

OPERATION OF OUTPUT TRANSISTORS AS MATCHED PAIRS

The type AT1138 transistors are operated in matching pairs, replacements MUST be made accordingly and NOT as single units.

Matched pairs as used in this receiver are identified by a colour dot or stripe or a letter stamped on to the top of the transistor body. Various batch colours or letters are in use. Transistors which have different batch identis. must not be operated together. A matched pair of AT 1138 transistors are supplied as:- 2-AT1138 Part No 4128-004-02.

REPLACEMENT OF OUTPUT TRANSISTORS

When refitting or replacing transistors check that the mount positions and faces are clean and free from dust, grit or metal particles.

Smear a thin film of silicone compound, Part No. 1036-001-09, on both sides of the mica and lead washers, also mount face of transistor and chassis.

Fit the insulating ferrules to the screw holes in chassis then fit mica washer, lead washer and transistor. Fasten each transistor securely with two $\frac{1}{4}$ "x No. 6 screws.

OPERATION OF DRIVER TRANSISTORS AS MATCHED PAIRS

The type AX1130 transistors are operated in matched pairs, replacements MUST be made accordingly and NOT as single units.

Matched pairs as used in this receiver are identified by a batch "letter" printed on the side of transistor housing. Transistors with different "letters" must not be operated together.

A matched pair of AX 1130 transistors are supplied as:- 2-AX1130, Part No. 4128-102-01.

MEASUREMENT AND ADJUSTMENT OF OUTPUT TRANSISTORS COLLECTOR CURRENT

EQUIPMENT: Current Meter: 0-1 Amp. DC. Leads terminated with Jack Plug, Part No 7171-015-02, positive terminal lead to tip contact.
Supply Source: 13.0V DC.

CONDITIONS: Note receiver polarity changeover switch position then connect supply leads accordingly. Connect speaker to receiver socket adjacent to battery lead entry.
No signal applied to aerial socket.
Volume control; minimum position.
Connect meter to receiver socket located near speaker transformer on top lid.

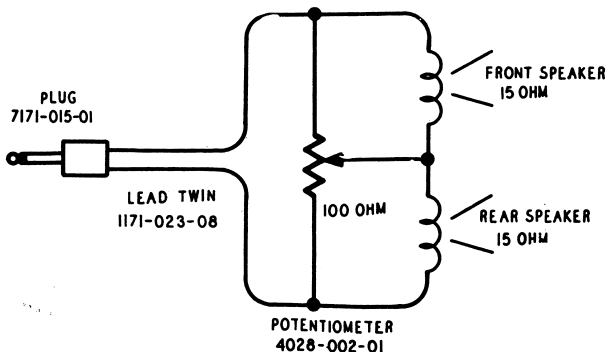
- 1 Switch receiver "ON" and allow to stabilize for at least five minutes.
- 2 Adjust the bias potentiometer (circuit No.100) to obtain a reading of 150 mA.

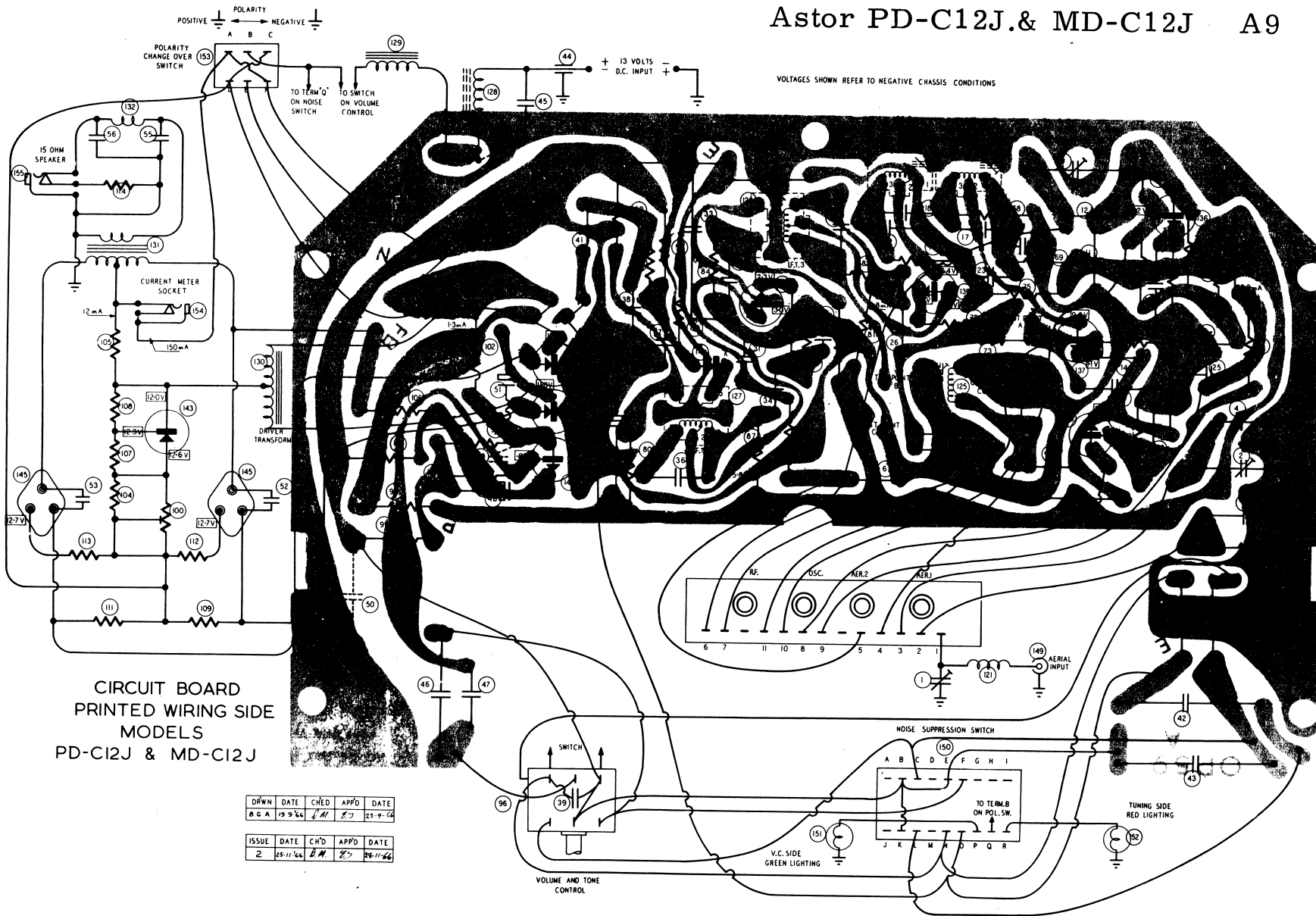
NOTE: If the supply source is below 13.0V DC. the meter readings are to be set as follow:-

12.5V DC input - 120 mA meter indication
12.0V DC input - 85 mA meter indication

NOTE: No further adjustment of the bias should be necessary unless the output or driver transistors or associated componentry are replaced.

CONNECTION OF A FADER CONTROL FOR USE
WITH FRONT AND REAR SPEAKERS





Astor PD-C12J & MD-C12J

FAULT LOCATION GUIDE - GENERATOR TEST

the following points:- **NOTE** Always start with a low generator output. Strong signals may overload the receiver or

CHECK POINT

Each output transistor base
Audio driver transistor base
Audio amp. transistor base
Top of volume control
Detector input
2nd IF transistor base
1st IF transistor base
Osc/mix transistor base
Osc/mix transistor base
RF transistor base
Dummy aerial

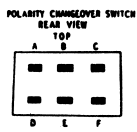
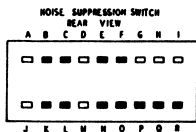
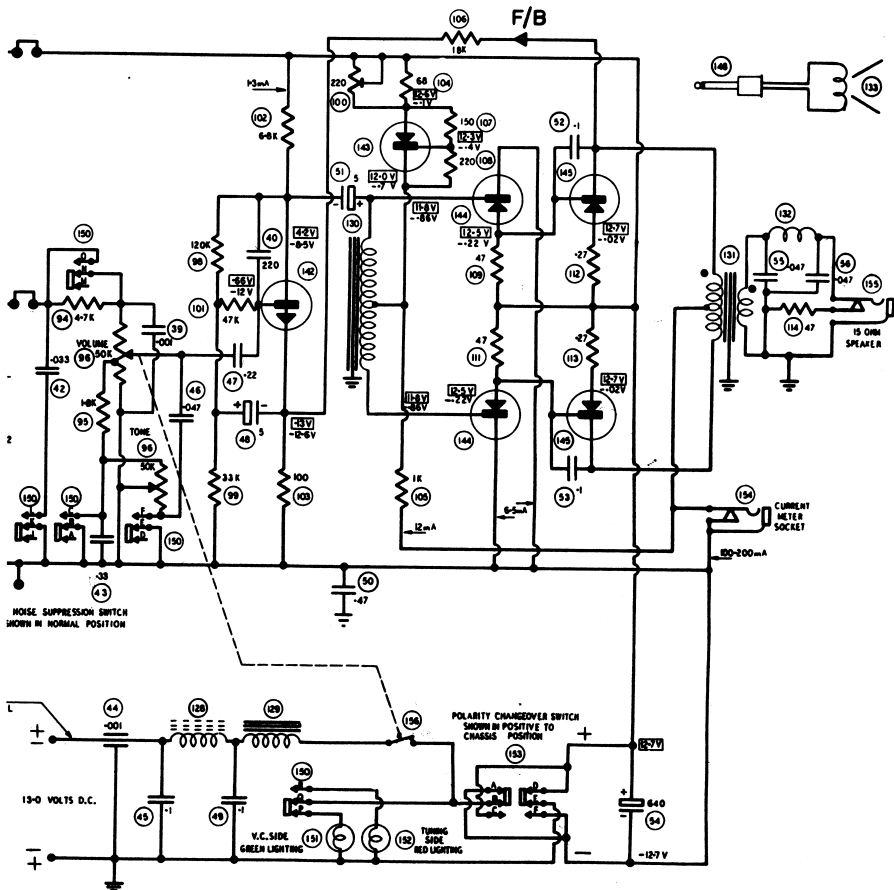
SIG. GEN. FREO.

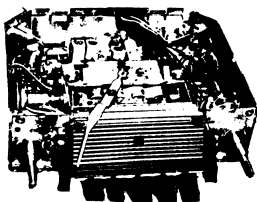
Audio
" "
" "
455 Kc/s
" "
" "
Sig. Freq.
" "
" "

SIGNAL STRENGTH

Adjust generator to provide a low signal
Increase in level of check No. 1.
Increase in level of check No. 2.
Same level as check No. 3.
Adjust generator to provide a low signal
Increase in level of check No. 5.
Increase in level of check No. 6.
Increase in level of check No. 7.
Adjust generator to provide a low signal
Increase in level of check No. 9.
Small decrease in level of check No. 10.

BCIO9 2N4O8 2-AXII3O 2-ATII38





INTERFERENCE REDUCTION SWITCH

Interference and static which originates in power lines, trams, welders, electrical storms, etc., may be reduced through the use of the Interference Reduction Switch.

To reduce the interference, make certain the radio is tuned accurately to the station, then turn the rear knob on the left of the dial anti-clockwise. As an indication of this position the dial illumination will change to red.

The switch should be returned to the clockwise position to obtain the best sound quality under good reception conditions. It should be noted that the switch over-rides the action of the tone control which is in-operative whilst the Interference Reduction Switch is in the anti-clockwise position.

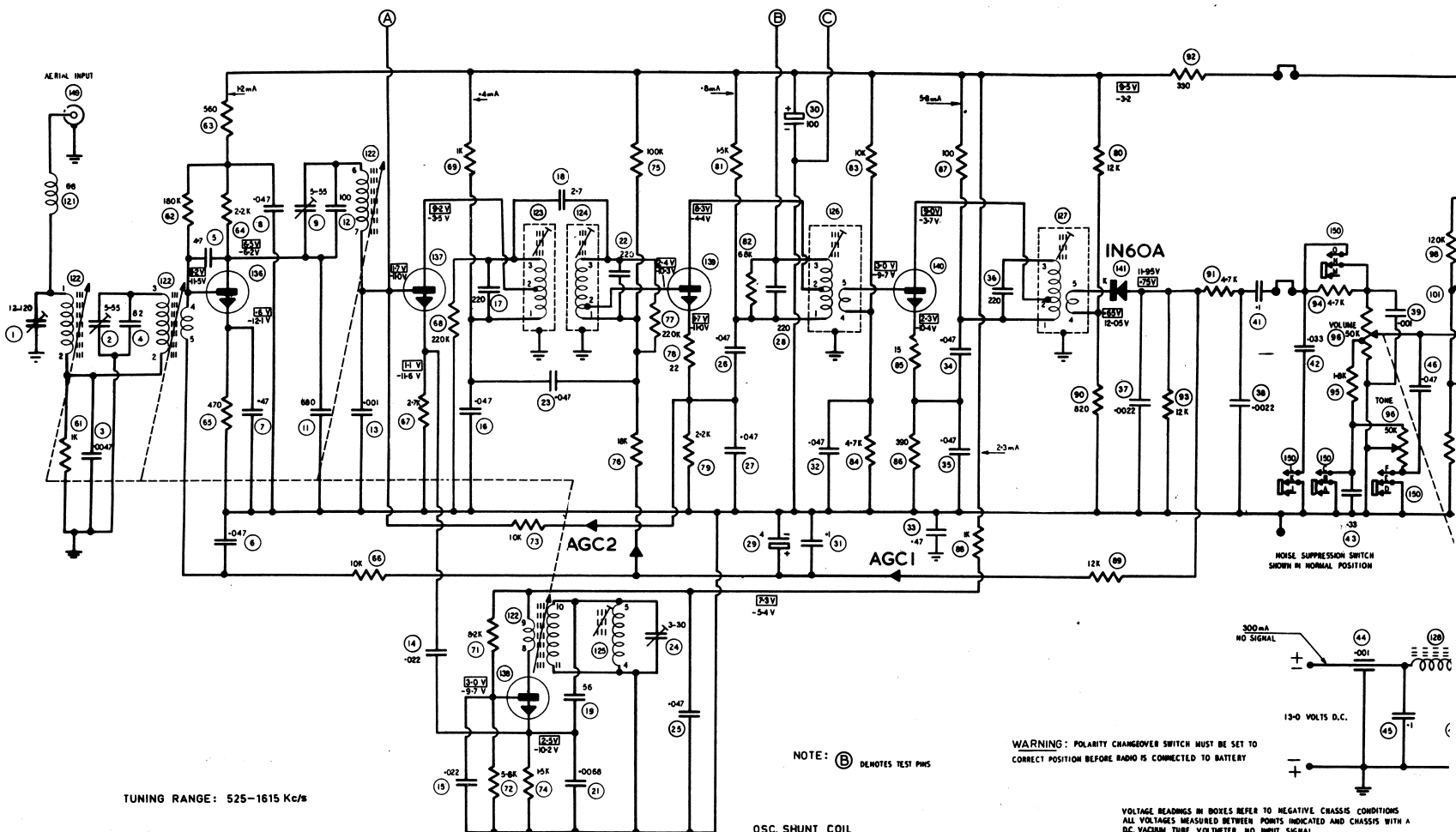
AT313

AT312

AT312

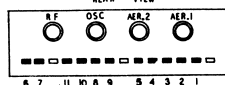
AT312

AT312

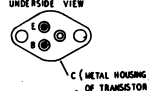


TUNING RANGE: 525-1615 Kc/s

PERMEABILITY TUNER UNIT



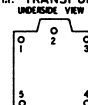
POWER TRANSISTOR



SMALL TRANSISTOR

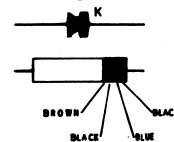


OSC. SHUNT COIL
& I.F. TRANSFORMER



LF. 455 Kc/s

1N60A DIODE

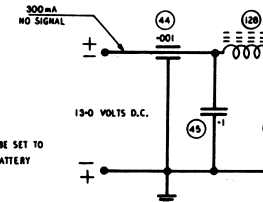


MODEL PD-C12J & MODEL MD-C12J
PUSH BUTTON MANUAL

11 TRANSISTOR
DUAL POLARITY

NOTE: (B) DENOTES TEST PWS

WARNING: POLARITY CHANGEOVER SWITCH MUST BE SET TO
CORRECT POSITION BEFORE RADIO IS CONNECTED TO BATTERY



VOLTAGE READINGS IN NOTES REFER TO NEGATIVE CHASSIS CONDITIONS
ALL VOLTAGES MEASURED BETWEEN POINTS INDICATED AND CHASSIS WITH A
D.C. VACUUM TUBE VOLTMETER. NO INPUT SIGNAL
NUMBERS ASSIGNED TO TERMINALS OF COILS AND TRANSFORMERS ARE TO FACILITATE
CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT BE FOUND ON THE UNIT
IMPORTANT: REFER TO SERVICE DATA PD-C12J AND MD-C12J FOR INSTRUCTIONS
BEFORE ADJUSTING COLLECTOR CURRENT OF AT113'S