

## INSTRUCTIONS for OPERATING the PANDA "CUB" TRANSMITTER

Assuming that the output of the transmitter is correctly matched into a low impedance load such as a dipole or through an antenna tuning unit (if the antenna is high impedance) properly adjusted proceed as follows:-

1. Switch to required band,
2. Set V.F.O. to approx. desired frequency.
3. Switch power "ON".
4. Switch to "FONE" on "C.W." as required. If FONE, plug in crystal mike and turn audio control to approx. "5". If C.W. plug in key after tuning procedure has been carried out.
5. Set "loading" control to about 8 or 9.
6. As soon as meter reads, tune tank to resonance (indicated by "dip").
7. Increase loading by turning "loading" control anti-clock wise in SMALL steps, being careful to re-tune tank to resonance EACH TIME LOAD is adjusted. Repeat this procedure until the meter reads 80 m/as for C.W. or 50 m/as for FONE.
8. For FONE only turn up audio control until the meter needle just moves when speaking into the microphone.
9. When changing frequency it is ESSENTIAL to re-tune tank after V.F.O. has been re-set.
10. For 1.8 mcs. operation put switch at rear in downward position and load to 25 m/as.

We strongly recommend the use of a "dummy load" for initial tuning procedure as this enables the operator to see just what happens when the transmitter is correctly loaded and modulated. A suitable dummy load may be made up by wiring FOUR 12 volt 6 watt auto bulbs in series and plugging into the antenna output socket.

The A.T.U.150 bandswitched antenna tuning unit is admirably suited for use with the "CUB" transmitter.

### Modification list.

V.F.O. R.F.C.2, is replaced by a 47K ohm, 1 watt resistor and taken to the stabilised screen supply. R 17 is no longer necessary and is removed.

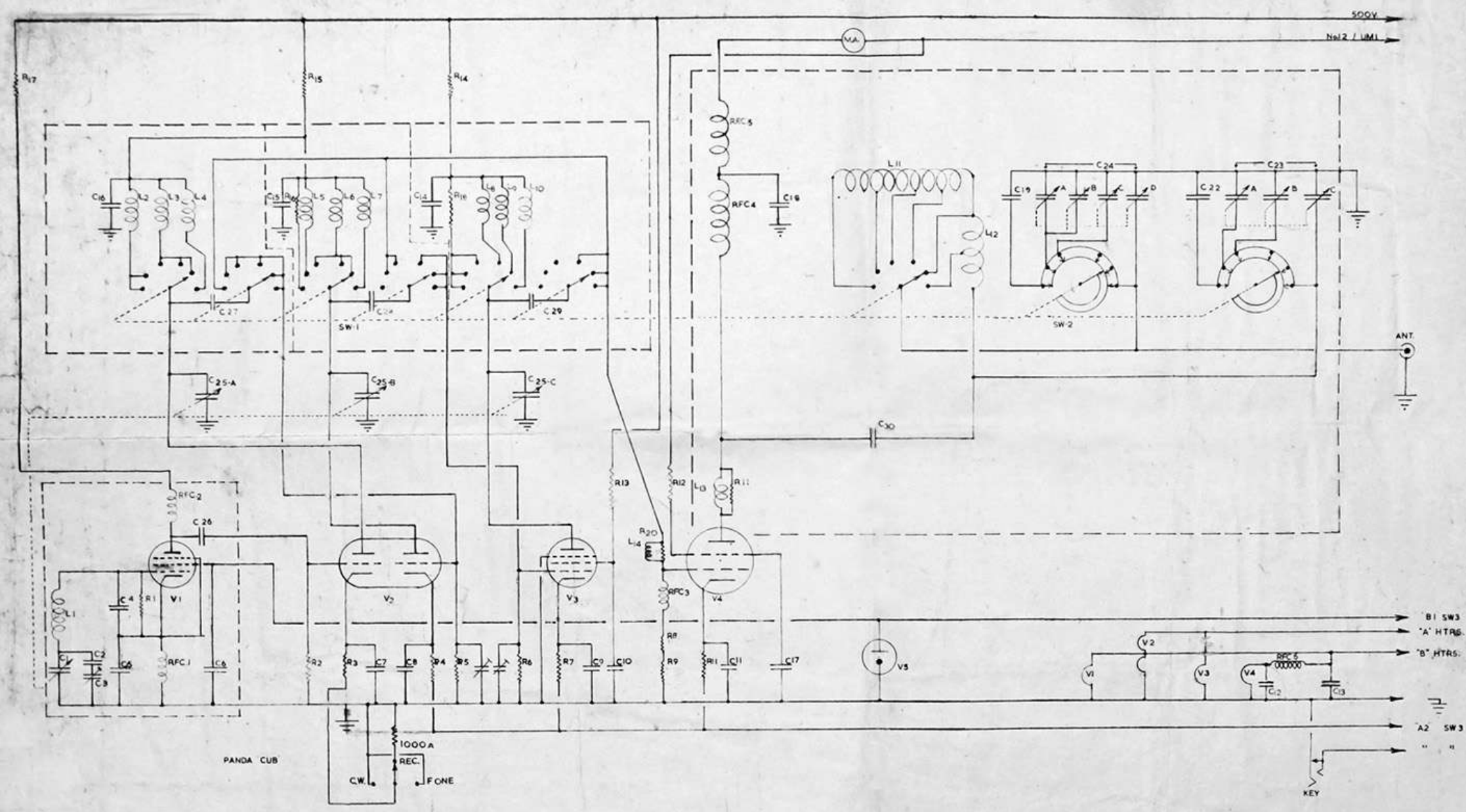
V.2. A parasitic stopper is fitted into No.2 grid of V.2.

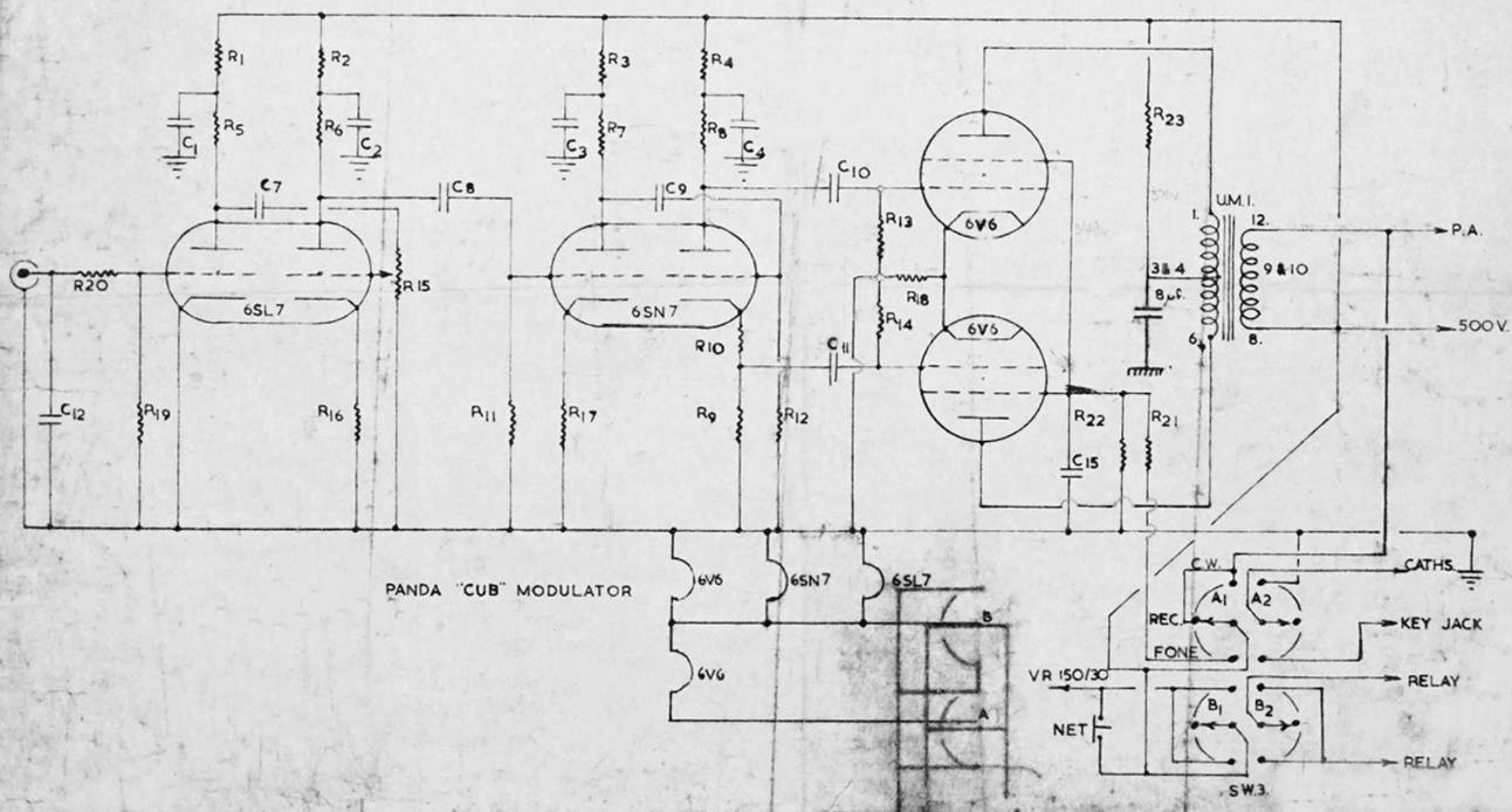
P.A. tank circuit. A 100 pf. mica condenser is placed between the wiper and the 3.5 mc. contact of the tank-coil shorting switch (part of S.W.2). Its purpose is to DETUNE the unused portion of the tank-coil to avoid absorption.

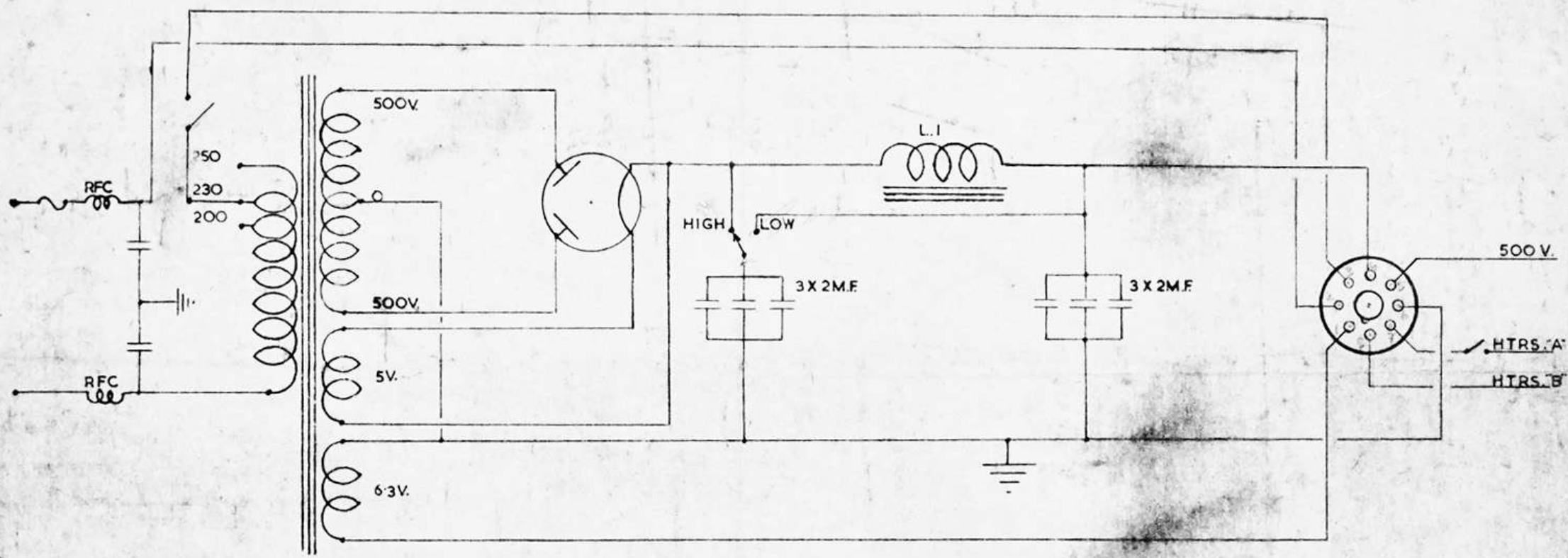
V.R.150/30 A 10K ohm w/w resistor is fitted in the H.T. feed between the anode of the VR150/30 and B 1 on S.W.3.

Netting Facilities. A panel mounted push button M+B switch is wired across the contacts of B 1 on S.W.3 and enables H.T. to be fed to V.F.O. when in REC. position; giving QUIET Q S Y.

Please note: The white push button is for "netting" purposes on to the incoming signal of the receiver.







PANDA "CUB"



The PANDA " QUB" - R.F. CIRCUIT

Resistors.

Capacitors.

Inductances

Resistors.	Capacitors.	Inductances
R 1. 100 K.	V.1. 10 pf. variable	L.1. V.F.O. Coil 1.8mc
2. 100 K.	2. 10 pf. N. 750.	2. 1.8 mc.
3. 680 ohms.	3. 100 pf. variable.	3. 3.5 "
4. 680 ohms.	4. 350 pf. S. Mica.	4. 7.0 "
5. 22 K.	5. " " "	5. 3.5 "
6. 100 K.	6. .01 500v. paper.	6. 7.0 "
7. 330 ohms 1/2 watt.	7. " " "	7. 14.0 "
8. 10 K.	8. " " "	8. 14 "
9. 3 by 47 in parallel	9. " " "	9. 21 "
10. 300 ohms.	10. " " "	10. 28 "
11. 50 "	11. " " "	11. P.A. tank coil 1.8-14
12. 30 K. 3 watts.	12. " " "	12. 10+15 tank-coil
13. 60 K. 1 watt.	13. " " "	L.14 Par. Sup. 13. Parasitic type.
14. 6 K. 10 watts.	14. " " "	R.F. C.1. 2.5 M.H.
15. 12 K. 10 watts.	15. " " "	2. " "
16. 5.6 K. 1/2 watt.	16. " " "	3. " "
17. 6 K. 12 watts.	17. .001 Mica 2000v.	4. Special
18. 10 K. 10 "	18. " " "	5. Special (obsolete)
19. 15 K. 10 "	19. " " "	6. "
20. 50 ohms.	20. Air variable.	VALVES.
21.	21. " " "	V.1. EF50.
22.	22. 200 pf. Mica.	2. ECC81.
	23. 3 gang 80 pf.	3. 5763.
	24. 4 gang 500 pf.	4. 807.
	25. 3 gang 17 pf.	
	26. 100 pf. S.M.	5. VR150/30.
	27. 500 pf. Mica.	
	28. " " "	
	29. " " "	
	30. .001 2000v.	