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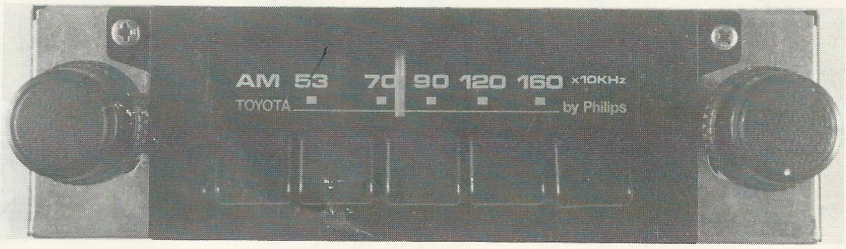


Service Manual

12 V

PRODUCED FOR AUSTRALIAN MOTOR INDUSTRIES FOR FITMENT TO
TOYOTA CORONA XT 130 & XT131

SPECIFICATIONS

TUNING RANGE	525 TO 1615 kHZ
INTERMEDIATE FREQUENCY	455 kHZ
POWER OUTPUT	3 WATTS R.M.S.
SPEAKER IMPEDANCE	4 OHMS
POWER INPUT	12 V NEGATIVE TO EARTH
CURRENT	APPROX. 0.3 AMP (AT 0.5 WATT OUTPUT)
SEMICONDUCTORS	2 ICs

EXPLODED VIEW

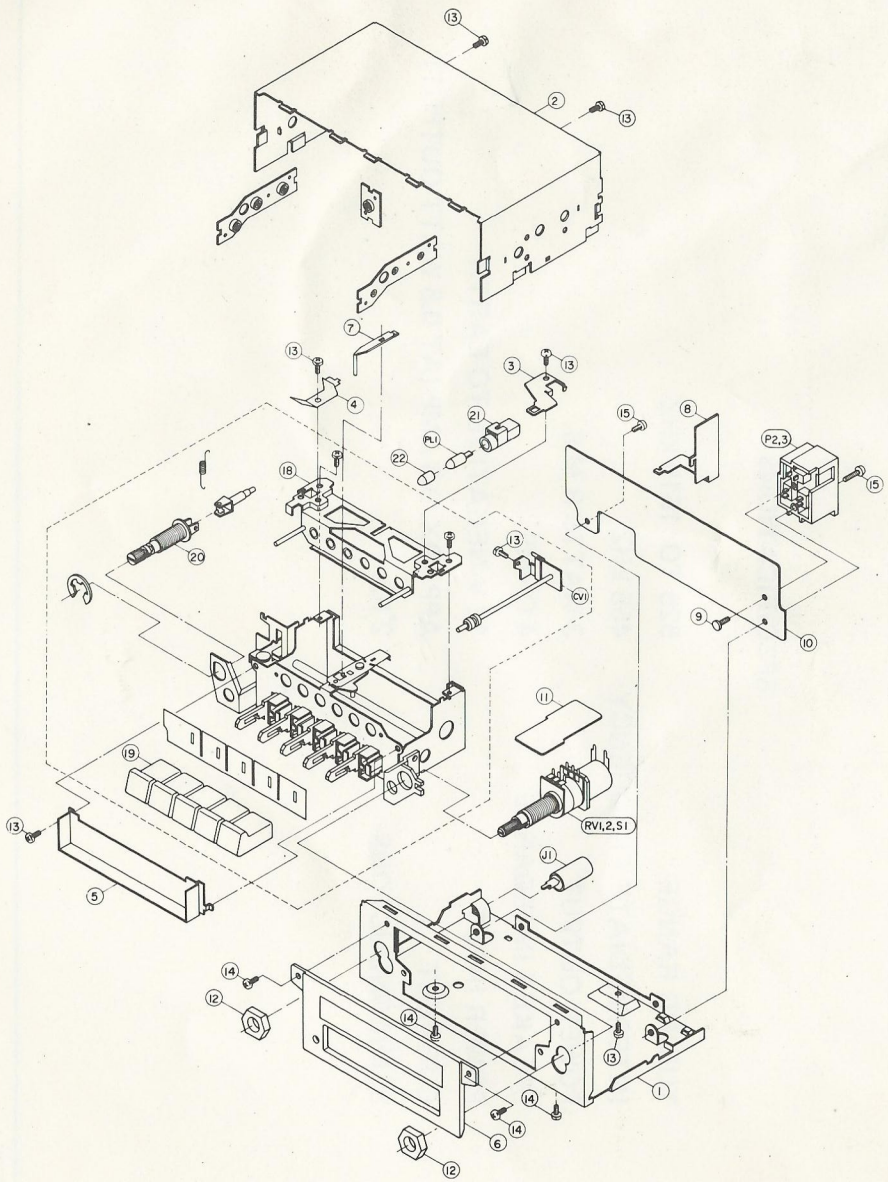


Fig. 6

REPLACEMENT PARTS LIST

CAPACITORS

NOTE: All Capacitors are standard ceramic, mylar or polycarbonate types unless specified otherwise.

C7	4.7μF	25V	Electro	4802 124 47034
C11	22μF	16V	Electro	4802 124 47021
C19	100μF	10V	Electro	4802 124 47002
C22	1000μF	16V	Electro	4802 124 47051
C25	47μF	16V	Electro	4802 124 47025
C27	1000μF	10V	Electro	4802 124 47003
CV2	50pF	R.F. Trimmer		4802 125 57044
CV3	50pF	Osc Trimmer		4802 125 57038

RESISTORS & CONTROLS

NOTE All Resistors are standard values and tolerances unless specified otherwise.

RV1. 2. S1		10k + 10k + Switch	4802 102 27065

SEMICONDUCTORS

101	HA1199	4802 209 87122
1C2	MB3713M	4802 209 87259

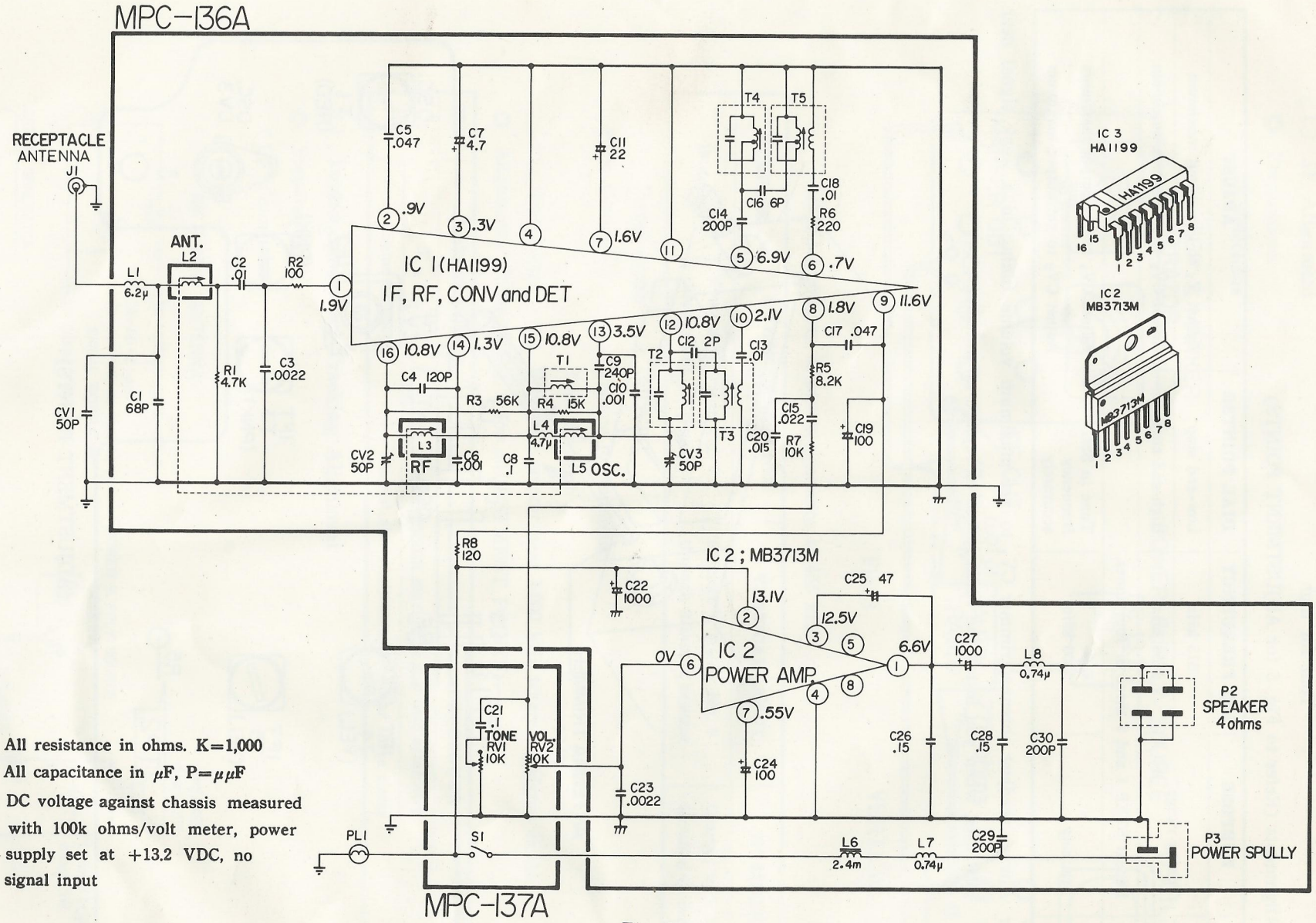
COILS & TRANSFORMERS

L1	Choke	6.2μH	4802 158 17198
L4	Choke	4.7μH	4802 158 17104
L6	Filter	2.4μH	4802 158 17199
L7.8	Choke	0.74μH	4802 158 17077
T1	Oscillator		4802 153 27016
T2.3	IF (Pink)		4802 153 17165
T4	IF (Yellow)		4802 153 17166
T5	IF (Yellow)		4802 153 17256

MISCELLANEOUS

J1	Receptacle, Antenna	4822 267 30017
PL1	Lamp (Power Indicator)	4822 134 40301
	Socket (for PL1)	4802 255 27013
	Filter (for PL1)	4802 480 37022
P2.3	6 Pin Connector	4802 265 37031
	Tuner Assy Complete	4802 691 17036
	Pushbuttons (Tuner)	4802 413 37186
	Tuning Shaft	4802 535 77058
	Antenna Trimmer	4802 125 57061
4	Spring (Noise Suppression)	4802 492 67344
6	Dialplate (Calibrated)	4802 333 17003
7	Pointer	4802 450 87113
11	PC Board (Vol)	4802 466 17065

SCHEMATIC

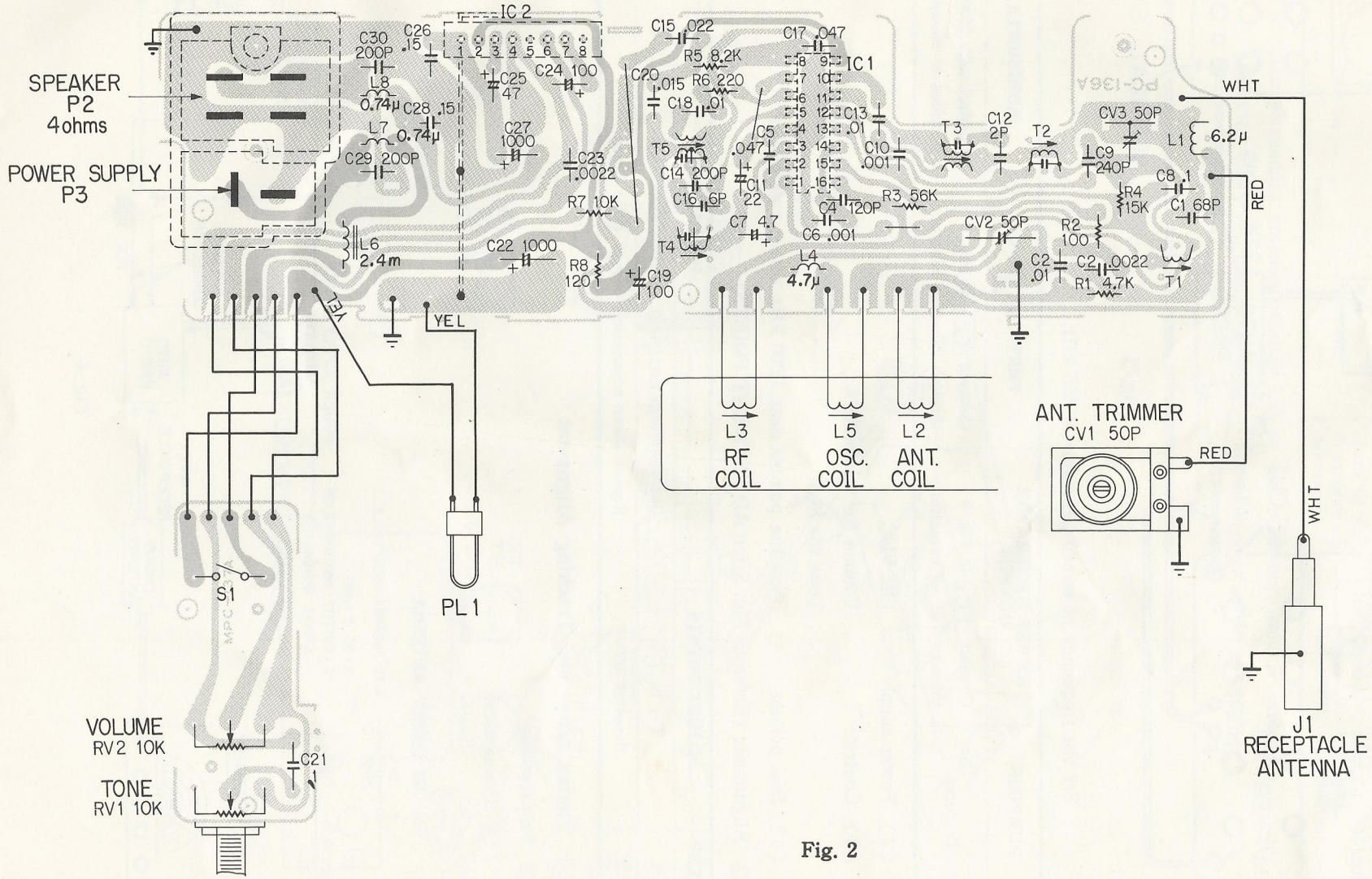


NOTES:

1. All resistance in ohms. K=1,000
2. All capacitance in μF, P=$\mu\mu$F
3. DC voltage against chassis measured with 100k ohms/volt meter, power supply set at +13.2 VDC, no signal input

Fig. 1

WIRING ON PC BOARD



Pin No. \ IC	IC1	IC2
1	1.9V	6.6V
2	0.9V	13.1V
3	0.3V	12.5V
4	0V	0V
5	6.9V	—
6	0.7V	0V
7	1.6V	0.55V
8	1.8V	—
9	11.6V	
10	2.1V	
11	0V	
12	10.8V	
13	3.5V	
14	1.3V	
15	10.8V	
16	10.8V	

Fig. 2

ALIGNMENT

〔1〕 IF Alignment

◎ Preparations

(1) Connections

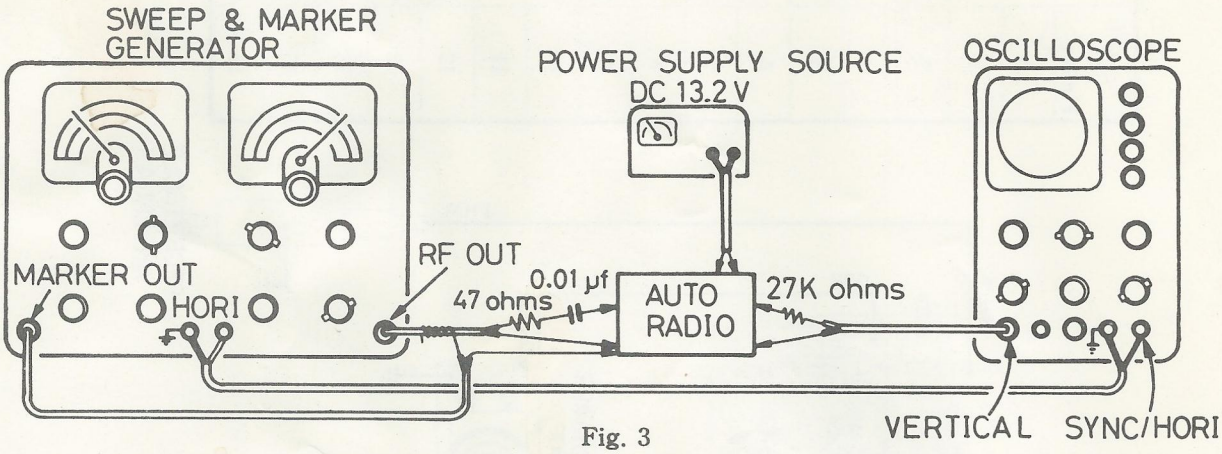


Fig. 3

Set the frequency of sweep generator at 455 kHz.

PURPOSE	SWEEP GENERATOR OUTPUT	VERTICAL INPUT	HORIZONTAL INPUT
IF curve	Connect $\boxed{TP_1}$ in Fig. 5 through 0.01 μF capacitor	Connect $\boxed{TP_2}$ in Fig. 5 through 27k-ohm resistor	Connect with HORIZONTAL terminal of sweep generator

(2) Power supply : 13.2 VDC

(3) Controls : Volume for minimum
Tone for high

(4) Dial pointer : Place the pointer near 1,000 kHz where no signal exists.

◎ Alignments (Refer to Fig. 5 for ADJUSTMENT POINTS)

STEP	ADJUST POINTS	PROCEDURE
1	T_2 to T_5	Get waveform maximum and best symmetry
2	Same as above	Repeat above adjustment two or three times

〔2〕 Tuning range and Tracking Alignment

◎ Preparations

(1) Connections

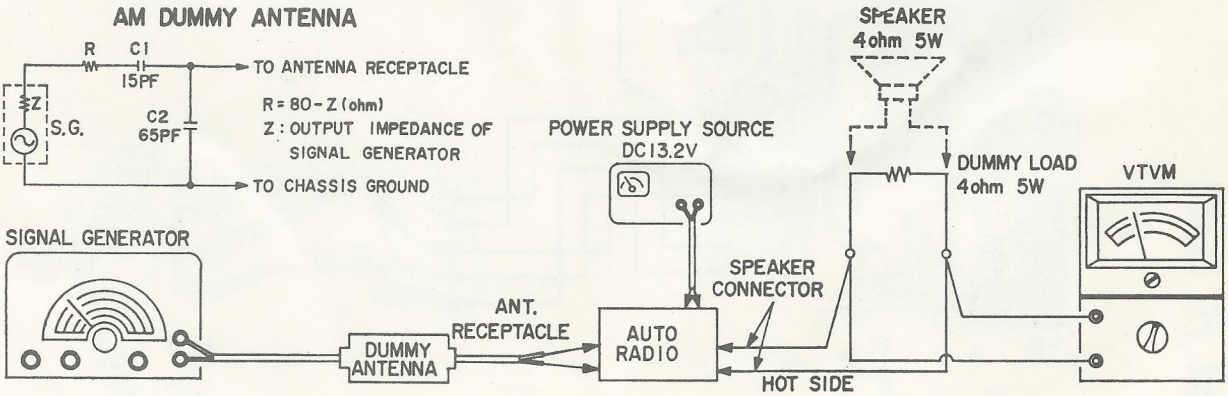


Fig. 4

(2) Power supply : 13.2 VDC

(3) Controls : Volume for maximum

Tone for high

◎ Alignments (Refer to Fig. 5 for ADJUSTMENT POINTS)

STEP	PURPOSE	SSG FREQUENCY	DIAL POINTER	ADJUST
1	Tuning range	515 kHz	Low-end stop	Adjust T_1 to get output maximum
2		1650 kHz	High-end stop	Adjust CV_3 to get output maximum
3	Repeat STEP 1 and 2 three or four times.			
4	Tracking	1400 kHz	Tune in SSG frequency accurately	Adjust CV_1 to get output maximum
5				Adjust CV_2 to get output maximum

NOTE: Always readjust antenna trimmer CV_1 to get maximum volume tuning in a weak signal near 1400 kHz, when you install the radio in car or replace an antenna.

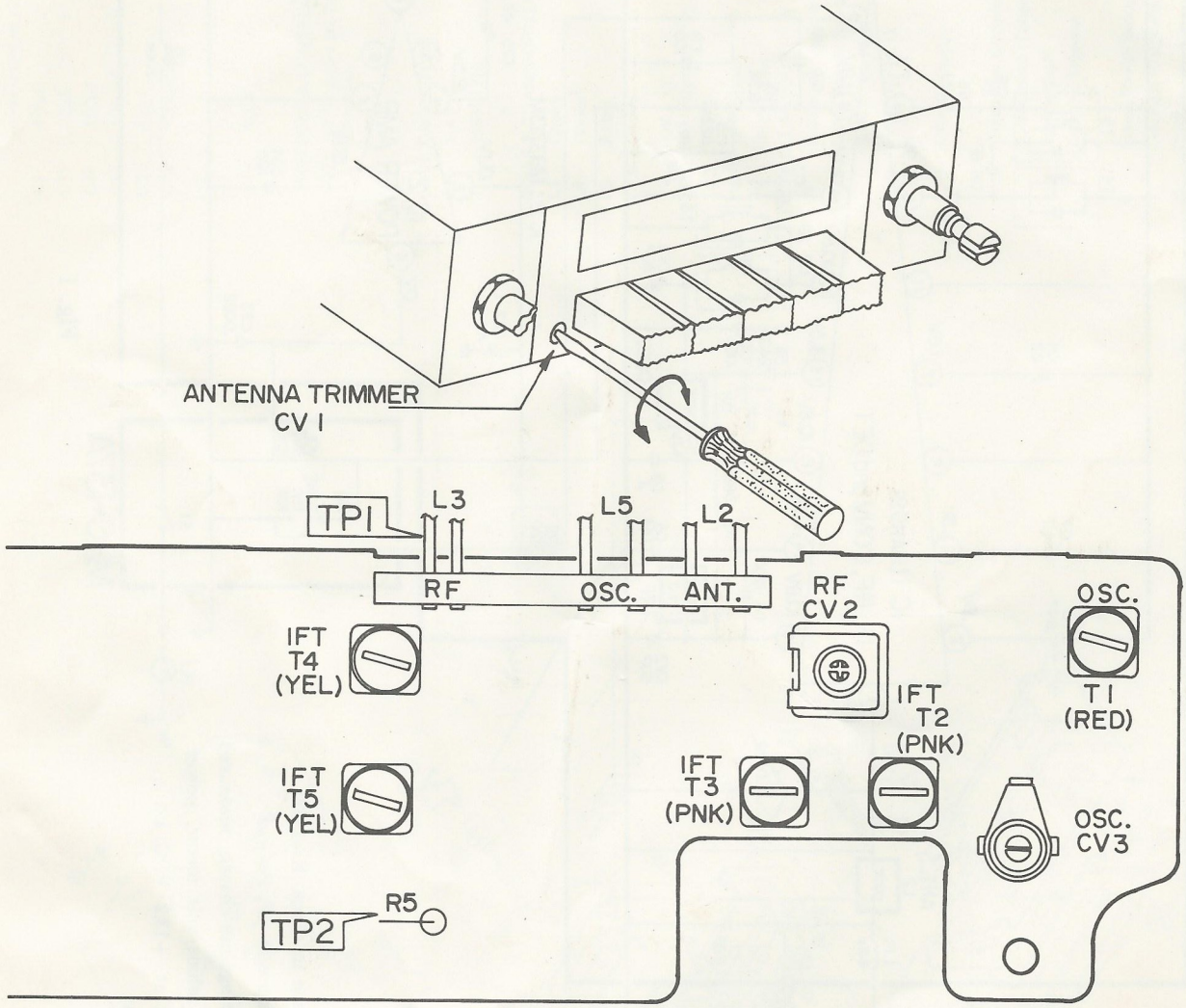


Fig. 5 (ADJUSTMENT POINTS)