

In most power amplifier and receiver, audio circuit of the unit has 2 adjusting points — the one is bias current adjustment, the other offset voltage adjustment.

After transistor replacement, you should recheck the bias current and offset voltage.

OFFSET VOLTAGE ADJUSTMENT

1. Connect the VOM across the output terminal of amplifier.
2. Turn the offset-voltage adjusting potentiometer so that the VOM's readings 0.

Some units have 2 potentiometers for offset voltage; the one is rough, the other fine.

BIAS CURRENT ADJUSTMENT

There are several methods for bias current adjustment. The most accurate method for adjusting bias current is measuring the voltage drop across the emitter resistor of power transistors under no signal.

Method

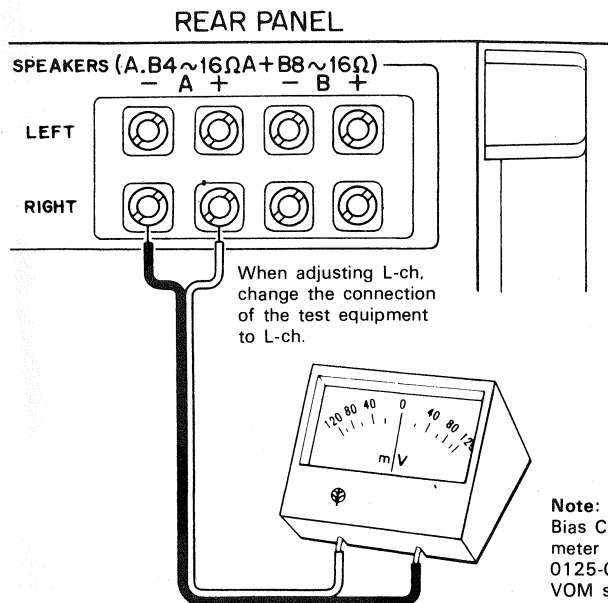
1. Turn the Volume Control to its minimum position so that the power amplifier circuit has not input signal.
2. Connect the VOM across the emitter resistor of power transistor.
3. Turn the bias-current adjusting potentiometer so that the VOM's readings is proper value. (Refer to the bias-current value table.)

Ex. In case of 40 mA bias current.

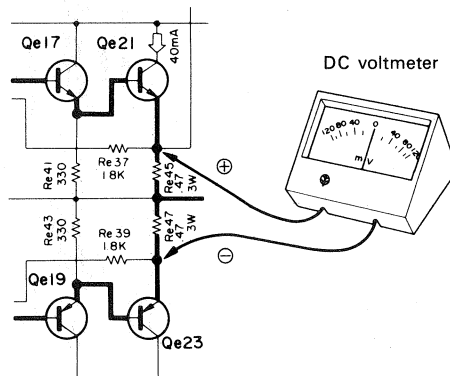
$$(Re45 + Re47) \times 40 \text{ mA} = \text{VOM's readings}$$

$$(0.47\Omega + 0.47\Omega) \times 40 \text{ mA} = 37.6 \text{ mV}$$

I.E. Turn the potentiometer so that the VOM's readings is 37.6 mV.



Note:
Bias Current meter (B31-0125-05) or VOM setting volt range.



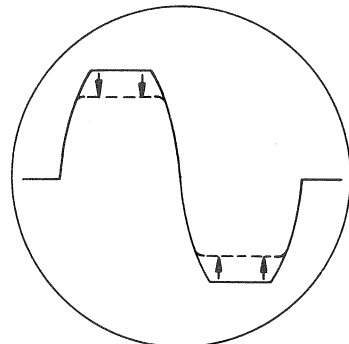
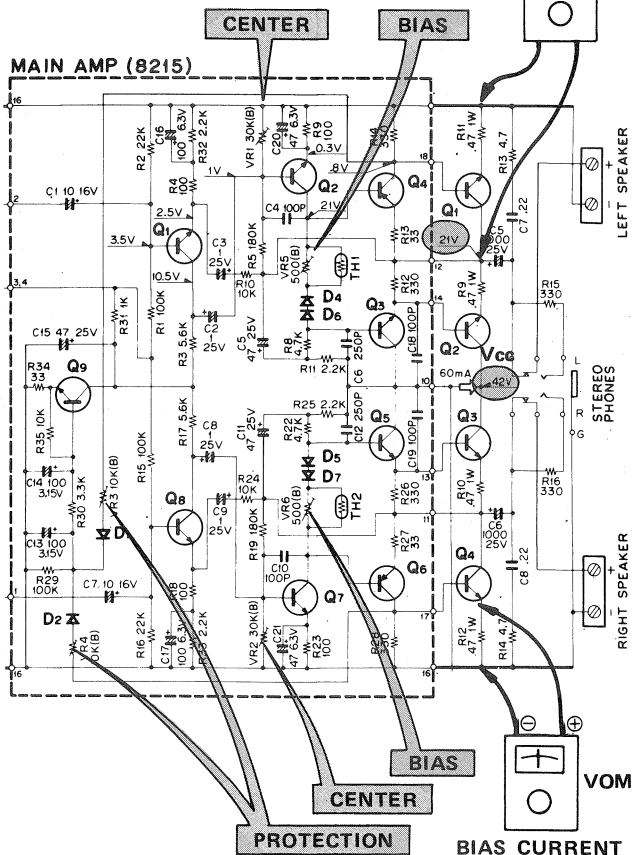
CENTER VOLTAGE

VOM

half of Vcc

PROTECTION ADJUSTMENT

1. Connect the 8Ω dummy load to the output terminal of amplifier.
2. Connect oscilloscope across the dummy load and AG to AUX jack.
3. Turn the volume control knob of amplifier and attenuator of AG so that waveform becomes overload operation.
4. Change 4Ω dummy load to 8Ω.
5. Turn the protection potentiometer at the point of waveform becoming low.
6. Reconnect 8Ω dummy load to both output terminal of amplifier and drive amplifier under full power output: Confirm the protection doesn't work.



Adjustment Points in Schematic