

Sparks-Withington Co.

Model: 62

Chassis:

Year: Pre October 1936

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

Riders Volume 1 - SPARTON 1-5

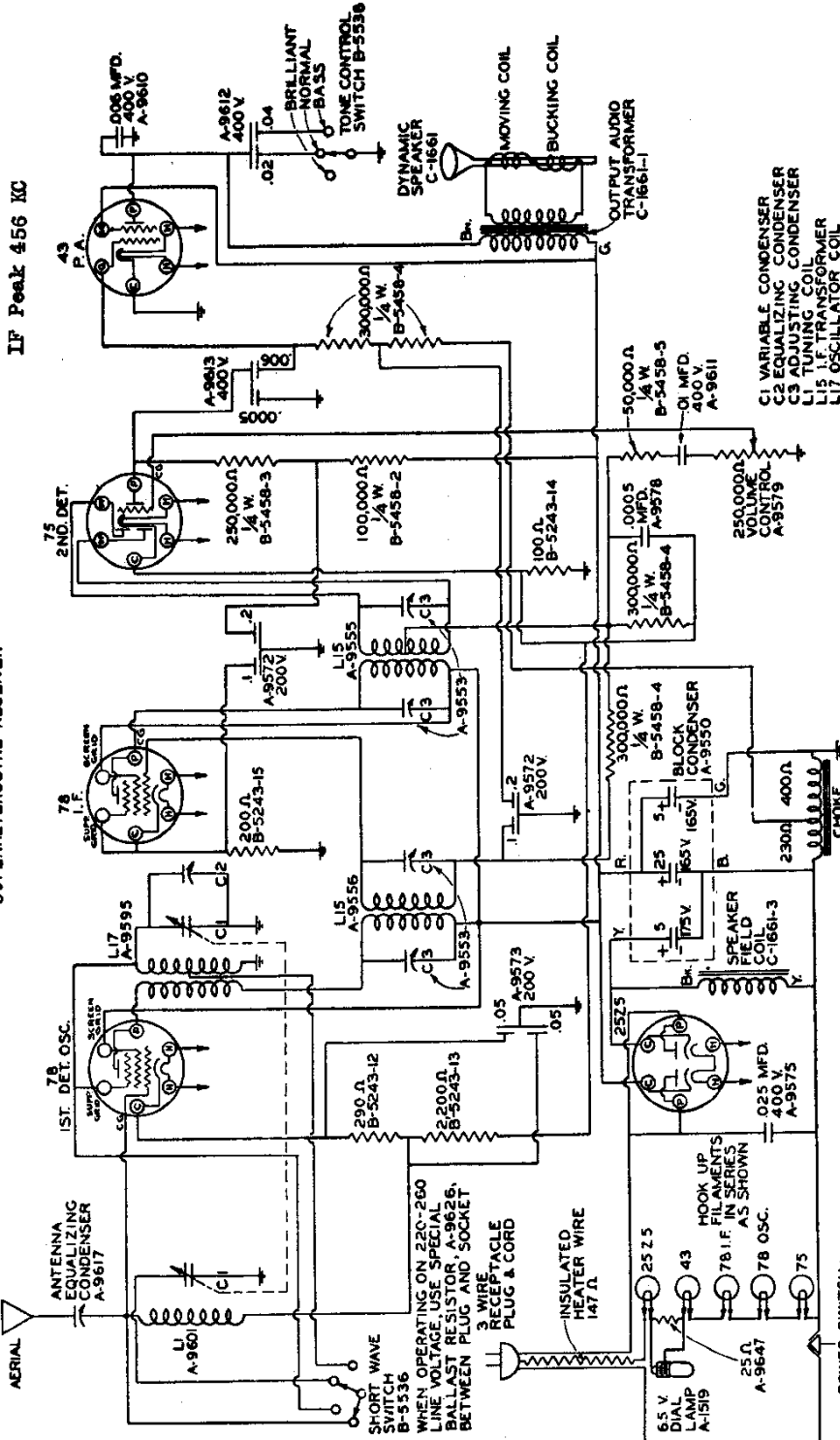
Riders Volume 4 - SPARTON 4-11

Riders Volume 7 - CHANGES 7-15

SPARKS WITHINGTON CO.

MODEL 61,62
Schematic, Voltage

SPARTON MODELS 61-62
COMBINATION BROADCAST BAND - SHORT WAVE BAND AC-DC
SUPERHETERODYNE RECEIVER



- C1 VARIABLE CONDENSER
- C2 EQUALIZING CONDENSER
- C3 ADJUSTING CONDENSER
- L1 TUNING COIL
- L5 I.F. TRANSFORMER
- L17 OSCILLATOR COIL

Line	Location	Volume Control at Full	Screen Grid	Plate Current
2575	Rectifier	98-108	98-108	18-25
43	Power	14-18	98-108	.19-.22
75	Det-AVC	4-.65	98-108	7-10
78	IF Amp	1.8-2.5	98-108	4-6
78	Det-Osc	14-18	98-108	

Voltage across speaker field is 100-120

POWER SWITCH ON VOLUME CONTROL

RCA R-10 DC

With the exception of the interlock, the R-10 DC is identical with the R-7 and R-9 DC chassis, shown on pages RCA 2-8, 2-9 and 2-10 in Rider's Manual, Volume II, pages 504-D-3 and 504-D4 in the early issues and on pages 1772, 1773 and 1774 in the Rider-RCA Combination Manual.

RCA RE-16

The RCA RE-16 receiver employs the standard R-7, R-9 AC Superette chassis already listed in Rider's Manual. To this chassis is added the phonograph motor, pickup and volume control. Service information other than those relating to replacement parts can be had by referring to the service notes covering the Superette and the Radiola 86 receivers.

In view of the absence of phonograph pickup connection to the Superette receiver, the pickup leads in the RE-16 are connected to terminals 1 and 2, the connecting link being removed. The ground connection upon the shielded lead is joined to terminal 4. The d.c. resistance of the pickup coil is 4.5 ohms. The pickup volume control is 60 ohms. The input transformer is tapped and the following values of d.c. resistance apply. Between terminals 1 and 2, 3.2 ohms; between terminals 2 and 3, 150 ohms, and between terminals 3 and 4, 4300 ohms. The connections of the pickup correspond with the data shown for the RE 16-A receiver, shown on pages RCA 4-19 and 4-20.

Crosley 5V2 and 5A3

The i-f. peak in these receivers is 181.5 kc. The alignment and servicing procedure for the 5V2 is the same as that for the 5V1, shown on pages Crosley 5-21 and 5-22 in Rider's Manual, Volume V. The circuit is substantially the same except for the addition of a 2,000-ohm resistor between the moving arm of switch 48 and the terminal which is a part of switch 48 and which connects to the low end of the input coil to the mixer portion of the 6A7. The voltage for the 5V2 is the same as that for the 5V1, shown in Rider's Manual.

Airline Model 62-166

The present production of these receivers differs from the early runs. In the early models the plate circuit of the 75 triode, contained only the plate coupling resistor of 150,000 ohms. In the

later models a plate filter resistor of 50,000 ohms was added. In addition a .25-mfd. bypass condenser, which bypassed this plate filter resistor, was also added.

In the early models the capacity range of the trimmers used across the windings of the first i-f. transformer, was 150 to 300 mmfds.

Majestic 400

The receiver schematic appears upon page Majestic 3-42 and in the RCA-Rider Combination Manual on page 1234.

In some receivers the 250-ohm resistor R-3 and the 2000-ohm resistor R-11 were replaced by a 160-ohm and a 2500-ohm resistor respectively. The purpose of this was to make the G-57A-S modulator tube oscillate more readily. If a 250-ohm and a 2000-ohm resistor are used in the receiver, it may be necessary to try two or three different tubes in this stage, when replacement is being made, before a tube is found, which will oscillate readily over the entire frequency band. If trouble is experienced along this line, the changing of either one or both of the resistors mentioned should eliminate the difficulty.

Condenser C-17 will be found to have a value of .05 mfd, in a number of receivers; however, it should be replaced with a .1-mfd unit, as shown in the schematic.

Silvertone 1840, 1842 Oscillator Plate Resistor

In some instances, the 10,000-ohm wire-wound resistor in the oscillator plate circuit of the models 1840 and 1842 opens during operation. The cause of the breakdown is mechanical, rather than electrical. Apparently, the form on which the resistance wire is wound expands sufficiently during operation to break the wire. If this break occurs during operation, a small arc occurs at the point of open, making a burnt mark upon the resistor and creating the impression that the unit failed due to overload. As has been stated, such is not the case. At any rate, replacement should be made with a 10,000-ohm carbon resistor rated at 2. watts and bearing part No. R10465.

Montgomery-Ward Models 62-185, 62-187, 62-190, 62-196

In the early models 6D6 and 42 glass tubes were used. These have been replaced by the metal tubes, 6K7 and 6F6 respectively.

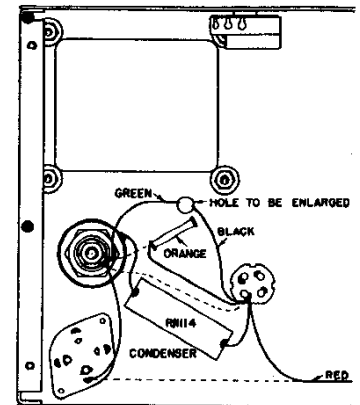
Silvertone 1720, 1725, 7065

Any trouble due to hum in these models can be eliminated by performing the following operations, the purpose being to add an additional section of filtering to the power supply.

Enlarge the hole in the chassis near the power transformer to about 0.25 inch diameter, as indicated in the illustration.

Remove the cover of the power transformer. To do this, it is first necessary to remove the four nuts on the under side of the chassis and then to unscrew the bolts that pass through the laminations. The tone control and switch will have to be dismounted in order to get at one of the transformer's nuts.

Mount a Part No. R10793B choke on top of the power transformer in place of the original transformer cover. Be sure to mount the choke so that its leads can come down through the enlarged hole in the chassis. Also be sure to tighten the bolts well, in order



Changes to be made in Silvertone Models 1720, etc.

to prevent hum. Then remount the transformer and choke assembly on the chassis and remount the tone control.

Make the wiring changes indicated in the illustration. The dotted lines represent the original wiring, which is to be changed and the solid lines show the new connections. Note that a new part, a 2-mf., 440-volt, dry electrolytic condenser, Part No. R11114, is added.

See page 4-22 of Rider's Manual for schematic diagram.

Sparton Models 61, 62

A 50-ohm, 2-watt resistor, Part No. B-6061-1, has been added in series with the plate lead of the 25Z5 that is drawn nearest the speaker field in the schematic diagram, shown on Sparton page 4-11 in Rider's Volume IV. This resistor protects the 25Z5 tube against voltage surges.

It is advisable to put this resistor in any Models 61 and 62 not so equipped that you may service.