Allied Radio Corp.

	Model: A 10513	Chassis:	Year: Pre August 1939
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		

Resources
Riders Volume 10 - ALLIED 10-11
Riders Volume 10 - ALLIED 10-12

MODELS A-10515 to A-10518 incl. Chassis 8-T Schematics

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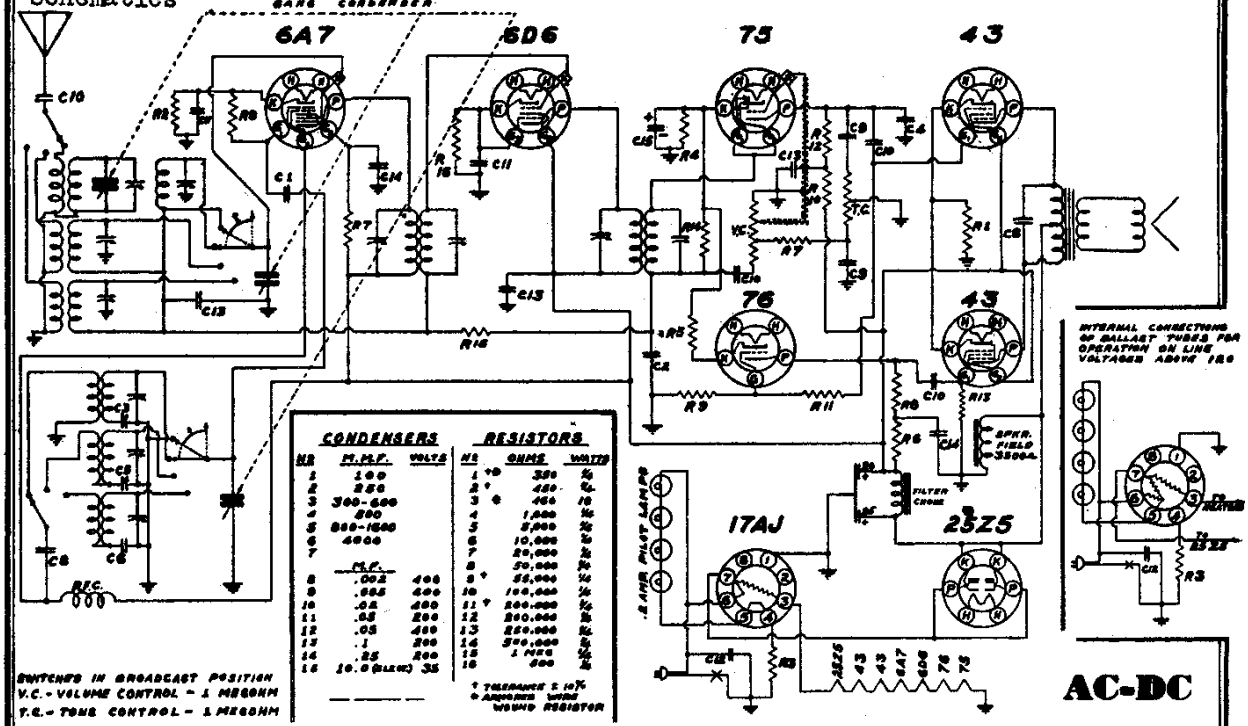
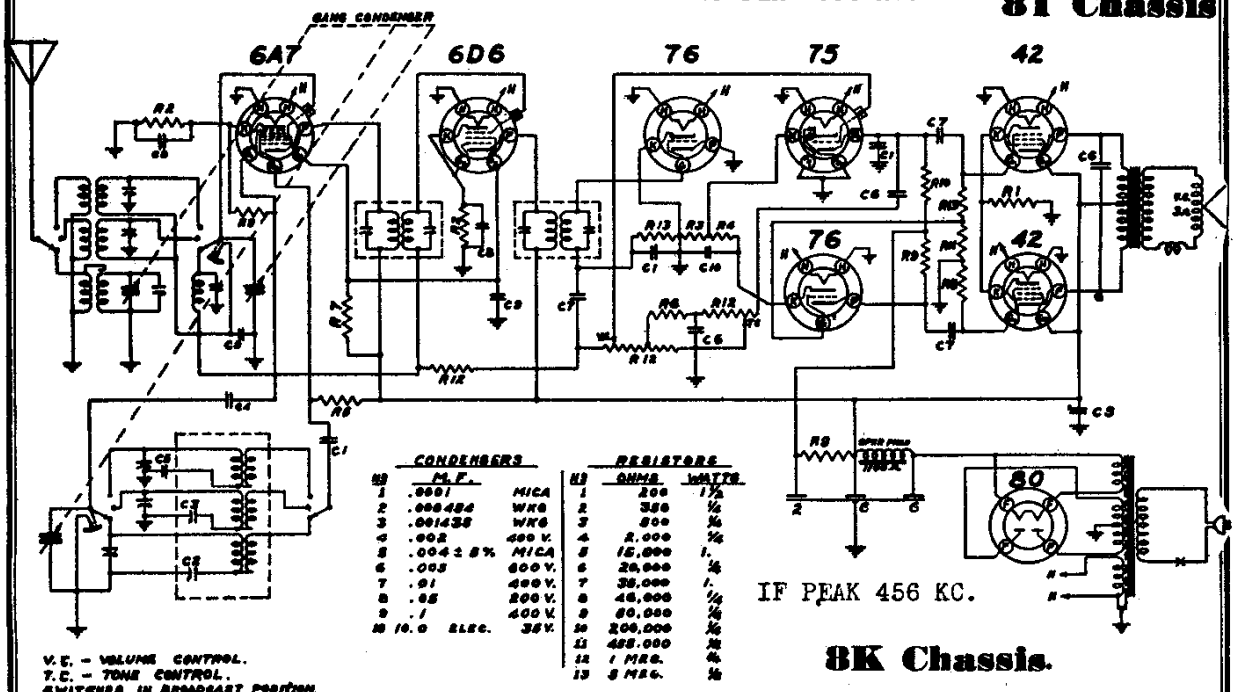
MODELS A-10510 to A-10513 incl. Chassis 8-K





8K and 8T are designed to operate over three tuning ranges with a pointer swing of 340°; the broadcast range which extends from 535 to 1730 Kilocycles (KC) (173 to 560 meters), Police and Aviation Band which extends from 1.7 to 5.6 Megacycles (MC) (53 to 176 Meters) and the International Short Wave Band which extends from 5.6 to 18.1 Megacycles (MC) (16.5 to 53 Meters). This latter range is the one which includes the four internationally assigned bands—the 19, 25, 31 and 49 meter bands.

MODELS A-10510 to A-10513
Chassis 8-K incl.

MODELS A-10515 to A-10518
Chassis 8-T incl.

ALLIED RADIO CORP.

Alignment, Socket
Trimmers, Tuner

ALIGNMENT DATA, 8K. 8T.

GENERAL DATA The alignment of this receiver requires the use of a test oscillator that will cover the frequencies of 400, 600, 1400, 1750, 1900, 4000, 5500, 6000, 16,000 and 18,100 KC and a 400 cycle source. An output meter connected across the primary or secondary of the output transformers. If possible, all alignments should be made with the volume control on maximum and the test oscillator output as low as possible, to prevent the AVC from operating and giving false readings.

CORRECT ALIGNMENT PROCEDURE The intermediate frequency (I.F.) stage should be aligned properly as the first step. After the I.F. transformers have been properly adjusted and peaked, the Broadcast Band should be aligned as the next procedure after which either or both of the Short Wave Bands may be aligned.

I.F. ALIGNMENT With the wave switch in the Broadcast Band and the gang condenser set at minimum, adjust the test oscillator to 455 KC and connect it between the control grid of the first detector tube (6A7) through a .05 or 1 mfd. condenser. The ground lead from the test oscillator can be connected to the chassis ground if the test oscillator is not grounded to one side of the power line. In case one side is connected to ground, connect a large condenser from ground to the test oscillator to ground of the chassis. Align all four I.F. trimmer to peak or maximum reading on the output meter.

BROADCAST BAND ALIGNMENT Connect the output of the signal generator to the antenna lead (blue) through a .0002 mfd. mica condenser. Set the gang condenser to minimum and the oscillator to 720 KC and adjust the "oscillator trimmer" to receive the signal. Make sure the pointer on the dial is at the low frequency end of the scale. Next set the generator to 1400 KC and tune in the signal by rotating the gang to 1400 on the dial. Adjust the "preselector" and "antenna" trimmer to maximum signal. Set the signal generator to 600 KC and tune in the signal on the receiver. Note: approximately the same sensitivity should be noted at this point as was at 1400 KC. The oscillator that will cover the frequencies of 400, 600, 1400, 1750, 1900, 4000, 5500, 6000, 16,000 and 18,100 KC and a 400 cycle source. An output meter connected across the primary or secondary of the output transformers. If possible, all alignments should be made with the volume control on maximum and the test oscillator output as low as possible, to prevent the AVC from operating and giving false readings.

POLICE BAND ALIGNMENT The police band is adjusted by first replacing the .0002 mfd. mica padding condenser with a .05 mfd. mica condenser. With the gang set at minimum, adjust the "police oscillator trimmer" to receive the signal, then set the signal generator to 4000 KC and adjust "police antenna trimmer" to give maximum output. Next, set the oscillator to 1800 KC and "pad" the circuit at this frequency as described in the instructions for padding the broadcast circuits.

SHORT WAVE BAND ALIGNMENT The short wave band is aligned in the same manner as the broadcast band with the gang at minimum, adjust the "short wave oscillator trimmer" to receive the signal. Set the generator at 16,000 KC, tune in the signal and adjust the "short wave antenna" trimmer to give maximum output. As there is no variable low frequency padding condenser in the short wave circuits, the receiver should be checked at 6000 KC to determine whether the circuits are in line at this frequency. Should the receiver lack sensitivity at 6000 KC, the antenna and oscillator coils, as well as the .004 mica padding condenser, should be tested for defects as sometimes these components become subject to mechanical or electrical injuries, despite their rugged construction and ribbon wiring.

BALLAST TUBES This receiver is designed to operate from any 60 cycle AC (alternating current) or DC (direct current) power supply main of 110 to 120 volts. However by the use of the proper tube (listed below) any one of the following line voltages can be employed: 115, 130, 150, 230.

Type Tube	Line Voltage
17A7	115 Volts — 60 Cycle
33A7	130 Volts — 60 Cycle
M50E37	150 Volts — 60 Cycle
M130E37	230 Volts — 60 Cycle

MODELS A10515,A10516,A10517,A10518 Chassis 8T.

HOW TO TUNE IN STATIONS ON THE TELEPHONE DIAL

Press in the button of the station desired tuned and rotate the dial slowly until a click is heard and the dial will not turn in either direction until the button is released. The station is now tuned in and can be adjusted to the volume desired by means of the volume control. The proper direction of rotation of the dial can be determined by turning the dial in the direction which will not allow the wide space adjacent to the pointer to converge into the space at the bottom of the dial. See Fig. (1).

PROCEDURE FOR ADJUSTING THE TELEPHONE DIAL BUTTONS

(1) Choose one of the stations out of the list of stations selected and by means of the station selector very carefully tune in this station, noting at the same time the exact pointer location on the dial.

(2) Now select the proper button for the first station chosen by referring to Fig. 1 and noting the button into whose range the station falls. For example, station WGN with a frequency of 720 KC comes under the button whose frequency ranges from 670 to 755 KC. Usually the button nearest the tuning point or the bottom of the dial will be the proper button.

(3) Loosen the button by unscrewing it (not the dial) ¼ turn to the left. Now press the button in all the way and rock the dial back and forth a little until a click is heard. Do not release the button now but set the pointer to its former location and with the dial in this position, being careful not to move it, proceed to tighten the button by turning it in the opposite direction (to the right). Make sure the button is very securely tightened as it may get out of adjustment.

(4) From the station call sheet supplied remove the proper station disc and insert into the push button so that the wording is horizontal when the button is at the bottom, and then insert a clear celluloid insert. Follow this same procedure for the remaining buttons.

Figure 1

Eight Tube AC Telephone Dial All Wave Superheterodyne

This receiver is designed to operate from a power supply main of 110-120 volts, 60 cycle alternating current (AC). Never plug into a DC outlet.

MODELS A10510,A10511,A10512,A10513 Chassis 8K.