

General Household Utilities Co.

Model: 580

Chassis:

Year: Pre October 1936

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

Riders Volume 7 - GRUNOW 7-4

Riders Volume 7 - GRUNOW 7-5

Riders Volume 6 - GRUNOW 6-9

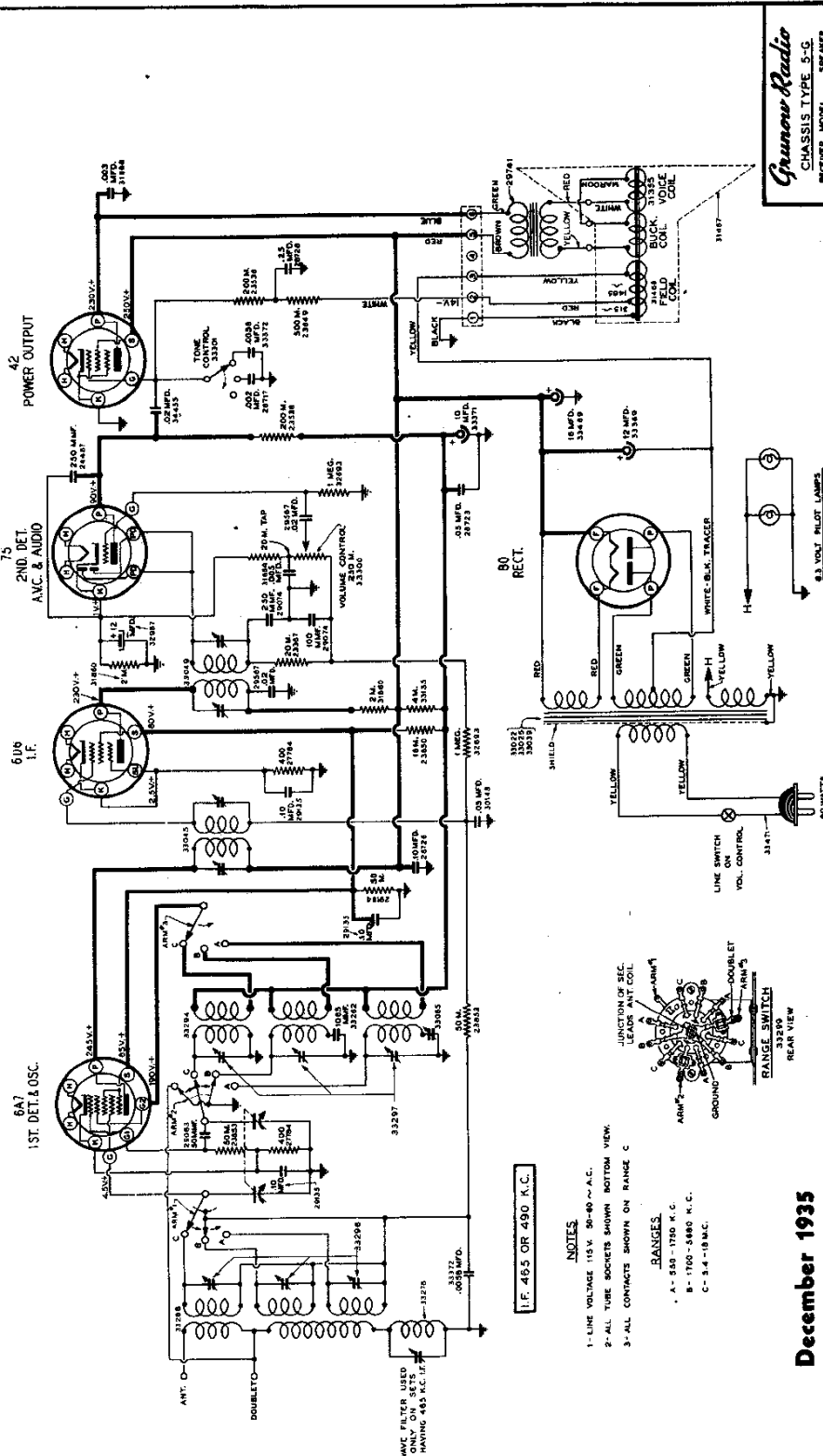
Riders Volume 6 - GRUNOW 6-10

GENERAL HOUSEHOLD UTILITIES CO.

MODELS 580, 581
Chassis 5G, Revised
Schematic, Voltage
Notes

Output tube and an 80 Rectifier tube.
The frequency range is divided into three bands or divisions, one covering the band of 550 to 1750 K.C. (A), one the band from 1700 to 5680 K.C. (B), and the other from 5.4 to 18 megacycles (C)

The GRUNOW 5G Chassis is a Five tube, 115 V. 50-60 cycle A.C., three band receiver with A.V.C., Tone Control and a "Band Spread" dial. The tubes used are: 6A7 1st Detector and Oscillator, 6D6 I.F. Amplifier, 75 2nd Detector, A.V.C., and 1st Audio Amplifier, 42 Power

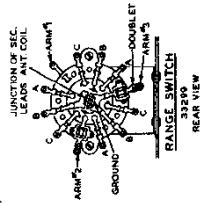


Grunow Radio
CHASSIS TYPE 5-G
REORDER MODEL 580ESEL
580 & 581 18 B 4
GENERAL HOUSEHOLD UTILITIES CO.
1400 WEST 11TH AVENUE
CHICAGO, ILL. U.S.A. 69

115 V. 50 OR 60 A.C.

- NOTES**
- 1- LINE VOLTAGE 115 V. 50-60 ~ A.C.
 - 2- ALL TUBE SOCKETS SHOWN BOTTOM VIEW.
 - 3- ALL CONTACTS SHOWN ON RANGE C

- RANGES**
- A - 550 - 1750 K.C.
 - B - 1700 - 5680 K.C.
 - C - 5.4 - 18 M.C.



December 1935

MODELS 580, 581
Chassis 5G
Alignment

GENERAL HOUSEHOLD UTILITIES CO

5 - 800 K.C. ALIGNMENT:

- (A) Place test oscillator in operation at 800 K.C.
(B) Tune in signal to maximum (this point does not have to be exactly at 800 K.C. dial setting).
(C) Adjust the 600 K.C. Padding Condenser (A7), Fig. (1), (which is on top of Chassis to the rear of variable condenser) in direction of signal increases. At same time rock the tuning condenser back and forth through resonance while adjusting padding condenser until maximum output is obtained.

6 - CHECK 1400 K.C. ALIGNMENT

7 - 5 K. C. ALIGNMENT:

- (A) Set Range switch at "B".
(B) Place test Oscillators in operation at 5 K.C.
(C) Turn Dial pointer to 5 K.C.
(D) Adjust Set Oscillator Trimmer (A8), Fig. (1), to maximum output.
(E) Adjust Detector Trimmer (A9), Fig. (1) to maximum output.
(F) Check Dial Setting at 1800 K.C.

8 - 18 M.C. ALIGNMENT:

- (A) Connect signal lead of test oscillator through 400 Ohm resistor to Antenna binding post of Chassis.
(B) Connect the ground lead to ground terminal of chassis.
(C) Set Range Switch to range "C" and turn dial pointer to 18 M.C.
(D) Place Test Oscillator in operation at 18 M.C.
(E) Adjust set Oscillator Trimmers (A10), Fig. (1), to maximum output.
(F) Adjust Detector Trimmers (A11), Fig. (1), to maximum output.
(G) On the 18 M.C. Alignment it will be noted that there are two settings at which the signal will be received. Use the lower of the images for alignment point, that is, the setting giving most capacity or the point at which the trimmer screw is farthest in. Check dial setting at 6 M.C.

NOTES:-

Due to interference caused by commercial code stations in some locations, it has been necessary to use two I.F. Frequencies on this Receiver, one of 490 K.C. where code interference is in the neighborhood of 456 K.C. and the other where the interfering stations are operating in the 800 K.C. band, we use an I.F. of 465 K.C.

The I. F. Frequencies of the Receiver is stamped on the rear of the Chassis, and if there is any doubt as to I.F., peaking, it is only necessary to apply a variable I.F. signal to the I.F. Amplifier, and maximum output will indicate resonance or frequency at which the I.F.'s were peaked.

To further overcome this form of interference, sets peaked at 465, also incorporate a wave filter in the Antenna circuit. This filter should be tuned to the same frequency as the I.F. Transformers. Tuning is accomplished after the set has been completely aligned by applying the I.F. Frequency signal through to a .0002 Mfd., condenser to the Antenna binding post of the Receiver, and tuning the wave filter condenser, (A12) (located on the right hand side of the Chassis) so that the incoming signal is at minimum output.

In other words, apply a strong 465 K.C. signal to the Receiver Antenna Post thru the .0002 Mfd., Condenser, and tune wave filter so that the output meter indicates minimum.

SERVICE INSTRUCTIONS GRUNOW CHASSIS 5 G
BROADCAST AND SHORT WAVE RECEIVER
MODELS 580 - 581
SPEAKERS 584 - 584

The frequency range is divided into three bands or divisions, one covering the band of 550 to 1750 K.C. (A), one the band from 1700 to 5680 K.C. (B), and the other from 5.4 to 15 megacycles (C).

CIRCUIT ALIGNMENT PROCEDURES

Do not attempt to align the 5 G Chassis without proper equipment. Alignment condensers are shown in the accompanying illustrations, - I.F. Condensers on top of the I.F. Transformers.

1 - EQUIPMENT:

- (A) Test Oscillator
(B) Modulated Oscillator capable of producing signals at the I.F., Broadcast and Short-Wave frequencies is necessary for alignment of the 5 G Chassis.
(C) Insulated Screw Driver - (all bakelite or fibre) about 6" long.
(D) Output Meter.

This may be any of the standard Output Meters, but should be sufficiently sensitive to provide a good deflection at low signal strength.

(D) Coupling Means.

Coupling Condensers of 200 mmf., .25 mfd., and a 400 Ohm resistor should be used when coupling oscillators to receiver during alignment as specified in the procedure.

(E) The Receiver should be aligned in a location free from local interference (interference caused by motors - flashers - automobile ignition, etc.) as high frequency disturbances will cause difficulties when the short wave section is being adjusted. (A screen room is to be recommended.)

2 - DIAL SETTING:

Turn dial knob until condensers are fully meshed. The dial pointer (Hour hand) should be on the horizontal line of the dial, pointing to 9 and 3 O'clock. The minute hand should be at 12 O'clock or in a vertical position.

3 - I. F. ALIGNMENT:

- Connect signal lead of test oscillator to grid of 6A7 (1st detector tube) through .25 mfd., condenser. Connect the ground lead to the Chassis.
(A) Set Dial pointer to 1400 K.C. and range switch on position "A".
(B) Place Test Oscillator in operation at 490 K.C. or 465 K.C. (see note below.) Turn receiver volume control and tone control to maximum.
(C) Attenuate test Oscillator output to lowest value, consistent with obtaining a readable indication on output meter.
(D) Adjust four I.F. Trimmers, A1, A2, A3, A4, located on the I.F. Transformers on top of Chassis, Fig. (1), until maximum output is obtained. During alignment, maintain as low a value of signal as will allow obtaining of accurate adjustment.

4 - 1400 K. C. ALIGNMENT:

- (A) Connect signal lead of test oscillator through 200 mmf., condenser to antenna binding post.
(B) Connect the test oscillator ground lead to the ground post of Chassis.
(C) Place test oscillator in operation at 1400 K.C.
(D) Turn dial pointer to 1400 K.C.
(E) Turn range switch to range "A".
(F) Adjust broadcast oscillator trimmer A5, Fig. (1), to maximum output.
(G) Adjust 1st Det. Trimmer (A6), Fig. (1), to maximum output.