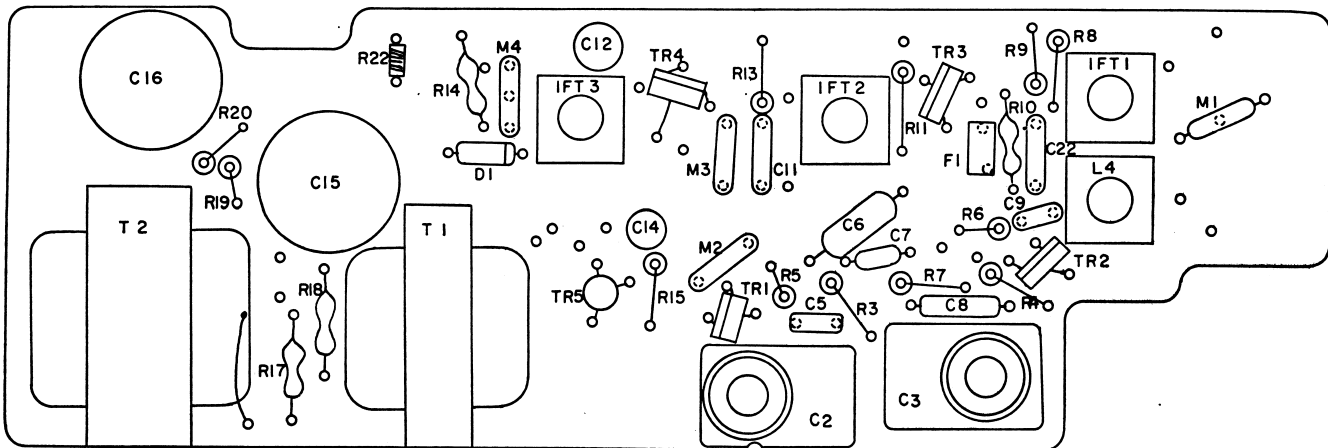
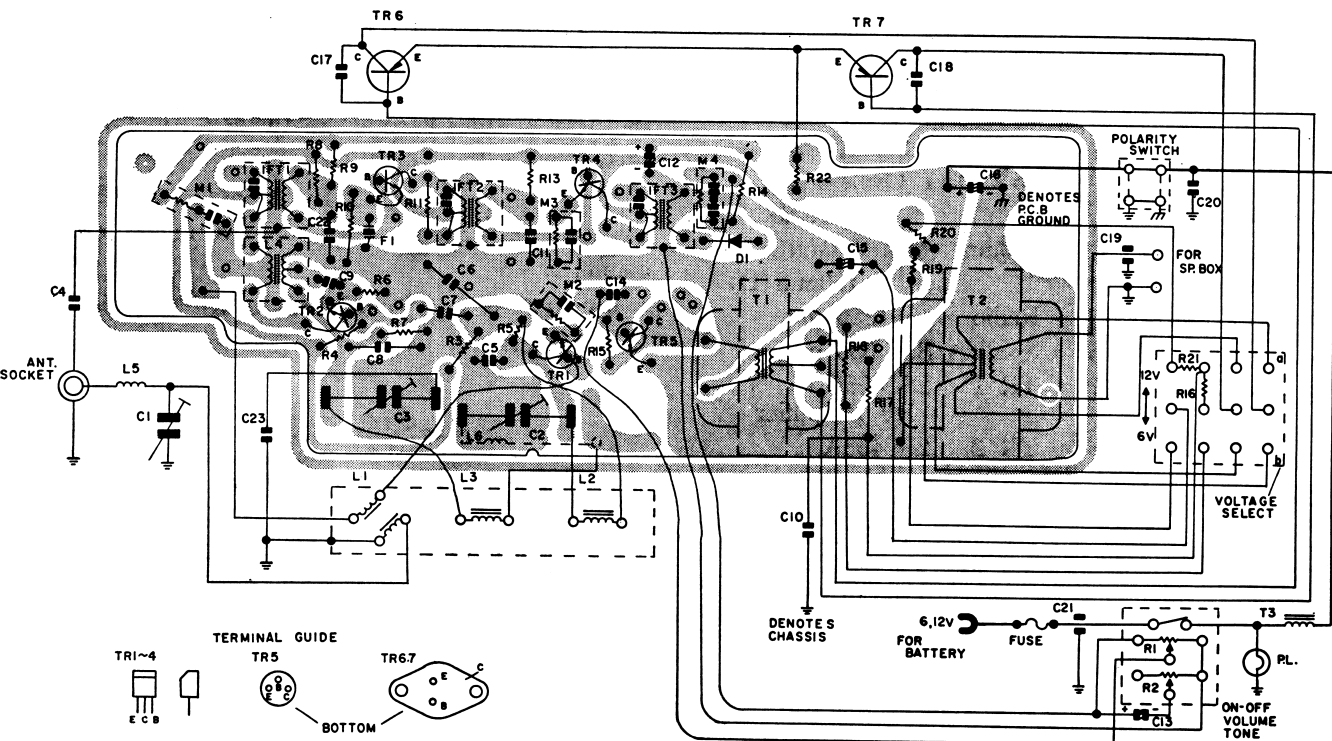
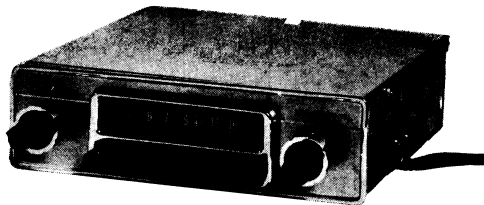


P.C. BTOP



P.C.B. BOTTOM





MODEL
ATR-928

SPECIFICATIONS

Frequency Range : MW : 530~1605KC
 Intermediate Frequency : 452KC
 Power Supply : 12V (12V/6V)
 Power Output : (12V/6V)
 Maximum 3.2W, 1.7W
 Undistorted (12V/6V)
 2.5W, 1.2W
 Speaker : 15×10cm Oval Type
 P.D.S.
 Dimensions : 170mm (W) × 50mm(H)
 × 130mm (D)
 Weight : Radio 1350 grs.
 Speaker Box 630 grs.
 Transistor Complement : TR 1 2SC455B ✓
 RF Amplifier
 TR 2 2SC455A ✓
 Converter
 TR 3 2SC454B ✓
 1st IF Amplifier
 TR 4 2SC454A ✓
 2nd IF Amplifier
 TR 5 2SC281C ✓
 AF Amplifier

TR 6, 7 2SB368B
 Audio Output

GENERAL DESCRIPTION

The circuitry used in this car radio incorporates 7 transistors, and 1 diode. A external antenna feeds the MW broadcast signal to the RF Amplifier and Converter.

After going through 2 IF Amplifiers and diode detector, the signal passes through 3 transistor audio amplifier.

An AGC voltage is fed back to RF amplifier and IF amplifier.

CHASSIS REMOVAL

1. Remove cover retaining screw.
2. Remove the cover.
3. Remove the screws located on the printed circuit board.
4. Remove the output transformer leads, the input transformer leads and tuner lead.

ALIGNMENT INSTRUCTION

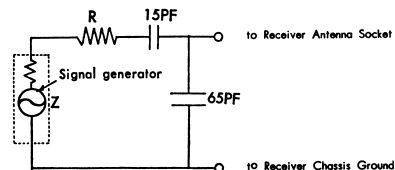
Should it become necessary at any time to check the alignment of this receiver, proceed as follows;

- 1) Connect an output meter across the speaker voice coil lugs.
- 2) Set volume control at maximum.
- 3) Use the lowest setting of signal generator capable of producing adequate indication on the lowest scale of output meter.
- 4) Use a non-metallic alignment tool.
- 5) Repeat adjustments to insure good results.

ALIGNMENT CHART

STEP	BAND	SIGNAL GENERATOR		RECEIVER		ADJUST	
		CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING	REMARKS		
1	M.W.	Connect signal generator through the *dummy to the external antenna.	Exactly 452KC. (400%, 30%, AM)	the highest frequency range	Adjust for maximum output on speaker voice coil lugs.	3rd-IF Trans. core 2nd-IF Trans. core 1st-IF Trans. core	
2	M.W.	Same as step 1	Exactly 520KC. (400%, 30%, AM)	the lowest frequency range	Same as step 1	AM Oscillator core (L3)	
3	M.W.	Same as step 1	Exactly 1670KC. (400%, 30%, AM)	Same as step 1	Same as step 1	AM Oscillator trimmer (C3)	
4	M.W.	Same as step 1	Exactly 1400KC. (400%, 30%, AM)	1400KC	Same as step 1	MW Antenna trimmer (C1) RF trimmer (C2)	
5	M.W.	Repeat steps 2, 3, and 4 until no further improvement is obtained.					

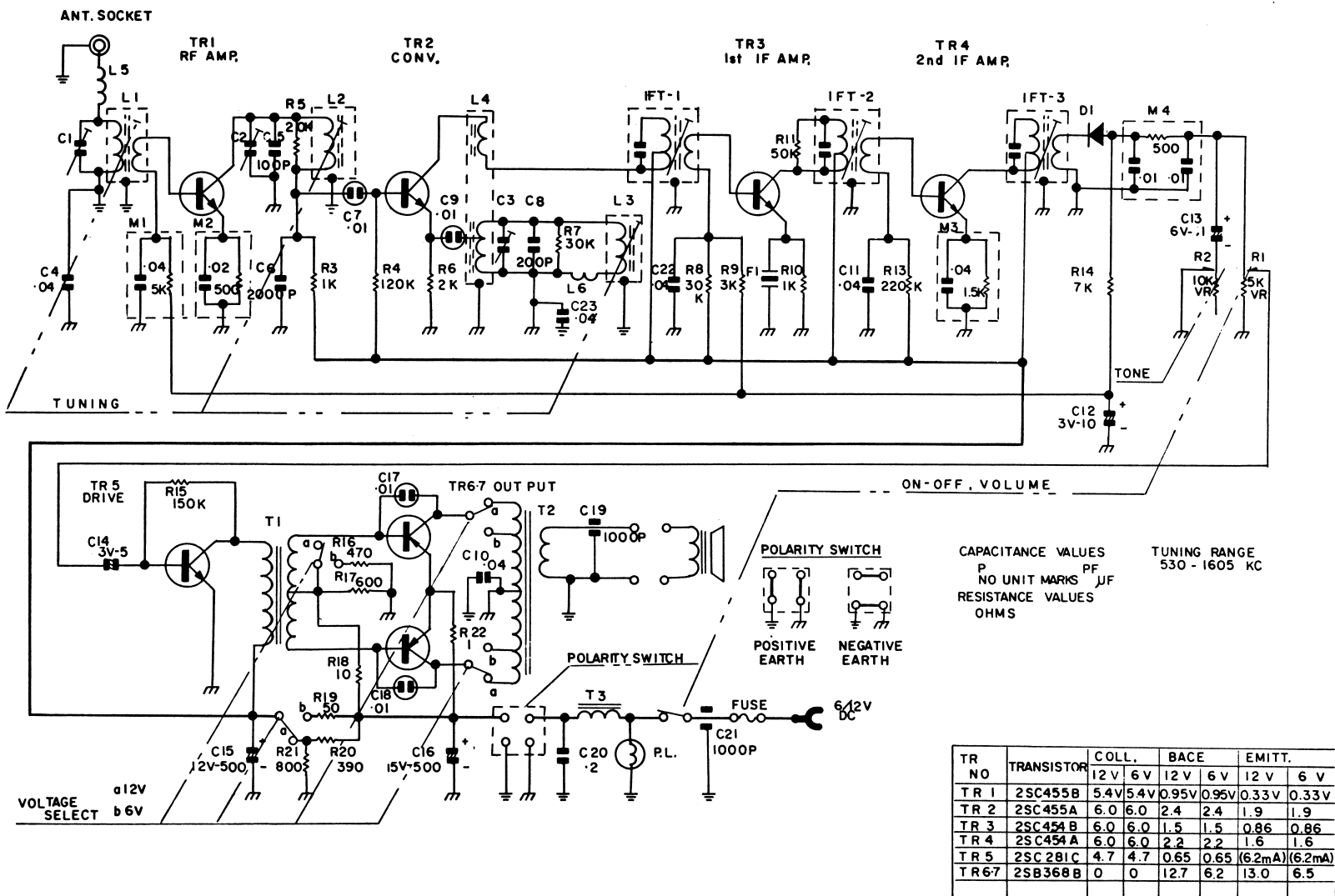
*APPOINTED DUMMY ANTENNA



R=80-Z(ohm) Z: Output Impedance of Signal Generator

S3.

SHARP MODEL ATR-928



This circuit diagram is original one.

Therefore there may be a slight difference from your set.