Montgomery Ward 74WG-1054A and 74WG-1054B

These models are similar to 64WG-1054A shown on *pages 15-82 to 15-84 of Rider's Volume XV*, except for the following changes. The terminals of the oscillator coil are reversed. The high side of the 2.2-ohm winding goes to the first grid of the 1R5 mixer tube and the high side of the 6.4-ohm winding goes to grids 2 and 4 of the same tube. The low side of the 2.2-ohm winding is grounded and the low side of the 6.4-ohm winding is connected to R-7. These models also incorporate the changes noted on page 6 of the May 1947 issue of SUCCESSFUL SERVICING.

It has been called to our attention that misinterpretations are possible of the statements made in the May 1947 issue about wiring changes. The wiring of the set does not change, as no components are changed; but the wiring of the *socket* of the output tube changes as indicated in the afore-mentioned issue.

In model 74WG-1054B, in addition to the changes listed above, a 2.2-megohm resistor (R24) in parallel with a 100-$\mu\mu$f capacitor (C24) is connected from the antenna to grid 3 of the 1R5 mixer tube.

Arvin 140P, Chassis RE-209

This model appears on *pages 17-1 through 17-4 of Rider's Volume XVII*. The volume control mounting has been revised to prevent the dial-indicator eccentric mounted on the volume-control shaft from binding in its bracket. The mounting bushing on the control is slotted instead of threaded, and the control is mounted with a C20227 Speed Clip, instead of a 3/8-inch nut.

The following changes have been made in the oscillator circuit to increase the sensitivity. The 0.05-μf capacitor (C5) formerly located between the bottom of the oscillator tickler coil (L3) and floating ground, has been connected from the second grid of the 1R5 converter tube (pin 3) to the junction of the top of the tickler coil to the bottom of the primary of T1. The 22,000-ohm resistor (R3) is now connected in parallel with C5 instead of from the bottom of the tickler coil to the bottom of the primary of T1. The top of the tickler coil is connected to the bottom of the primary of T1 instead of to the second grid of the 1R5 converter tube. The 1R5 plate current as well as the screen current thus passes through the tickler coil.

To prevent audio oscillation, a 0.00025-μf bypass capacitor (C10) has been added from the plate to the positive filament of the 1S5 tube. The plate load of the 1S5 tube (R9) has been changed from 330,000 to 470,000 ohms. The value of R21 has been changed from 6.8 to 15 megohms. The value of C13 has been changed from 0.05μf to 0.02μf. The 0.05-μf capacitor (C19) has been changed from the input side to the plate side of L4 to reduce hash.

Since the clinch nuts in the top of the loop shield, which hold the screw in the top of the cabinet, have at times come loose, a brass extruded nut, part number A21681, has been made available for replacing these clinch nuts when they come loose.

In the note under the resistance chart on *page 17-4 of Rider's Volume XVII*, K was shown as equalling 100 ohms. This note should read K equals 1000 ohms. The parts numbers given in the parts list on *page 17-2* for the miniature tube sockets were A21032-1 and A21032-2. These should have been A20132-1 and A20132-2.

A slide switch, part number A21051, has been added to the parts list.

Arvin 150TC, 151TC, Chassis RE-228-1

These models are the same as Model 150TC appearing on pages *17-5 to 17-8 of Rider's Volume XVII*, except for the following changes. The 35W4 rectifier tube has been replaced with a 100-ma selenium rectifier. The 35B5 output tube has been replaced with a 50L6 output tube. A negative temperature coefficient resistor has been added in the filament line. The filter choke has been replaced by a 1200-ohm resister and a tap on the output transformer. The 0.005-μf tone capacitor has been replaced with an 0.003-μf capacitor.

DELETE

REF. NO.	PART NO.	DESCRIPTION
	A19141	Terminal Strip, Double
	B21123-1	Tube retainer Spring, long
R13	C20060-331	Resistor 330 ohm ¼ W
R14	C20070-123	Resistor 11,000 ohm ¼ W
R15	C20060-104	Resistor 0.1 Megohm ¼ W
L3	AE21107-1	Filter Choke Assembly
T3	AE21099-1	Output Transformer

ADD

REF. NO.	PART NO.	DESCRIPTION
	A19140	Terminal Strip, Single left hand
	A18254-1	Socket, tube wafer octal
SR	A20207-2	Selenium Rectifier
T3	AC21494-1	Output Transformer
NTCR	AC21489-1	N.T.C. Resistor and Can Assy.
C10	C20069-302	Capacitor 0.003 μf 600 V P.T.
R13	C20223-122	Resistor 1200 ohm, 2W. ± 10%

Arvin 544 and 544R (Noblitt-Sparks)

The following changes have been made in the circuit appearing on *pages 15-3 to 15-5 of Rider's Volume XV* to reduce low level hum and hum modulation.

1. The capacity of the electrolytic capacitor A19136 (C7) is changed from 40-20$\mu\mu$f, 150v, 20$\mu\mu$f, 25v, to 50-20$\mu\mu$f, 150C, 20$\mu\mu$f, 25c.
2. The rotor of the variable capacitor is now connected to AVC instead of to chassis. (This is the same circuit that was used in sets built previous to March 1946.)
3. C11 0.1μf, 400v, capacitor from AVC to chassis is deleted.
4. The bypass capacitor from B+ to chassis is changed from C9, 0.05μf, 400v, to C11, 0.1μf, 400v, to prevent oscillation.
5. A fiber washer part 20198 ¼ inch ID, ½ inch OD, ⅛ inch thick, is added under the pointer to prevent the pointer from touching the dial and shorting AVC to the chassis.
6. The floating ground wiring is changed; the jumper from the oscillator coil to the #3 lug on the 12SK7 socket is removed and replaced by a jumper from the ground side of the volume control to the a-c switch lug.
7. The top of the dial scale backing plate has been cut off even with the top of the dial, to allow the dial to set in a more vertical position. The part number remains the same, and the old and new plates are interchangeable.

The parts list for these models remains the same as that enumerated on *page 15-5 of Rider's Volume XV* except for the changes noted.

Part No.	*Description*
A19136	Capacitor, electrolytic 50-30$\mu\mu$f, 150v. 20$\mu\mu$f, 25v.
A20198	Washer, fiber

Noblitt-Sparks 664 and 664A

These models are the same as Model 6640, Chassis RE-206-1, appearing on *pages 17-16 to 17-18 of Rider's Volume XVII*, except that the loop assembly has been changed. The part number is AC18579-1.

Arvin 664 and 664A, Chassis RE-206-1

These models appearing on *pages 15-10 and 15-5 and 15-6 of Rider's Volume XV*, have been changed as follows to reduce the a-c hum. The 0.1-μf capacitor (C12) connected from B+ to the cathode of the 35L6 tube has been changed to 0.03μf. The resistance of R12 connected from B+ to the cathode of the 35L6 tube has been changed from 12,000 to 15,000 ohms .Making this change will reduce the a-c hum of many of the sets with the previous circuit.

The parts list should be changed as follows:

Delete:

Ref.No.	*Part No.*	*Description*
R12	C20070-123	Resistor 12,000 ohms, 1 watt
C12	C20068-104	Capacitor, 0.1μf, 400 v. p. t.

Add:

Ref.No.	*Part No.*	*Description*
R12	C20070-153	Resistor, 15,000 ohms, 1 watt
C12	C20068-303	Capacitor, 0.03μf, 400 v. p. t.

Phillips Petroleum 3-62A

This is the same as Model 3-61A, appearing on *pages 17-9 to 17-12 of Rider's Volume XVII*

Radio & Television (Brunswick) 4000, 4000½, 6000, 6000½, 6876

These models are the same as Model SF-6810 on *pages 16-1 to 16-5 of Rider's Volume XVI.*