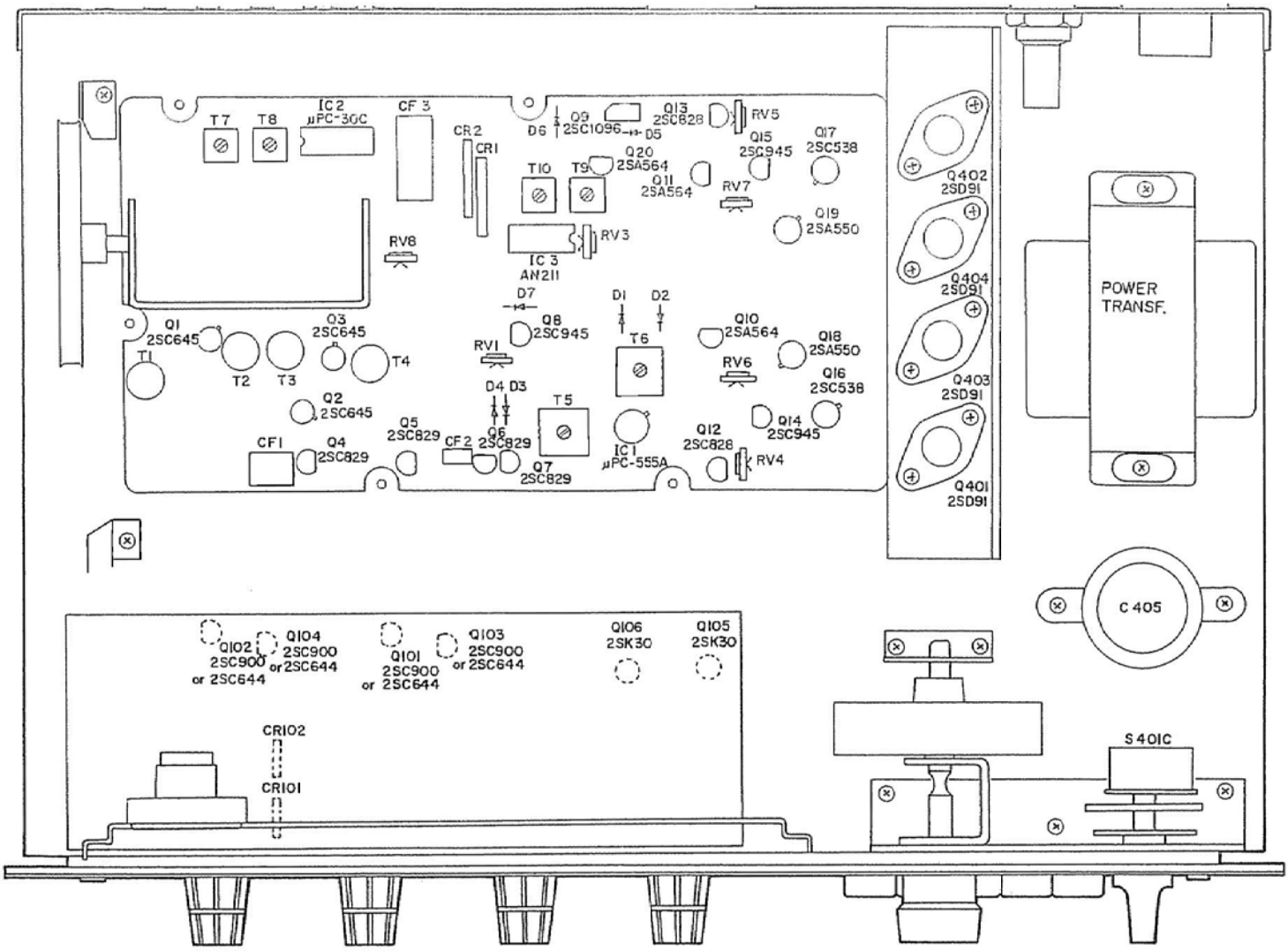
PARTS LOCATION LR-200



ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment.
Maintain line voltage at 120VAC. Allow a 15-minute warm-up period.
Use only enough generator output to obtain a suitable indication.

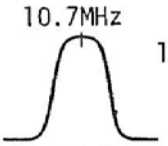


FIG. 1

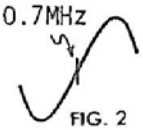


FIG. 2

AM ALIGNMENT—SELECTOR IN AM POSITION

Connect generator across loop fashioned of several turns of wire. Set volume at maximum.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
455kHz 400-hertz Modulation	Tuning gang fully open	Output meter across voice coil	CF3	Adjust for maximum. Repeat until no further improvement is noted.
600kHz	Tune to signal	"	T8	Adjust for maximum.
1640kHz	"	"	CT7	Adjust for maximum.
1400kHz	"	"	CT6, CT5	Adjust for maximum. Repeat AM alignment until no further improvement is noted.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR—SELECTOR IN FM POSITION

High side of generator thru .001mfd to Base Q2 low side to ground.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
10.7MHz Unmodulated	Point of non-interference	DC probe of VTVM to cathode D1, common to ground.	T6 (Pri.) T5 (Pri & Sec)	Adjust for maximum.
"	"	DC probe of VTVM to jct. R38 & R39, common to ground.	T6 (Sec.)	Adjust for zero reading. A positive or negative reading will be obtained on either side of correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR—SELECTOR IN FM POSITION

High side of generator thru .001mfd to Base Q2, low side to ground.
Use only enough marker signal for indication. Use 60-hertz frequency modulated signal with 450kHz sweep. Use 60-hertz sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
10.7MHz 450kHz Sweep	Point of non-interference	Vert input of scope to cathode D1, low side to ground.	T6 (Pri.) T5 (Pri & Sec)	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown.
"	"	Vert input of scope to jct. R38 & R39, low side to ground.	T6 (Sec.)	Adjust T6(sec) to place marker at center of S curve similar to Fig. 2. Readjust T6(pri) for maximum amplitude and straightness of line.

FM RF ALIGNMENT—SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120-ohm carbon resistor in series with each lead.
Adjustment of coils by bending should not be attempted unless the coil is deformed or replaced.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
88MHz Unmodulated	Low freq end	DC probe of VTVM to cathode D1, common to ground.	T4, T3, T2, T1	Adjust for maximum.
108MHz Unmodulated	Tune to signal	"	CT4, CT3, CT2 CT1	Adjust for maximum. Repeat FM RF steps until no further improvement is noted.

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (± .0001% ACCURACY)

High side of generator thru 47K to Junction R38 & R39 low side to ground.

GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
19kHz	Vert input of scope thru 47K to pin 1, IC3, low side to ground.	T9	Adjust for maximum.
19kHz	Vert input of scope thru 47K to pin 3, IC3, low side to ground..	T10	Adjust for maximum 38kHz response.
Modulated Left Channel	Vert input of scope to jct. C61 & R43, low side to ground.	T9, T10, RV3	Adjust for MINIMUM. This step should require only slight adjustment.
Modulated Right Channel	Vert input of scope to jct. C60 & R42, low side to ground.		Check for MINIMUM. If necessary, make compromise adjustment of T9,T10,RV3

ADJUSTMENTS

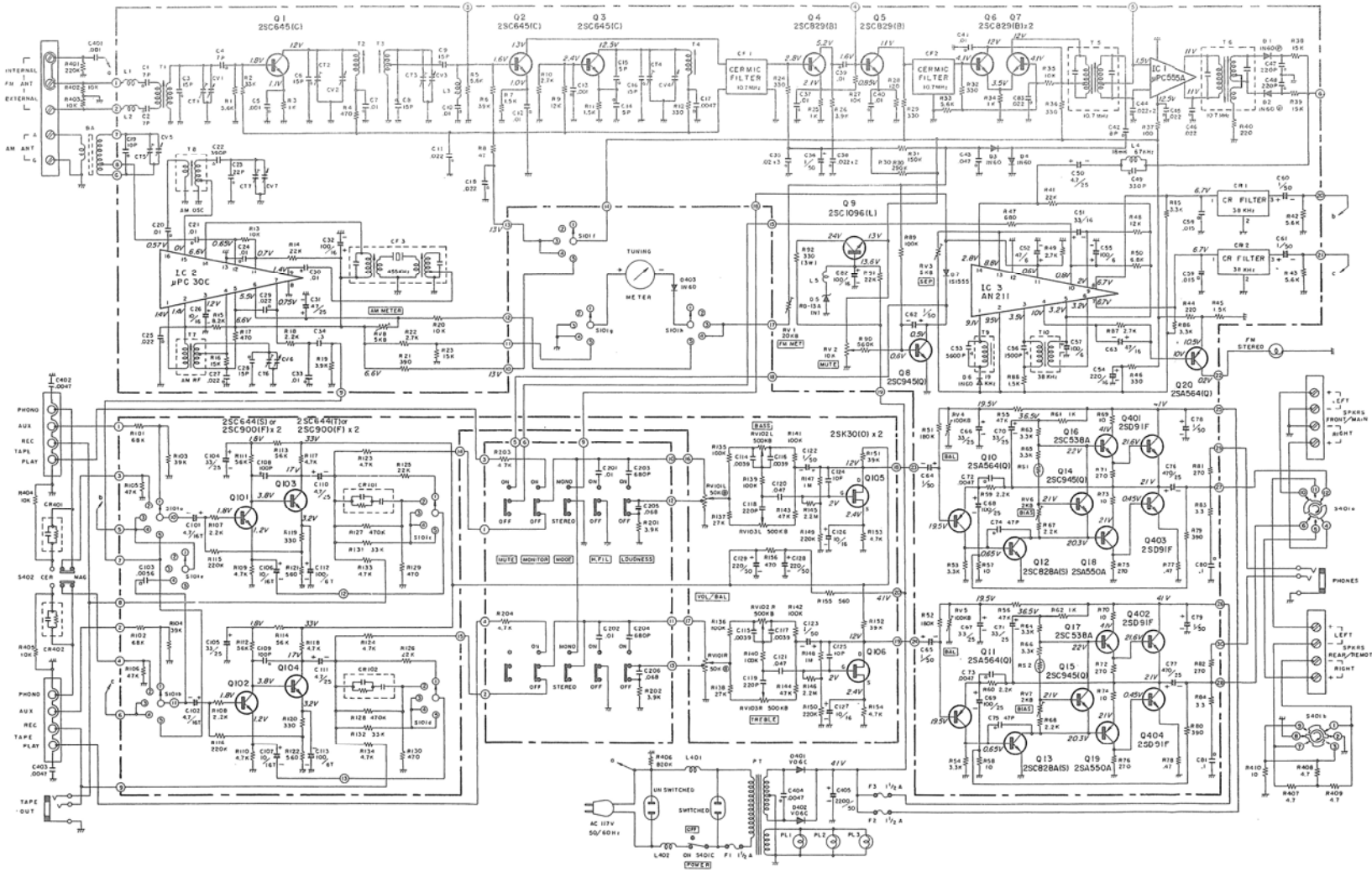
Tune in the strongest AM station available and adjust RV8 for a maximum indication on meter.

Tune in the strongest FM station and adjust RV1 for maximum indication on meter.

Adjust RV6 for a voltage at the collector of Q403 equal to 1/2 the voltage on the collector of Q401.

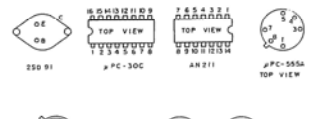
Adjust RV7 for voltage on the collector of Q404 to equal 1/2 the voltage on the collector of Q402.

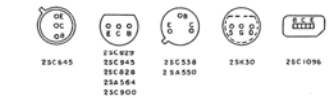
LR-200 STEREO RECEIVER



NOTE:
1. ALL VOLTAGES MEASURED FROM COMMON NEGATIVE CHASSIS GROUND WITH VTVM AT NO SIGNAL.
2. CAPACITORS VALUES ARE IN μF UNLESS OTHERWISE NOTED. P = PICO FARAD
3. RESISTORS VALUES ARE IN OHM. K = K OHM
4. SERIAL NO. 0001 ~

SEMICONDUCTOR TERMINAL CONNECTION (BOTTOM VIEW UNLESS OTHERWISE NOTED)





E : EMITTER C : COLLECTOR B : BASE S : SOURCE G : GATE D : DRAIN