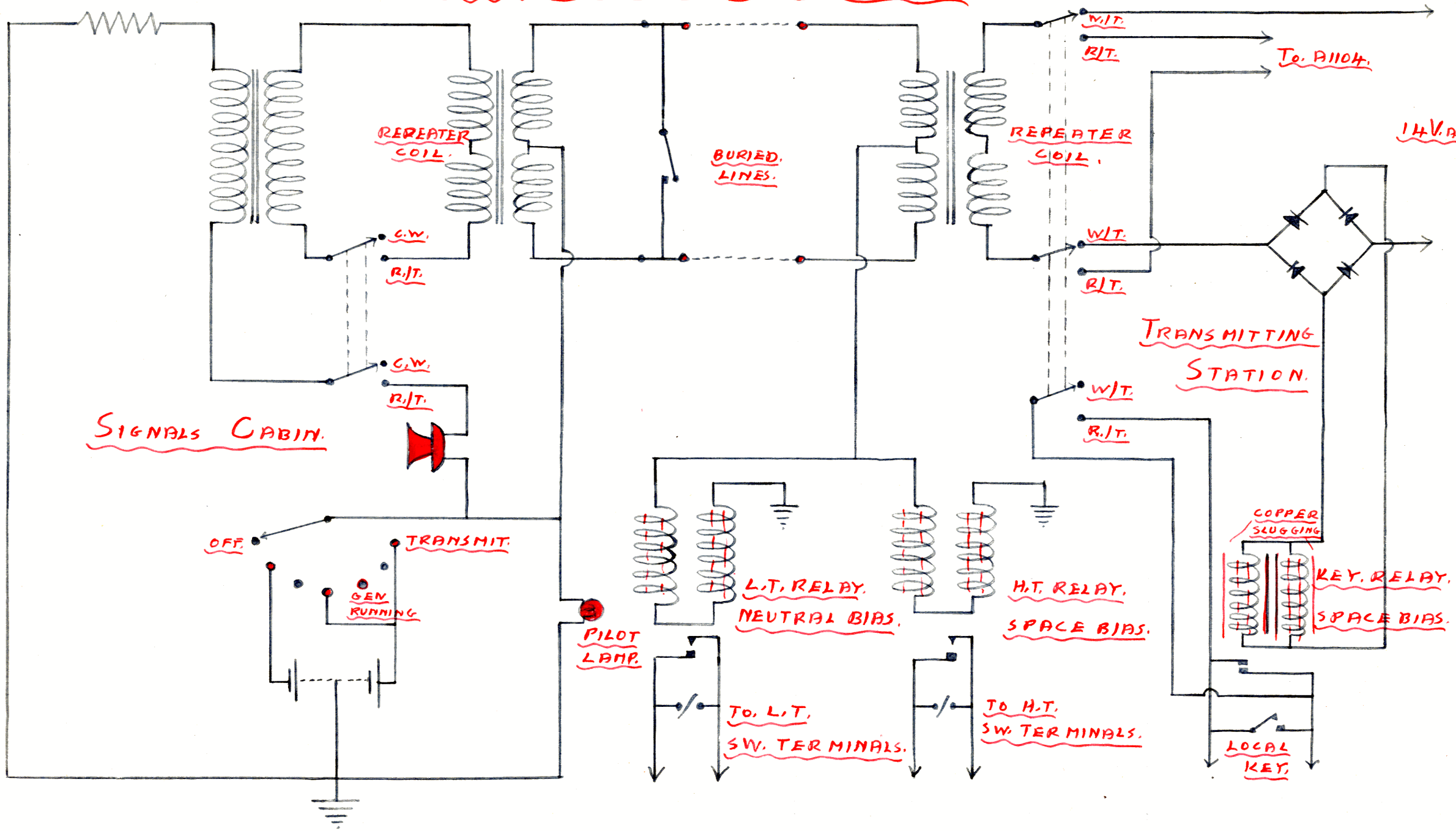
RECTIFIER.

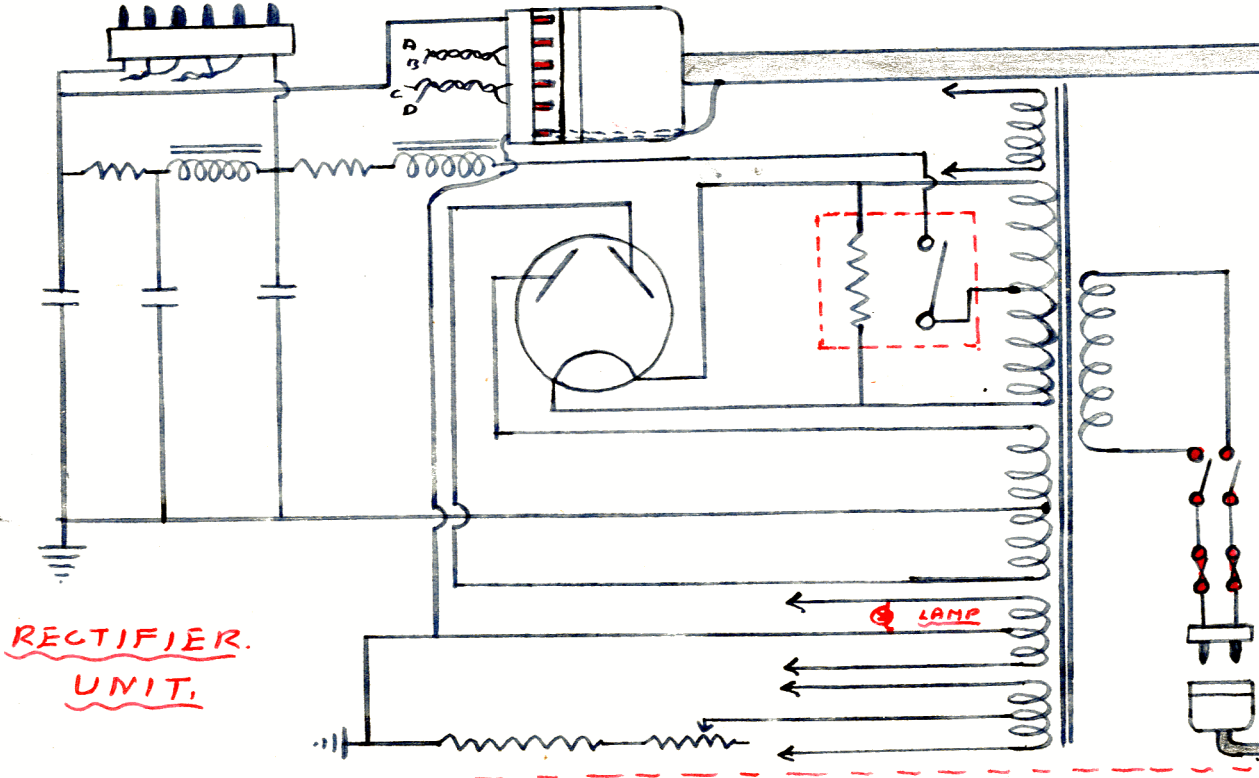
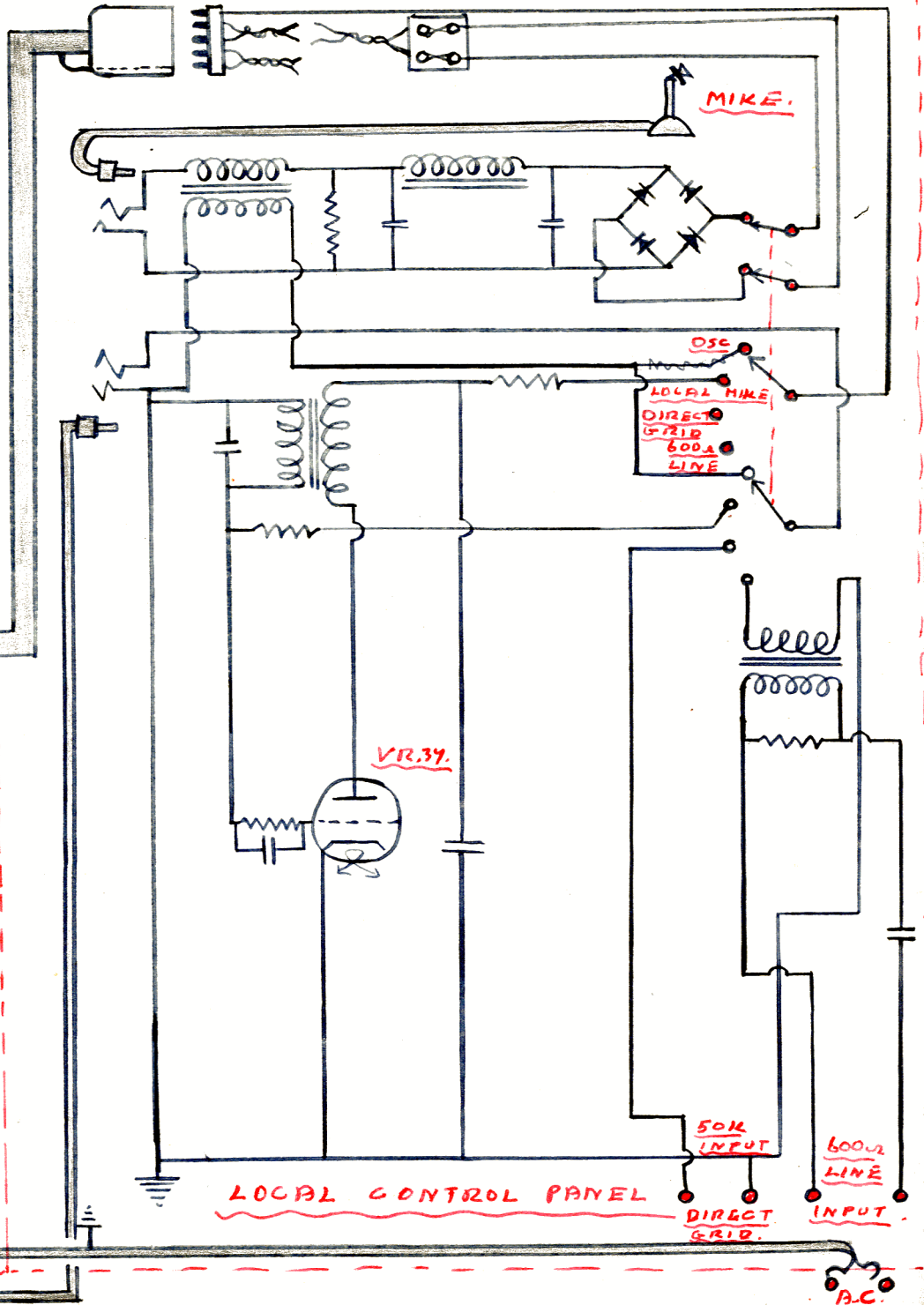
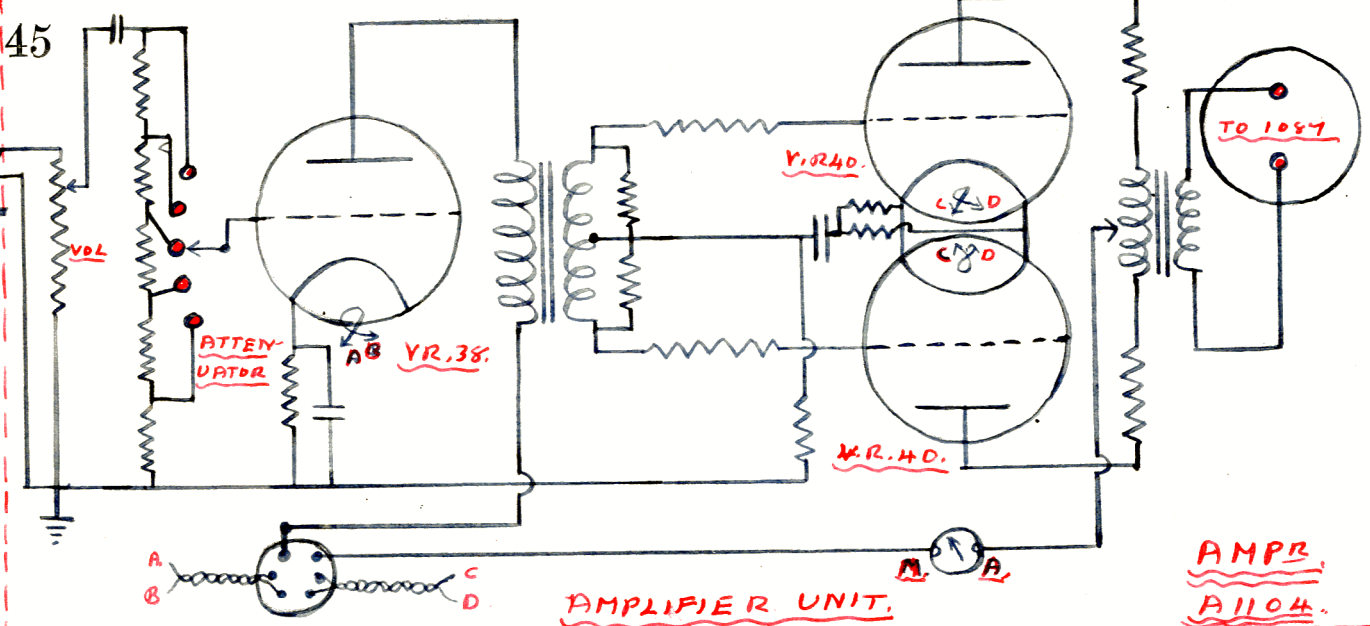


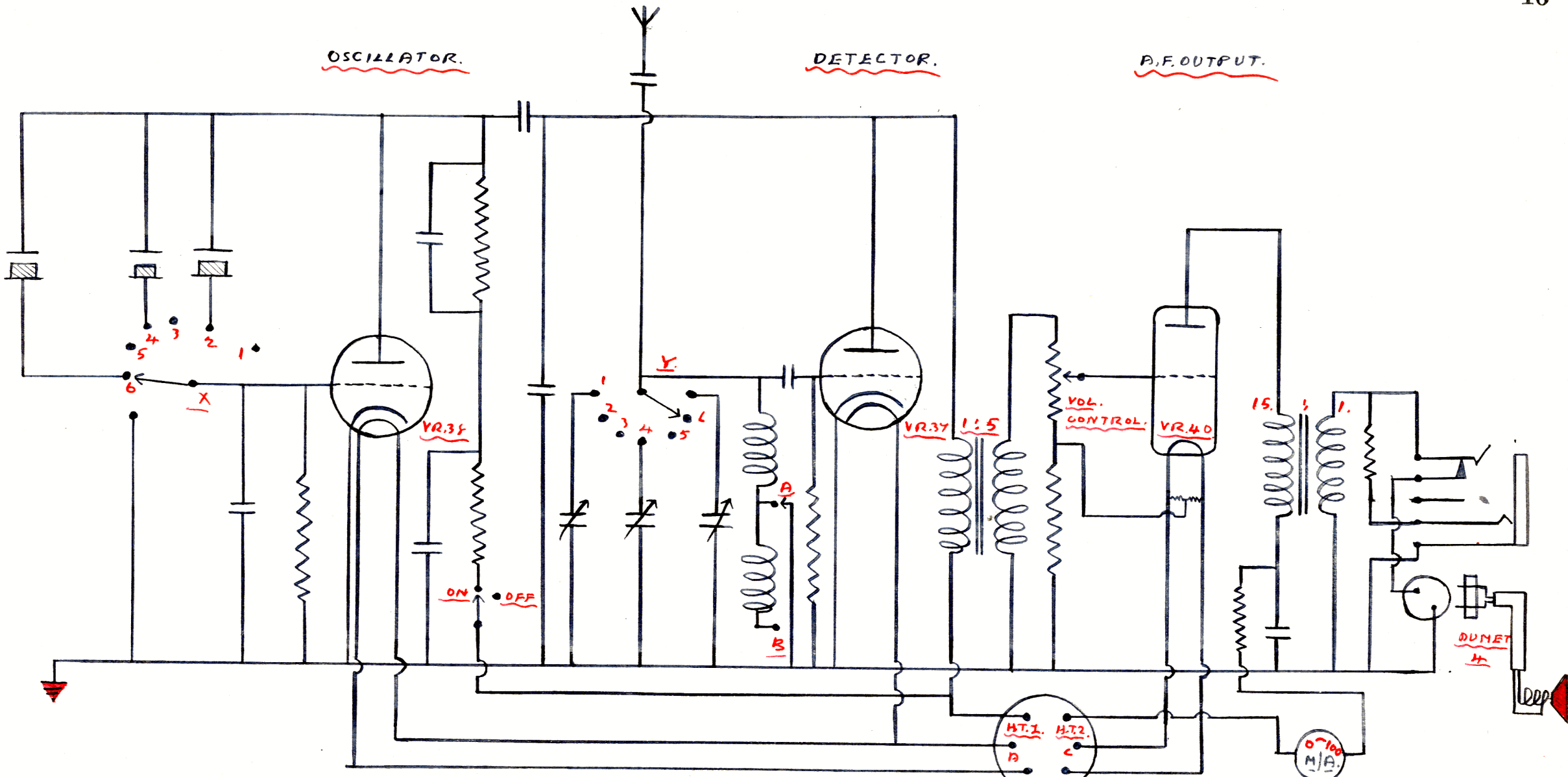
TRANSMITTER T. 1084.



REMOTE CONTROLS TYPE 3

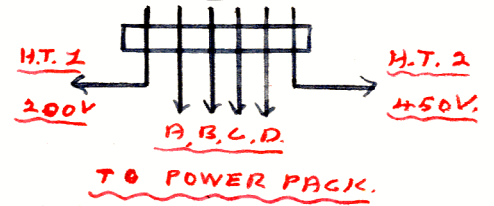




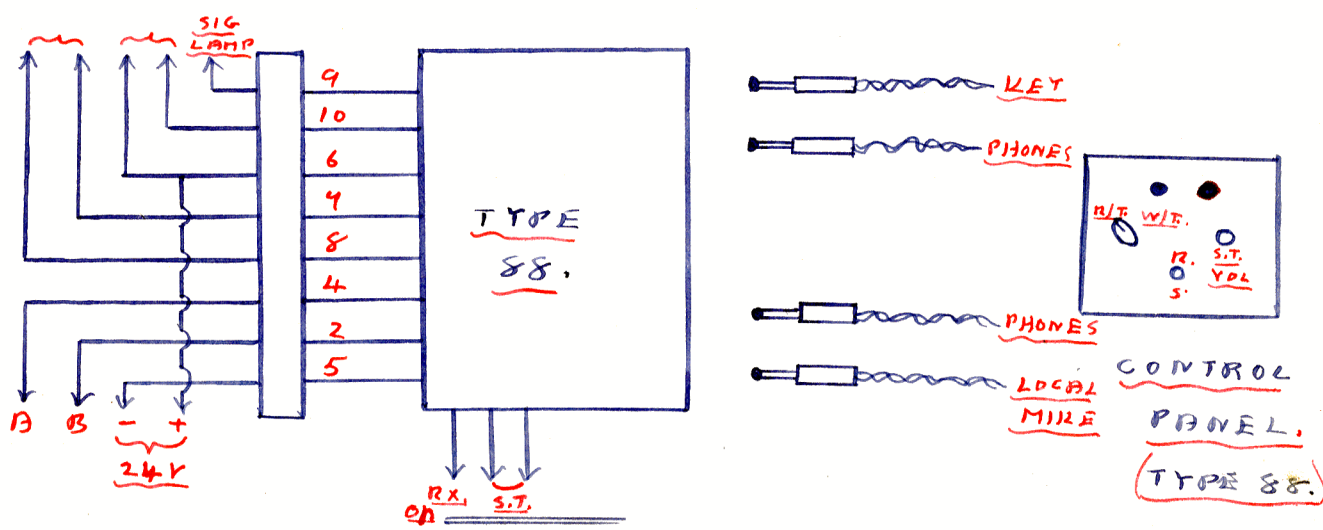
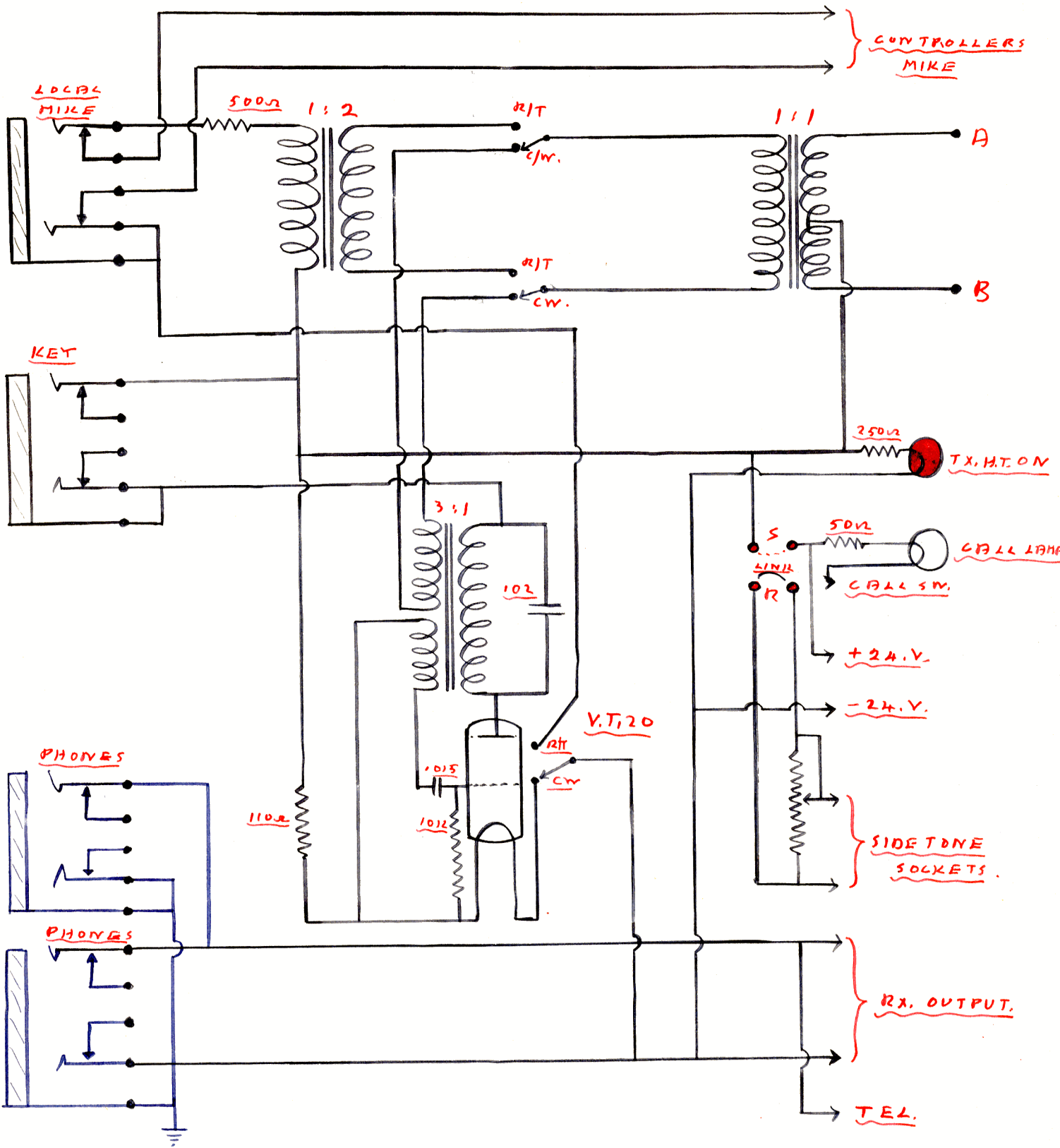


SWITCHES X+Y ARE GANGED.

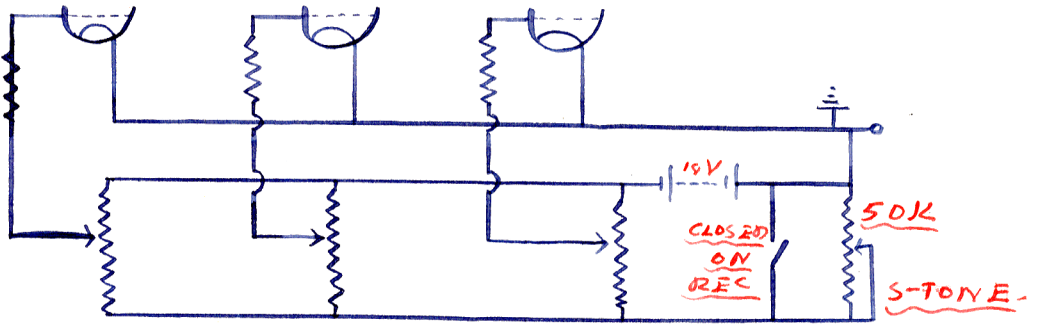
CRYSTAL MONITOR, TYPE 1.



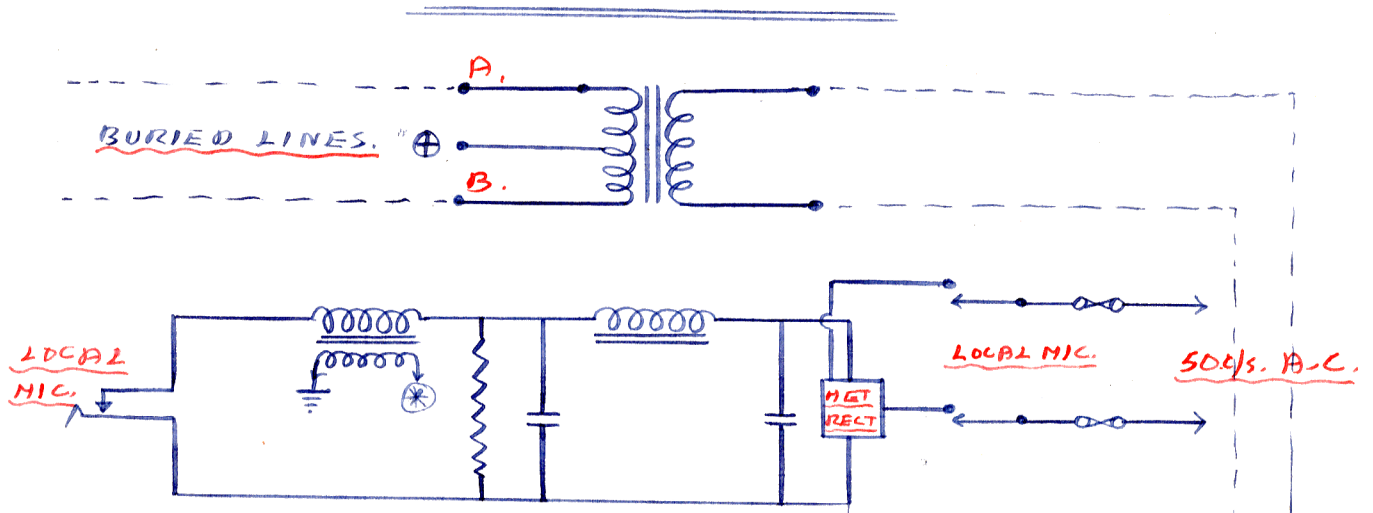
REMOTE CONTROLS TYPE 88.



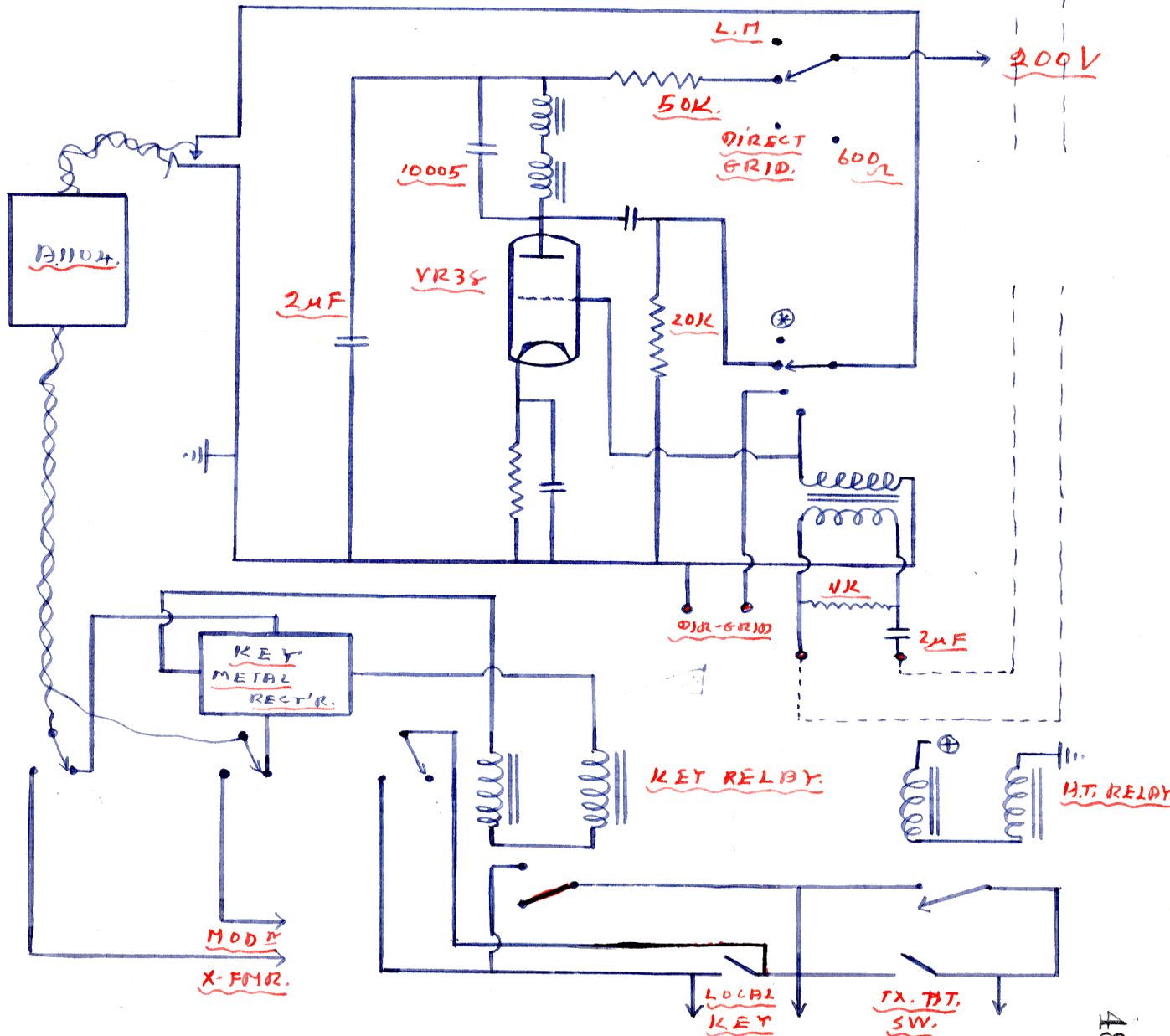
R.1084. BIASSING Ckt.

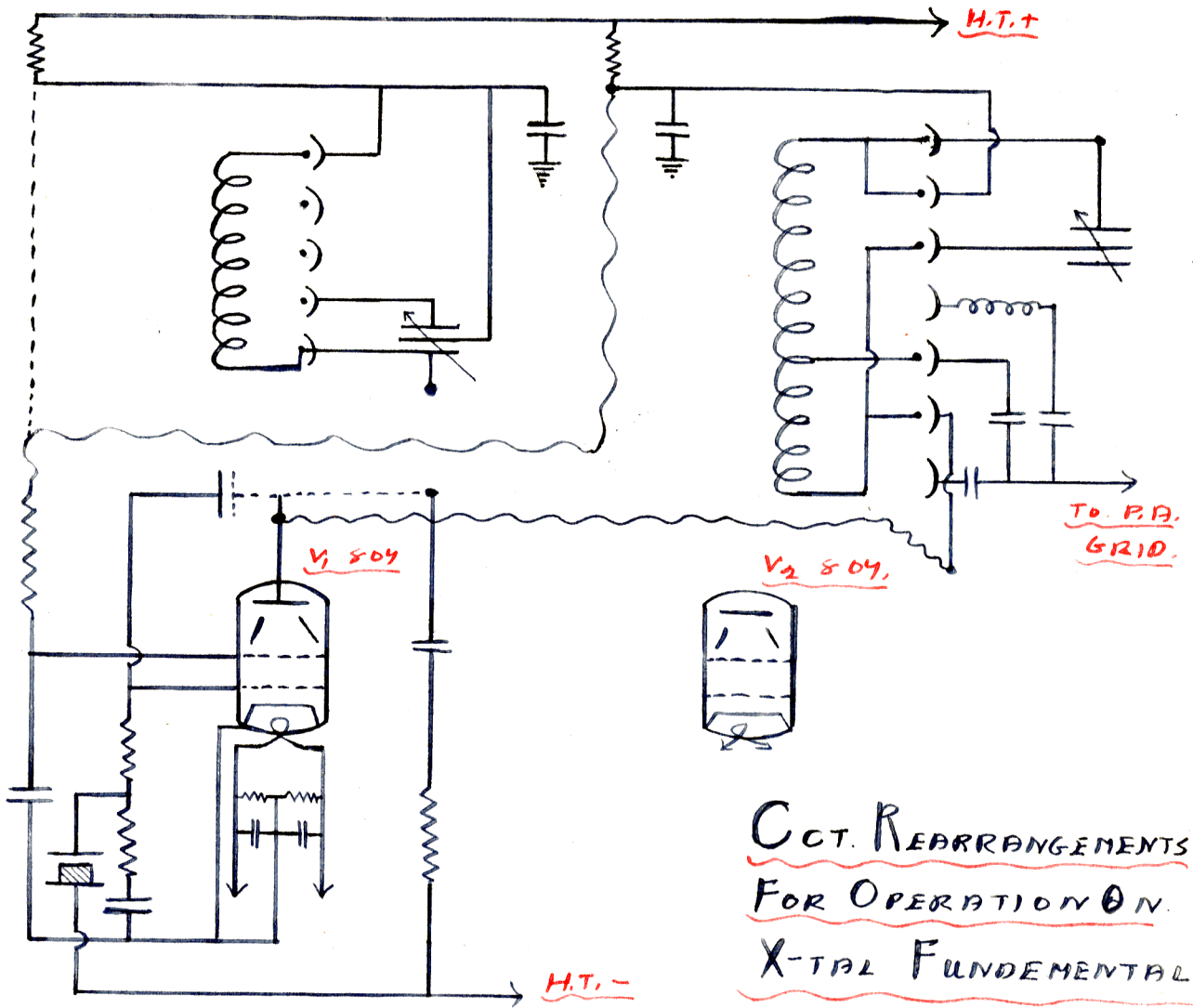


PART OF 1084. GIVING CONTROL OF SIDETONE VOL. ON 'SS.



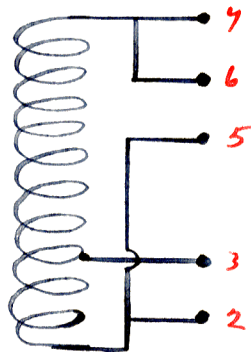
TYPE 88.



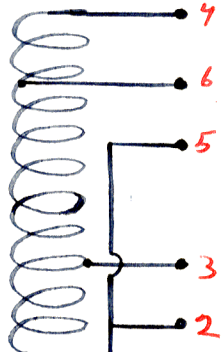


CCT. REARRANGEMENTS
FOR OPERATION ON
X-TAL FUNDAMENTAL

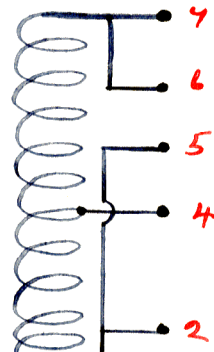
COILS USED WITH T1190.



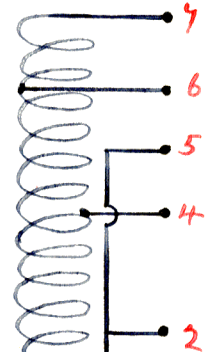
COIL 'R'
1.5-3 M. (F)



COIL 'S'
1.5-3 M. (MOPA)

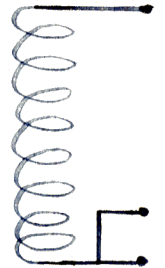


COIL 'M'
3-6.5 M. (F or F.D.)

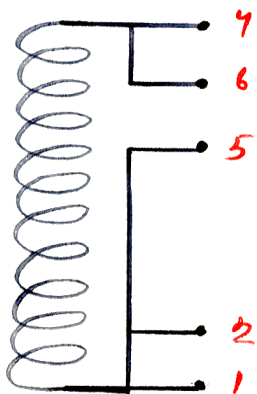


COIL 'N'
3-6.5 M. (MOPA)

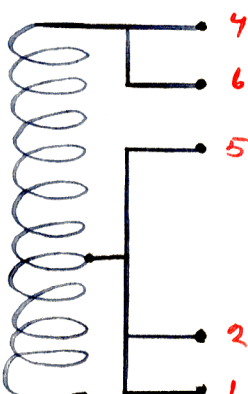
R+S, 1 coil.
M+N, 1 coil.
G, H, K, 1 coil.
Q, P, G.O. coils.



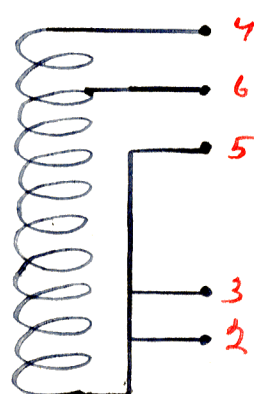
COIL 'Q'
3-7 M. (F.O.)
1.5-3.5 ACTUAL



COIL 'G'
6.5-13 M. (F.D.)
6.5-9.5 M (F)

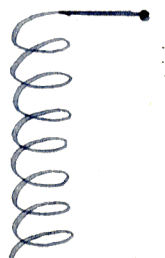


COIL 'H'
13-15 M. (F.D.)

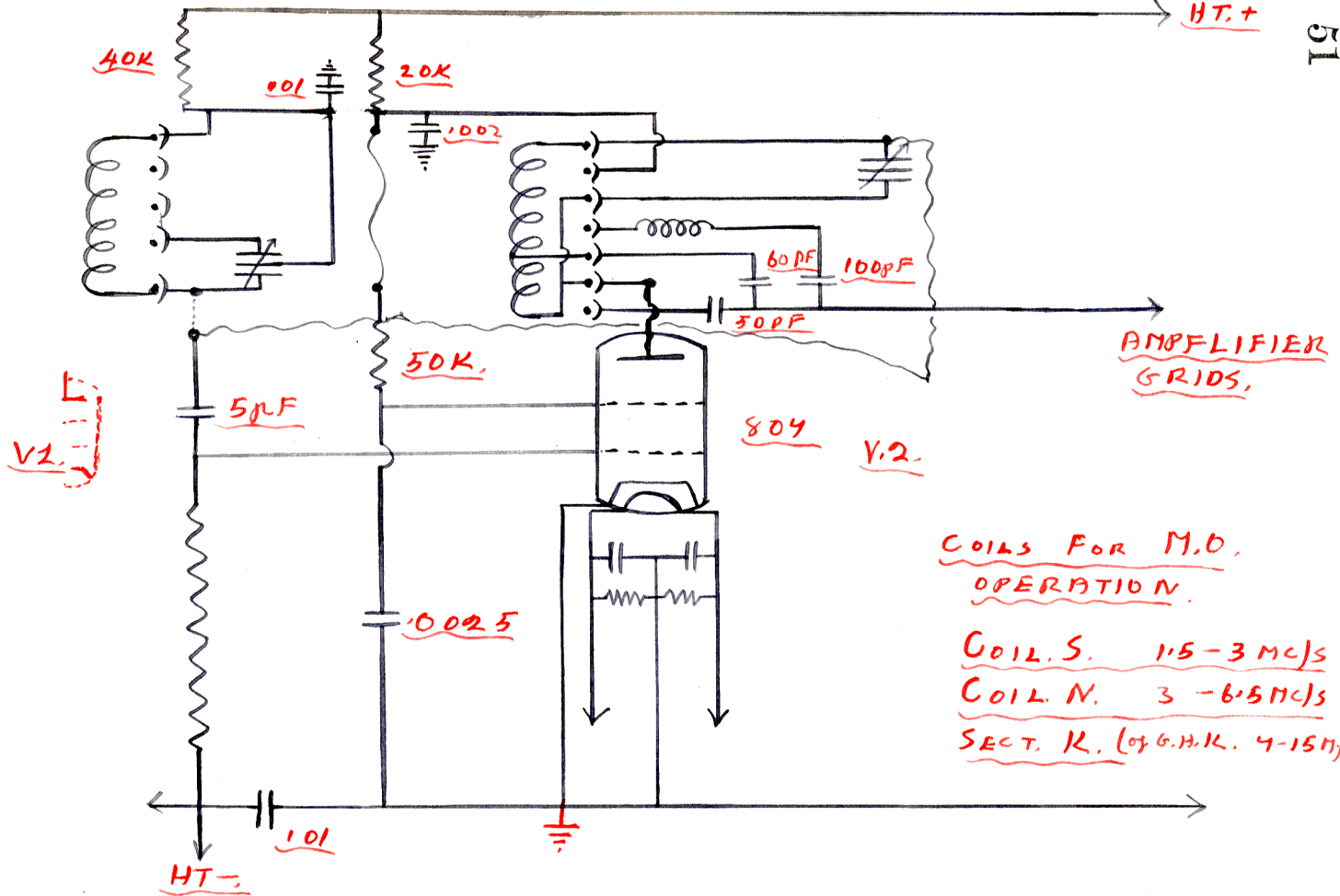


COIL 'K'
6-5-15 M. (MOPA)

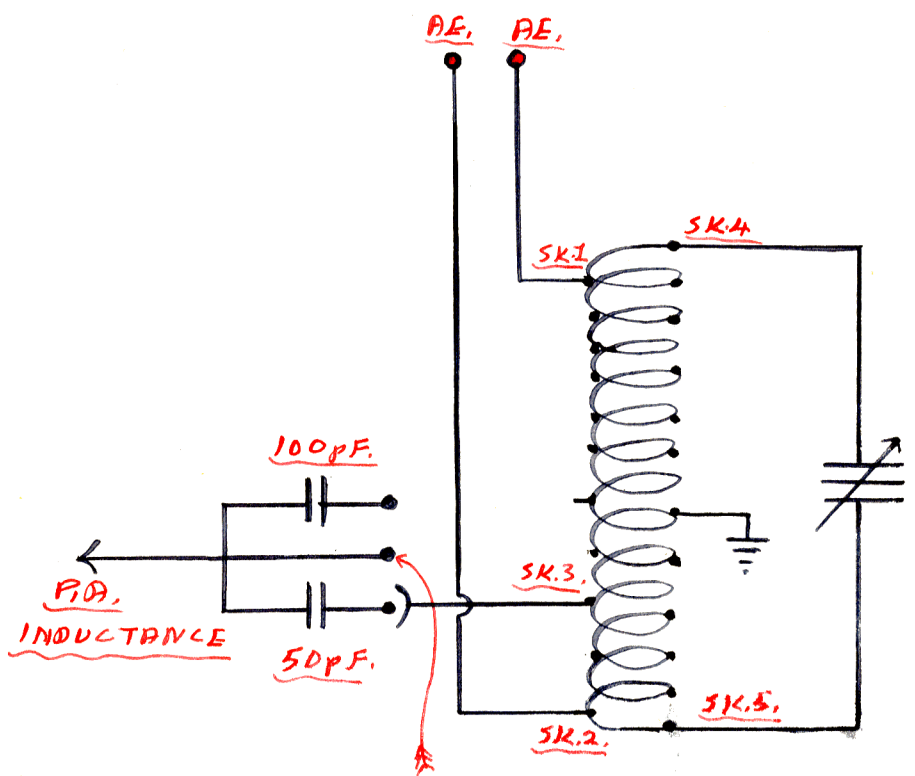
F = FUNDAMENTAL
F.D. = FREQ. DOUB.



COIL 'P'
7-15, (F.D.)
3.5-7.5 ACTUAL

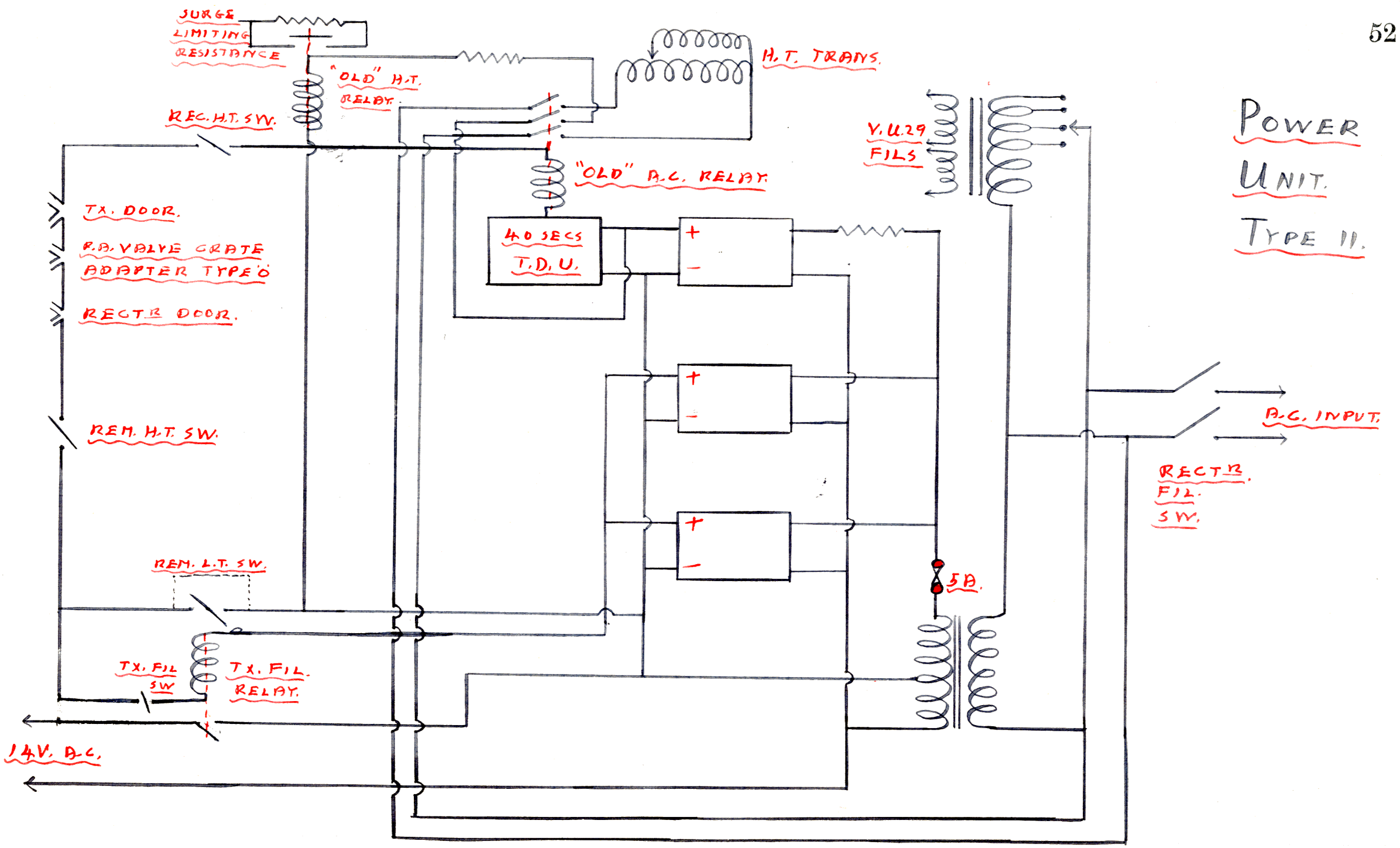


MODIFICATION FOR M.O. OPERATION.



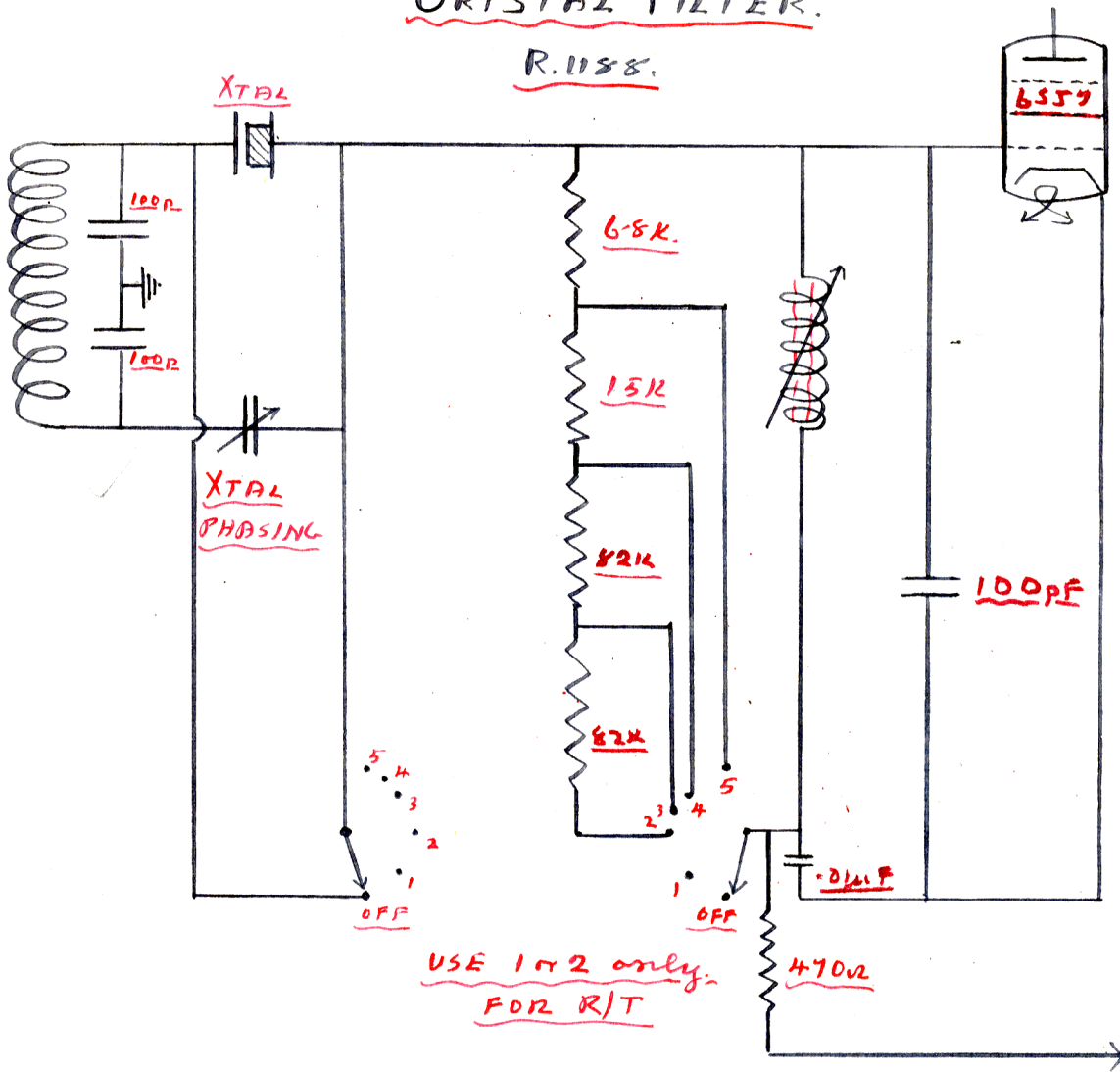
FOR 600Ω BALANCED LINES.

THIS CONNECTION MUST NOT BE EMPLOYED AS A FEEDER CONNECTION.



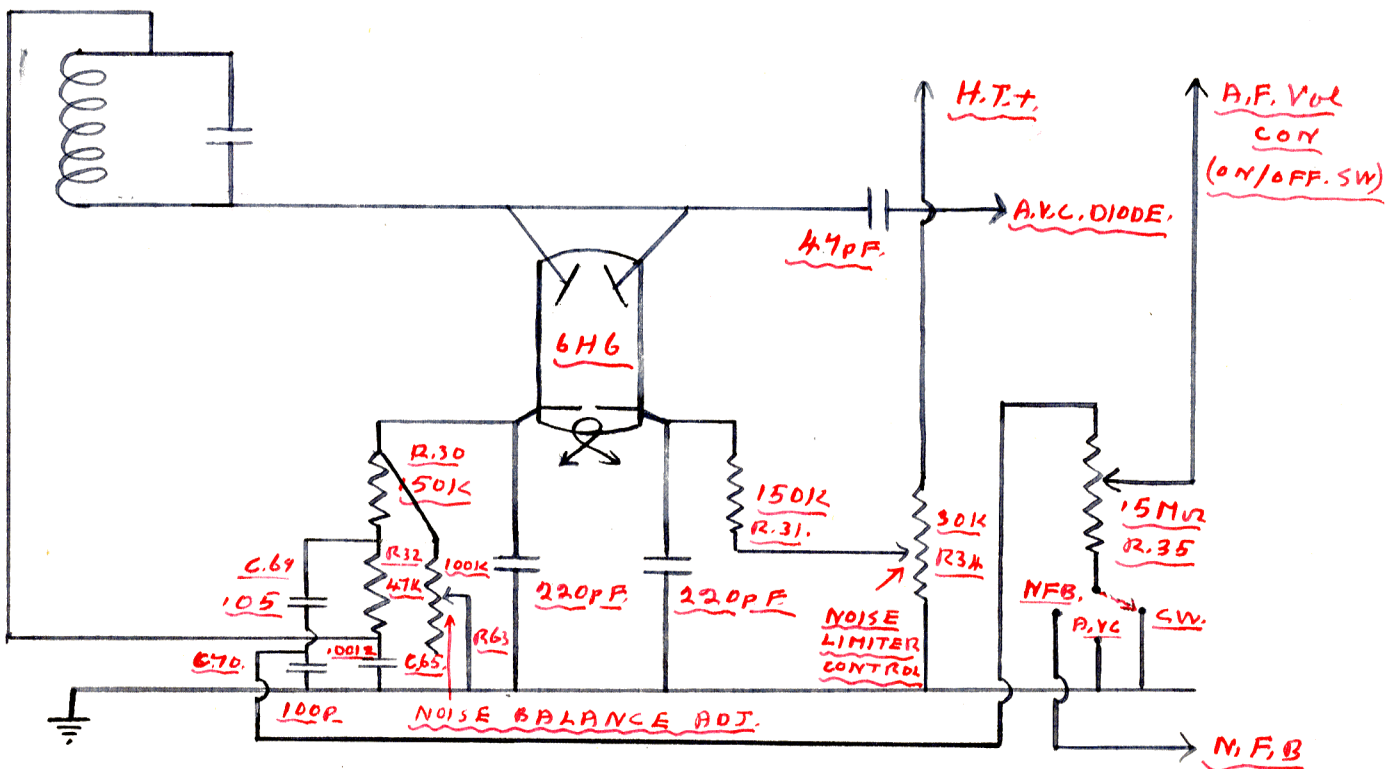
CRYSTAL FILTER.

R.1188.

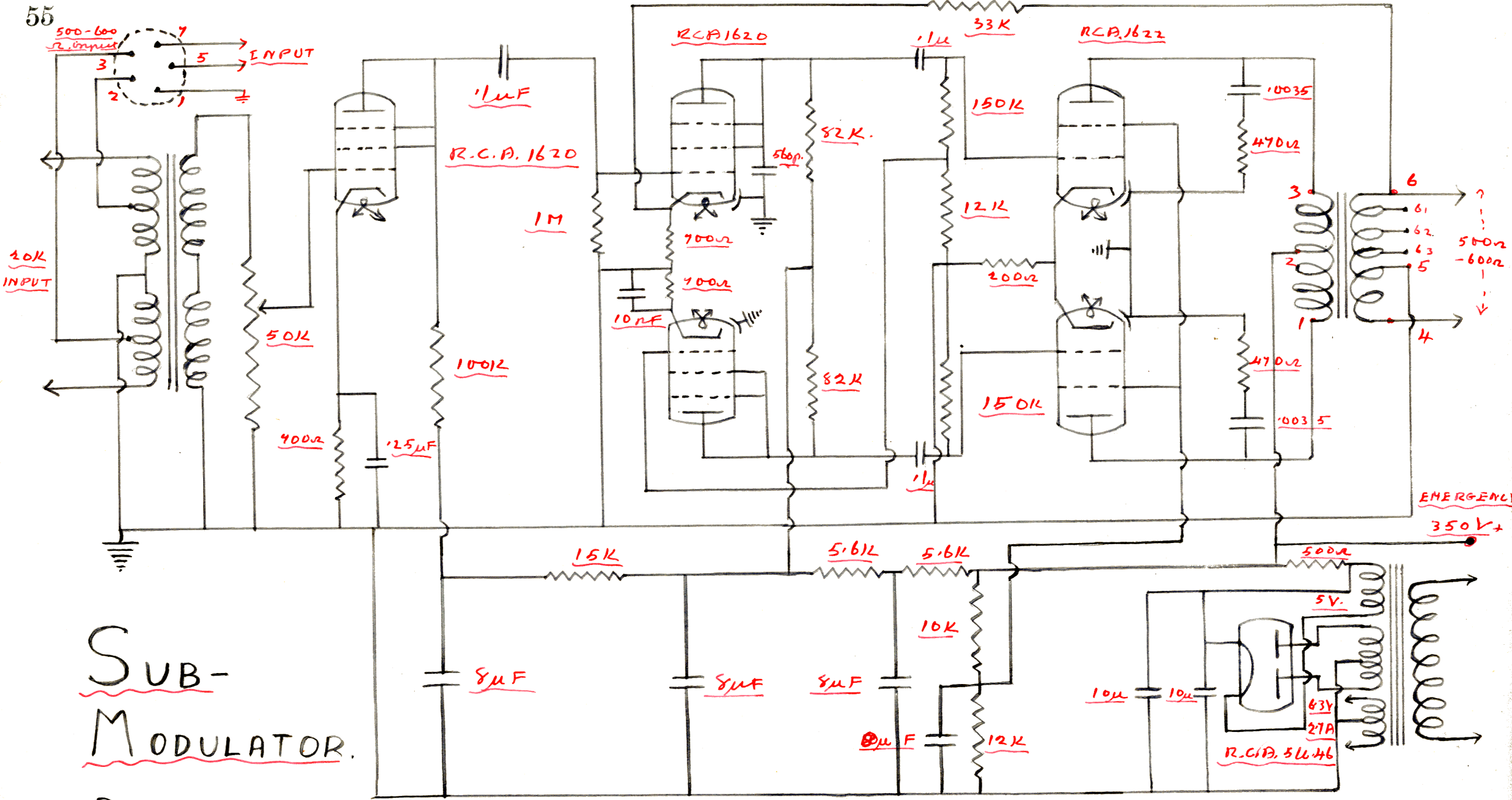


NOISE LIMITER.

R.1188.

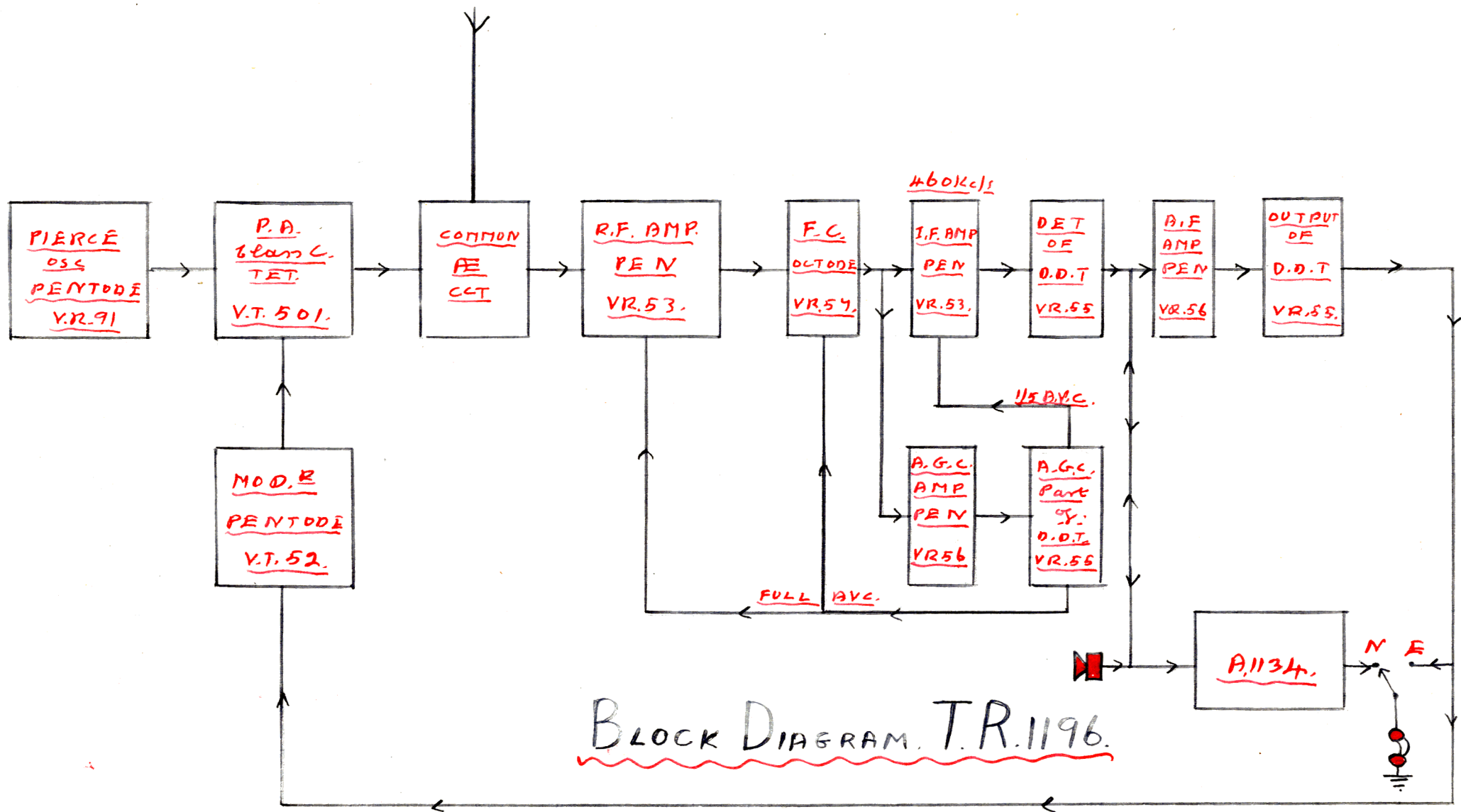


55



SUB-
MODULATOR.

R.C.A.
M.I. 7179.



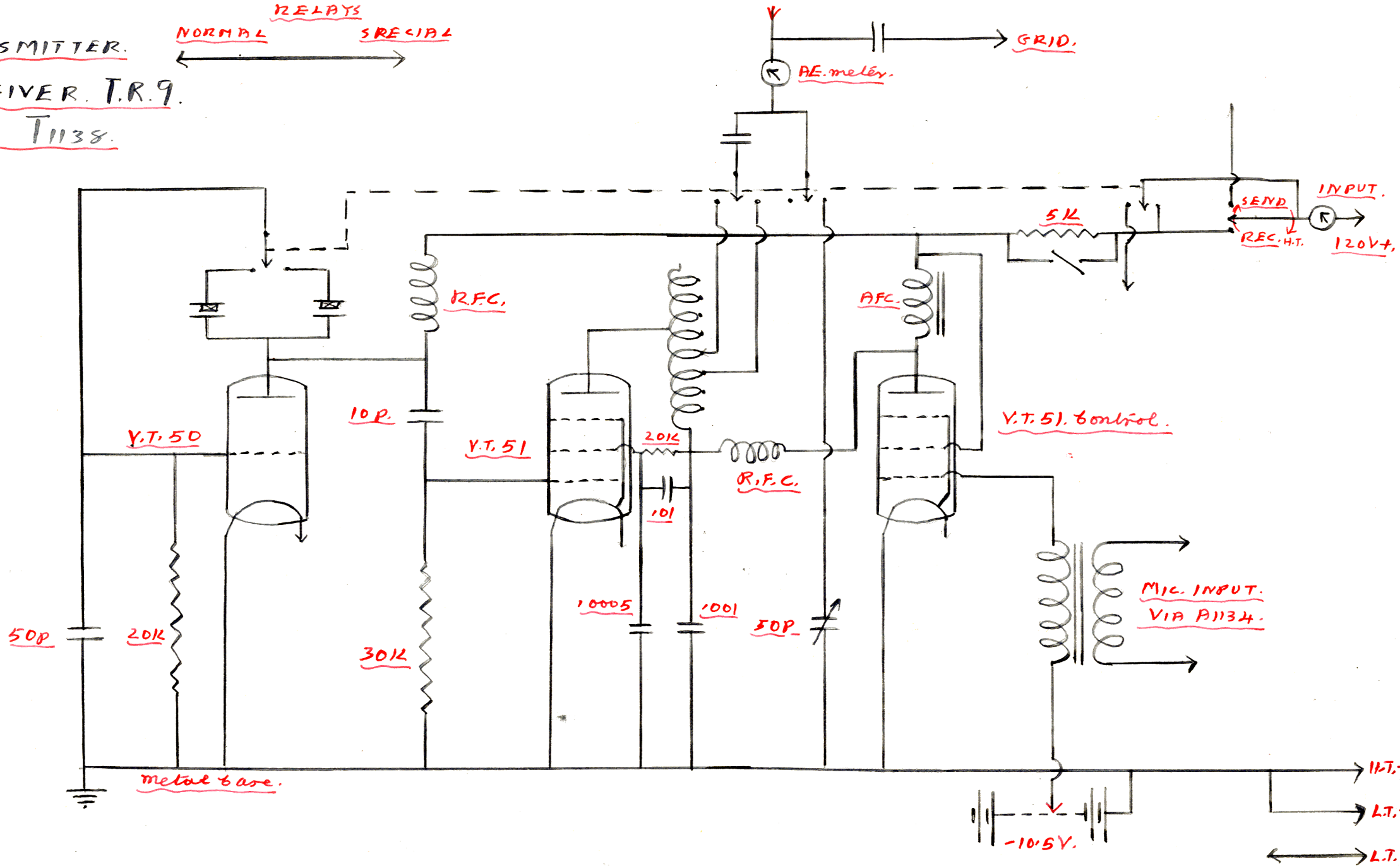
BLOCK DIAGRAM. T.R. 1196.

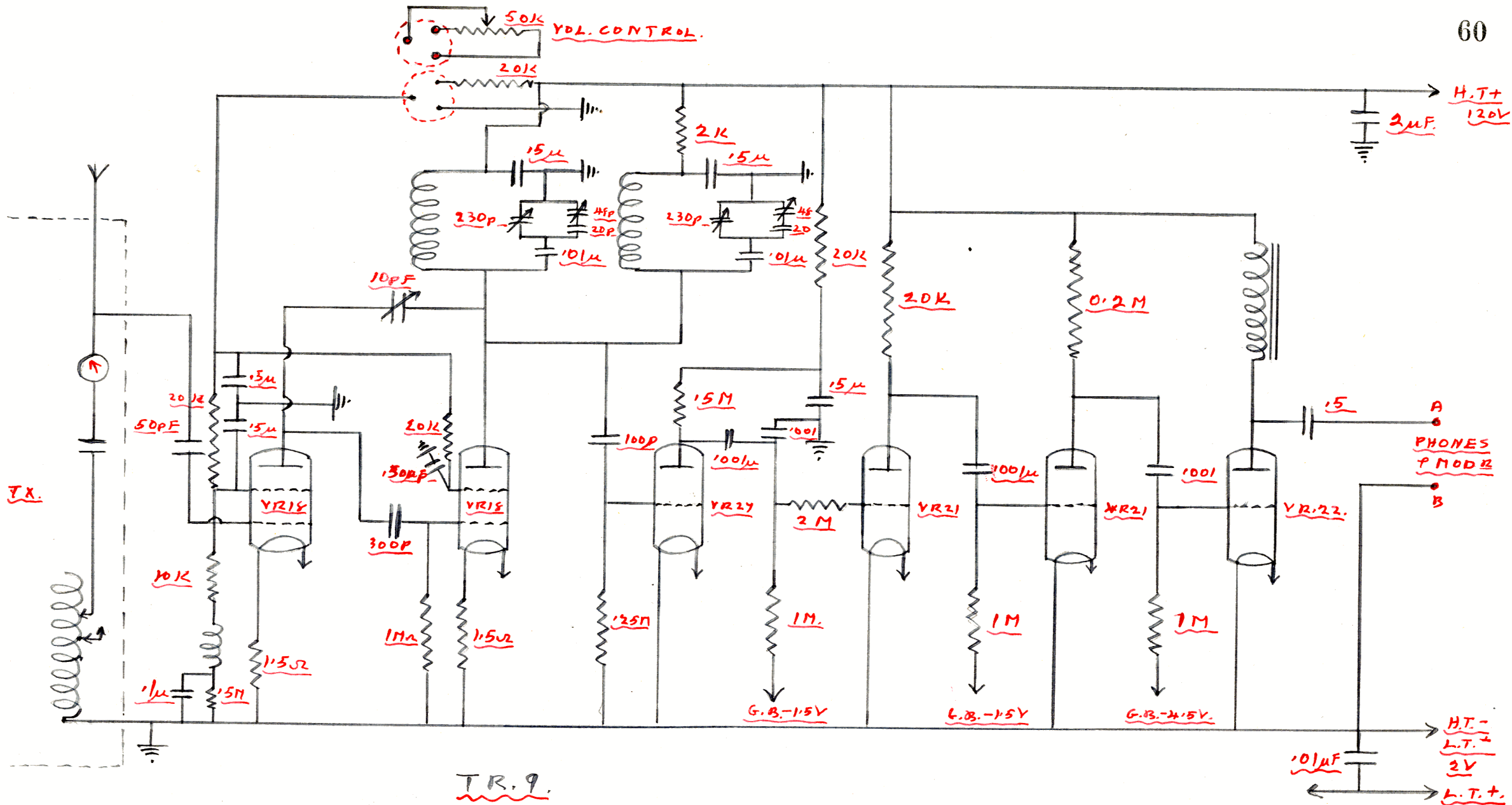
TRANSMITTER.

RECEIVER. T.R.9.

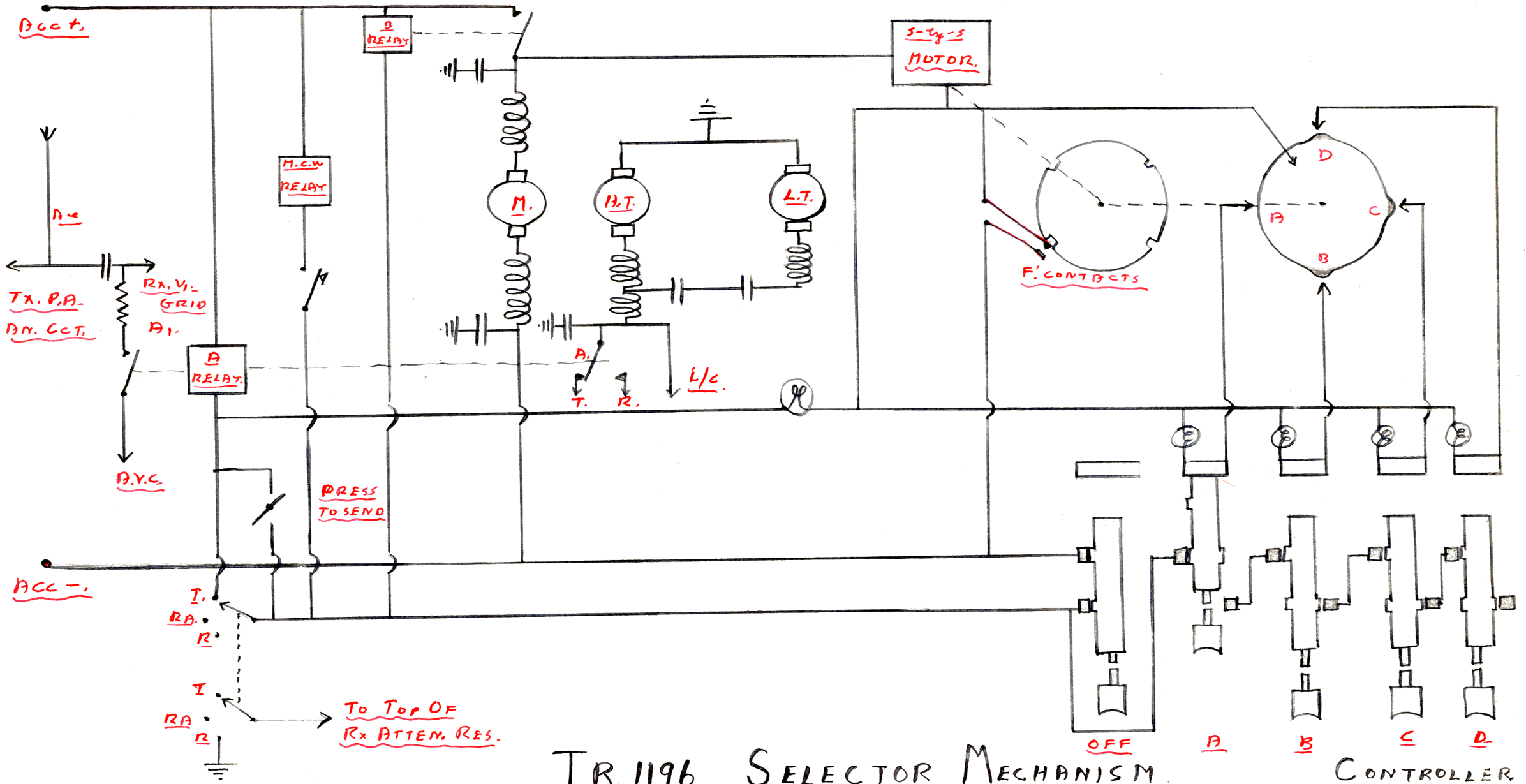
TX UNIT. T1138.

RELAYS
NORMAL SPECIAL



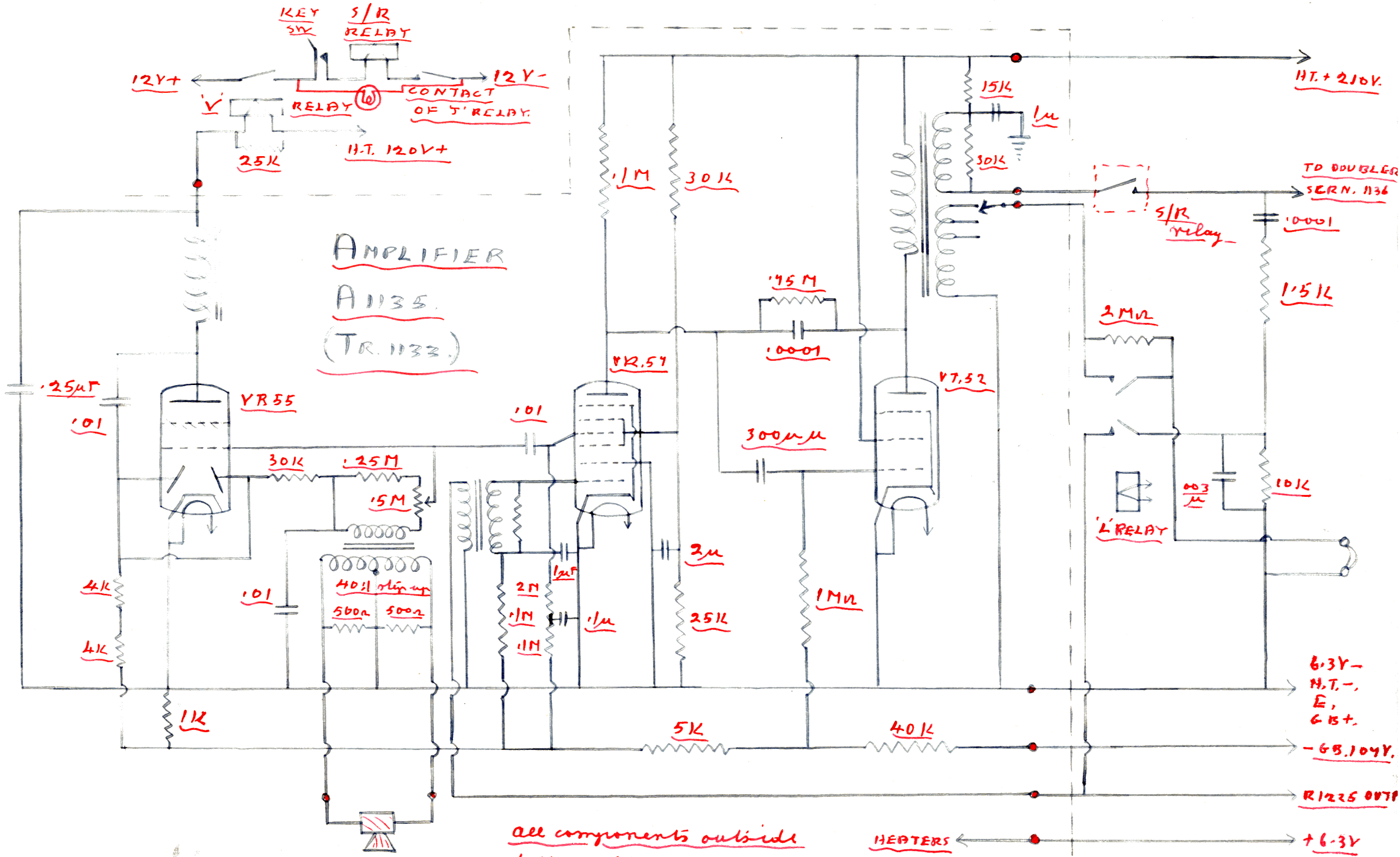


TR. 9.
RA. UNIT TYPE R1139.



TR. 1196. SELECTOR MECHANISM.
(TYPE 25).

CONTROLLER
ELECTRIC.
(TYPE 4).



AMPLIFIER
A1135
(TR. 1133)

all components outside dotted line, on main chassis.

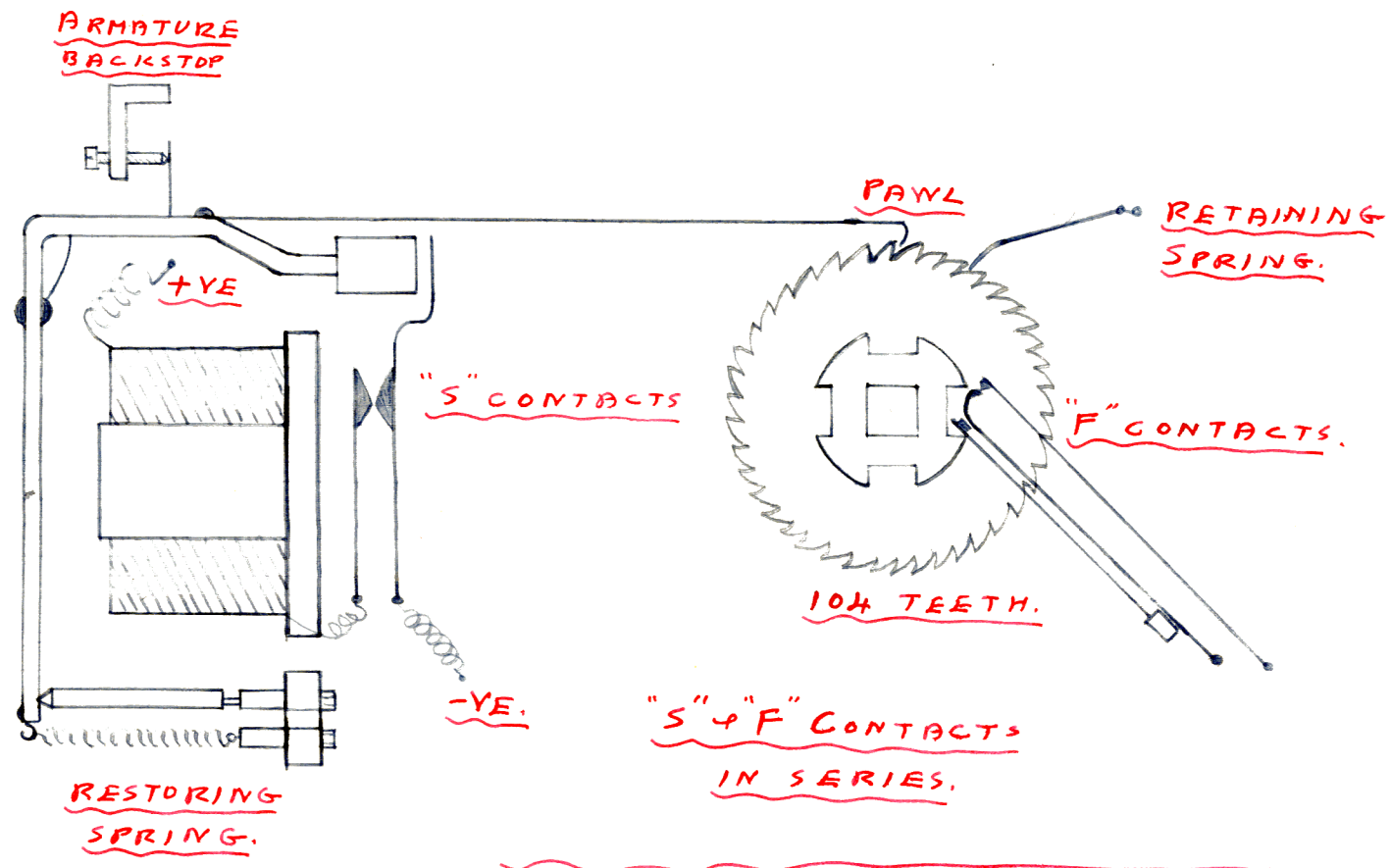
HEATERS

6.3V-
H.T.-
E,
6.3V+

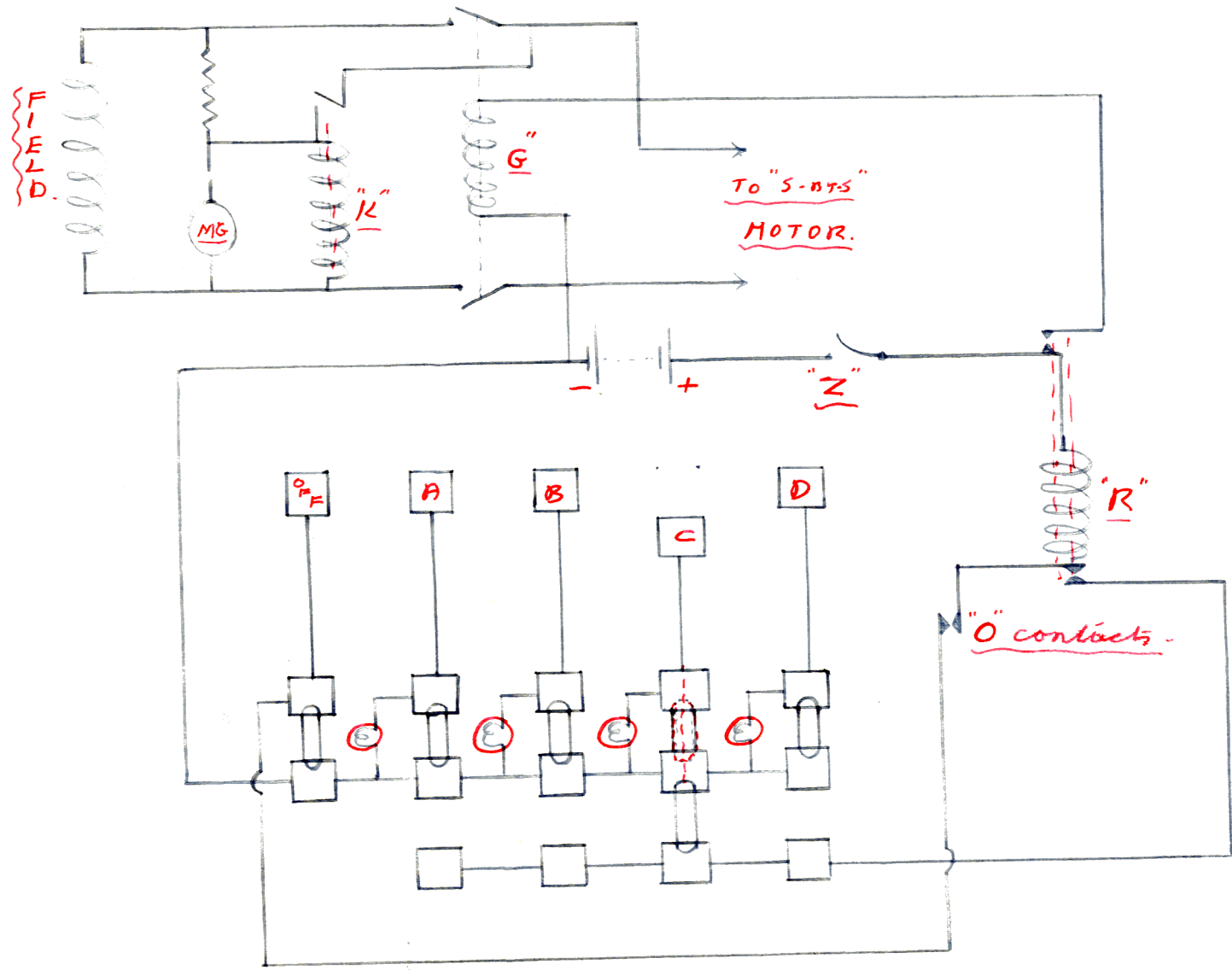
-68.104V

R1225 OUT

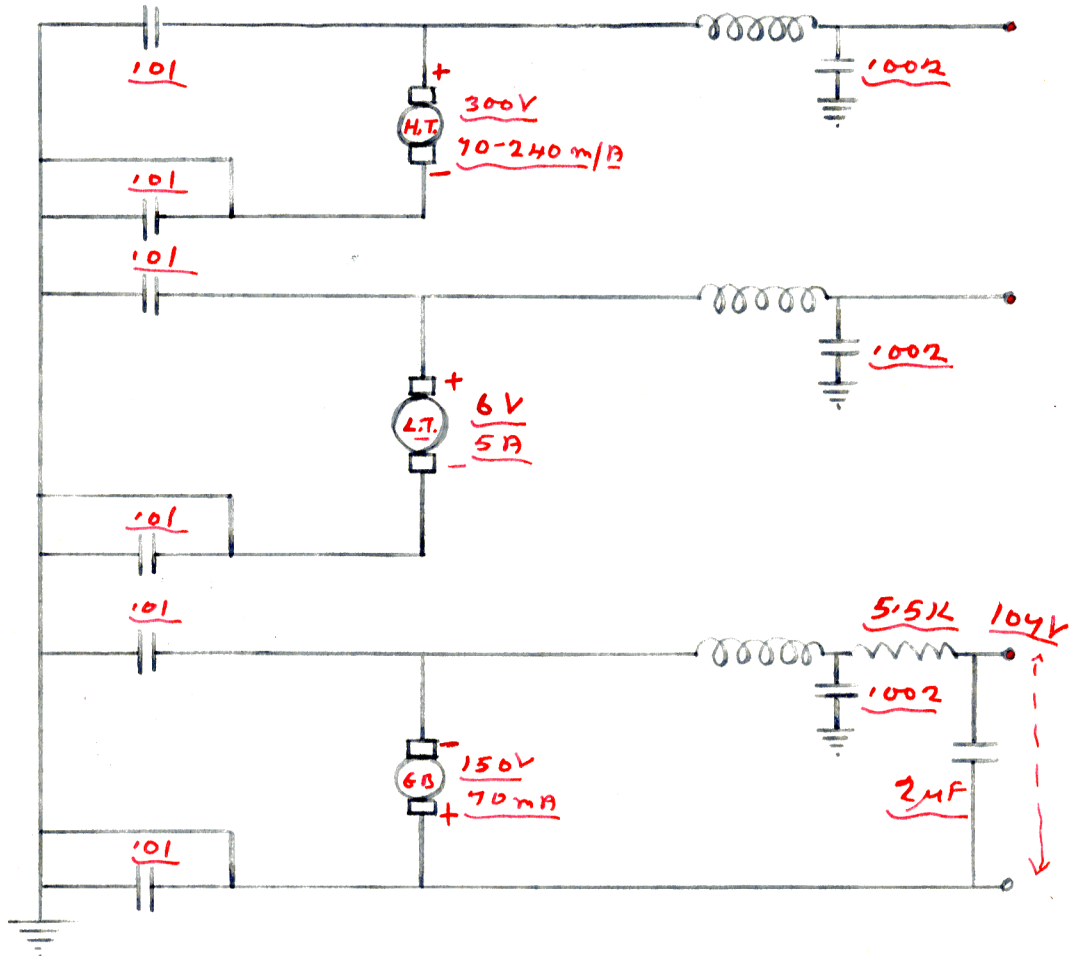
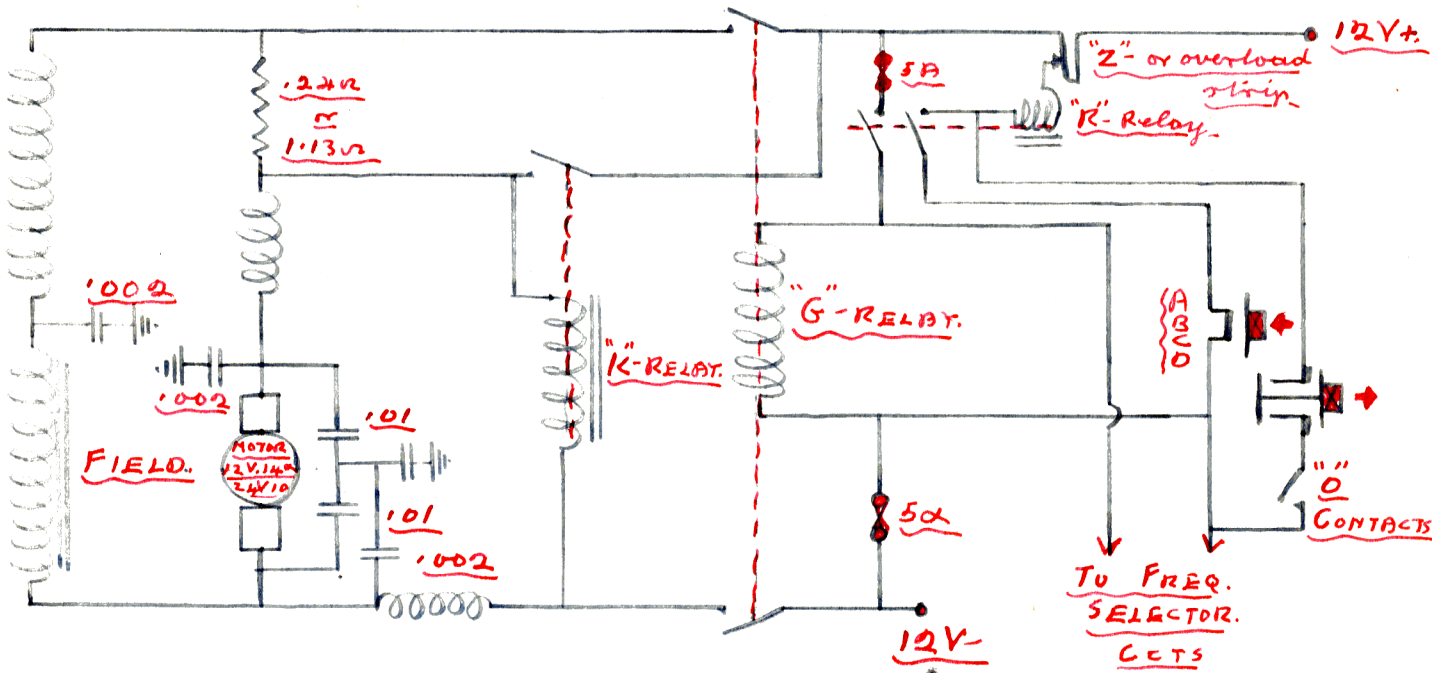
+6.3V



STEP-BY-STEP
MOTOR



ELECTRIC CONTROLLER.
TYPE 1.

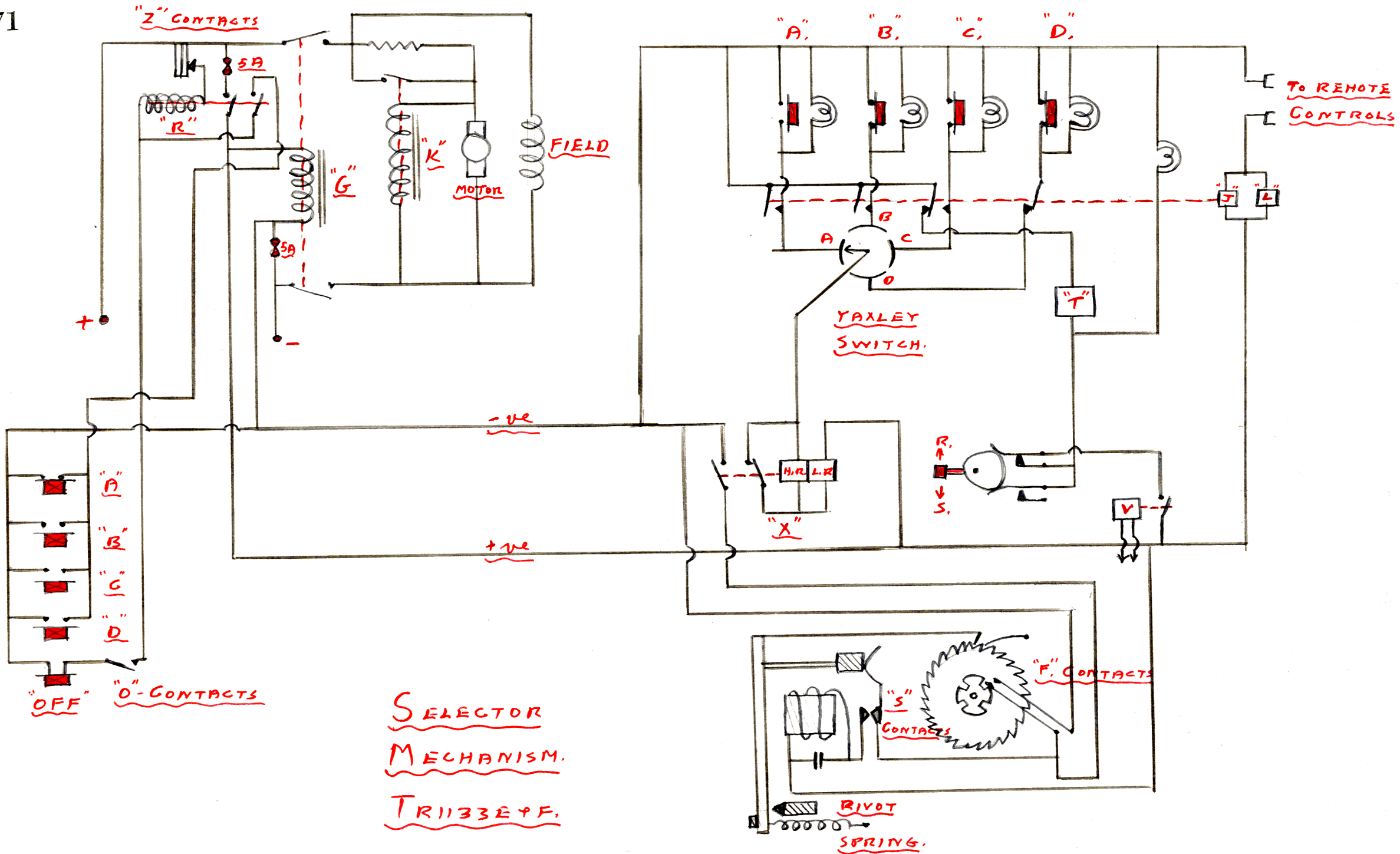


POWER UNIT:-

TR1133 B.

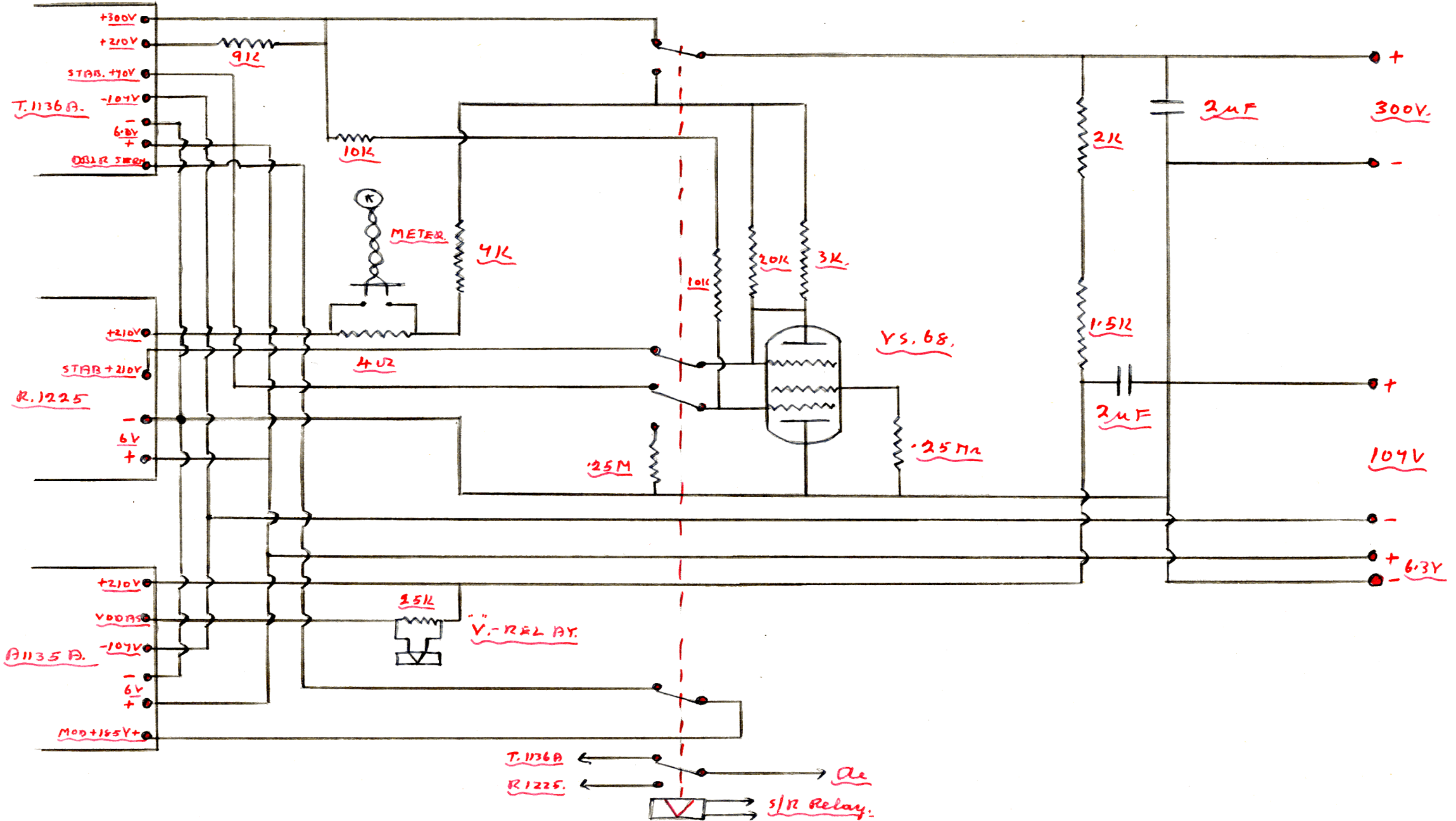
TYPE 2A. - 12V.

TYPE 10. - 24V.

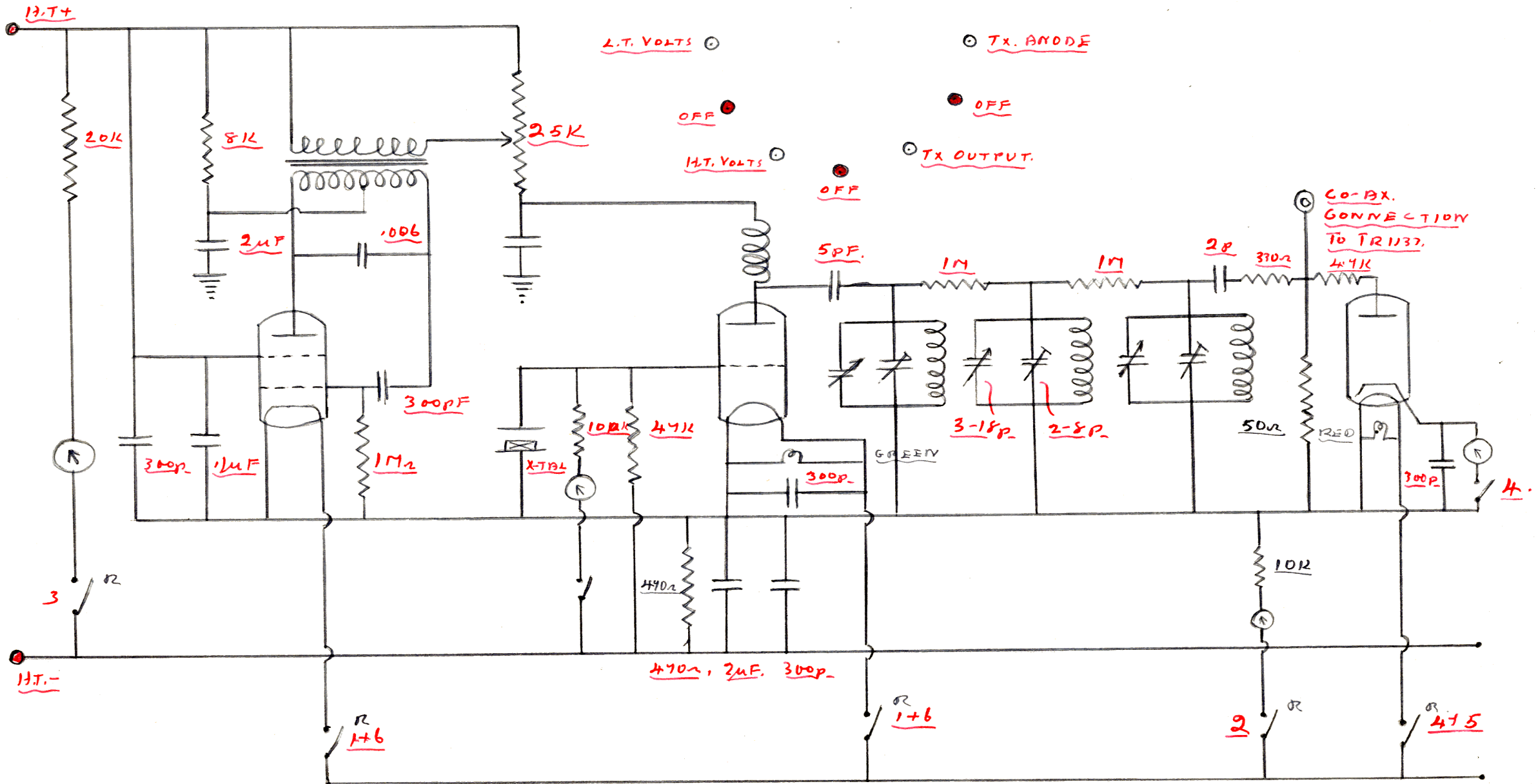


VOLTAGE DISTRIBUTION CIRCUIT.

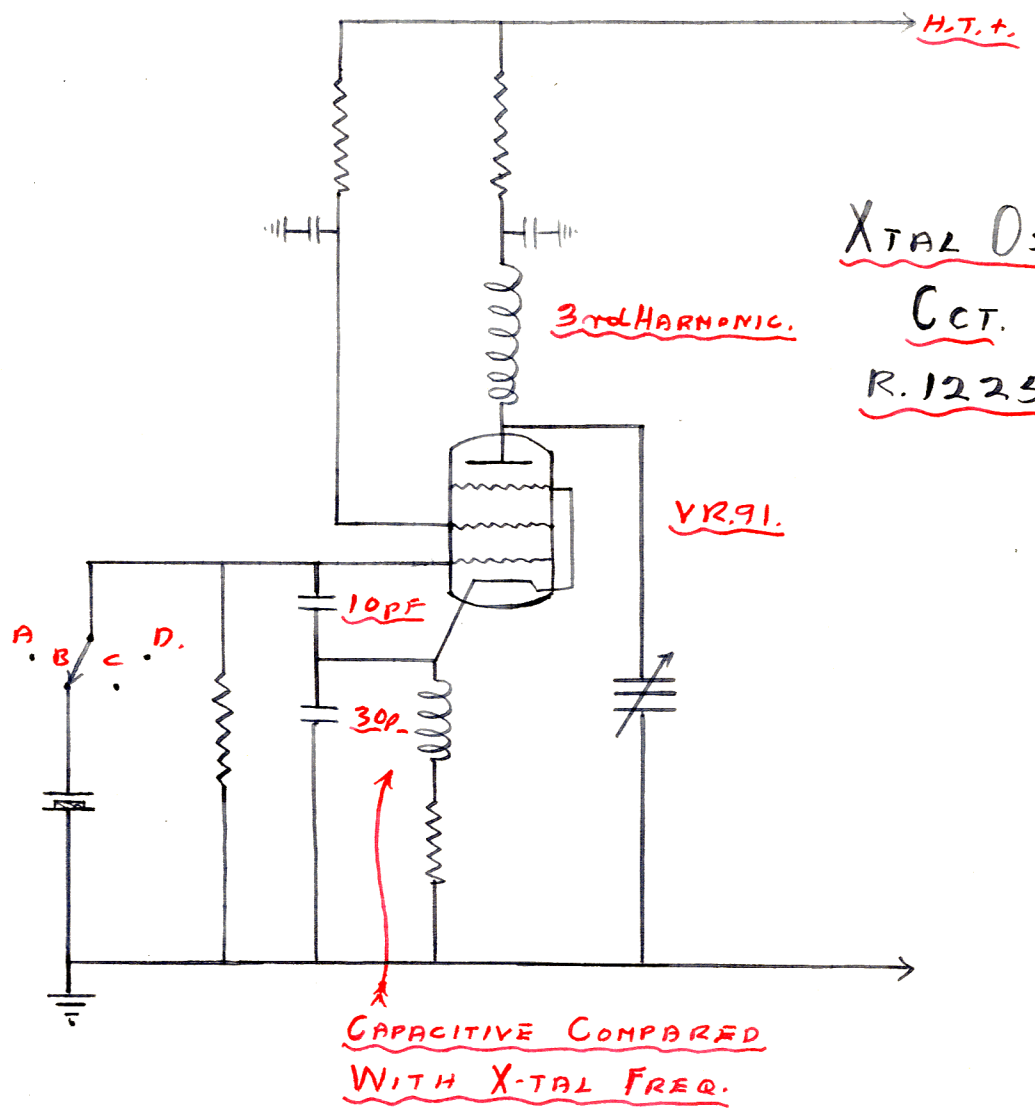
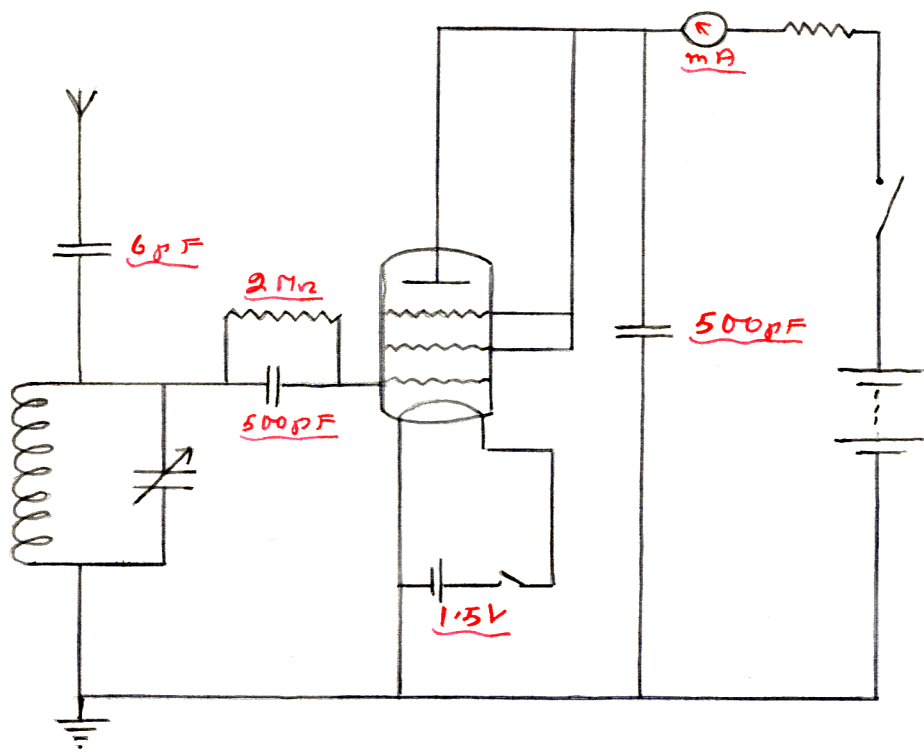
TR1133.



TEST SET TYPE 5A.

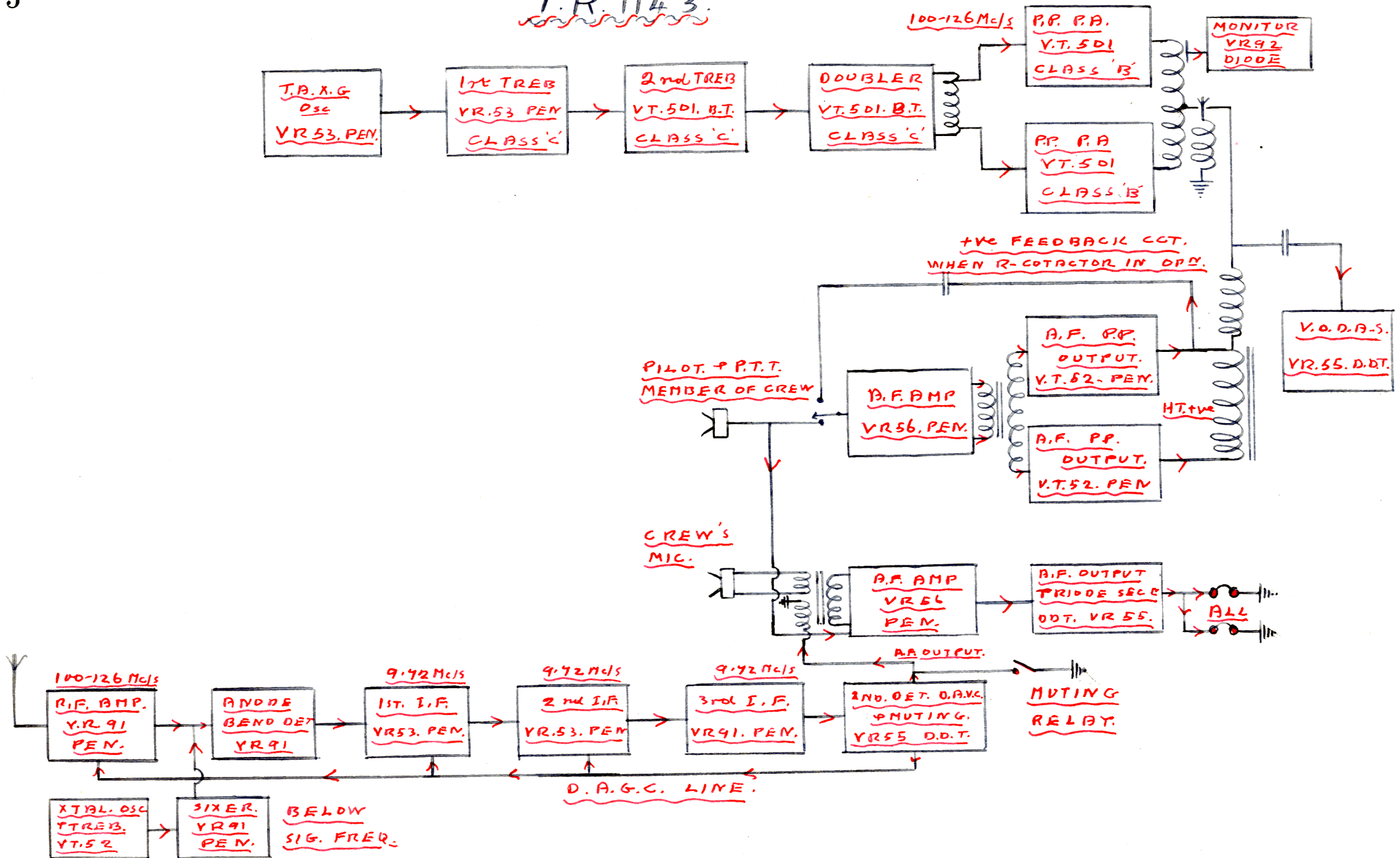


TEST SET TYPE II.

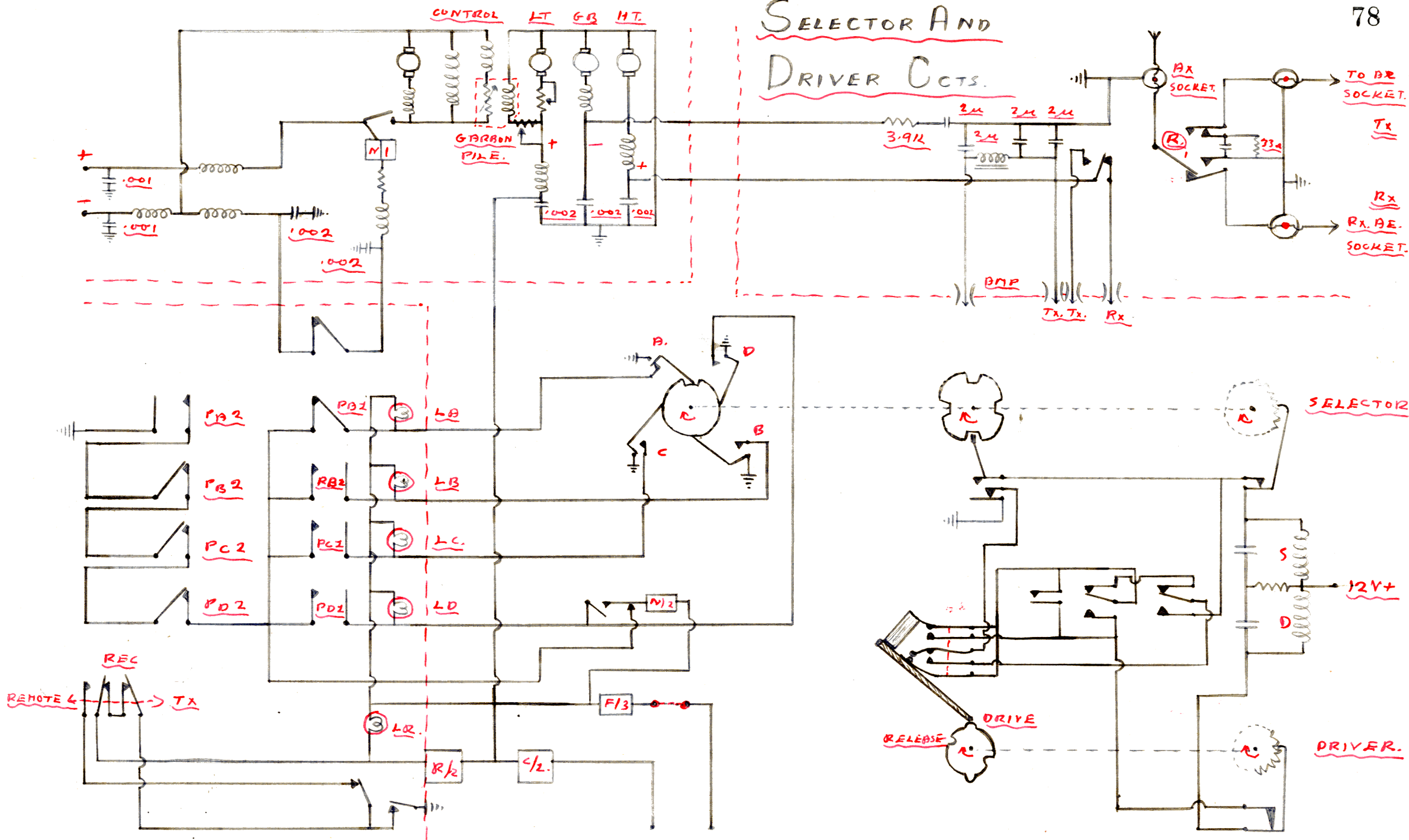


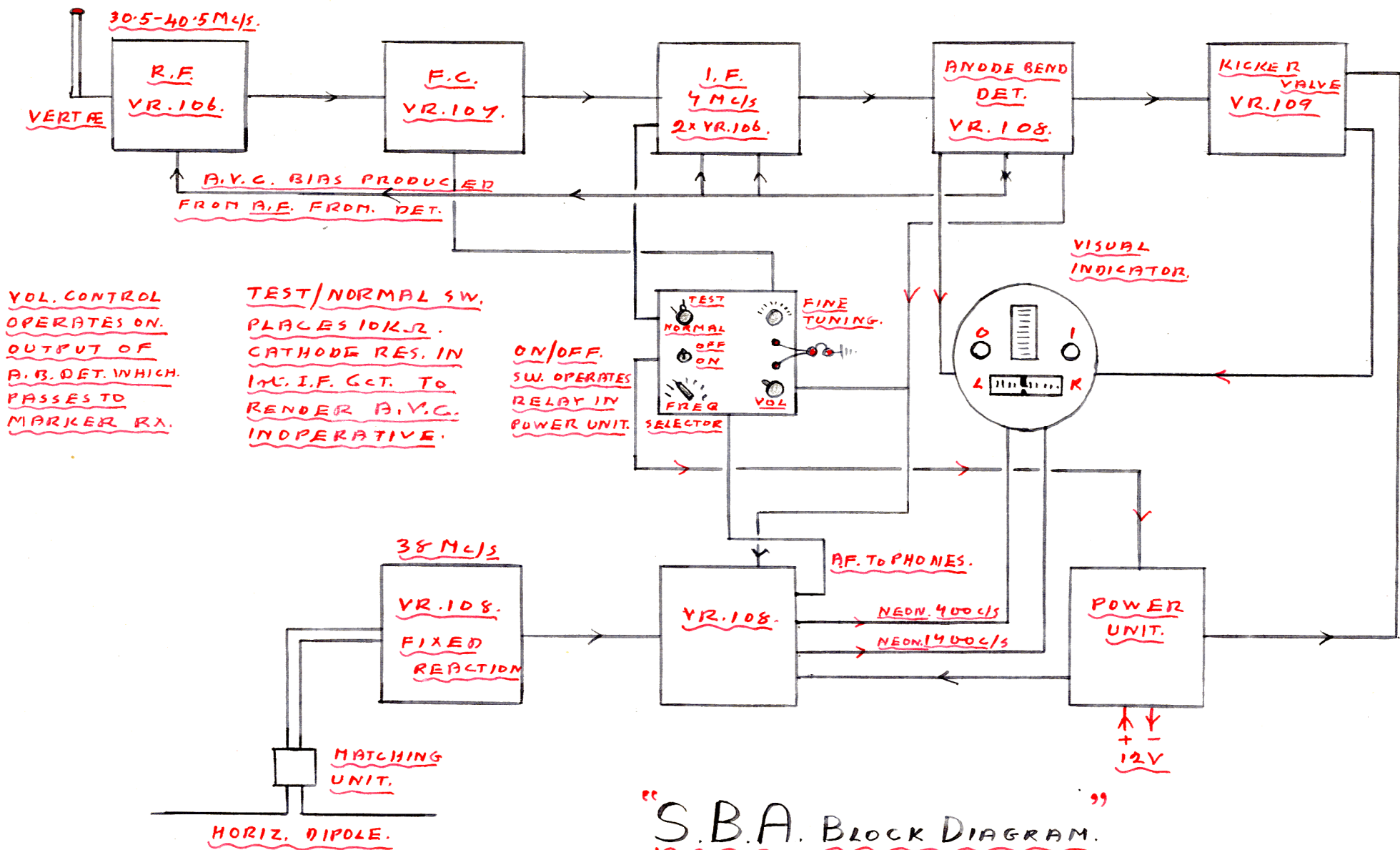
244

T.R. 1143.



SELECTOR AND DRIVER CCTS.





MAIN BEACON RECEIVER
R1124C.

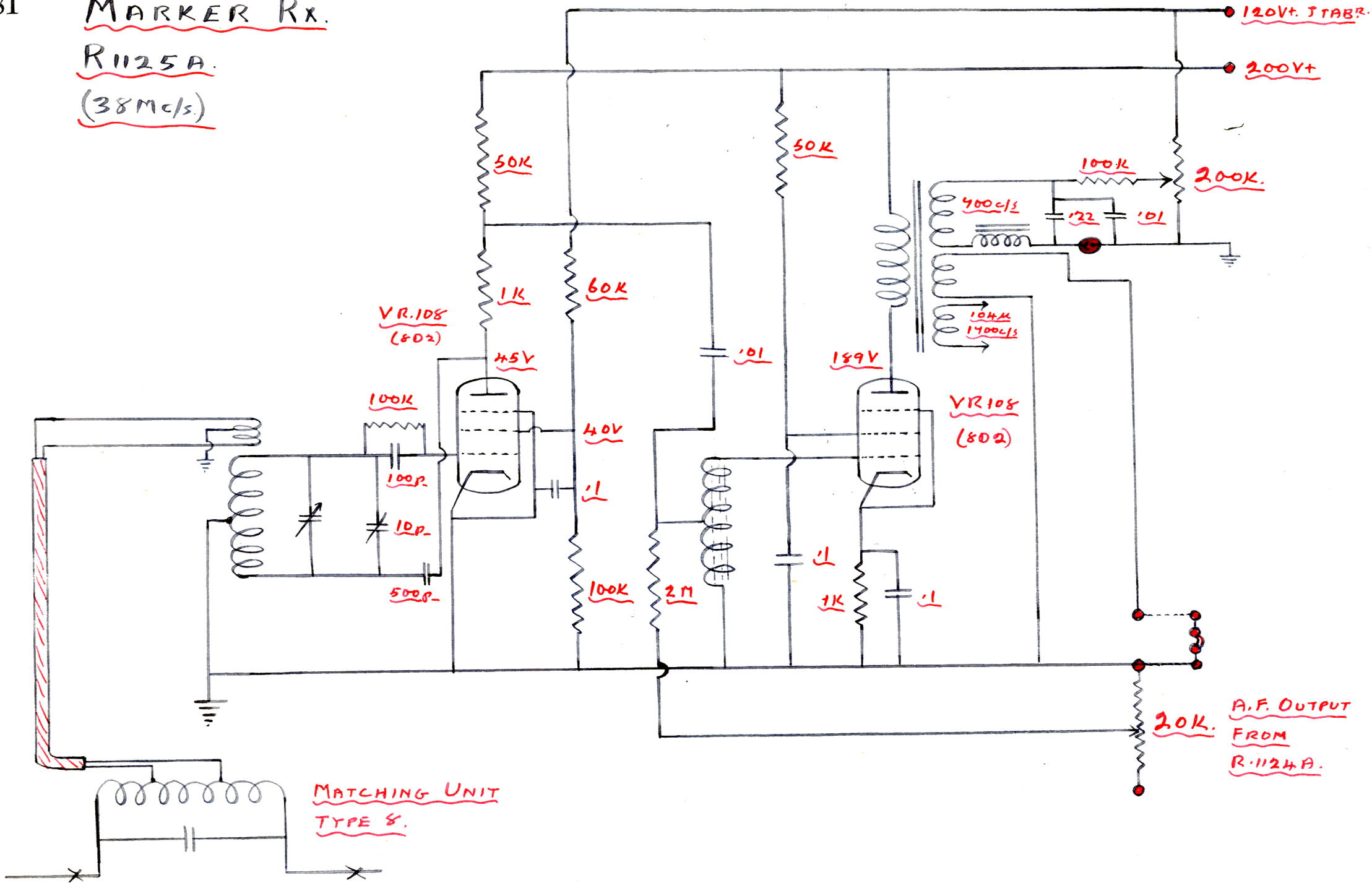
MARKER RECEIVER
R1125A.

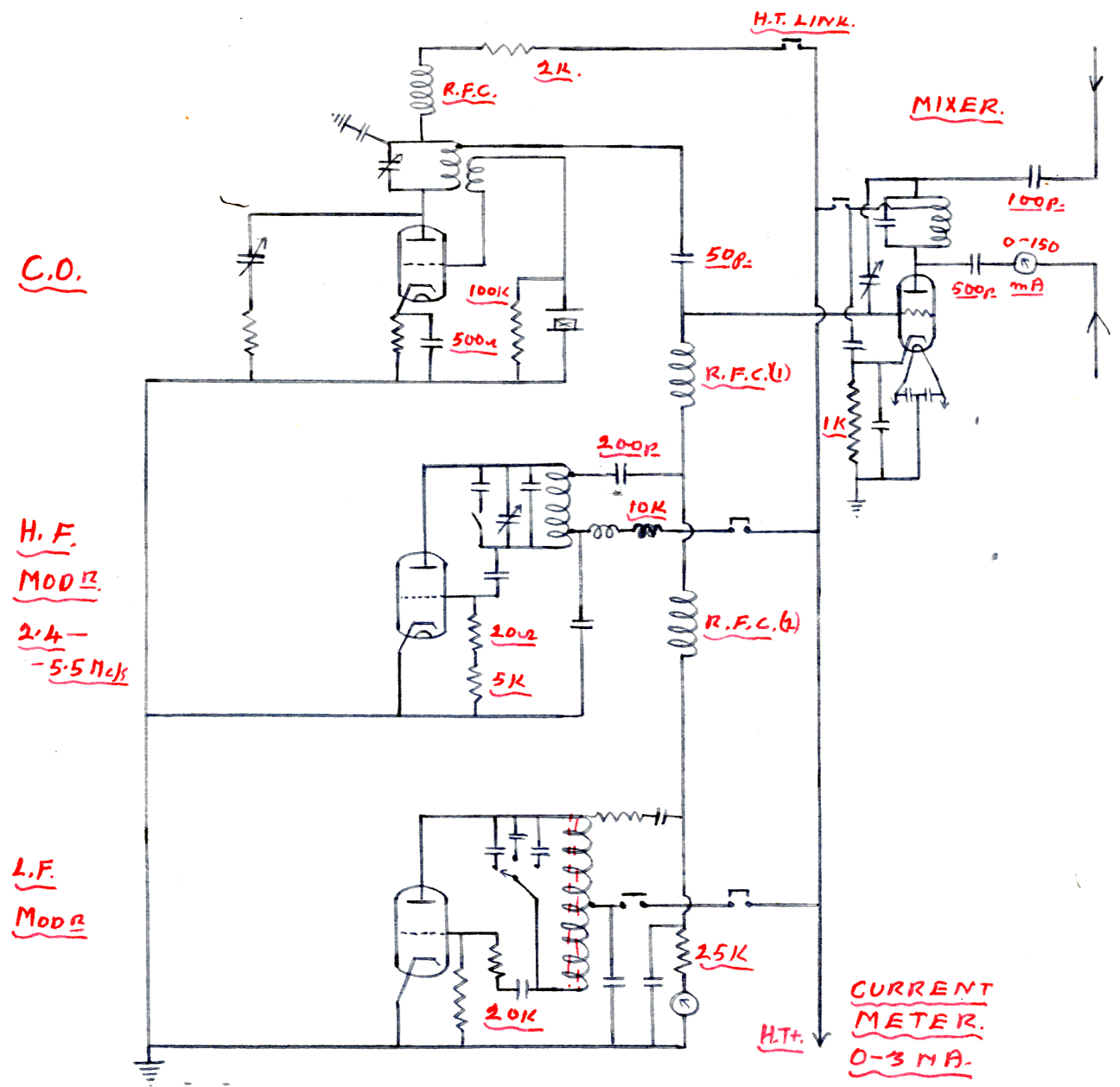
"S.B.A. BLOCK DIAGRAM."

MARKER RX.

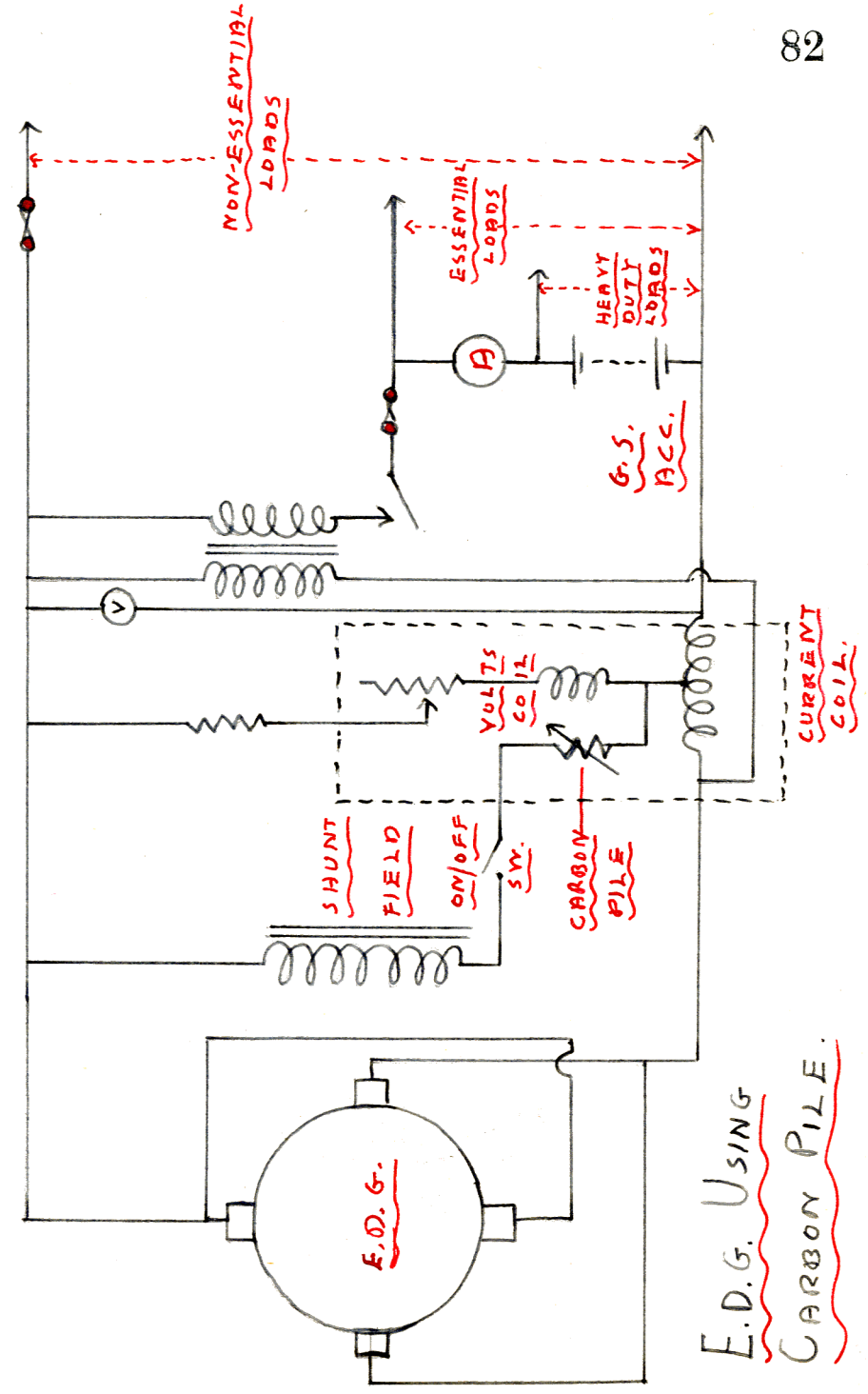
R1125A.

(38 Mc/s)

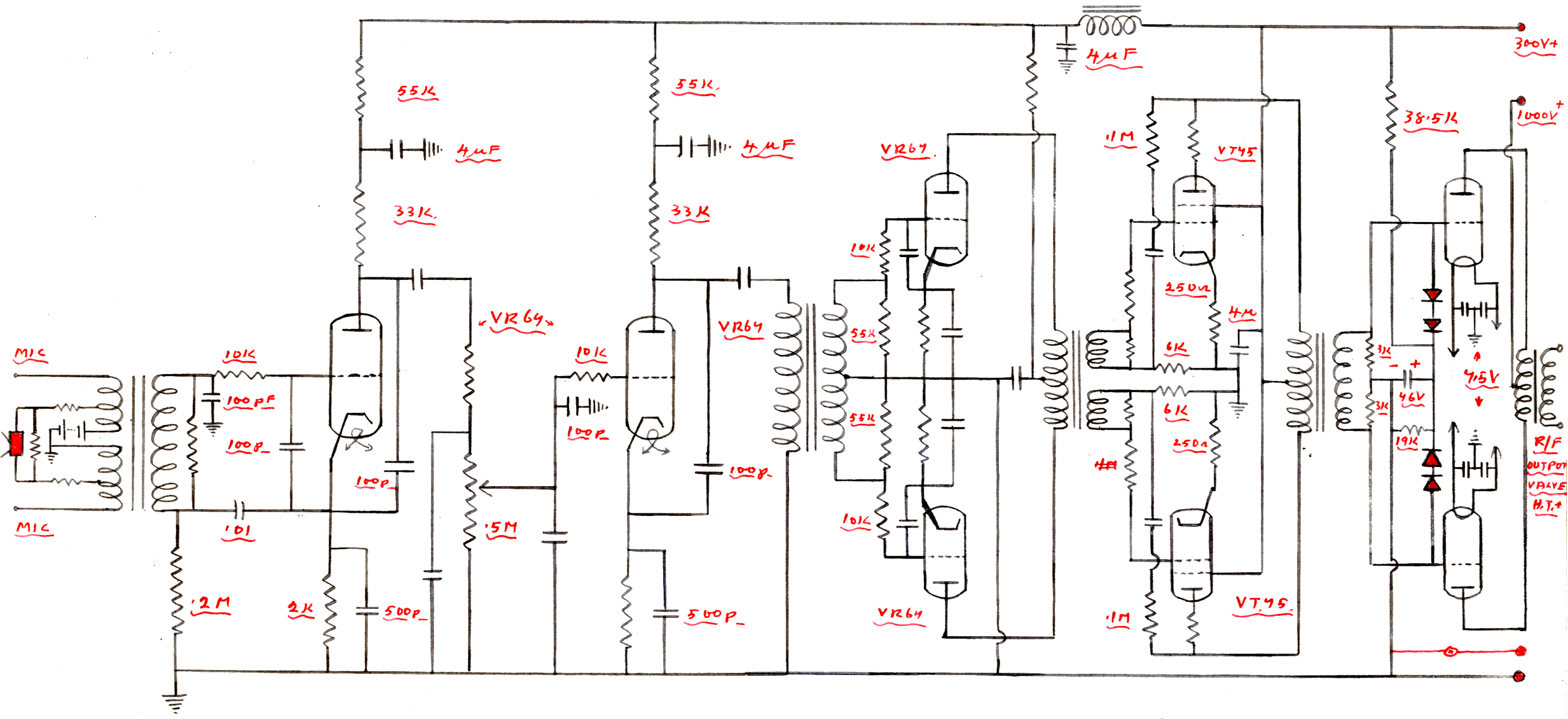




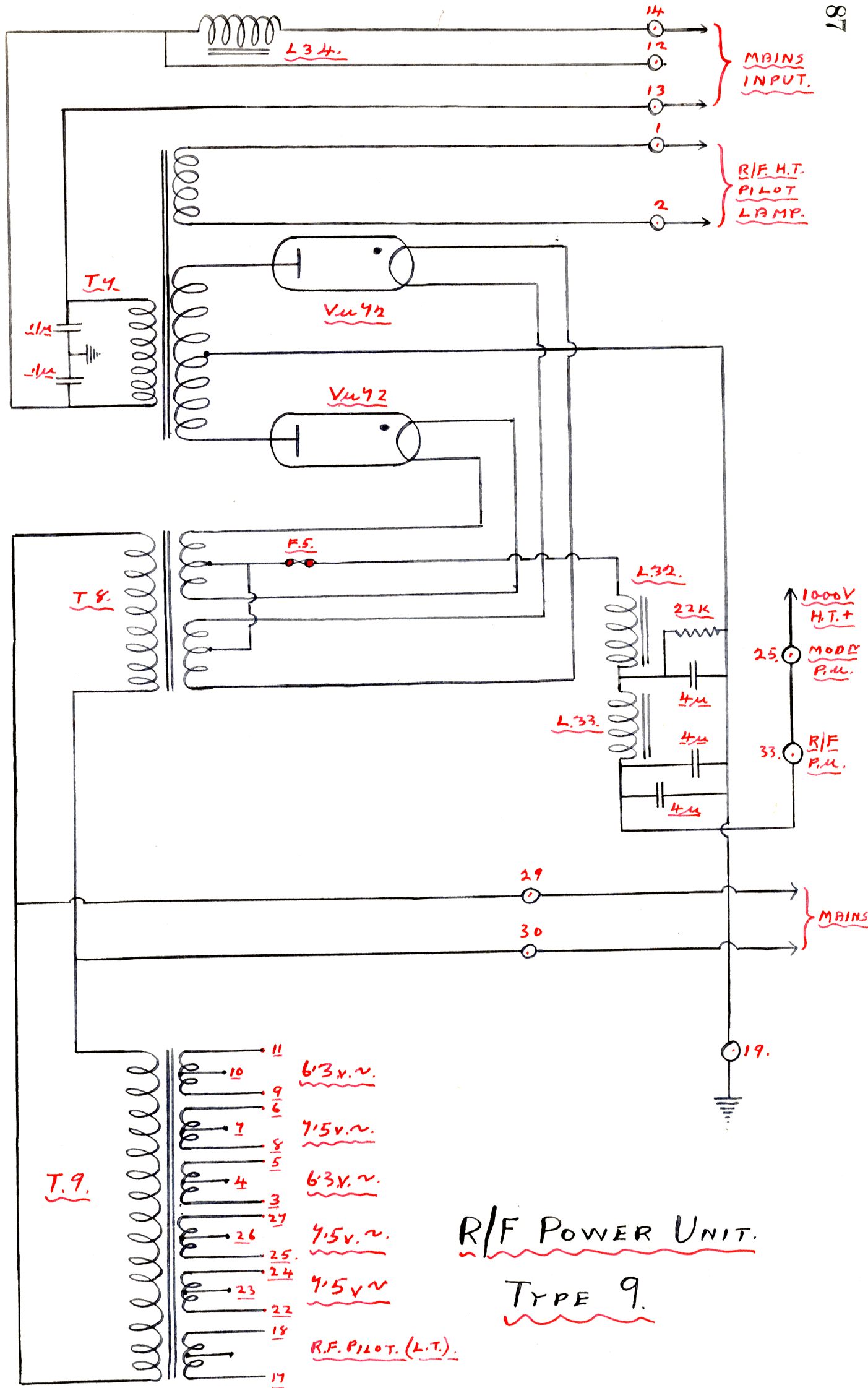
TEST OSC. TYPE 10.



E.D.G. USING CARBON PILE.



MODULATION AMPLIFIER. T1131.



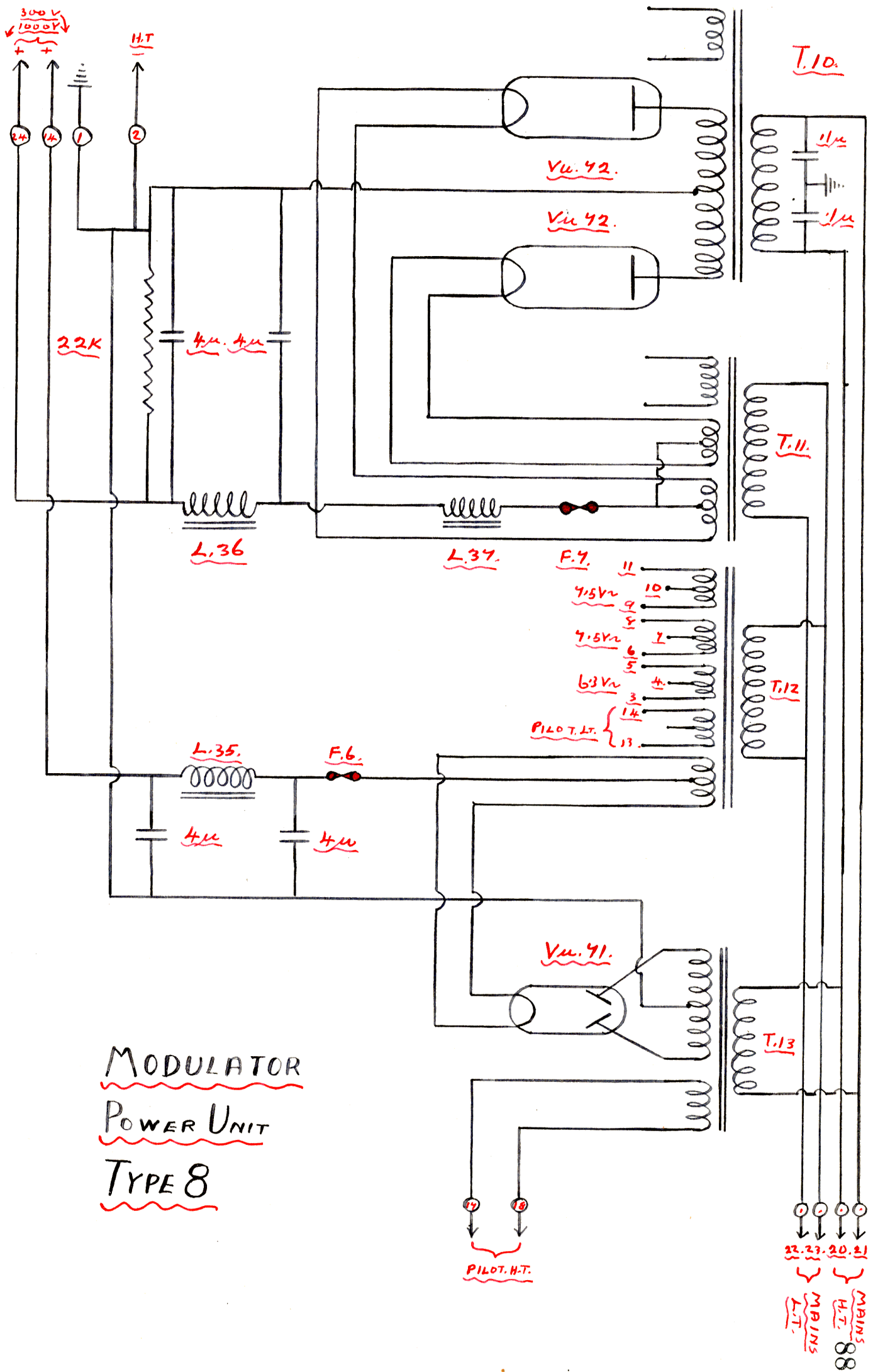
R/F POWER UNIT.
TYPE 9.

- 11 6.3v.v.
- 10
- 9
- 8 7.5v.v.
- 7
- 6
- 5 6.3v.v.
- 4
- 3
- 27 4.5v.v.
- 26
- 25 7.5v.v.
- 24
- 23 7.5v.v.
- 22
- 18 R.F. PILOT. (L.T.)
- 17

M.B.I.N.S.

1000V H.T.
25 MOD. P.M.
33 R/F P.M.

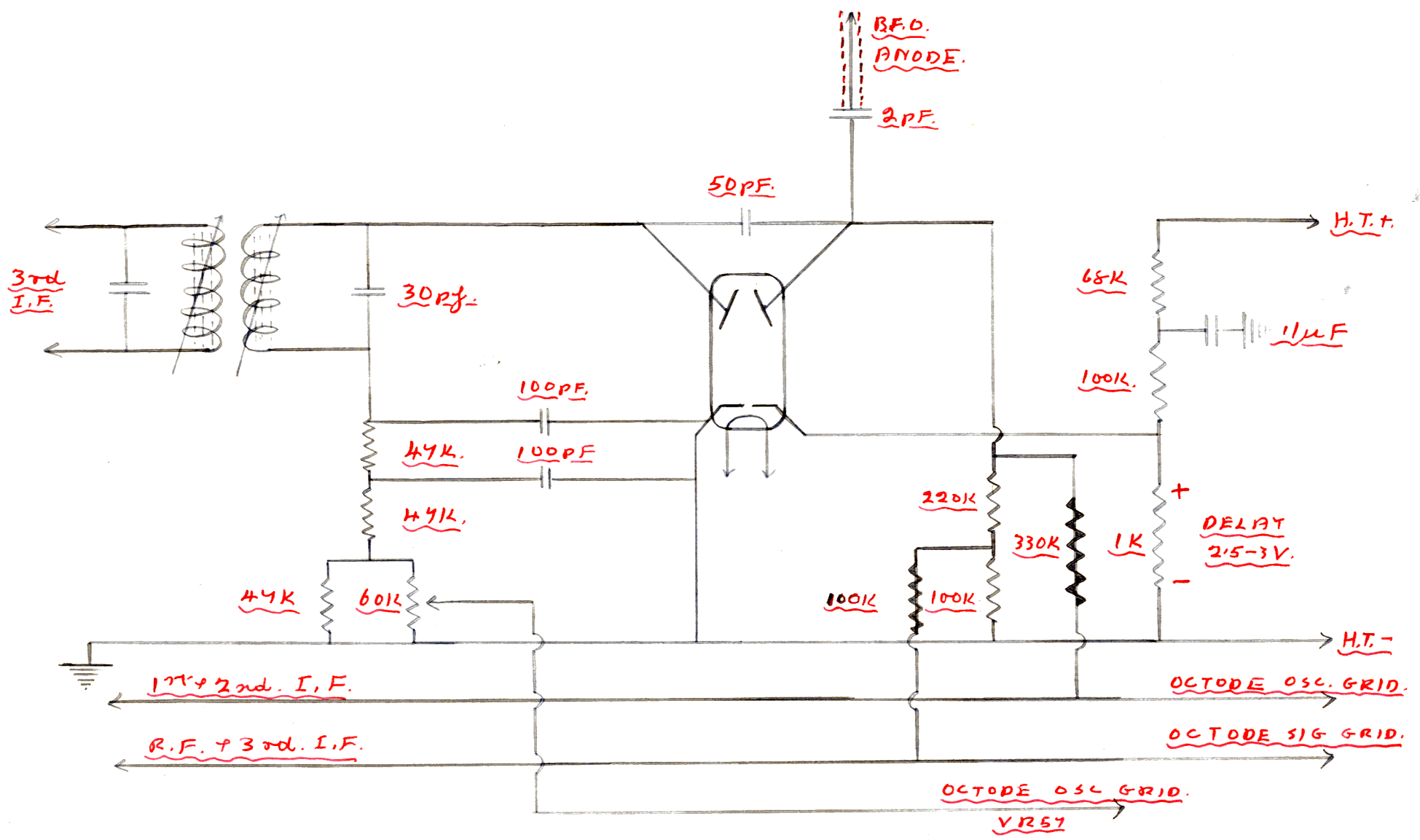
19.



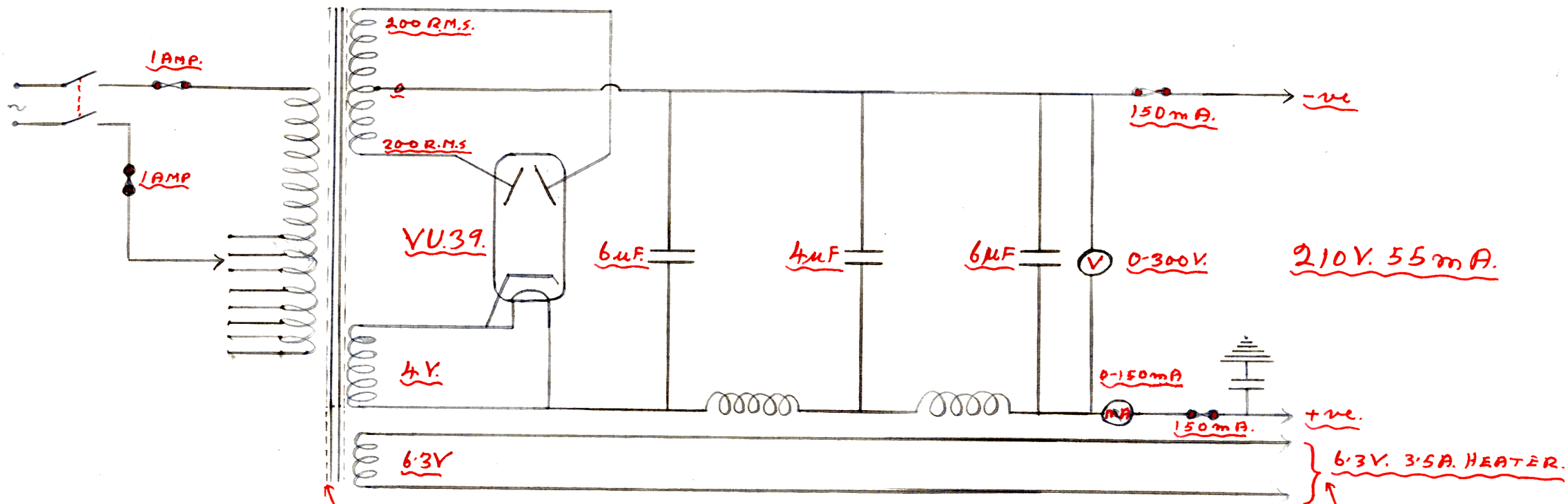
MODULATOR
POWER UNIT
TYPE 8

A.V.C. SYSTEM. R1132A.

D.C. A.V.C.



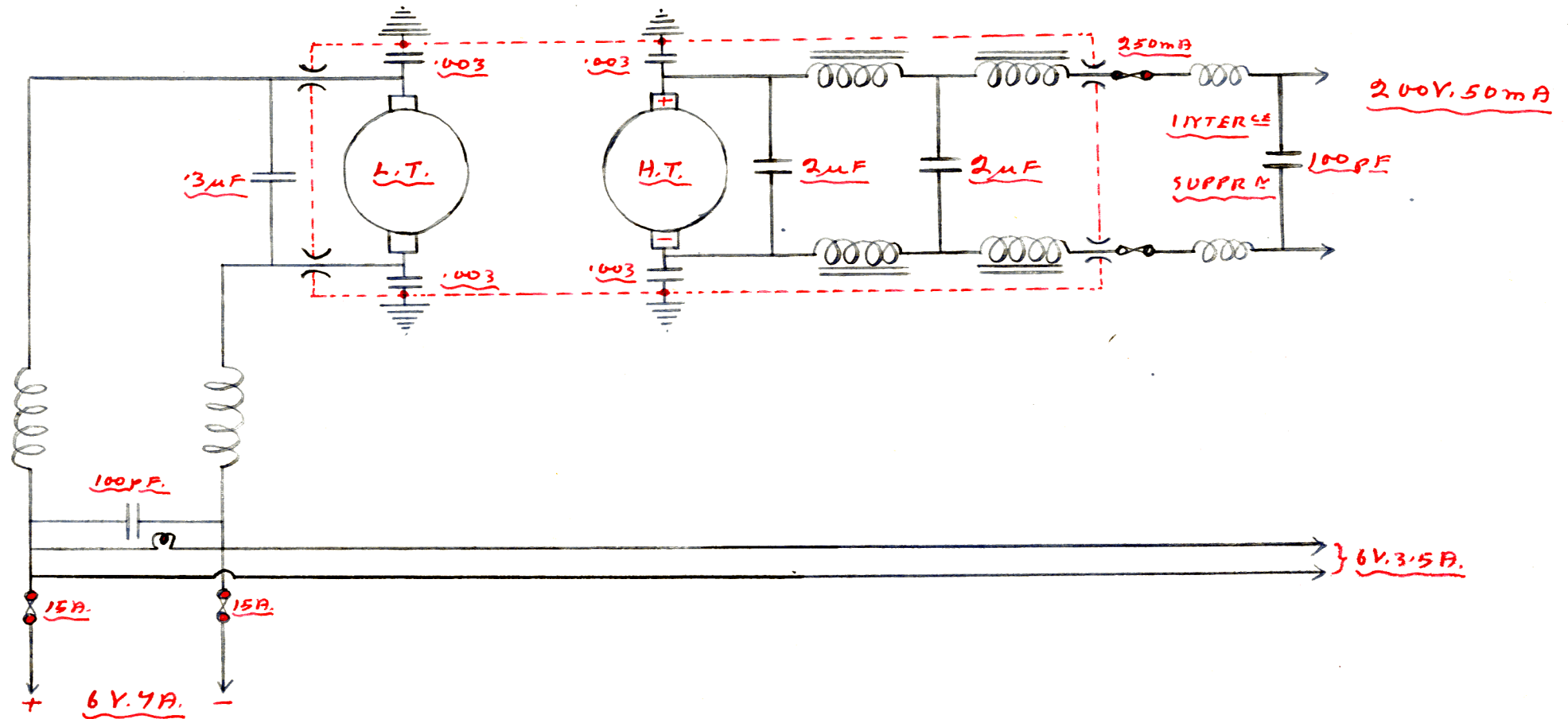
POWER UNIT TYPE 3. (R1132A)

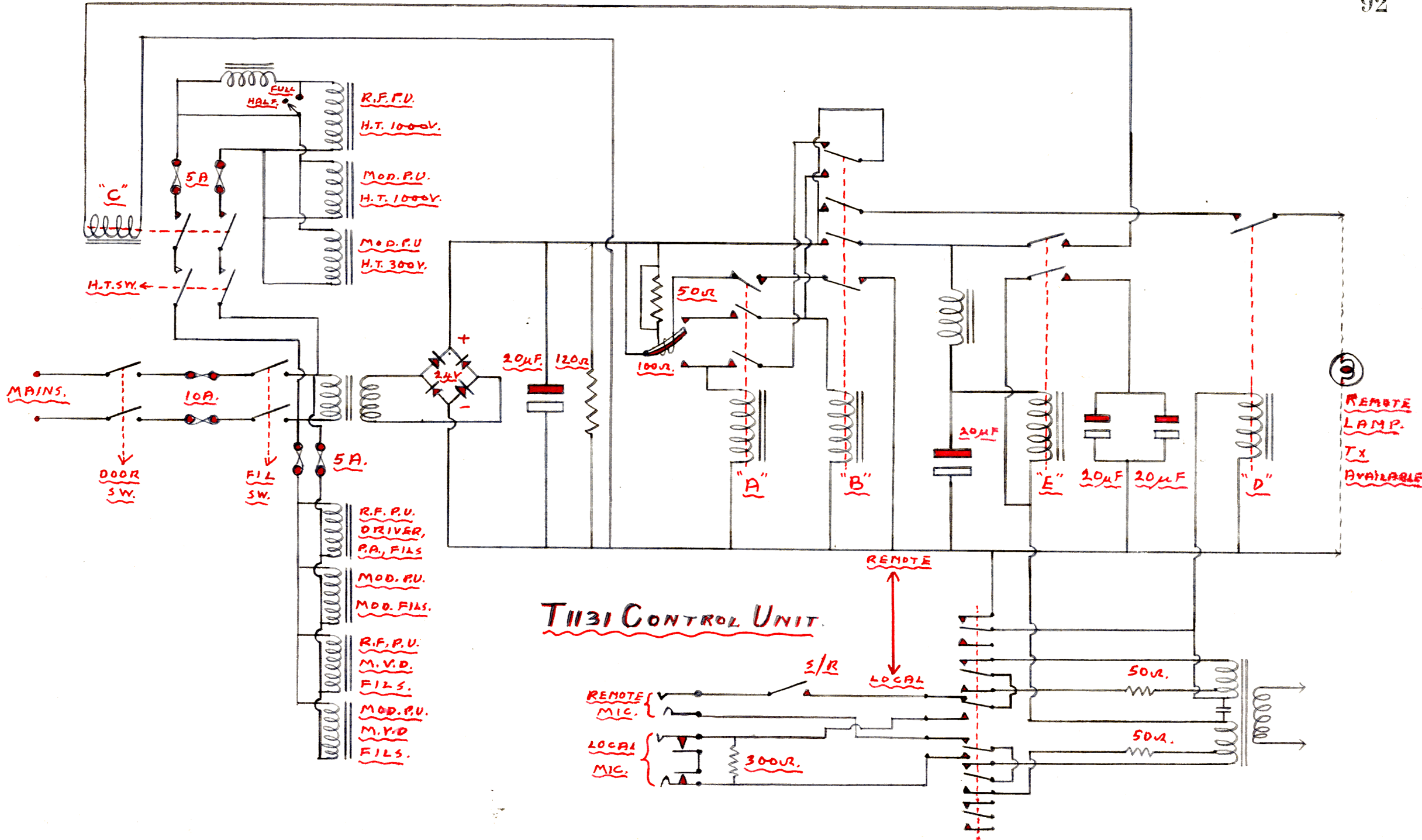


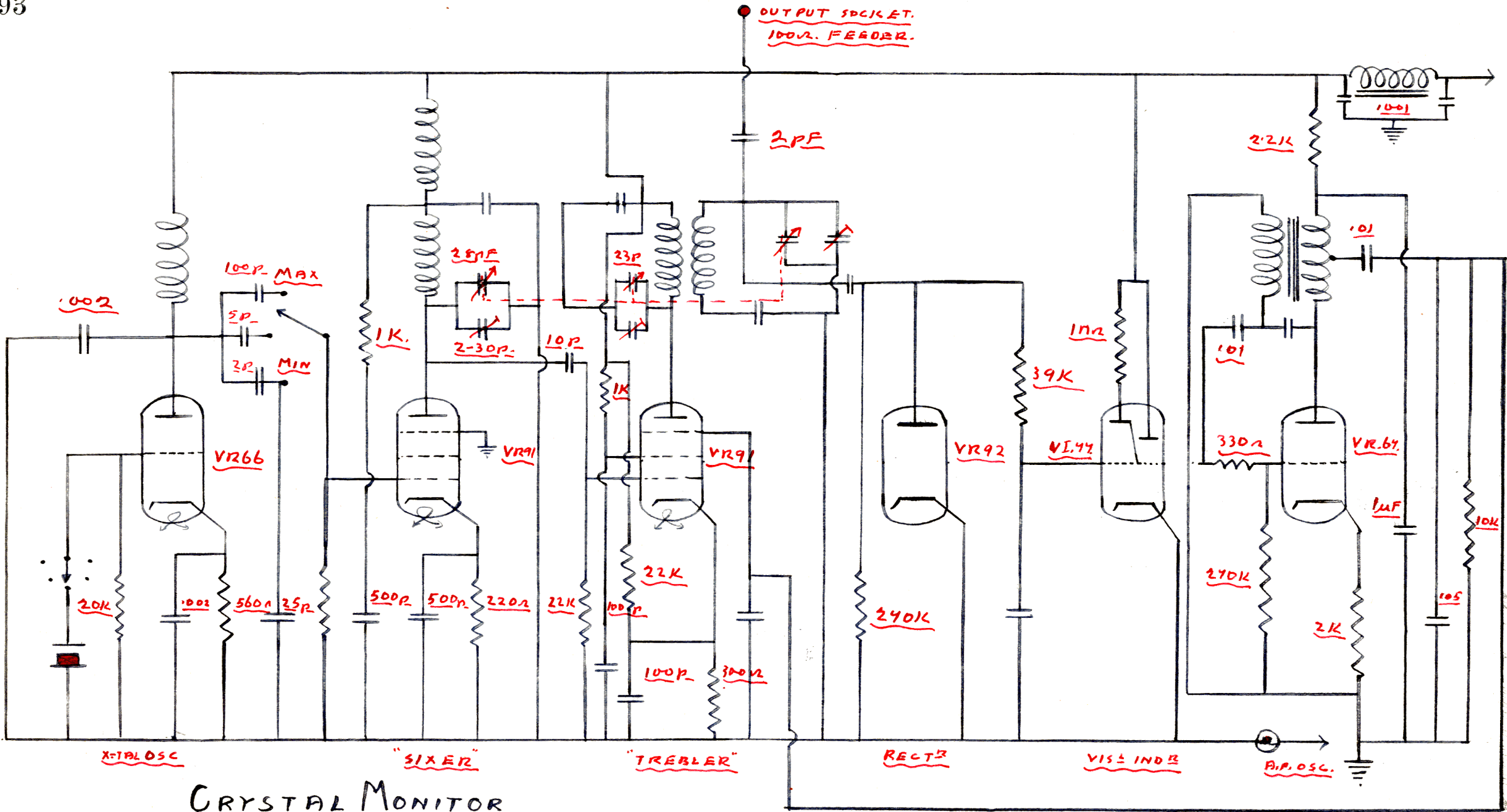
ELECTRO-STATIC SCREEN.
TO REDUCE INTERFERENCE
PICKED UP IN MAIN LEADS.

} 6.3V. 3.5A. HEATER.
ACTUAL 6.6V
'3V. V.D. IN LEADS

POWER UNIT TYPE 4A.
(STAND-BY UNIT FOR 1132A.)







CRYSTAL MONITOR

TYPE 4.

BLOCK DIAGRAM.

X-TAL MONITOR TYPE 4.

