

AUTO RADIO SERVICE BULLETIN.

SUBJECT - ASTOR FIVE TUBE AUTO RADIO RECEIVER SERVICE

DATA:

MODELS:	6405 (6 volt)	12405 (12 volt)
CHASSIS		
TYPE:	"AJ"	"AK"

The receivers differ only in minor arrangements of circuiting as shown in top and bottom views of sets, circuit diagrams, and parts lists. Both are 5 tube two unit superheterodyne receivers.

ALIGNMENT PROCEDURE:

All padding adjustments are carefully made at the factory and ordinarily no readjustments are necessary. However, when re-adjustments are required, the procedure given below must be followed in detail.

EQUIPMENT:

Fully charged heavy duty storage battery, dummy antenna (PM157) and aligning tool (PM158).

GENERAL:

The output meter must be connected between plate and screen of 6F6 output tube.

With the receiver and signal generator set up for operation on the prescribed frequency, turn the volume control on full and set the signal generator attenuator so that a half scale reading is obtained on the output meter. The signal in the speaker should be audible but not loud.

11 - 21 STURT STREET, SOUTH MELBOURNE

AUTO RADIO SERVICE BULLETIN.

OPER.	<u>SIGNAL GENERATOR</u>		DUMMY CAPACITY	INSTRUC- TIONS	ADJUST PADDER
	<u>FREQ.</u>	<u>CONNECTION</u>			
1.	455Kc	To grid of 6A8 tube	.01 Cond. in series with Generator leads		60-61-62 & 63
2.	1550Kc	To antenna socket	40mmfd (Note 1)	Turn tuning gang plates fully out of mesh	109
3.	1400Kc	To antenna socket	40mmfd (Note 1)	Set gang at 1400Kc	108
4.	600Kc	To antenna socket	40 mmfd (Note 1)	Set gang at 600Kc	64 (Note 2)

NOTE 1: Dummy antenna (PM157) consists of 55  $\mu$ f leadin and 40  $\mu$ f aerial capacity.

NOTE 2: Rock the tuning gang through signal while adjusting low frequency padder.

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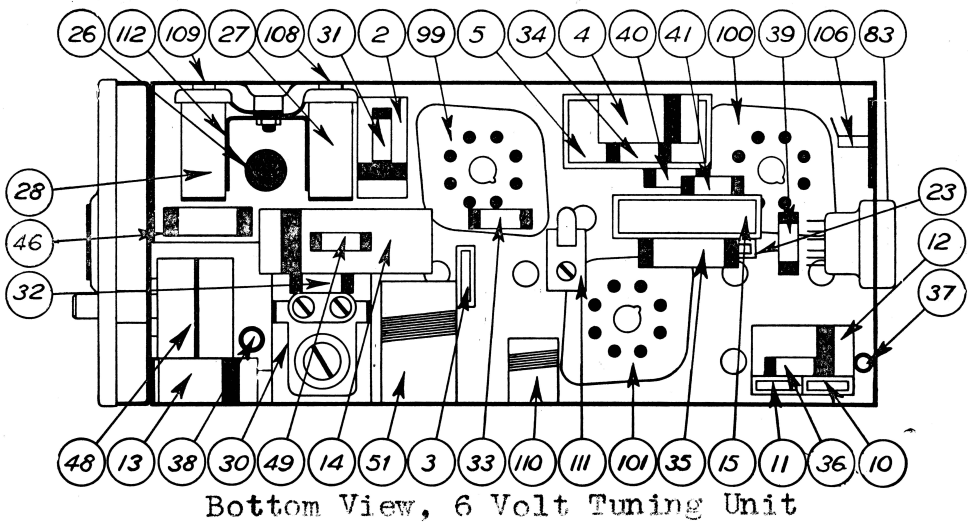
AUTO RADIO SERVICE BULLETIN.

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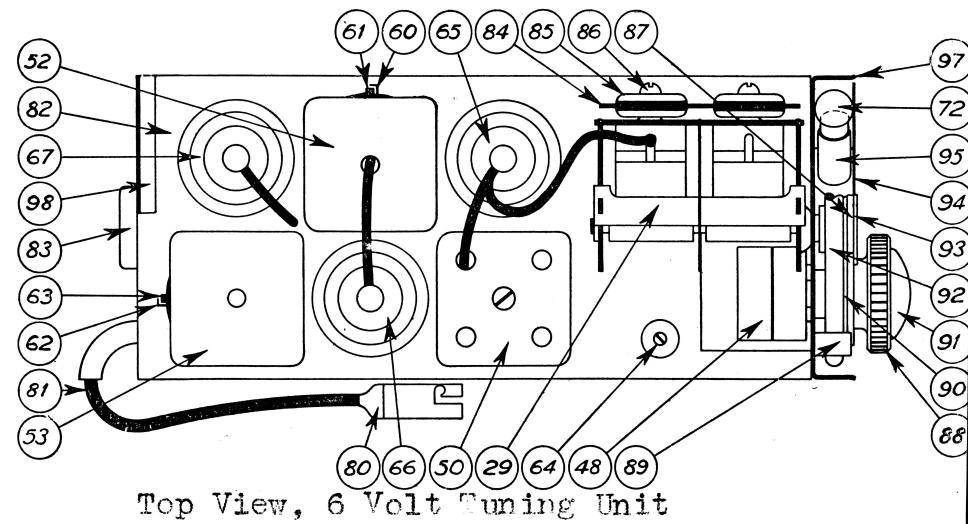
SUBJECT - DIRECTIONS FOR CHANGING VOLUME CONTROL

1. To change volume control first remove chassis from can by removing self tapping screws in rear cover and slide set out.
2. Disconnect leads to volume control.
3. Remove screw "B" and knob "C".
4. Unscrew bushing "D" by using special tool "H".
5. Remove tuning knob "E" and washers "F".
6. Replace new volume control, put washers "F" on outside of chassis, slip tuning knob "E" and bushing "D" over shaft and tighten bushing with tool "H". Before bushing is too tight, slide volume control towards dial drum so that knob "E" is in contact with rubber "G" on dial drum. The large hold in chassis allows for this adjustment. Assemble so that dial does not slip but not too tightly to cause binding. Be sure volume control is not too high up in this adjustment as it might touch rotor plates of condenser when condenser is fully open. Connect wires to volume control.
7. Replace knob "C" and tighten screw "B".
8. Replace chassis in can and replace rear cover with three self tapping screws.

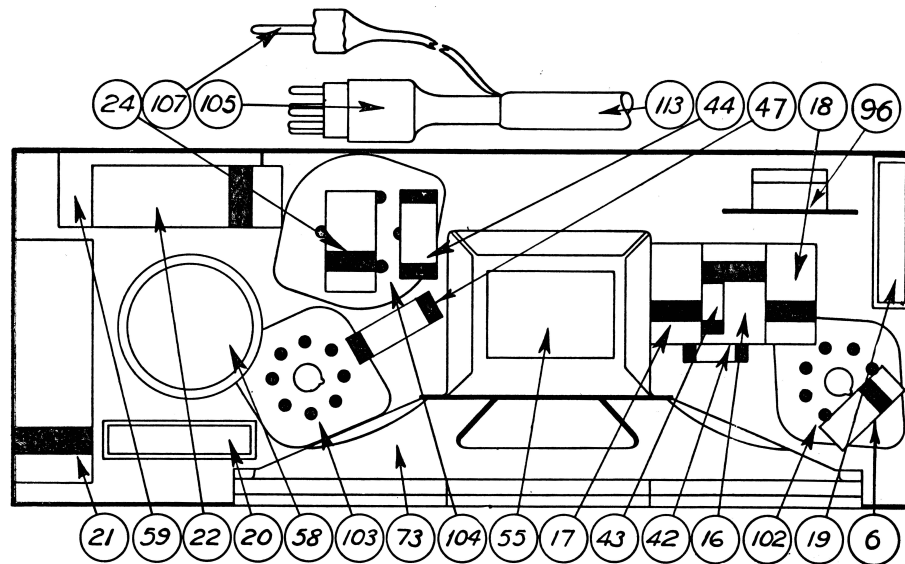
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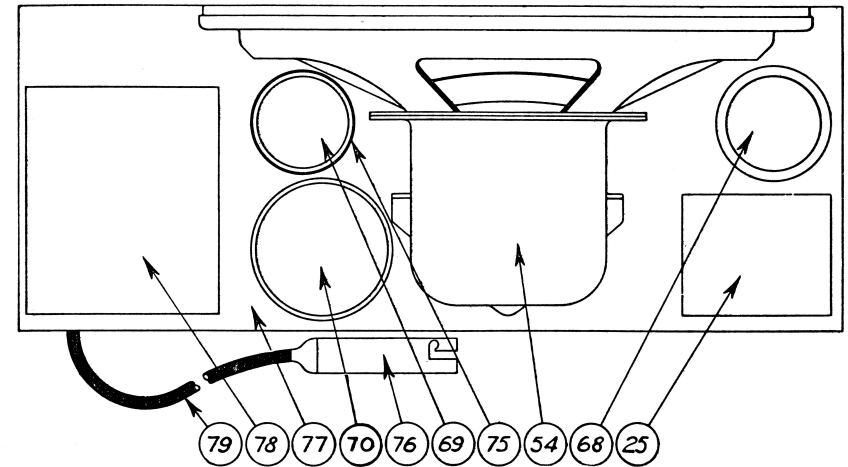
Bottom View, 6 Volt Tuning Unit



Top View, 6 Volt Tuning Unit



Bottom View, 6 Volt Speaker Unit



Top View, 6 Volt Speaker Unit

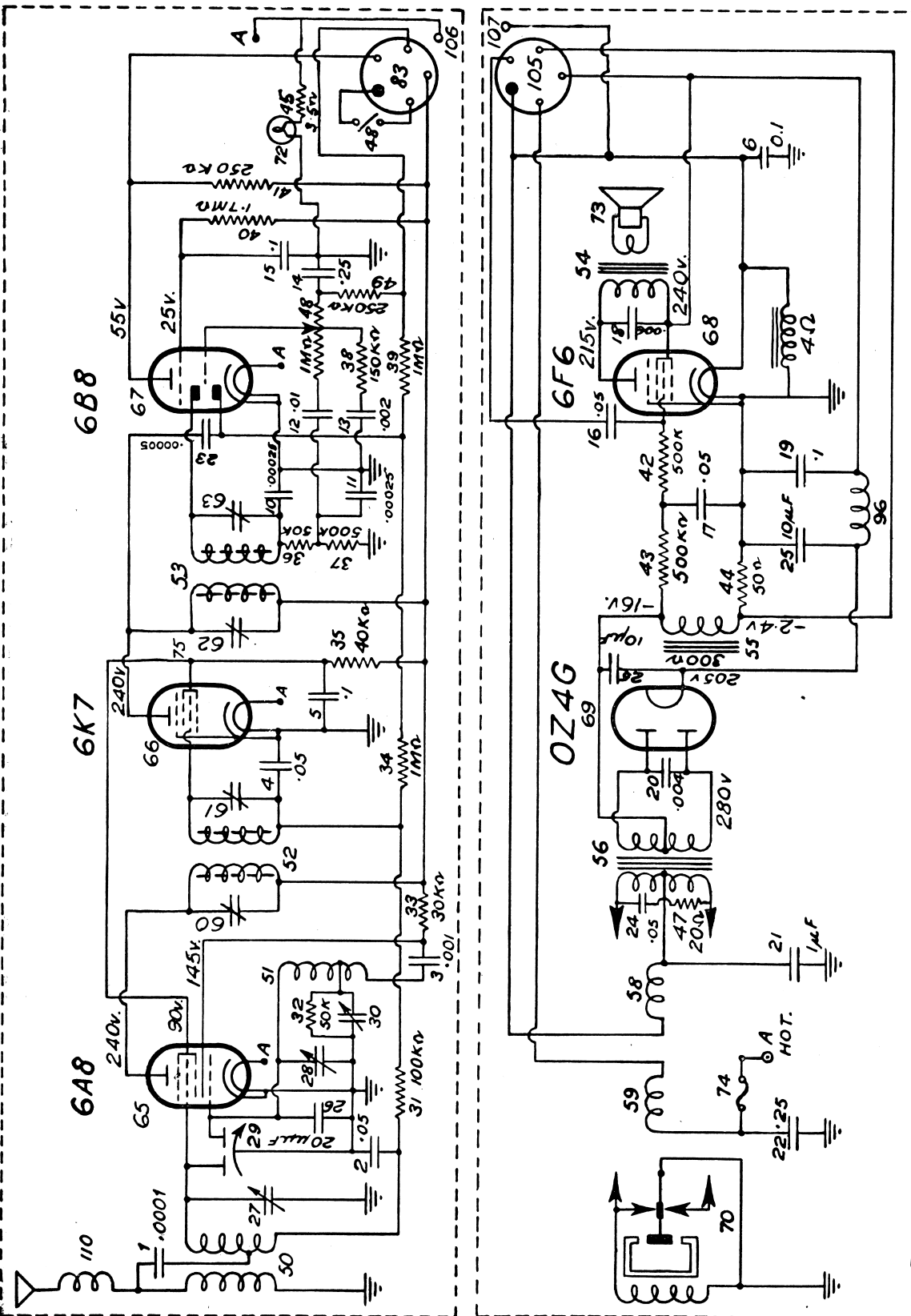


Type AJ

Model 6405

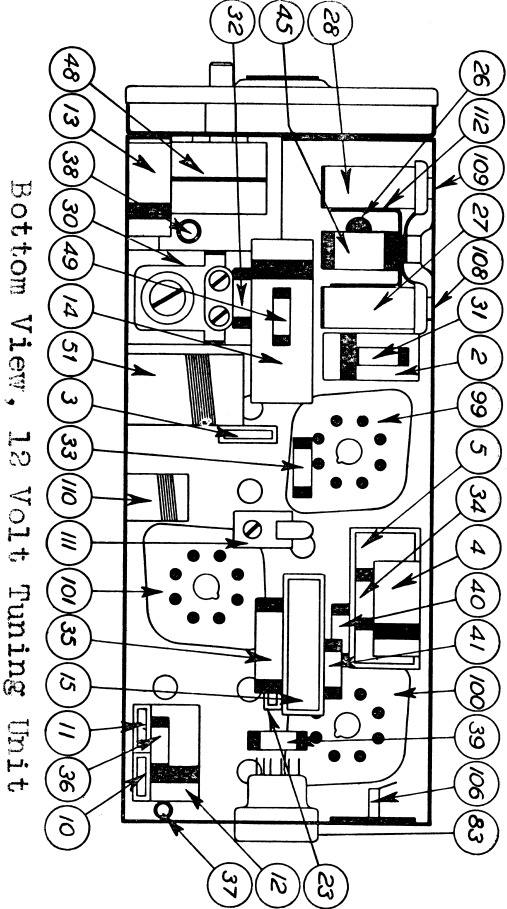
6 volt

Two Unit

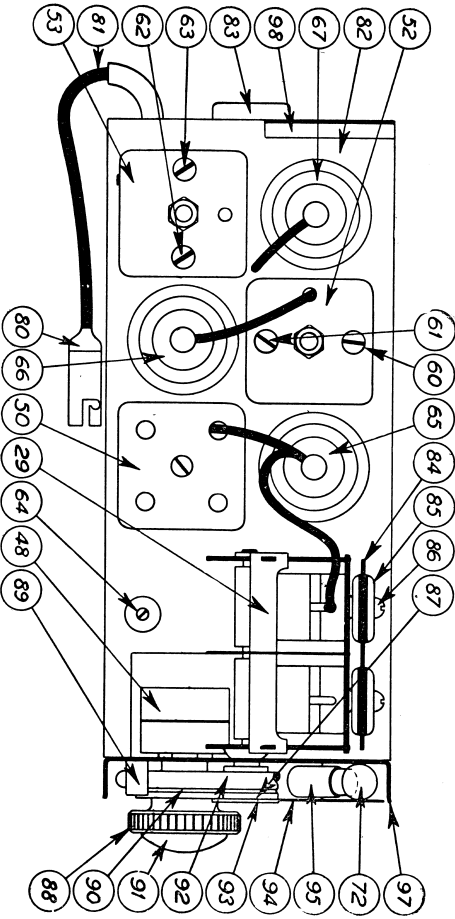


## CIRCUIT DIAGRAM

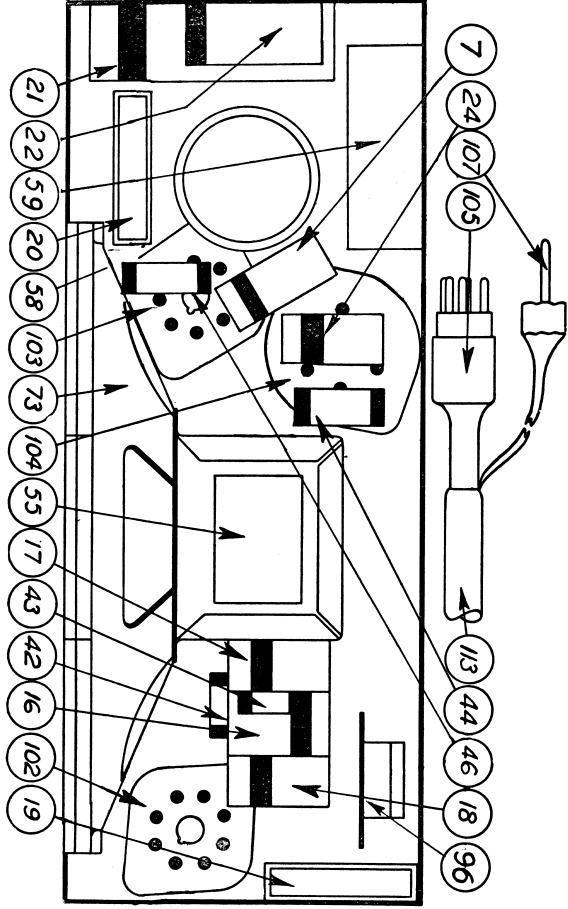
5 VALVE 2 UNIT AUTO RECEIVER, TYPE AJ.  
6 VOLT TYPE.



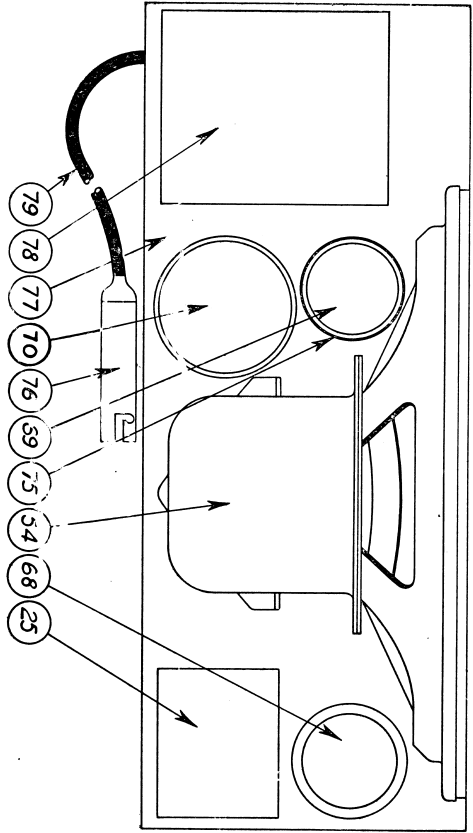
Bottom View, 12 Volt Tuning Unit



Top View, 12 Volt Tuning Unit



Bottom View, 12 Volt Speaker Unit



Top View, 12 Volt Speaker Unit

Two Unit



AUTO RADIO SERVICE BULLETIN.SUBJECT - ASTOR FIVE TUBE AUTO RADIO RECEIVER SERVICE DATA:  
CHANGE IN TUBE TYPE:

MODELS:	6405 (6 volt)	12405 (12 volt)
CHASSIS		
TYPE:	"AJ"	"AK"

Owing to a shortage of 6B8 tubes, a 6Q7 will be used in place of the 6B8. Circuit No. 67.

The circuit changes necessary are as follows:

1. Circuit No.40: 1.7 meg 1/4 watt screen resistor and Circuit No.15: .1 mfd 400V Stedipower screen condenser are deleted.
2. The filter circuit, consisting of Circuit No.14: .25 mfd 200V Paper condenser and Circuit No.49: 250,000 ohm 1/4 watt resistor, is also deleted, and the bottom of the volume control connected to earth.
3. The 6Q7 is biased by means of a 10 mfd 40VP Electrolytic condenser PC125, and a 5000 ohm 1/4 watt 10% resistor PR139, connected in parallel from 6Q7 cathode to earth. The diode load resistor, Circuit No.37, is returned to the 6Q7 cathode.

The above changes will be included in sets numbered from 556 upwards, and will continue until further notification. The number referred to is located at the back of the tuning unit, and as an additional identification, the bracket on which the number is stamped, will be painted RED.

Auto Antenna Leadins:

New low-loss leadins have been developed to give improved performance on all types of antennae, and these are also identified by a RED spot on the leadin.

It is recommended that where possible the new leadin should be used on sets incorporating the above changes to compensate for the slight drop in gain brought about by this change.

ISSUED BY ENGINNER  
J.P.S.

DESIGN DEPARTMENT.

RADIO CORPORATION PTY. LTD.  
126-130 GRANT STREET, SOUTH MELBOURNE

Bulletin S24,  
Page 8,  
22.1.40.

AUTO RADIO SERVICE BULLETIN

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SUBJECT - ASTOR FIVE TUBE AUTO RADIO RECEIVER SERVICE DATA.

Cancellation of previous bulletin.

MODELS:	6405 (6 volt)	12405 (12 volt)
CHASSIS		
TYPE:	"AJ"	"AK"

As supplies of 6B8 tubes are now available, the changes outlined in Bulletin S24, Page 7 dated 6.12.39, will be cancelled, the wiring reverting to original circuit.

Bulletin S24, Page 7 applies only to sets numbered from 556 to 804 inclusive, and all sets number 805 upwards will be the original circuit.

ELECT. DESIGN DEPARTMENT.

ISSUED BY ENGINEER  
J.P.S.

AUTO RADIO SERVICE BULLETIN.

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SUBJECT - ASTOR 5 TUBE AUTO RADIO RECEIVER SERVICE DATA.

MODELS: 12405 (12 Volt)  
CHASSIS TYPE: "AK"

The speaker on the above model is changed from 4 ohm Dynamic PM300 Spec. 907 to 6/11 Permag. PM406 Spec. 1004. No alteration is necessary to the tuning unit, but the following alterations are required in the speaker unit.

1. The field winding and the 20 ohm W.W. 3 watt resistor PR232 are deleted.
2. A 20 ohm 3 watt W.W. resistor PR224 is wired in parallel with the 6F6 tube.
3. The filaments are wired so that the 6F6 filament and 20 resistor in parallel is in series with the tuning unit tube filaments in parallel.

The above change will apply only to sets numbered from

5116 upwards (GMH)  
222 upwards (Astor)

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J.P.S.