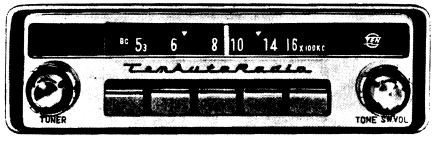
AUTO RADIO SERVICE MANUAL

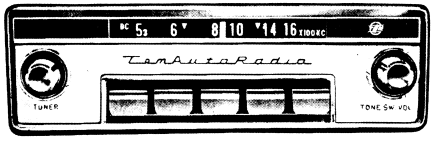
AR-800 SERIES AND 818 AUTO RADIO

Model
AR-801SD

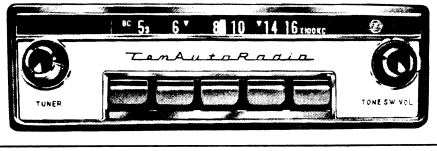


Model
AR-802K

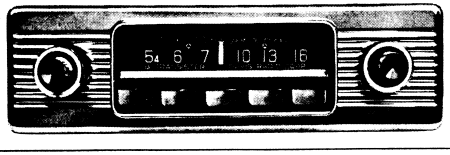
Model
AR-803SD



Model
AR-804SD



Model
818



General Features

Model AR-801SD, AR-802K, AR-803SD, AR-804SD and 818 are all-transistorized superheterodyne deluxe 5-pushbutton auto radios; these receivers operate from 12 volts and negative or positive grounding electrical systems. (Model AR-802K operates from negative ground only.)
Containng 8 transistors and 2 diodes, they are designed for universal installation in a variety of automobiles.

Electrical Features

A. Frequency Range:	535~1605 Kc	
B. Intermediate Frequency:	455 Kc	
C. Sensitivity:	Less than 26 dB.	
D. S/N Ratio:	More than 21 dB.	
E. Selectivity:	More than 18 dB.	
F. I. F. Rejection Ratio:	More than 30 dB.	
G. Image Rejection Ratio:	More than 46 dB.	
H. Electrical Fidelity:	Less than -6 dB at 150 c/s	
	Less than -16 dB at 4000 c/s	
I. Output Power:	More than 2.5 W	
J. Power Consumption:	0.26 Ampere (Ref. Output Power 0.5W)	
K. Speaker:	AR-801SD & AR-803SD.....6½″ (16㎝) 8Ω	
	AR-802K & 818.....5″×7″ (12×18㎝) 8Ω	
	AR-804SD.....5″ (12㎝) 8Ω	
L. Shaft Centers:	AR-801SD & AR-802K: $4^{29}/_{32}$″ (124mm)	
	AR-803SD, AR-804SD & 818 $5^{5}/_{32}$″ (130mm)	
M. Transistor & Diode used:	R. F. Amplifier	2SA275 1 pce.
	Converter	2SA273 1 pce.
	I. F. Amplifier	2SA274 2 pcs.
	A. F. Amplifier	2SB120 1 pce.
	Driver	2SB120 1 pce.
	Power Amplifier	2SB466 2 pcs.
	Detector	1S446 1 pce.
	A. G. C.	1S446 1 pce.
N. Size:	Tuner Unit 6⅜″ (wide) 2″ (high) 4¾″ (deep)	

Composition

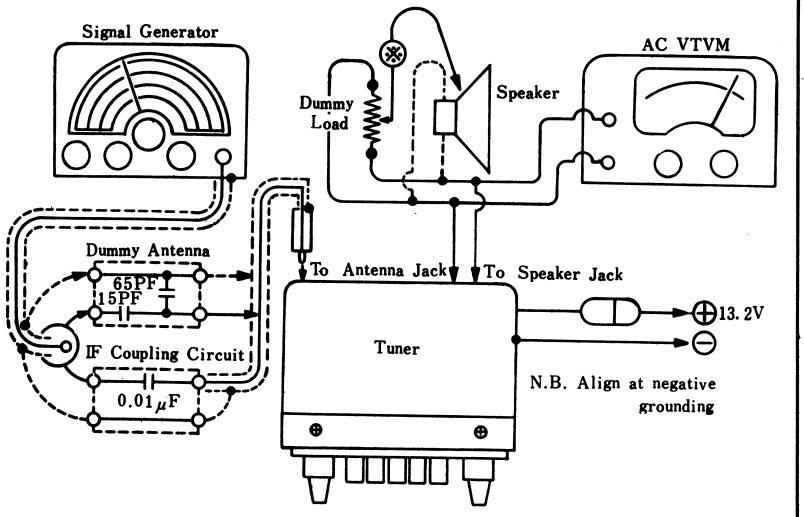
AR - 801SD

AT-801-B	Tuner Unit
801-AC	Accessories for Tuner Unit
SB-401	Speaker Unit
401-AC	Accessories for Speaker Unit

AR - 802K

AT-802-B	Tuner Unit
802-AC	Accessories for Tuner Unit
SB-415	Speaker Unit
402-AC	Accessories for Speaker Unit

Connection Instruction in Alignment



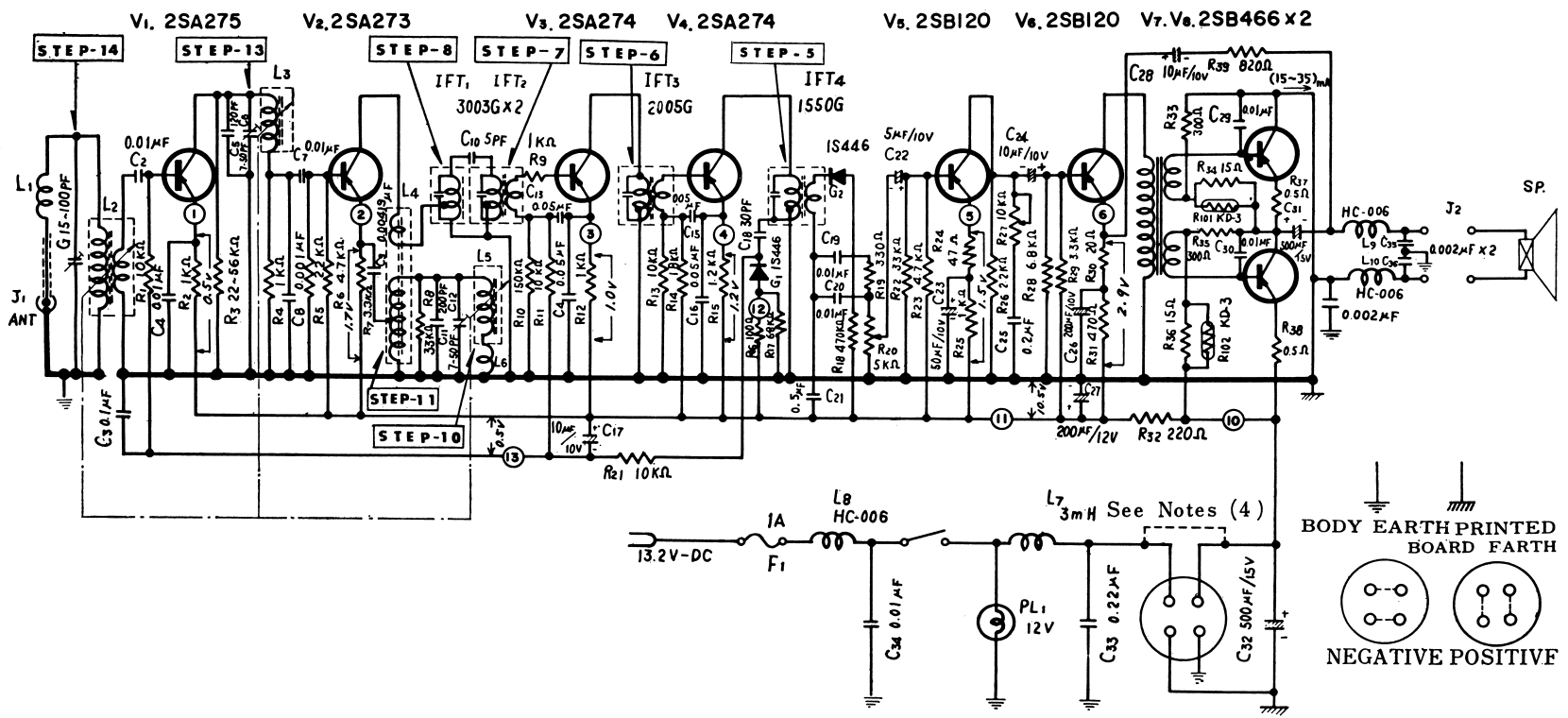
※ 8-ohm Dummy Load or 8-ohm Speaker may be used, but Dummy Load is more favourable.

Fig. 7

Alignment Procedure Details

STEP	Ref Fig. 6 & 7.				
1.	Connect an AC VTVM across 8-ohm dummy load or 8-ohm speaker. Maintain 3 volts (full scale) on AC VTVM. Refer to Fig. 7.				
2.	Set volume to maximum and tone to treble. Supply voltage ⊕ 13.2 volts. Refer to Fig. 7.				
3.	Connect signal generator ground terminal and tuner chassis. Connect signal generator output terminal and antenna jack through 0.01μF Capacitor. Refer to Fig. 7.				
	While proceeding with alignment, attenuate signal generator output to maintain 1 to 2 volts on AC VTVM at all times to prevent overloading.				
	GENERATOR CONNECTION	GENERATOR FREQUENCY (400 c/s 30% mod.)	TUNER SET TO	ADJUST	REMARKS
4.	Antenna Jack thru 0.01μF Capacitor	455Kc	1000Kc approx.		Attenuate signal generator output to maintain 1 to 2 volts on AC VTVM.
5 to 8.	—〃—	—〃—	—〃—	IFT4=STEP-5 IFT3=STEP-6 IFT2=STEP-7 IFT1=STEP-8 Refer to Fig. 6	Adjust IFT core for maximum output.
9.	—〃—	—〃—	—〃—	—〃—	Repeat STEPS 5 to 8 until no further increase.
10.	Antenna Jack thru Dummy Antenna (15P–65P). Refer to Fig. 7.	1630Kc	Hi end stop	C12=STEP-10 Refer to Fig. 6	Adjust for maximum output.
11.	—〃—	530Kc	Lo end stop	L4=STEP-11 Refer to Fig. 6	—〃—
12.	Repeat STEPS 10 and 11.				
13.	—〃—	1400Kc	Tune in S.G. frequency (1400Kc)	C6=STEP-13 Refer to Fig. 6	—〃—
14.	Just tune in a weak station around 1400Kc with radio and antenna installed in car. If any suitable station is not tuned in, radio's background noise may be employed just as well.			C1 (Antenna Trimmer) STEP-14 Refer to Fig. 6	Adjust for maximum output or noise.

Notice: It is desirable to set polarity to negative ground to prevent from short in case of repair and check-out for the receivers with polarity reversing plug.



(1) Specified voltage and current values at no signal, supply voltage 13.2 volts.
(2) Each voltage value measured by high impedance voltmeter is nominal.
(3) The voltage and current values may vary in production.
(4) Model AR-802K has no polarity reversing circuit, operating from negative grounding systems only. The dotted line shows its wiring connection.

TEN MODEL AR800-818

TEN AR-800 SERIES & 818