Montgomery Ward & Co.

	Model: 04WG-731	**Chassis:**	**Year:** Pre April 1941
	Power:	**Circuit:**	**IF:**
	Tubes:		
	Bands:		

Resources
Riders Volume 12 - MONT WARD 12-30
Riders Volume 12 - MONT WARD 12-49

MODELS 04WG-622A, 04WG-623A MONTGOMERY WARD & CO.
MODEL 04WG-731

SPECIFICATIONS MODEL 04WG-731

Power Consumption..28 Watts (At 117 volts AC Supply)
Power Output.....9 Watt Undistorted
1.3 Watts Maximum
Selectivity.....39 KC Broad at 1000 times Signal
Intermediate Frequency.....456 KC
Speaker .....6" P.M. Dynamic

Tuning Frequency Range
B Range .....528 to 1600 KC
D Range .....9000 to 12,200 KC

Sensitivity (For .05 watt output)
B Range .....8 Microvolts Average
D Range .....10 Microvolts Average

CAUTION

The metal chassis is connected to one side of the line through a .2 mfd. condenser. Both AC and DC power lines are generally grounded on one side. If the side of the line not connected to the metal chassis through this condenser is grounded and the metal chassis comes in contact with an external ground, this condenser will be connected across the line and there will be an increase in hum.

Therefore, in any service work on the chassis, keep it on a wood or other insulated surface to avoid contacts with ground. The person working on the set should avoid getting in contact with any ground.

ALIGNMENT PROCEDURE

Volume Control—Maximum All Adjustments.
Allow Chassis and Signal Generator to "Heat Up" for several minutes.
The equipment in column at right is required for aligning:

Signal Generator which will provide an accurately calibrated signal at the test frequencies as listed.
Output Indicating Meter: Non-Metallic Screwdriver.
Dummy Antennas—.1 mf., 100 mmf., and 400 ohm.

SIGNAL GENERATOR FREQUENCY SETTING	SIGNAL GENERATOR ANTENNA CONNECTION	SIGNAL GENERATOR GROUND CONNECTION	DUMMY ANTENNA	BAND SWITCH SETTING	CONDENSER SETTING	ADJUST TRIMMERS TO MAXIMUM (See Trimmer Illustration)
I. F.						
456 KC	Signal Grid of 1st Det. Connect at Stator of Large Gang Section.	Point "X" { 12SQ7—1st A.F. Prong No. 3 }	.1 mf.	B Range	Turn Rotor to full open	1st I.F. (C15) & (C16) 3rd I.F. (C19) & (C20)
RANGE B						
1600 KC	Signal Grid of 1st Det.	Point "X"	.1 mf.	B Range	Turn Rotor to full open	Oscillator Range B (C10)
1400 KC	External Antenna Clip on Loop —See Note A	External Ground Clip On Loop	100 mmf.	B Range	Turn Rotor to Max. Output Set Indicator to 1400 KC— See Note B	Antenna Range B (C8)
RANGE D						
10,500 KC	External Antenna Clip	External Ground Clip	400 Ohm	D Range	Turn Tuning Knob until indicator is at 10.5 MC on Scale	Oscillator Range D (C7)
10,500 KC	External Antenna Clip	External Ground Clip	400 Ohm	D Range	Leave Setting as above	Ant. Range D (C4)

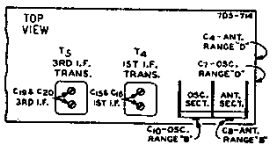
CAUTION—When aligning the short wave bands, be sure NOT to adjust at the image frequency. This can be checked as follows: Let us say the signal generator is set for 5000 KC. The signal will then be heard at 5000 KC on the dial of the radio. The image signal, which is much weaker, will be heard at 5000 less 912 KC, or 4088 KC on the dial. It may be necessary to increase the input signal to hear the image.

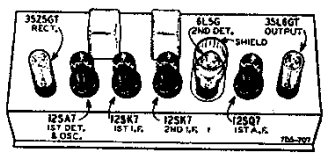
Attenuate the signal from the signal generator to prevent the leveling-off action of the AVC.

After each range is completed, repeat the procedure as a final check.

NOTE A—By means of wooden blocks, stand the loop aerial assembly upright exactly one inch from the back of the chassis.

NOTE B—If the pointer is not at 1400 KC on the dial, set pointer at this mark on the dial scale.





SPECIFICATIONS MODELS 04WG-622A, 04WG-623A

Power Consumption 60 Watts (At 117 volts 60 cycles)
Power Output.....2.5 Watts Undistorted
3.5 Watts Maximum
Selectivity.....40 KC Broad at 1000 times Signal
Intermediate Frequency.....456 KC
Speaker .....6" Electro-Dynamic

Tuning Frequency Range
B Range .....528 to 1600 KC
C Range .....2200 to 7000 KC
D Range .....7000 to 22000 KC

Sensitivity—External Antenna—(For 0.5 Watt output)
B Range .....7 Microvolts Average
C Range .....7 Microvolts Average
D Range .....15 Microvolts Average

ALIGNMENT PROCEDURE

Volume Control—Maximum All Adjustments.
Connect Radio Chassis to Ground Post of Signal Generator with a Short Heavy Lead.
Allow Chassis and Signal Generator to "Heat Up" for several minutes.

The following equipment is required for aligning:
An All Wave Signal Generator which will provide an accurately calibrated signal at the test frequencies as listed.
Output Indicating Meter—Non-Metallic Screwdriver.
Dummy Antennas—1 mf., 100 mmf., and 400 ohms.

SIGNAL GENERATOR FREQUENCY SETTING	SIGNAL GENERATOR CONNECTION AT RADIO	DUMMY ANTENNA	BAND SWITCH SETTING	CONDENSER SETTING	ADJUST TRIMMERS TO MAXIMUM
I.F.					
456 KC	Grid of 1st Det.	.1 mf.	B Range	Turn Rotor to Full Open	1st I.F. (C15) & (C16) 3rd I.F. (C20) & (C21)
RANGE B					
1600 KC	External Antenna Clip or Lead	100 mmf.	B Range	Turn Rotor to Full Open	Oscillator Range B (C9)
1400 KC	External Antenna Clip or Lead	100 mmf.	B Range	Turn Rotor to Max. Output Set Indicator to 1400 KC— See Note A	Ant. Range B (C3)
600 KC	External Antenna Clip or Lead See Note B	100 mmf.	B Range	Turn Rotor to Max. Output	600 KC (C10) Rock Rotor—See Note C
RANGE C					
7000 KC	External Antenna Clip or Lead	400 Ohm	C Range	Turn Rotor to Full Open	Oscillator Range C (C8)
6000 KC	External Antenna Clip or Lead	400 Ohm	C Range	Turn Rotor to Max. Output	Antenna Range C (C2)
RANGE D					
22,000 KC	External Antenna Clip or Lead	400 Ohm	D Range	Turn Rotor to Full Open	Oscillator Range D (C7)
21,000 KC	External Antenna Clip or Lead	400 Ohm	D Range	Turn Rotor to Max. Output	Ant. Range D (C4) Rock Rotor—See Note C
LOOP RANGE B					
1400 KC	External Antenna Clip or Lead See Note D	100 mmf.	B Range	Turn Rotor to Max. Output	Ant. Range B (C3)

Attenuate the signal from the signal generator to prevent the leveling-off action of the AVC.

After each range is completed, repeat the procedure as a final check.

NOTE A—If the pointer is not at 1400 KC on the dial, remove pointer from drive cord. Set pointer at the 1400 KC mark on the dial scale. Attach pointer to drive cord.

NOTE B—(Table Model) By means of wooden blocks, stand the loop aerial assembly the same distance from the back of the chassis that it is normally when the chassis is assembled in the cabinet.

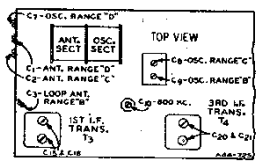
NOTE C—Turn the rotor back and forth and adjust the trimmer until the peak of greatest intensity is obtained.

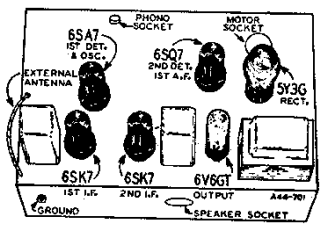
NOTE D—Re-assemble chassis in cabinet. Replace back on cabinet (Table Model). Connect ground post of signal generator to external ground clip on loop antenna (Table Model) or ground screw on chassis (Console Model).

CAUTION—When aligning the short wave bands, be sure NOT to adjust at the image frequency. This can be checked as follows: Let us say the signal generator is set for 15,000 KC. The signal will then be heard at 15,000 on the dial of the radio. The image signal, which is much weaker, will be heard at 15,000 less 912 KC, or 14,088 KC on the dial. It may be necessary to increase the input signal to hear the image.

MODEL 04WG-622A
" 04WG-623A

PHONOGRAPH CONNECTIONS: Insert phono pickup cable into phono socket (top of chassis). An a-c phono motor socket can be used to operate the record player motor.
TELEVISION SOUND AND F.M. CONNECTIONS: Audio amplifier and speaker of the receiver used to reproduce television sound or FM programs. Connect television picture receiver and sound converter or FM converter to phono socket. Turn knob to phono position.





MONTGOMERY WARD & CO.

MODEL 04WG-731