

KRIS MACH 3B

INSTRUCTION MANUAL



**KRIS
KRIS
KRIS** INC.

1048 B. South Washington Ave. Cedarburg, Wisconsin 53012

IMPORTANT NOTICE

DO NOT ATTEMPT TO OPERATE YOUR LINEAR AMPLIFIER OR MAKE ANY CONNECTIONS UNTIL YOU HAVE READ THIS MANUAL AND UNDERSTAND YOUR AMPLIFIER FULLY.

KRIS LINEAR AMPLIFIERS HAVE BEEN DESIGNED AND MANUFACTURED WITH CARE. THEY HAVE BEEN TESTED PRIOR TO SHIPMENT TO PERFORM AS SPECIFIED.

IMPROPER OR FAULTY INSTALLATION OR MODIFICATION TO THE AMPLIFIER IS HAZARDOUS AND MAY RESULT IN IRREPLACEABLE DAMAGE AND/OR PERSONAL INJURY.

Warranty Registration

Fill in the enclosed Warranty Registration Card and mail it to Kris. Your warranty will be void unless this card is on file.

Standard Warranty

Adopted and Recommended by the Electronics Industries Association.

Kris, Inc. warrants each new electronic product manufactured by it to be free from defective material and workmanship and agrees to remedy any such defect or to furnish a new part, in exchange for any part of any unit of its manufacture which under normal installation, use and service disclosed such defect, provided the unit is delivered by the owner to us or to our authorized radio dealer or wholesaler from whom purchased, or authorized service station, intact, for our examination, with all transportation charges prepaid to our factory, within 90 days from the date of sale to original purchaser and provided that such examination discloses, in our judgment that it is thus defective.

This warranty does not extend to any of our electronic products which have been subjected to misuse, neglect, accident, incorrect wiring not our own, improper installation, unauthorized modifications, or to use in violation of instructions furnished by us, nor extends to units which have been repaired or altered outside of our factory, nor to cases where the serial number thereof has been removed, defaced or changed,

nor to accessories used therewith not of our own manufacture. This warranty does not cover tubes.

This warranty is in lieu of all warranties expressed or implied and no representative or person is authorized to assume for us any other liability in connection with the sale of our electronic products.

Radio receivers may be adversely affected by ignition noise from the vehicle in which they are installed or from passing vehicles. No warranty as to the performance of these equipments is expressed or implied when operating under conditions of external ignition or other electrical interference.

Note: These linear amplifiers have been designed to suppress spurious radiation that may cause television interference. There are, however, some types of TVI that cannot be prevented within the amplifier. This is particularly true in weak signal areas. In such cases, a good commercial low-pass filter is recommended. In severe cases, usually in low television signal areas, it may be necessary for a TV repairman to install a high-pass filter on the affected TV set.

IT IS A VIOLATION OF THE FCC RULES AND REGULATIONS TO USE THIS POWER AMPLIFIER IN ANY RADIO SERVICES EXCEPT THOSE UNDER PARTS 89, 91 and 93 OF THE COMMISSION RULES. THIS AMPLIFIER MUST BE DRIVEN OR EXCITED BY A TYPE-ACCEPTED TRANSCEIVER. KRIS, INC. ASSUMES NO LIABILITY FOR IMPROPER OR ILLEGAL USE IN SERVICES OTHER THAN THOSE AFOREMENTIONED.

KRIS MACH 3B

INSTALLATION AND TUNE UP

Adequate ventilation is a must. Allow proper warm up time (45 seconds) Connect antenna to Coax Connector marked Antenna. Connect Driver transmitter (transceiver) to Coax connector marked transmitter. The Kris Mach 3B should not be driven with more than 3 watts for maximum life and efficiency. Load unit into a 50 ohm antenna. Tuning should be done quickly, adjusting drive, tune and load controls for maximum meter and output light indication. Recheck tuning a few times, as there is some interaction between controls.

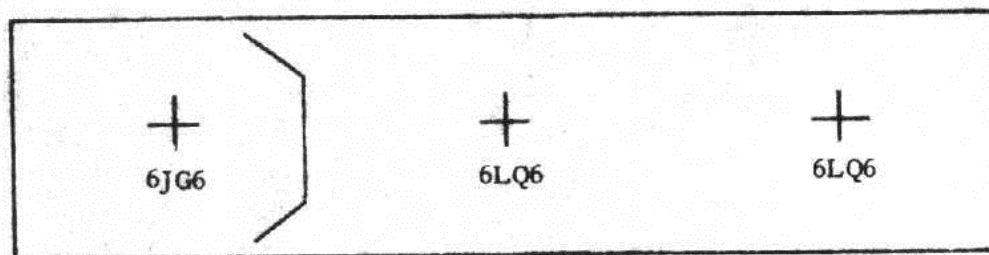
It is a must that these controls be kept tuned to maximum. Maximum means resonance. Rechecking the tuning at the start of each operation is wise, because controls could have been accidentally bumped off resonance or maximum. Once controls have been peaked and repeaked to maximum, no further adjustment is necessary.

The more exact you are in tuning, the more you will lengthen the life of your amplifier. The meter

located on the front panel is a relative output meter and is used for tuning purposes only.

In some areas, line voltages are higher than 120 VAC. In such cases of high input voltage, the plate dissipation of the tubes will be far in excess of rated value. The result, shortened tube life, arcing tubes, blown fuses, blown diodes, blown filters, and in cases where units have been overfused, the power transformer itself can be blown out. Occasionally there will be no indication on the meter, but the red light will glow properly. Usually this is caused by a mismatch in the antenna system.

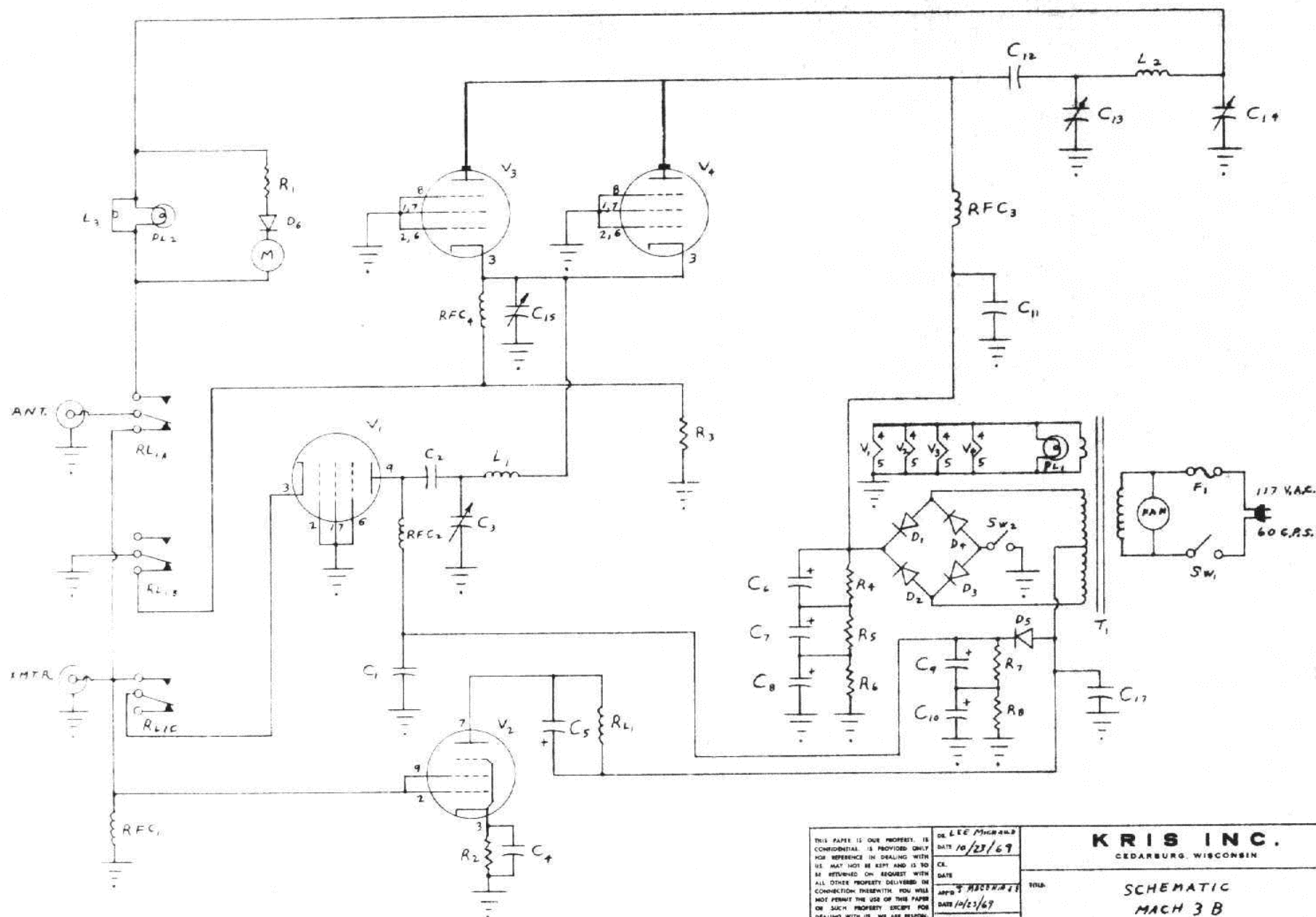
Do not attempt to operate under these mismatched conditions or severe damage to the unit will result, as the great amount of R.F. produced by the Kris Mach 3B will have nowhere to go, except to circulate within the unit itself. The resultant heat rise will cause severe damage to all components. Use extreme caution when attempting service, as the voltages therein are lethal.



Tube Layout - MACH 3B

PARTS LIST MACH 3B

SYMBOL	DESCRIPTION	PART NO.	QUANTITY
R7 R8	Res 100K 1/2-20	1011043	2
R1	Res 82K 1/2-10	1018232	1
R3	Res 1K-2-20	1031023	1
R4 R5 R6	Res 100K-2-20	1031043	3
R2	Res 560-2-10	1035612	1
C1 C2 C4 C11 C12 C17	Cap .001 MFD-3K	1201001	6
C9 C10	Cap 10 MFD 450V	1202001	2
C6 C7 C8	Cap 30 MFD 500V	1202002	3
C5	Cap 10 MFD 50V	1203003	1
C15	Trimmer 463	1302001	1
C14	VAR CAP V2393	1301001	1
C13 C3	VAR CAP V2394	1301002	2
T1	XFMR 93P4A	1402002	1
RFC 4	Choke 100UH	1500002	1
RFC 2	Choke 3.6UH	1500003	1
RFC 1	Choke 192UH	1500004	1
RFC 3	Choke 8.3UH	1500005	1
D6	Diode 1N3064	1800008	1
D1 D2 D3 D4 D5	Diode 1500PIV-1A	1800005	5
RL1	Relay 3 PDT-115V	1900004	1
M	Meter 0-500	2100001	1
F1	Fuseholder	2202001	1
F	Fuse 5 Amp	2301004	1
PL2	Pilot Lite Red	2401003	1
PL1	Pilot Lite Green	2401004	1
P.B. 1-2	Bulb BB 6-8V	2501001	2
SW1	Switch SPST	2600001	1
SW2	Switch DPDT	2600002	1
TS-L9	Tube Socket	2801001	3
TS-S9	Tube Socket	2801002	1
2C	Coax Conn w/nut	2808001	2
	Term Strip 3PT	2805001	3
	Term Strip 4PT	2805002	1
	Tube 6JG6A	2900002	1
	Tube 6BQ5	2900003	1
	Tube 6LQ6	2900004	2
	P.C. Board	3100001	1
	Chassis AC	3400006	1
	Back Plate AC	3400009	1
	Tube Shield AC	3400010	1
	Fan Bracket	3400019	1
	Bottom Wrapper AC	3400028	1
	Top Wrapper AC	3400029	1
	Frt Panel Mach 3	3500001	1
	Antenna Decal	3500007	1
	XMTR Decal	3500008	1
	Serial No. Decal	3500009	1
	Grommet 1/4 in. I.D.	9102001	4
	Grommet 3/8 in. I.D.	9102003	1
	Cord 18-2x6	9103001	1
	Knob 16531L	9104001	3
	Tube Cap	9105002	2
	Tube Cap Insert	9105003	2
	Standoff 6/32-1	9106002	2
	MTG Feet	9107001	4
	Solder Lug #6	9109001	2
	Fan	9112001	1



THIS PAPER IS OUR PROPERTY. IS
CONFIDENTIAL. IS PROVIDED ONLY
FOR REFERENCE IN DEALING WITH
US. MAY NOT BE REPT. AND IS TO
BE RETURNED ON REQUEST WITH
ALL OTHER PROPERTY DELIVERED IN
CONNECTION THEREWITH. YOU WILL
NOT PERMIT THE USE OF THIS PAPER
OR SUCH PROPERTY EXCEPT FOR
DEALING WITH US. WE ARE RESPONS-
IBLE FOR THE CONTENTS OF THIS
PAPER ONLY IF OUR AUTHORIZED
REPRESENTATIVE SO CERTIFIES ON
THIS PAGE BY ACCEPTING THIS PAPER
YOU AGREE TO THE ABOVE.

DR. LEE MICHAEL
DATE 10/23/69
CL
DATE
APPROVED BY
DATE 10/23/69
REFERENCE PWD.

SCALE
None

KRIS INC.
CEDARBURG, WISCONSIN

TITLE
**SCHEMATIC
MACH 3 B**

INDEX NO. C
DWG NO. 88000002
REV. 1



INSTALLATION AND TUNE UP

Adequate ventilation a must.

Allow proper warm up time (45 seconds)

Connect antenna to Coax Connector marked Antenna.

Connect Driver transmitter (transceiver) to Coax connector marked transmitter.

Unit (Kris Mach 3) should not be driven with more than 3 watts for maximum life and efficiency.

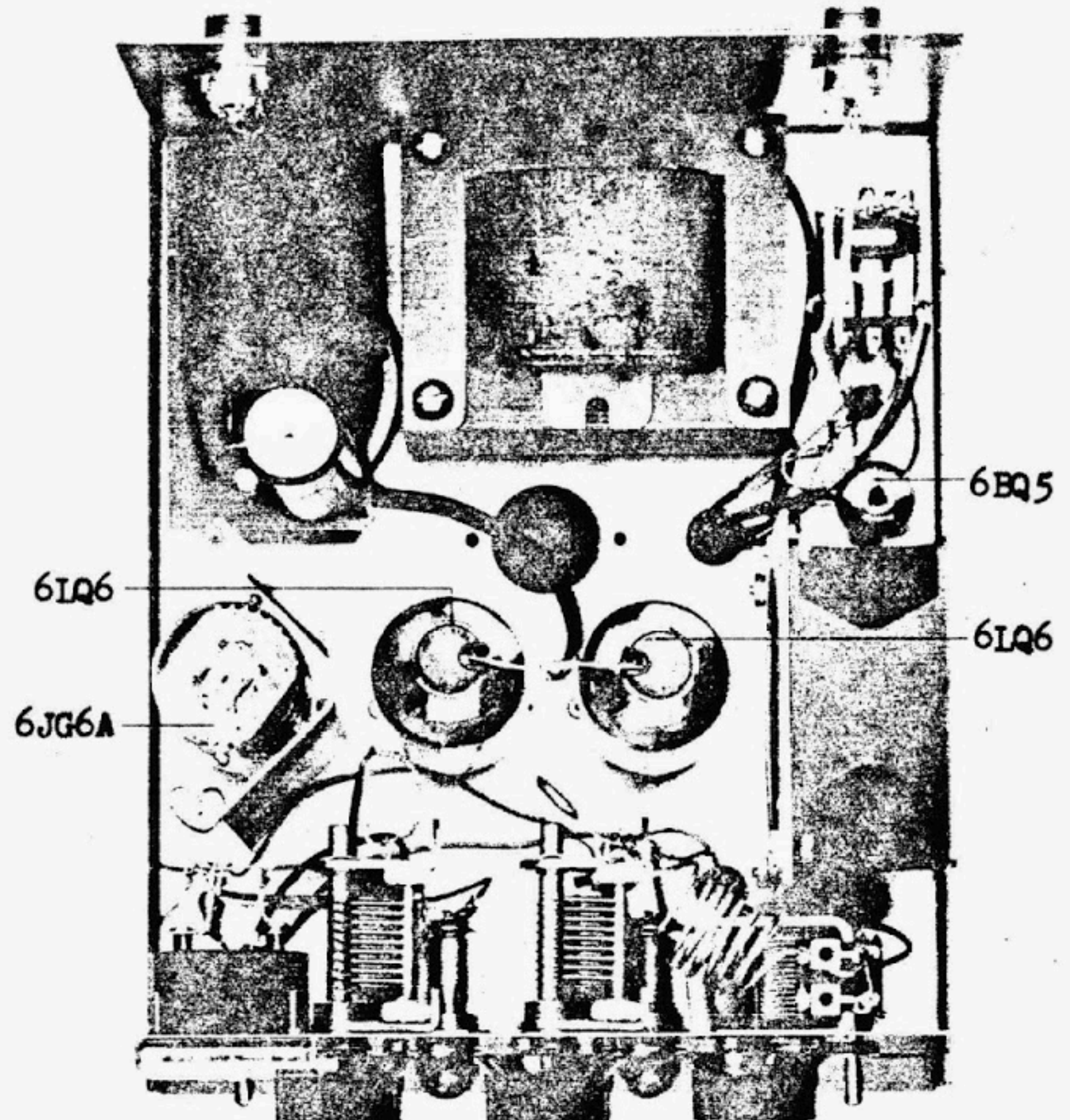
Load unit into a 50 ohm antenna.

Tuning should be done quickly, adjusting drive, tune and load controls for maximum meter and output light indication. Recheck tuning a few times, as there is some interaction between controls.

It is a must that these controls be kept tuned to maximum. Maximum means resonance.

Rechecking the tuning at the start of each operation is wise, because controls could have been accidentally bumped off resonance or maximum. Once controls have been peaked and repeaked to maximum, no further adjustment is necessary.

SYMBOL	DESCRIPTION
R7 R8	Res 100K 1/2-20
R1	Res 82K 1/2-10
R3	Res 1K-2-20
R4 R5 R6	Res 100K-2-20
R2	Res 560-2-10
C1 C2 C4 C11 C12 C17	Cap .001 MFD-3K
C9 C10	Cap 10 MFD 450V
C6 C7 C8	Cap 30 MFD 500V
C5	Cap 10 MFD 50V
C15	Trimmer 463
C14	VAR CAP V2393
C13 C3	VAR CAP V2394
T1	XFMR 93P4A
RFC 4	Choke 100UH
RFC 2	Choke 3.6UH
RFC 1	Choke 192UH
RFC 3	Choke 8.3UH
D6	Diode 1N3064
D1 D2 D3 D4 D5	Diode 1500PIV-1A
RL1	Relay 3 PDT-115V
M	Meter 0-500
F1	Fuseholder
F	Fuse 5 Amp
PL2	Pilot Lite Red
PL1	Pilot Lite Green
P.B.1-2	Bulb BB 6-8V



51

