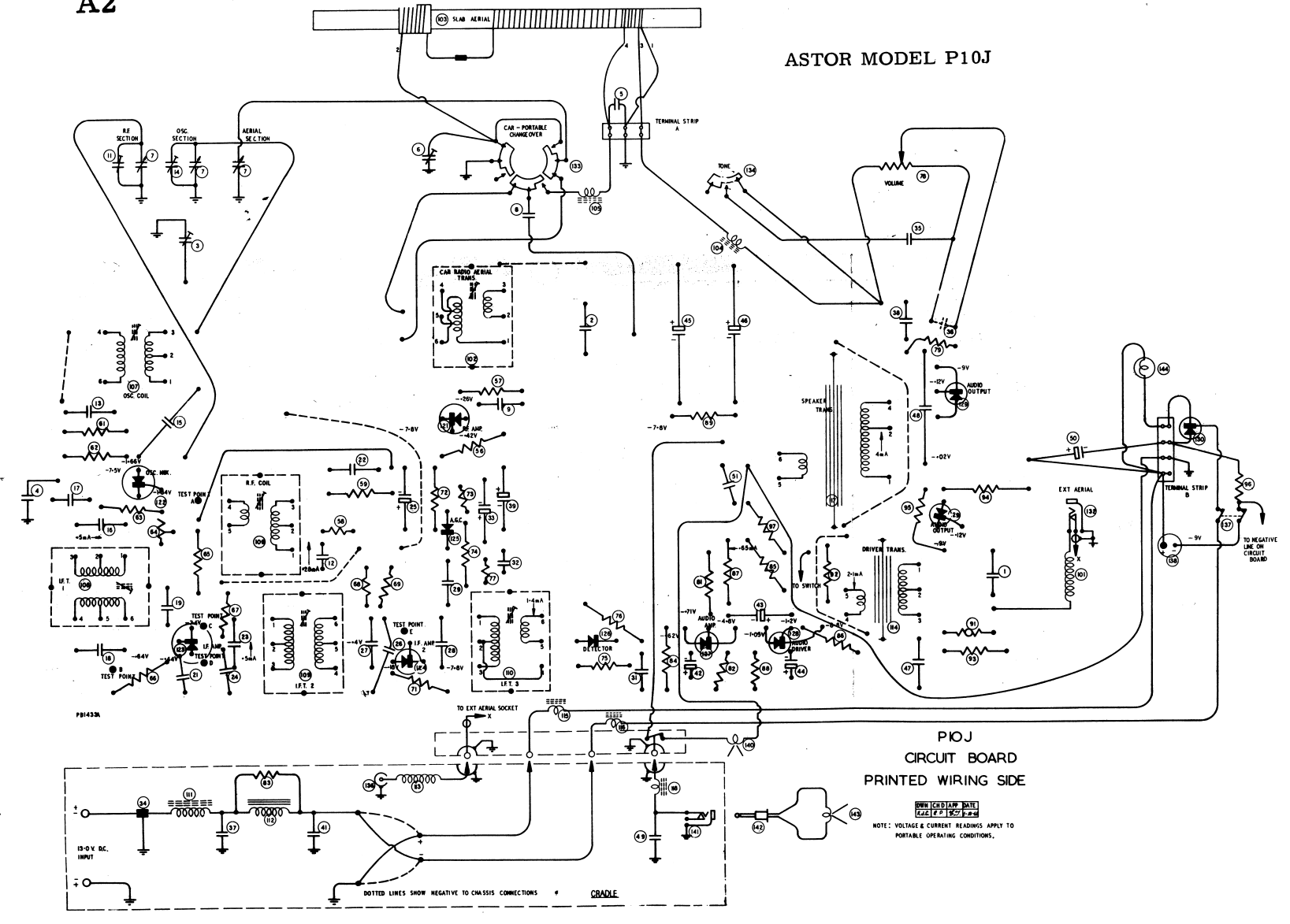
A2

ASTOR MODEL P10J

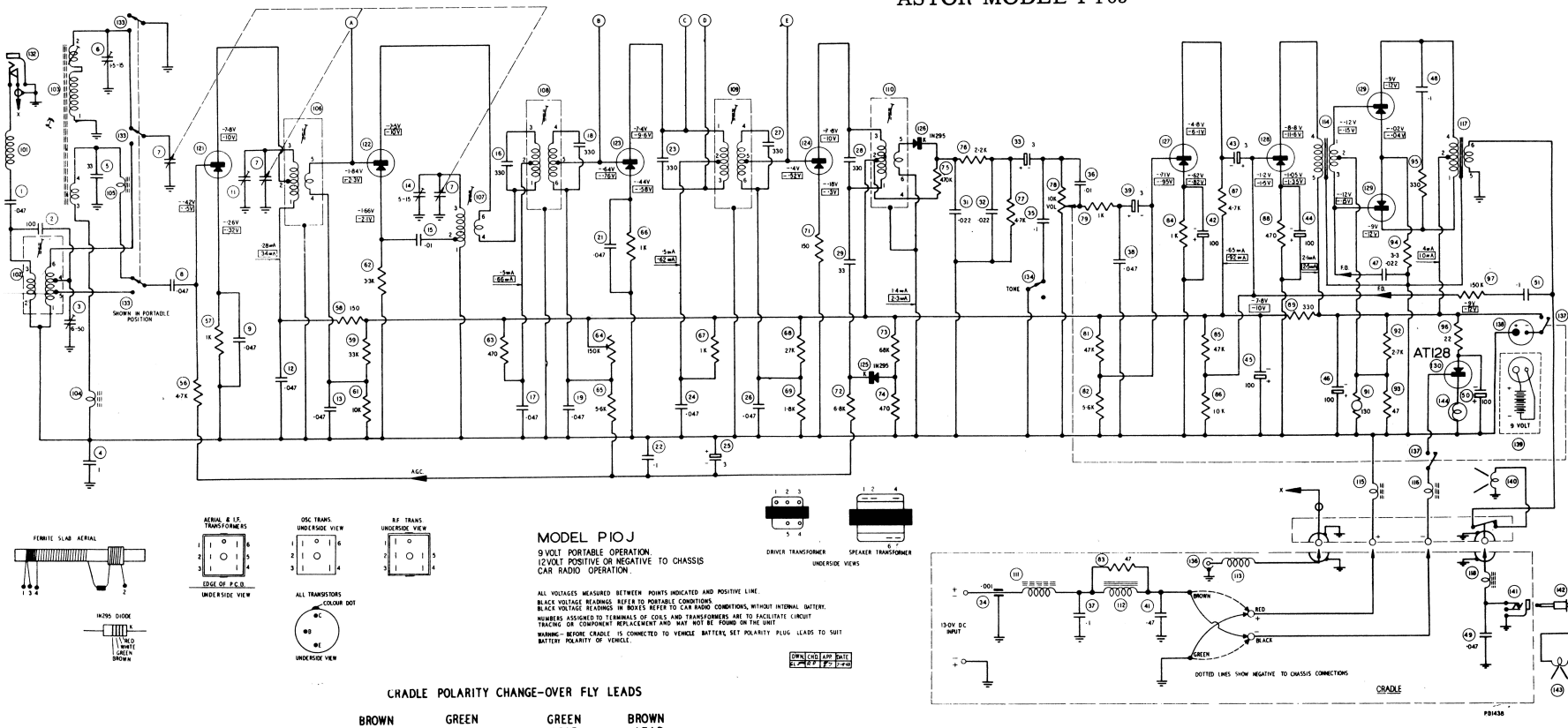


P10J
CIRCUIT BOARD
PRINTED WIRING SIDE

DWN	CHD	APP	DATE
AJC	I P	SCP	7-64

NOTE: VOLTAGE & CURRENT READINGS APPLY TO PORTABLE OPERATING CONDITIONS.

ASTOR MODEL P10J



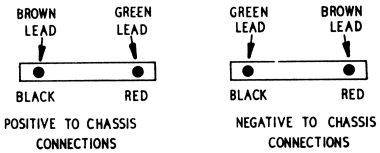
MODEL P10J

9 VOLT PORTABLE OPERATION.
12 VOLT POSITIVE OR NEGATIVE TO CHASSIS CAR RADIO OPERATION.

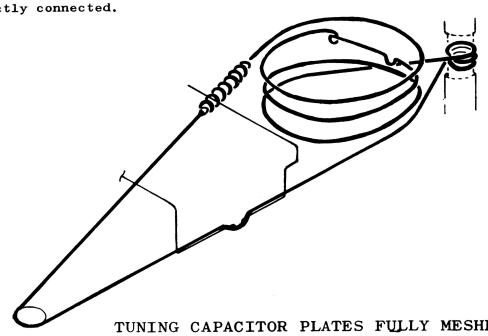
ALL VOLTAGES MEASURED BETWEEN POINTS INDICATED AND POSITIVE LINE.
BLACK VOLTAGE READINGS REFER TO PORTABLE CONDITIONS
BLACK VOLTAGE READINGS IN BOXES REFER TO CAR RADIO CONDITIONS, WITHOUT INTERNAL BATTERY.
NUMBERS ASSIGNED TO TERMINALS OF COILS AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT BE FOUND ON THE UNIT.
WARNING:- BEFORE CRADLE IS CONNECTED TO VEHICLE BATTERY, SET POLARITY PLUG LEADS TO SUIT BATTERY POLARITY OF VEHICLE.

DWN.	CHD.	APP.	DATE
KL	RFP	PJ	7-4-68

CRADLE POLARITY CHANGE-OVER FLY LEADS



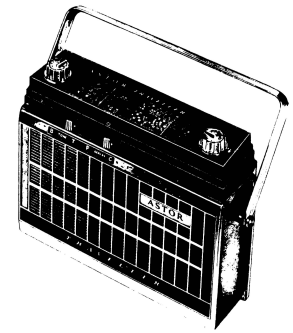
Illumination of the dial light/red "ON" bezel indicates that the receiver cradle is connected to the 12 volt battery and that the polarity change-over fly-leads are correctly connected.



TUNING CAPACITOR PLATES FULLY MESHED

ASTOR MODEL "P10J"

2 TRANSISTOR BROADCAST BAND PORTABLE RECEIVER



ALIGNMENT EQUIPMENT

ASTOR MODEL P10J

Signal Generator	-	modulated 400 cycles
Output Meter	-	15 ohm impedance
Series Capacitor	-	Sig. Gen. for IFT alignment, .1uF Part No. 4006-005-03
Dummy Aerial	-	Car Radio Aerial Transformer alignment Part No. 4121-009-01

Alignment Tools

(a) Blade type - Part No. 4121-015-01 for trimmer capacitor adjustment

(b) Hexagonal Tip type - Part No. 4121-021-01 for I.F.T., RF. and Aerial transformer iron core adjustment

IF. Attenuator - Part No. 4121-014-01

ALIGNMENT CONDITIONS

Open cabinet by removing (5) screws fastening the rear of cabinet in position. Remove rear of cabinet.

Remove (2) countersunk screws from near base at rear of cabinet and remove (2) screws from top corners of circuit board.

Move front grille section away from body of cabinet.

Remove knobs and (2) screws fastening dial surround housing to top of cabinet. Leave housing in position as it is only necessary to be removed briefly to adjust aerial trimmer.

Volume Control	-	maximum (fully clockwise)
Tone Control	-	treble position (anticlockwise)
Aerial Switch	-	"P" position
Output Level	-	50 milliwatts
Output Meter Connection	-	across speaker voice coil
Supply Source	-	9 volt battery.

INTERMEDIATE FREQUENCY TRANSFORMER ALIGNMENT

NOTE: It will be found with the 1st and 2nd IF transformers that a peak can be obtained at two positions of the iron cores. The correct setting is the one in which the cores are furthest apart.

Insert .1uF capacitor in series with generator 'hot' lead.

Oper. No.	Generator connection	Generator Frequency	Instructions
1.	To circuit board pin "E", base of 2nd IF. transistor	455 Kc/s	Turn tuning gang to high frequency end stop. Adjust iron core of 3rd IF. transformer for maximum output.
2.	To circuit board pin "B" base of 1st IF. transistor	455 Kc/s	Adjust both cores of 2nd IF. transformer for maximum output.
3.	Connect IF attenuator to pins "C" and "D" on circuit board.		
4.	To circuit board pin "A", base of mixer transistor	455 Kc/s	Adjust both cores of 1st IF. transformer for maximum output.

Repeat operations 1, 2, 3 and 4.

DIAL POINTER SETTING

Mesh the tuning capacitor plates full in and align centre of indicator pointers with the centre of low frequency end of travel spots on dial.

BROADCAST ALIGNMENT

Portable Operation:

A. To inject a signal into the receiver, connect 2 ft. of aerial wire to the "hot" terminal of signal generator. Fashion wire into a vertical position.

B. Place receiver so that ferrite aerial is uppermost and horizontal. Tuning end of receiver is to be toward but not less than one foot from generator aerial wire.

Oper. No.	Generator Connection	Generator Frequency	Instructions
1.	Refer Para A and B	600 Kc/s	Turn tuning gang until pointer aligns with 600 Kc/s spot on dial. Adjust osc., RF coil iron cores and ferrite slab (portable) aerial movable winding for maximum output.
2.	As oper. 1	1400 Kc/s	Turn tuning gang until dial pointer aligns with 1400 Kc/s spot on dial. Adjust osc., RF and ferrite slab (portable) aerial trimmer capacitor for maximum output.
3.	Repeat operations No. 1 and 2 to obtain maximum output.		
	Tuning range after alignment 525-1610 Kc/s.		

Car Radio Operation:

The car radio aerial circuit may be aligned without the mounting cradle.

Connect signal generator through the dummy aerial to the aerial contact at base of portable or the jack socket on left hand side of cabinet.

Set changeover switch to"C" car radio position.

Oper. No.	Generator Connection	Generator Frequency	Instructions
4.	To aerial socket	600 Kc/s	Tune receiver to 600 Kc/s signal. Adjust iron core in aerial transformer for maximum output.
5.	To aerial socket	1400 Kc/s	Tune receiver to 1400 Kc/s signal then adjust aerial transformer trimmer capacitor (accessible through hole near tuning spindle) for maximum output.

Repeat operations 4 and 5 to obtain maximum output.