A13.

MODEL "AST"
AUDIO AMPLIFIER

POWER OUTPUT:

1 Watt

FOR OPERATION FROM:

200-240 Volt 50 cycle AC. Mains (Power Transformer PT962)
Power trans. Primary Tap, 'C' common.
" " " " 200 Volt mains.
" " " " 230 & 240 Volt mains.

230-250 Volt 40 or 50 cycle AC. Mains (Power transformer PT983)
Power trans. Primary Tap, 'C' common.
" " " "
" " " " 230 Volt mains.
" " " " 250 Volt mains.

POWER CONSUMPTION:

30 Watts approx.

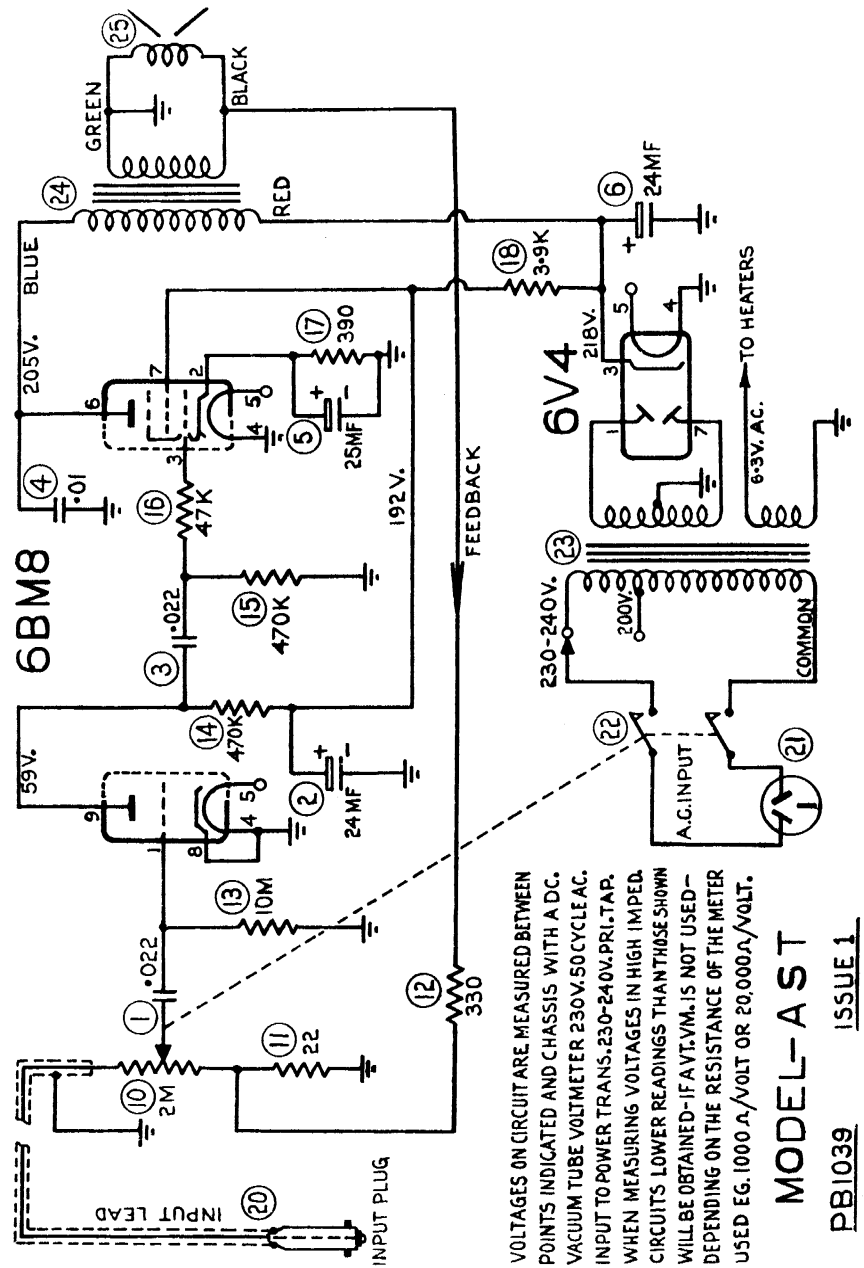
SERVICE INSTRUCTIONS (ELECTRICAL)

EQUIPMENT:

Audio Signal Generator
Output Meter

TEST CONDITIONS:

Volume Control	:	maximum (fully clockwise)
Audio Signal Generator	:	1000 CPS
Signal Generator Output	:	0.1 Volt.
Output Meter	:	4 Ohms impedance Connected across secondary winding of output transformer. (Speaker voide coil disconnected.)
Mains Input Voltage	:	230 Volts 50 cycle AC. input to power transformer 230-240 Volt primary tap.



AUDIO AMPLIFIER GAIN TEST:

The amplifier chassis does not have to be removed from the cabinet to check the overall gain of the amplifier.

IMPORTANT: Before disconnecting leads from speaker voice coil terminals, note the lead colours to ensure correct phasing of the speaker when the leads are reconnected.

A. Set frequency of audio generator to 1000 cycles.

B. Adjust output level of generator to 0.1 Volt.

C. Disconnect leads from voice coil terminals on speaker.

D. Connect output meter across secondary of output transformer.

E. Connect audio signal generator output lead to input plug on free end of amplifier input lead.

1. Generator output lead 'active' to amplifier lead plug centre contact.
2. Generator output lead 'non-active' to amplifier lead plug metal casing.

F. Turn ON/OFF switch - volume control fully clockwise.

G. With a signal input of 0.1 Volt applied to amplifier input, the output meter should indicate a minimum of 800 milliwatts output. (4 Ohms impedance, output meter across transformer secondary, speaker voice coil disconnected.)

STEREOPHONIC REPRODUCTION AND SPEAKER PHASING:

STEREOPHONIC REPRODUCTION: The Model 'AST' amplifier/speaker unit may be connected to a gramo/audio amplifier for Stereophonic reproduction provided the gramo/audio amplifier incorporates a Stereo cartridge in the pick-up head and has the leads from the Stereo cartridge connected to the channels as detailed below.

A. The output lead from one channel connected to the input of the audio amplifier in the gramo/audio amplifier unit.

B. The output lead from the other channel connected to a socket situated somewhere on the gramo/amplifier cabinet. Into this socket is inserted the plug on the end of the input lead from the Model 'AST'.

SPEAKER PHASING: When Model 'AST' audio amplifier unit is connected to a gramo/audio amplifier for Stereophonic reproduction, it is essential that the speakers in both units be phased correctly.

A method used for checking the phasing of the speakers is detailed in the following paragraphs.

1. Connect the plug on the end of the amplifier input lead of the Model 'AST' to the Stereo channel socket of the gramo/audio amplifier.

2. Place the Model 'AST' cabinet approx. four feet to one side in line with the speaker cabinet of the gramo/audio amplifier.

3. Play a monophonic record and accurately adjust the output of each speaker to the same volume.

4. To conduct the following test the listener should be located in a position midway between the speaker cabinets and approx. four feet away in front.

5. If the phasing is correct the reproduced sound will appear to be radiated from a point midway between the two speakers.

6. With incorrect phasing the quality of reproduction will be poor, it will appear to be lacking in bass response and will appear to be radiated from both speakers.

7. If the speakers are incorrectly phased, reverse the leads connected to the voice coil terminals of the speaker of the Model 'AST' then repeat the test detailed above.