TECHNICAL INFORMATION MODEL RAZ

6 VALVE DUAL WAVE VIB. 1951

DESIGNED AND MANUFACTURED

by

RADIO (1936) LTD.

Power Supply	6v. Accumulator	Drain	A. - Batt. 2.2 amps. PL's On
Tuning Range	1600KC/S - 550KC/S	Speaker	8 H 10,000 ohms. C.T.
	16MC/S - 6.1MC/S	Power Output	2 watts. approx.
I.F. Frequency	460KC/S		

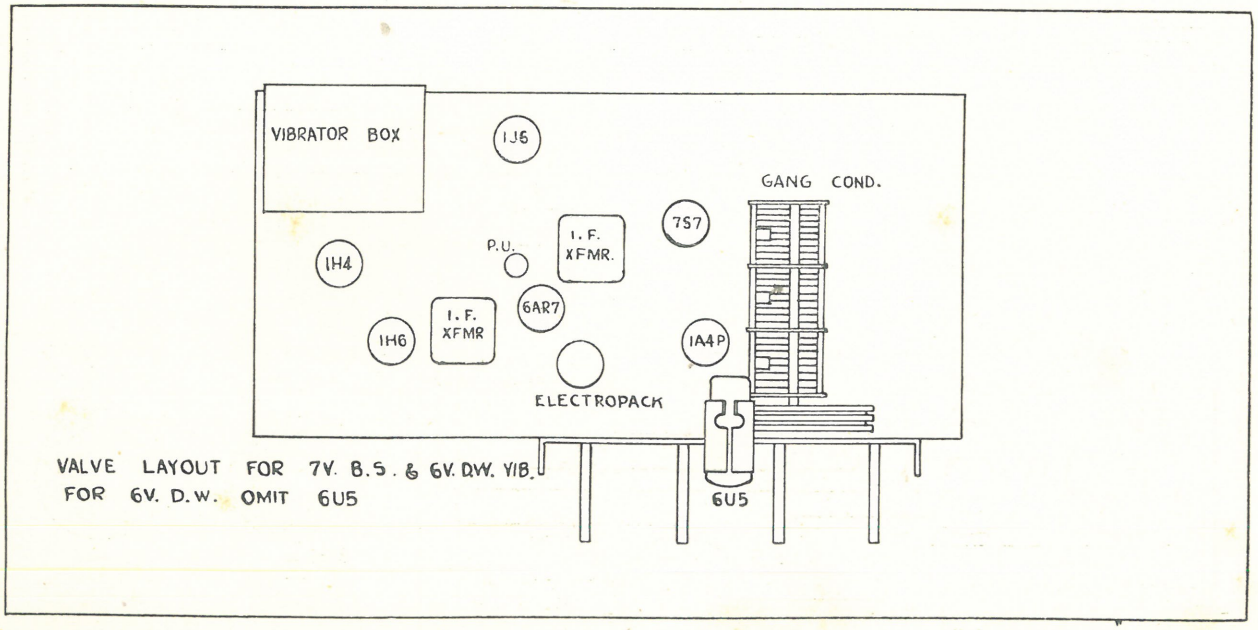
CIRCUIT DESCRIPTION:

A type 1A4P valve, employed as a tuned R.F. Amplifier, is followed by a type 7S7 valve utilized as a Frequency changer, and is coupled to a type 6AR7GT valve by means of a High Gain Double Tuned Intermediate Frequency Transformer, and also combines the functions of Detection and A.G.C. source. A similar transformer couples the type 6AR7GT valve to a type 1H6 valve, which is coupled to a type 1H4 valve utilized as a Driver stage, which is transformer coupled to a type 1J6 valve operating as a class B power amplifier.

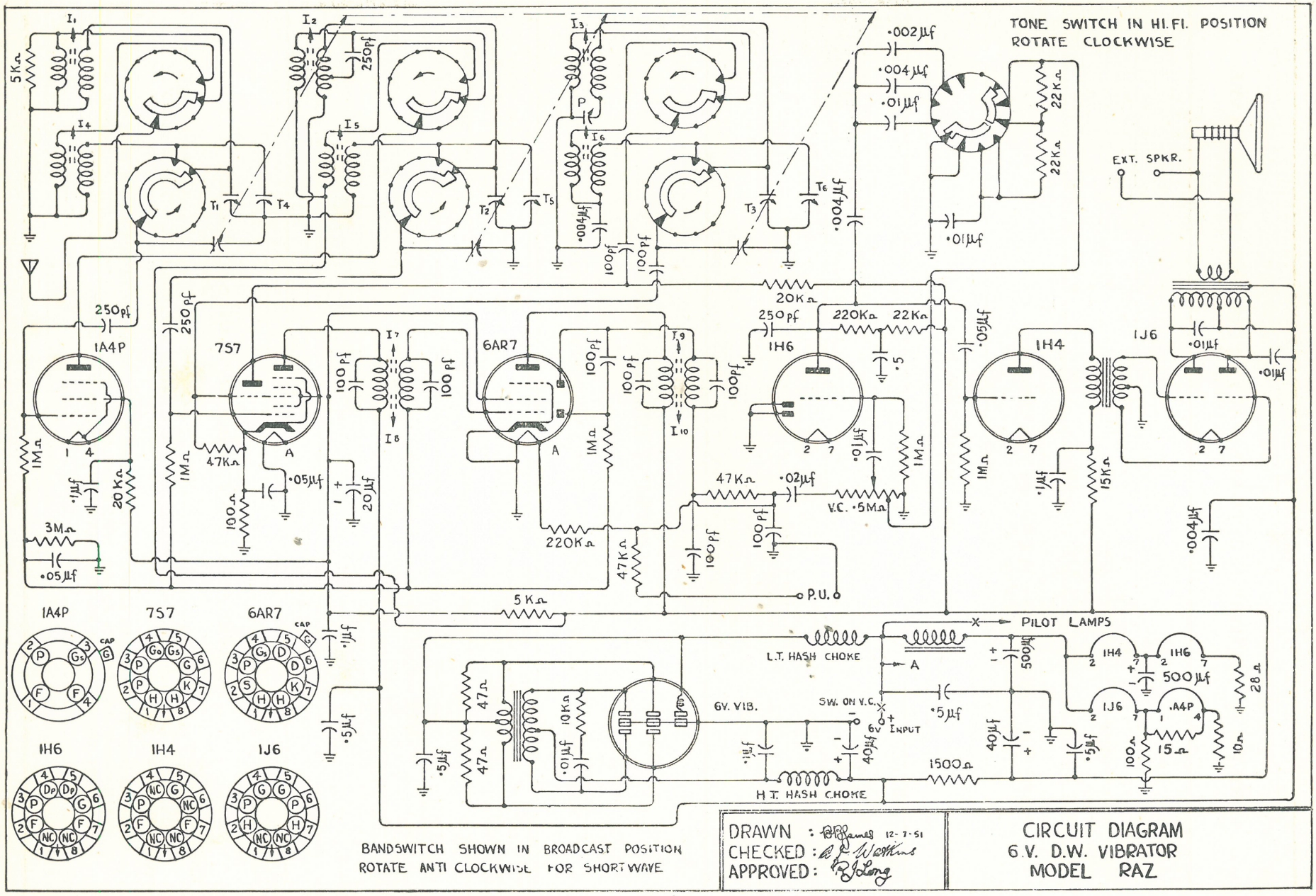
A synchronous type vibrator reed, in conjunction with a power transformer, resistance and capacitive filter, supplies the High Tension D C. voltage.

ANTENNA:

A standard inverted "L" Type Antenna, with a flat of approximately 30 ft., is recommended.



VALVE LAYOUT FOR 7V. B.S. & 6V. D.W. VIB.
FOR 6V. D.W. OMIT 6U5


TONE SWITCH IN HI.FI. POSITION
ROTATE CLOCKWISE
EXT. SPKR.
1A4P
7S7
6AR7
1H6
1H4
1J6
P.U.
PILOT LAMPS
L.T. HASH CHOKE
H.T. HASH CHOKE
6V. VIB.
SW. ON V.C.
6V. INPUT
BANDSWITCH SHOWN IN BROADCAST POSITION
ROTATE ANTI CLOCKWISE FOR SHORTWAVE
DRAWN : [illegible] 12-7-51
CHECKED : A. L. Watkins
APPROVED : R. J. Long
CIRCUIT DIAGRAM
6 V. D.W. VIBRATOR
MODEL RAZ

VOLTAGES APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME

VALVE PIN No.	1	2	3	4	5	6	7	8
1A4P R.F. Amp.	+ 3.8v.	+128v.	+ 72v.	+ 1.8v.	–	–	–	–
7S7 Freq. Changer	+ 5.9v.	+150v.	+ 80v.	— 7v.	+ 95v.	— .5v.	+ .8v.	0
6AR7GT I.F. Amp.	+ 5.8v.	0	+128v.	+ 90v.	+ 1.6v.	— .5v.	+ 2.1v.	0
1H6 Det-A.F. Amp.	0	+ 3.4v.	+ 70v.	0	0	0	+ 1.4v.	+ 70v.
1H4 Driver	+ 5.9v.	+ 5.9v.	+112v.	0	+ 1.4v.	0	+ 3.4v.	0
1J6 Power Amp.	0	+ 5.5v.	+148v.	0	0	+148v.	+ 3.6v.	+112v.

NOTE: D.C. Readings taken with a Vacuum Tube Voltmeter.
Receiver tuned off station.

D.C. RESISTANCES

Ant. Coil Prim.	18ohms	I.F. Prim.	10ohms
Ant. Coil Sec.	3.5ohms	I.F. Sec.	10ohms
Det. Coil Prim.	10ohms	Power Transformer Prim.	.3 - .3ohms
Det. Coil Sec.	3.5ohms	Power Transformer Sec.	120 - 120ohms
Osc. Coil Prim.	.9ohms	Speaker Xformer Prim.	300 - 300ohms
Osc. Coil Sec.	2.75ohms	Speaker Xformer Sec.	.4ohms

H.T. Hash Choke	2.3ohms
L.T. Hash Choke	.25ohms
L.T. Filter Choke	½ohm
Interstage Xformer Sec.	450-450ohms
Interstage Xformer Prim.	800ohms

ALIGNMENT INFORMATION

Adjust Vol. Control for Max. Gain.
Adjust Signal Generator output to no higher than necessary to obtain output meter readings.

DUMMY ANT.	Generator coupled to	Generator Freq.	Receiver Dial Setting	Adjust	Remarks	Approximate Sensitivity
.1ufd.	Grid 6AR7	460KC/S	550KC/S	for Max. I^9 I^{10}		7000 Micro Volts
.1ufd.	Grid 7S7	460KC/S	550KC/S	I^7 I^8 for Max.		50 Micro Volts
Standard R.M.A.	ANT.	1400KC/S	1400KC/S	O.S.C. Trim. T^3 for Max.		
,,	,,	1400KC/S	1400KC/S	AER and Det. Trims. T^1 and T^2 for Max.		1 Micro Volt
,,	,,	1000KC/S	1000KC/S			1 Micro Volt
,,	,,	600KC/S	600 KC/S	P^1 for Max.		1 Micro Volt

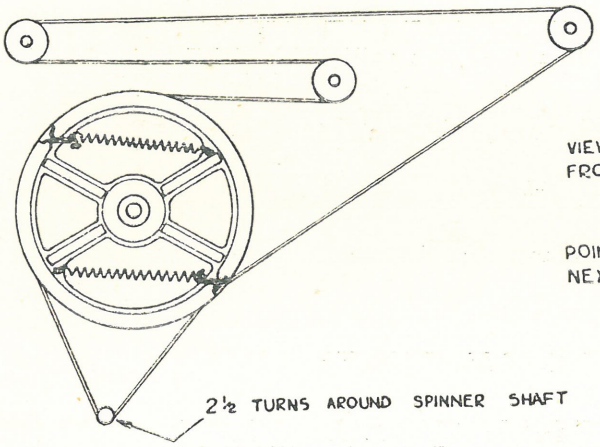
CALIBRATION AND ALIGNMENT OF S.W. BANDS

CALIBRATION—

Set Signal Generator and Receiver Dial Freq. to 17.8MC/S and adjust Trimmer T6 for Max.
Set Signal Generator and Receiver Dial Freq. to 6.1MC/S and adjust Iron Core I^6 for Max.

ALIGNMENT—

Set Receiver Dial Freq. to approx 17.5MC/S and adjust Trimmers T4 and T5 for Max. noise level.
Set Receiver Dial Freq. to approx. 6MC/S and adjust Iron Cores I^4 and I^5 for Max. noise level.
Receivers should now be in Alignment over complete S.W. Bands.



VIEW OF DIAL STRINGING LOOKING FROM BACK OF SET

POINTER STRING ON SIDE OF DRUM NEXT TO DIAL BACKPLATE

AMENDMENTS AND REMARKS: