

CIRCUIT BOARD
 PRINTED WIRING SIDE
 MODEL
 PN-C12Q

DRWN	DATE	CHK'D	APP'D	DATE
o. g. a.	1-12-54	R. P.	R. P.	1-12-54

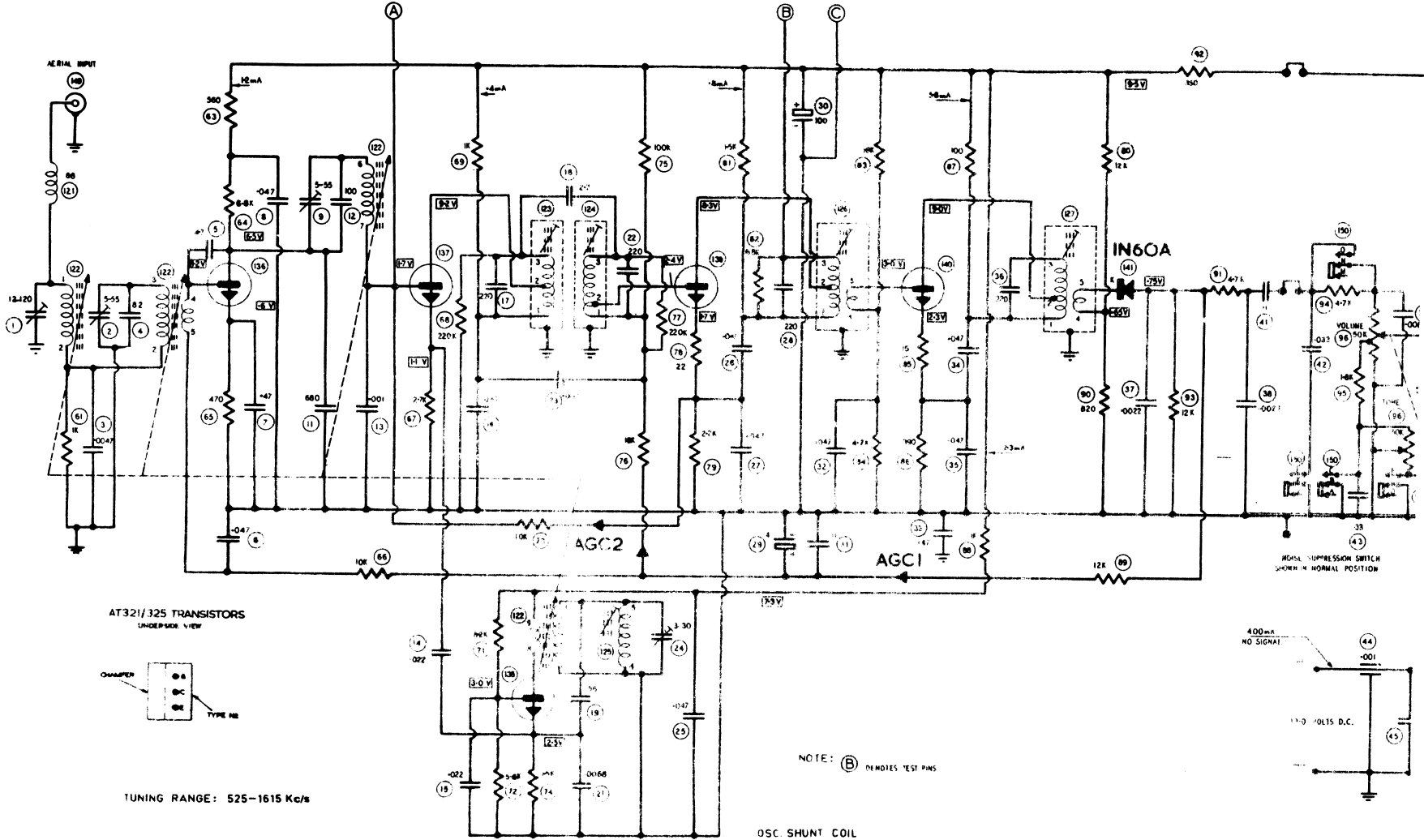
AT325

AT321

AT321

AT321

AT321

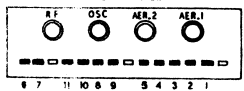


AT321/325 TRANSISTORS
UNDERSIDE VIEW



TUNING RANGE: 525-1615 Kc/s

PERMEABILITY TUNER UNIT
REAR VIEW



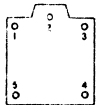
POWER TRANSISTOR
UNDERSIDE VIEW



SMALL TRANSISTOR
UNDERSIDE VIEW

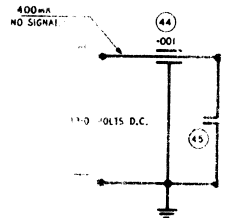
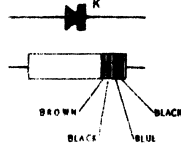


OSC SHUNT COIL
& I.F. TRANSFORMER
UNDERSIDE VIEW



I.F. 455 Kc/s

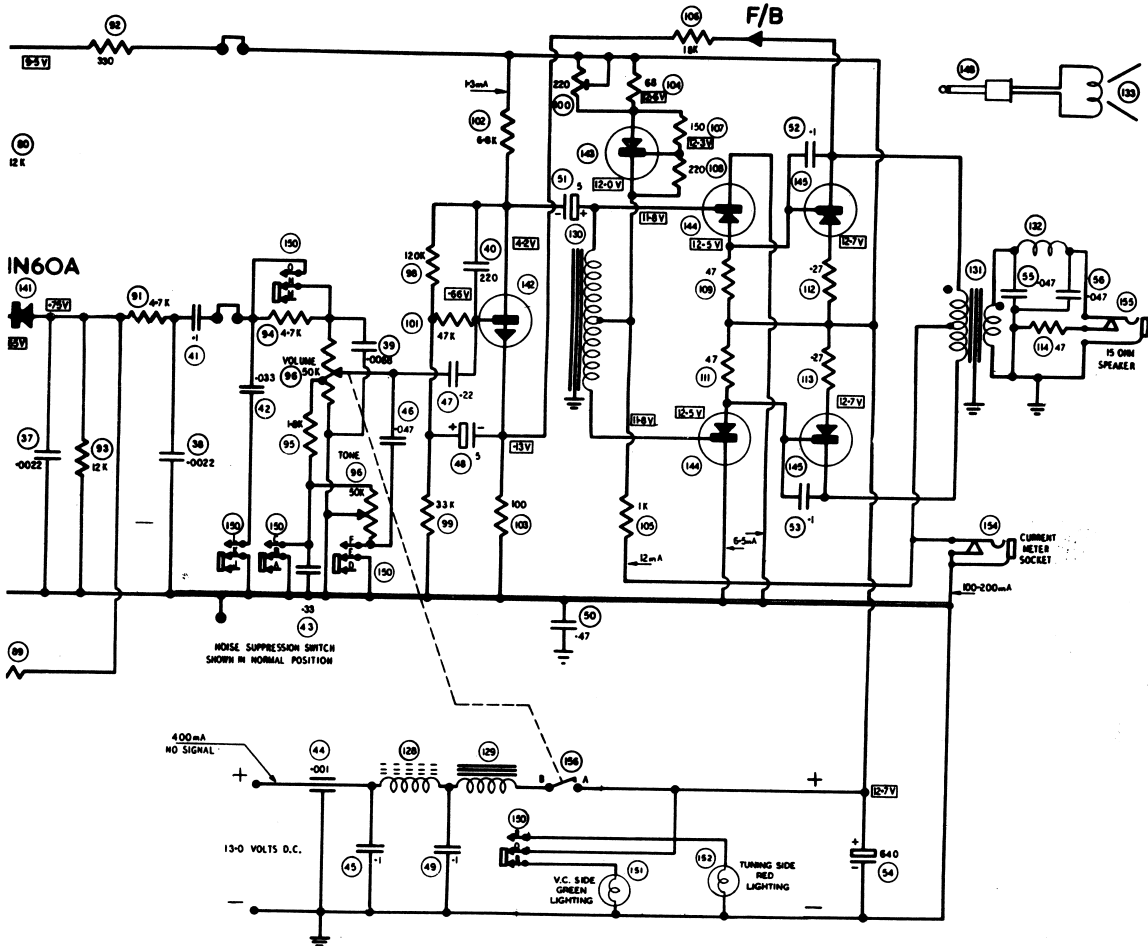
1N60A DIODE



NOTE: (B) DENOTES TEST PINS

NORMAL SUPPRESSION SWITCH
SHOWN IN NORMAL POSITION

BC109 2N408 2-AX1130 2-AT1138



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 PN-C12Q FOR INSTRUCTIONS BEFORE ADJUSTING COLLECTOR CURRENT OF AT1138'S.

MODEL PN-C12Q

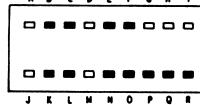
PUSH BUTTON

11 TRANSISTOR NEGATIVE TO CHASSIS

DRAWN	DATE	CHKD.	DATE	APP'D.	DATE
K. J. D.	2-4-67	W. P.	5-1-67	S. M.	5-1-67

NOISE SUPPRESSION SWITCH

REAR VIEW



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 idents. must not be operated together. A matched pair of AT1138 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 then fit mica washer, lead washer and transistor. Fasten each transistor securely with two $\frac{1}{2}$ " No.6 screws.

NOTE: Some batches of type AT1138 transistors have a thinner base flange than usual. Where these are fitted, the lead washer is deleted and the mount screws shortened to $\frac{3}{8}$ ".

Screw (2) $\frac{3}{8}$ x No.6 Part No. 7201-577-04

OPERATION OF DRIVER TRANSISTORS AS MATCHED PAIRS

The type AX1130 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 AX1130 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 Connect supply leads, negative lead to receiver chassis. 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 150mA.

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

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

