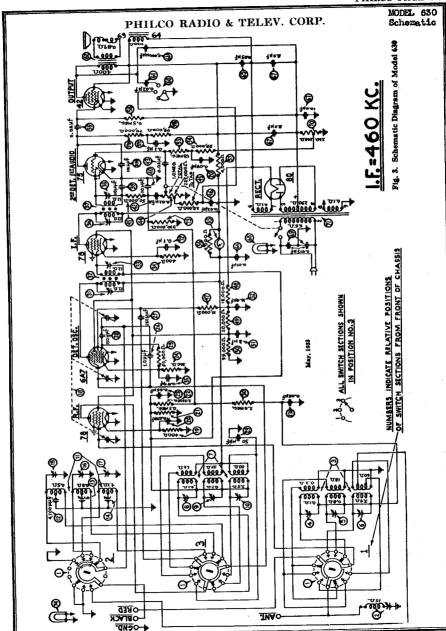


	Ph	ilco Radio & Television	Corp.
	Model: 630	Chassis:	Year: Pre October 1937
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		
		Resources	
Riders 6 (VI) PHILCO	6-31		
Riders 6 (VI) PHILCO	6-32		
Riders 6 (VI) PHILCO	6-33		
Riders 7 (VII) PHILCO	7-97		
Riders 7 (VII) PHILCO	7-98		
Riders 7 (VII) PHILCO	7-149		
Riders 8 (VIII) CHANG	GES 8-2		
Riders 11 (XI) CHANG	GES 11-3		



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MODEL 630

Voltage, Trimmers Chassis, Alignment

PHILCO RADIO & TELEV. CORP.

Data

Type Circuit: Superheterodyne, with preselector R.F. amplifier, and pentode output (5 watts); built in connections for Philco All-wave aerial; aerial selector built into and operated by wave-band switch.

ated by wave-band switch.

Power Supply: Alternating Current.

Voltage and frequency as specified on chassis nameplate.

Tubes Used: 1 type 78, R.F.; 1 type 6A7, Detector Oscillator; 1 type 78, I.F.; 1 type 75, 2d Detector and 1st A.F.; 1 type 42 Output; 1 type 80 Rectifier.

Wave Bands: Three—(1) standard (with some Police); (2) Police, Aircraft and Amateur; (3) Short-wave.

Coverage of Each Band: Band 1, 540-1720 K.C.; Band 2, 1750 to 5800 K.C. (1.75-5.8 megacycles); Band 3, 5700-18000 K.C. (5.7 to 18.0 megacycles).

Tuning Drive: Two-speed gear drive, ball bearing. 50 to 1 ratio for slow-speed tuning.

Tone Control: 3-position, with bass compensation effective in first position.

Intermediate Frequency: 460 K.C.

Power Consumption: 70 watts.

Tube Socket Voltages Measured to Ground

Tube	78 R.F.	6A7 Det. Osc.	78 I.F.	75 2d Det.	42 Output
Point P	245	245	245	188	298
SG	102	102	102		311
К	2.7	2.6	2.6		
	6A7: G	: & s = 175			

Above voltages were obtained by using a PHILCO type 025 Circuit Tester (or 048A All-purpose Tester), using test prode applied to underside of chassis. Volume control at-maximum; dial at 55; waveband switch counter-clockwise (band 1). Use Fig. 1 for test points. Line voltage 115 volts.

Adjustment of High and Low Frequency Compensators

With the wave-band switch still at Range No. 1 (broadcast band), set the dial at 1700 K.C. Set the signal generator at this frequency and adjust compensators @, @ and @ for maximum output. These are the oscillator, antenna, and R.F. "standard" compensators respectively.

2. Tune the receiver and the signal generator to 600 K.C and adjust compensator @ (screw) for maximum output This is the oscillator L.F. standard compensator.

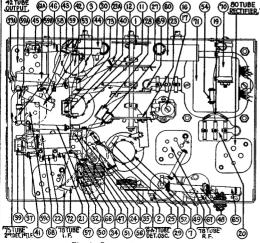
3. Turn the waveband switch to the second (middle) position. Set the dial at 3.6 M.C. at which point the fundamental of the 091 signal will be heard. If the Model 088 Signal Generator is being used, set it at 3.6 M.C. Adjust condensers (9), (a) and (b) in succession. These are the oscillator, antenna and R.F. police band adjustments.

4. Turn the tuning dial to 1.8 M.C., and set the signal generator (Model 026 or Model 088) at 1800 K.C. Adjust condenser (a) (Osc. L.F., police) (nut), to maximum signal.

5. Turn the wave-band switch to Band 3 (extreme right) and adjust the station selector to 18.0 megacycles. Set the signal generator at 18 M.C. By means of the Philco wrench, part No. 3164, adjust the oscillator S.W., antenna S.W. and R.F. S.W. compensators for maximum reading in the output meter. These are numbered (a), (a) and (b) respectively in figure No. 2.

Power Transformer Data

Term- inals	A.C. Volts	Current	Circuit	Color
12	120		Primary	White
3-5	746	78 M.A.	Secondary	Yellow
6–7	5.0	2.0 A.	Fil. Rect.	Blue
8-9	6.3	2.25 A.	Filaments	Black
4			Center Tap of	Yellow, Green Tracer



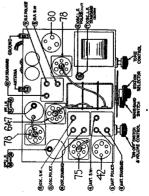


Fig. 2. Location of Compensating

Fig. 4. Bottom View of Chassis

PHILCO RADIO & TELEV. CORP.

MODEL 630 Alignment, Part 2 Socket, Parts

Re	placement Parts—Mo	del 6	30
	Description	Part No.	List Price
① V	Vave Band Switch	42-1107	\$1.75
@ v	Vavetrap	38-6850	1.10
30000	Antenna Transformer	32-1699 Part of (3)	3.00
8	Compensating Condenser (Ant. Police)	Part of (3)	
(i)	Compensating Condenser (Ant. Standard)	Part of ③	
0 1	R. F. Transformer	32-1636	3.25
0	Compensating Condenser (R.F. Snort-Wave)	Part of (7)	
(0)	Compensating Condenser (R.F. Standard)	Part of ①	
(1)	Oscillator Transformer	32-1637	2.50
(3)	Compensating Condenser (Osc. Police)	Part of (1)	
ക്	Companyating Condensor (Osc. H. E. Standard)	Don't of (11)	
⊕ (Compensating Condenser (Osc. S. W.) Compensating Condenser (Osc. L.F. Police) Part of	Part of (11)	
(0)	Compensating Condenser (Osc. L.F. Police) Part of Compensating Condenser (Osc. L.F. Standard)	31-6027	.70
	Part of	31-6027	
® .	Tuning Condenser Assembly Resistor (400 ohms Flexible) (Yellow, Black,	31-1526	2.75
19	Resistor (400 ohms Flexible) (Vellow, Black,	12 10//	.20
(a)	Brown)	4989-DG	.40
20	Resistor (.5 Meg.) (Yellow, White, Yellow)	6097	.20
29	Resistor (2 Megs.) (Red. Black, Green)	33-1025	.20
3	Condenser (.05 Mfd. Tubular)	30-4020	.35 .35
(3) (3)	Condenser (.05 Mfd. Tubular)	30-4020	.33
	Brown)	33-3010	.20
⊚	Resistor (50000 ohms) (Green, Brown, Orange)	6098	.20
® ®	Condenser (1 Mmfd.)	Part of (18)	.35
	Condenser (.00025 Mfd. Mica)		.35
<u> </u>	Condenser (.00005 Mtd. Mica)	30-1029	.35
⊚	Resistor (2 Megs.) (Red, Black, Green)	33-1025	.20
30	Compensating Condenser (1st I.F. Primary)	Part of (32) 32-1646	\$2.25
(B)	1st I.F. Transformer		\$2.25
இ	Resistor (400 ohms Flexible) (Yellow, Black,		••••
_	Brown)	33-3016	.20
®	Brown)	30-4122	.35
(36)	Compensating Condenser (2nd I.F. Pri.)	Part of @	2.25
(38)	Compensating Condenser (2nd I.F. Sec.)	Part of (87)	
⊛	Condenser (.00011 Mfd. Mica)	30-1031	.35
®a. ⊕	Condenser (.00011 Mfd. Mica)	30-1031	.35 .35
0	Resistor (50000 ohms) (Green, Brown, Orange)	6098	.20
43)	Condenser (.02 Mfd, Tubular)	30-4215	.30
(13)	Condenser (.02 Mfd. Tubular)	30-4215	.30 1.45
0	Resistor (20000 ohms) (Red, Black, Orange)	33-5105	.20
(3)	Condenser (.02 Mfd. Tubular)	30-4215	.30
9	Resistor (10000 ohms) (Brown, Black, Orange)	4412	.20
	Resistor (15000 ohms) (Brown, Black, Orange)	5718	.35
a) 30	Resistor (20000 ohms) (Red, Black, Orange) Resistor (99000 ohms) (White, White, Orange)	60991	.20
a)	Condenser (.3 Mfd. Bakelite Block)	6287 -DG	:40
.52)	Condenser (16 Mfd. Electrolytic)	. 30-2118	1.65
(6)	Resistor (1 Meg.) (Brown, Black, Green) Resistor (99000 chms) (White, White, Orange)	. 33-1096	.20
(3) (3)	Shadow Tuning Meter	. 45-2086	2.00
6	Resistor (4000 ohms) (Yellow, Black, Red)	. 33-1040	,20
<u>@</u>	Resistor (4000 ohms) (Yellow, Black, Red)	. 7832	.20
(8) (3)	Resistor (.5 meg) (Yellow, White, Yellow) Condenser (.02 Mtd. Tubular)	. 30-4113	.30
@n	Resistor (70000 ohms) (Violet, Black, Orange)	5.385	.20
(SO) b	Resistor (99000 ohms) (White, White, Orange)	. 6099	.20
	Condenser (.1 Mfd. Tubular)	. 30-4122	.35
(0)	Tone Control (3 position)	. 30-4332 . Part of 🥮	
(G)2	Condenser in Tone Control	30-4042	.25
(6)	Output Transformer	. 32-7178	1.64
69	Voice Coil & Cone Assembly (K-32) Field Coil & Pot Assembly (K-32)	, 36-3159 , 36-3498	3.2
(4)	Condenser (05 Mfd Tubular)	. 30-4020	.3
(0)	Condenser (.05 Mfd. Tubular)	30-4020	.3
1	Condenser (8 Mfd., 8 Mfd., 10 Mfd. Electrolytic).	. 30-2073	2.1
@	Pilot Lamp (Shadow Tuning Meter)	. 3793-DG	.40
0	Resistor (BC Wirewound -21 ohms, 263 ohms).	. 33-3069	.2

	So	cket,P	arts
n	Power Transformer (115 Volts 60 Cycles)	32-7384	5.50
_	(115 Volts 25 Cycles)		7.75
	(230 Volts 50 Cycles)	33-7386	5.75
(72)	Condenser (.1 Mfd. Tubular)	30-4122	.35
õ	Resistor (330,000 ohms) (Orange, Orange, Yellow).		.20
ക്	Dilat Lamp	34-2064	.09

*After Run 2, this is 10000 ohms ,Part 3524.

Adjusting Compensating Condensers

The adjustment of the compensating condensers in Model of requires a signal generator covering the broadcast and police band, and also one capable of producing a signal at certain frequencies in the short wave band. Philico Model 088 All-wave signal generator is ideal for these requirements. Or you can use the Philico Model 024 or 0488 instrument for the broadcast frequencies, and the Model 001 crystal controlled short wave signal generator for the "short wave" frequencies. An output meter is also needed, such as in Philico Model 025

Adjustment of I. F.

Remove the antenna connection from the receiver, disconnect the grid clip from the first detector (type 6A7 tube), and connect the "ANT" output terminal of the broadcast signal generator to the grid cap of this tube; connect the "GND" terminal of the signal generator to the "GND" terminal of the receiver.

 Connect the 0 to 30 volt range of the output meter in the Philco 048A or 025 unit to the plate and cathode of the output tube or to the two bottom prongs of the speaker plug.

output tube or to the two bottom prongs or the speaker juig.

3. Adjust the signal generator to a frequency of 406 K.C. Place the receiver in operation with the dial turned to the low frequency end of the standard broadcast band, wave band switch to extreme left (clockwise), and have the volume control adjusted near its maximum setting. Adjust the signal generator attenuator for approximately half-scale reading of the output meter.

4. The I.F. compensating condensers are located at the tops of the I.F. coil shields. The primary is adjusted by turning the screw in top and the secondary by the nut. Adjust condensers @ and @ (2d I.F. primary and secondary) for maximum reading in the output meter, and then condensers @ and @ (1st I.F. primary and secondary).

Adjustment of Wave-Trap

 Connect the signal generator leads to the antenna and ground terminals of the receiver. Replace the grid clip on the 6A7 grid cap.

2. With the wave-band switch of the receiver still in the extreme left (standard band), (540-1720 K.C.), turn the station selector to 55.

3. With the signal generator in operation at 460 K.C. adjust the wave-trap ③ condenser until a MINIMUM reading is obtained on the output meter. The Philos fibre wrench, part No. 3164, is used for this adjustment. The wave-trap compensator is reached from rear of chassis.

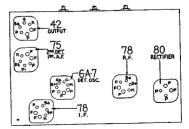


Fig. 1. Tube Sockets as viewed from bottom

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CJohn F. Rider, Publisher

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MODELS 630,630PF Changes, Parts

PHILCO RADIO & TELEV. CORP.

Later 1935 Production Runs

This sheet supplements the regular bulletin No. 219 on the Phileo 630 and also covers the Phileo Radio-Phonograph 630PF. All circuit and part number changes up to date have been included.

Beginning with run No. 5 the grid bias arrangement for the 78 R.F. and 6A7 1st detector was changed. A fixed bias from the B.C. resistor is fed through the AVC circuit to the grids of these tubes.

PARTS LIST

li				•	2.7.		
1	Describerton		List				List
0		Part No.	Price	•		Part No.	Price
	Wave Band Switch		\$1.75	9	Resistor (1 Meg.) (Brown, Black, Green)	33-1096	\$0.20
3	Wavetrap Antenna Transformer	38-0830	1.10				.20
0	Compensating Condenser (Ant. S.W.)		3.00	€	Resistor (99000 ohms) (White, White, Orange)		.20
⊚	Compensating Condenser (Ant. S.W.)	Part of @	• • • •	9	Shadow Tuning Meter	45-2086	2.00
ŏ	Compensating Condenser (Aut. Police)	Part of (a)		9	Condenser (.05 Mf. Twin Bakelite)		.40
ő	R. F. Transformer	Part or (a)		69	Resistor (4000 ohms) (Yellow, Black, Red)		.20
(B)	Compensating Condenser (R.F. Short-Wave)	32-1636	3.25	9	Resistor (490,000 ohms) (Yellow, White, Yellow)	22 1007	20
0	Compensating Condenser (R.F. Short-Wave) Compensating Condenser (R.F. Police)	Part or U		9	Condenser (.02 Mfd. Bakelite)		.20 .30
0	Compensating Condenser (R.F. Police)	Part or (r)		e e a			.20
0	Oscillator Transformer	Part of U	2 50	eea. eeb	control (control cont		.20
6	Condenser (.0047 Mfd. Mica)	32-103/	2,50				.35
i ii	Compensating Condenser (Osc. Police)	30-1052	.60	9	Tone Control (3 position)		.33
G)	Compensating Condenser (Osc. Police)	Part or m		•	Condenser in Tone Control		
(3)	Compensating Condenser (Osc. S.W.)	Part of @	••••				.25
ă	Compensating Condenser (Osc. L.F. Police)	Partoru			Output Transformer		1.60
1		31-6027		ě	Voice Coil & Cone Assembly (K-32)		.89
®	Compensating Condenser (Osc. L.F. Standard)	31-602/ }	.70		Field Coil & Pot Assembly (K-32)		3.25
~		31-6027		8	Condenser (.05 Mfd, Tubular)		.35
0	Tuning Condenser Assembly	31-602/ /			Condenser (.05 Mfd.)		.33
ĕ	Condenser (.09 Mfd. Twin Bakelite Block)	31-1/41 4090.DC	40	6	Condenser (8 Mfd., 8 Mfd., 10 Mfd. Electrolytic)		2.15
ø	Resistor (1 Meg.) (Brown, Black, Green)	77 1904	.40 .20		Pilot Lamp (Shadow Tuning Meter)		
ĕ	Condenser (.05 Mfd, Tubular)	10.4020		8	Condenser (.015 Mfd. Twin Bakelite Block)		.40
⊕ a	Condenser (.05 Mfd. Tubular)	30-4020	.35		Resistor (BC Wirewound-22 ohms, 25 ohms,		
ø	Resistor (50000 ohms) (Green, Brown, Orange)	6008	.35		210 ohms)		.20
ĕ	Condenser (1 Mmfd.)	Part of @	.20	•	Power Transformer (115 Volts 60 Cycles)	32-7384	5.50
ĕ	Condenser (.00025 Mfd. Mica)	Part or up	25	-	(115 Volts 25 Cycles)		7.75
ě	Condenser (.00015 Mfd. Mica)	30-1032	.35		(230 Volts 50 Cycles)		5.75
ŏ	Condenser (.00005 Mfd. Mica).	30-1039	.35 .35	13	Condenser (.05 Mf.)		
ĕ	Resistor (51000 ohms) (Green, Brown, Orange)	30-1029		<u>@</u>	Resistor (330,000 ohms) (Orange, Orange, Yel-		
	Compensating Condenser (1st I.F. Primary)	6098 Time - 1 60	.20		low)		.20
ĕ	1st I.F. Transformer	Part or gg	0.05		Pilot Lamp		.09
ĕ	Compensating Condenser (1st I.F. Secondary).	32-1646	2.25		Phono Switch Cable Assy		1.30
0	Resistor (400 ohms Flexible) (Yellow, Black,	Part or test	••••		Pickup Head Assy		7.25
1~	Brown) Black,	** ****			Hum Bucking Coil Assy		1.10
€	Compensating Condenser (2nd I.F. Pri.)	33-3016		⊚ ∶	Resistor (51,000 ohms)	6098	.20
8	2nd I.F. Transformer	Part ot 90			Resistor (20,000 ohms)		.20
ĕ	Compensating Condenser (2nd I.F. Sec.)	32-104/					.35
ĕ	Condenser (.00011 Mfd.) (Twin Bakelite)	Part of to		፡	Automatic Stop	6345	3.15
	Condenser (.00011 Mfd. Mica)	8035-DG		€ .	Phono, Motor (115 V. 60 Cycle)	35-1112	20.00
®	Condenser (.00011)	30-1031	.35		Dial Scale	27-5098	.25
ě	Resistor (50000 ohms) (Green, Brown, Orange)	Part of 🖶			Dial Hub & Set Screw. Dial Front Spring.	31-1550	.15
ě	Condenser (.02 Mfd. Tubular)	6098	.20		Knob (Station Selector)	28-2837	.10 .12
€	Condenser (.02 Mfd. Tubular)	30.4215	.30 .30		Knob (Fine Tuning)	27-4207	.10
₩	Volume Control and On-Off Switch.	33,5105	1.45		Knob (Waveband)	27-4219	.10
169	Resistor (20000 ohms) (Red. Black, Orange)	22.1170	.20		Knob (Volume Control, Tone Control)	27-4208	.10
⊕	Condenser (.02 Mfd, Tubular)	20.4215	.30		Tube Shield	28-2726	.10
•	Resistor (10000 ohms) (Brown, Black, Orange)	4412	.30		Tube Shield Base	28-2725	.03
(19)	Kesistor (15000 ohms) (Brown Black Orange)	£710	.35		Tube Socket (4-Prong)	27-6034	,10 ,11
69	Kesistor (20000 ohms) (Red. Black Orange)	2524	.35		Tube Socket (7-Prong)	27-6037	.11
	Resistor (20000 ohms) (Red. Black, Orange)	6640	.20		Speaker Plug Socket	27-6033	.08
6 0	Condenser (.15 Mfd. Tubular)	20:4191	.40		Chassis Mfg. Screw	W-1495 1.3	.50perC.
€	Condenser (16 Mfd. Electrolytic)	20.2118	1.65		Chassis Mtg. Washer (Rubber)	27:4198	.01
		30-2110	1.03		Electric Cord & Plug	L-943-A	.60

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PHILCO RADIO & TELEV. CORP

MODELS 623,623B,623F

Changes

630,630(121) 640(121)640B

MODEL 623 (Continued)

Approximate Date of Change	Run No.	CHANGES	
and the same	9	S. W. SECTION OF OSC. TRANSFORME Condenser @ and Resistor @ were moved and the wires connected to ends of these parts were connected gether. The wires between the p tap at the left of Switch Section N and the joint in the wire just above was broken and Condenser No. 30- The connection between the bottom W.) primary and secondary of the O lator Transformer was broken and densers @ and @ connected between bottom of genoved. The lead come to the top of the primary disconne to the top of the primary disconnected to the primary. BROADCAST AND POLICE SECTION OF OSC. TRANSFORMER Resistor @ was disconnected from bottom of the upper section of the Transformer and connected to the s side of the Condenser W.	re- the to- olice o. 2 that 1049 (S. sscil- con- the ceted ceted the l. nary from p of
1ODEL 62	3-B and		_
9-1-35		Remove bezel glass gasket, Part 27-7981, and replace with Part No. 8636.	No. 27-
Aodel 630	(Code 1	21)	
10-1-85	4	1	
	1		
	Old Part	New Part	
Resistor @ Resistor @ 11-1-35 Part	Old Part 33-1040 (7 6650 (1	% watt) 4,000 chms 33-1031 (% w % watt) 20,000 chms 6649 (1 wa	art
Resistor @ Resistor @ 11-1-85	Old Part 33-1040 (7 6650 (1	24 watt) 4,000 ohms 38-1031 (¼ w	art
Resistor @ Resistor @ 11-1-35 Part Shadowmeter	Old Part 33-1040 (7 6650 (1) 7 Scheme	24 watt) 4,000 ohms 38-1031 (¼ w	art 83
Resistor @ Resistor @ 11-1-95 Part Shadowmeter MODEL 63 Schema Ant. Transfor Det. Transfor	Old Part 33-1040 (1) 6650 (1) 7 Scheme (0) Lie No.	14, watt 4,000 ohms 38-1031 (14 w 14, watt) 20,000 ohms 6849 (1 w 14, watt) 20,000 ohms 20,000	art 88
Resistor Resistor Transform	Old Part 33-1040 (1) 6650 (1) 7 Scheme (0) Lie No.	14	6650 77. 27- 4 No. even to 60 8001.
Resistor 9 11-1-85 Remittor 9 11-1-85 Remittor 9 11-1-85 Remittor 9 11-1-85 Remittor 9 11-1-85	Old Part 33-1040 (1) 6650 (3) Schemi (10) Lie No. cmer ③ mer ④ mer ④	14, watt 4,000 ohms 38-1031 (14, w) watt 20,000 ohms 6849 (1 w)	6650 77. 27- t No. 8001. 8001. 1-7981 et.
Resistor @ Resistor @ 11-1-85 Part Shadowmeter MODEL 63 Schema Ant. Transforet. Transforet	Old Fart 33-1040 (1 6650 (1 7 Schemmer ® mer ®) O (Code 6 4	14, wit1 4.000 ohms 38-1031 (14 w) wit2 20,000 ohms 6849 (1 w) Remove Shadowmeter Shunt Resistor Part No. 33-1040 (4.000 ohms). Part No. 33-1040 (4.000 ohms). Old Part No. New Part I 22.1690 32.1867 32.1868 32.1637 32.1867 32.1868 22.1636 32.1868 32.1868 22.1637 32.1869 Replace Resistor 0. Part No. (20,000 ohms) with Part No. 33-117 Replace speaker plug socket, No 6033 with No. 27-0803 Replace ist I. F. Transformer, Par 22-1859 with No. 32-1917 to pr microphonics. Remove Bezel Light Guard No. 27-411 prevent microphonics. Remove Bezel Light Guard No. 27-816 Replace Resistor Replace Resis	6650 6650 77. 27- t No. event 60 to 8001.h

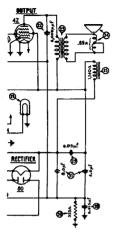
MODEL 640	D-B		641,64	2,643,650
Approximate Date of Change	Run No.		CHANGES	
9-1-35		Uses K31 i	nstead of K21	Speaker.
MODEL 64	1			
9-1-35		33-1114, acr	8,000 ohm resi ross shadow me	ter.
10-1-35	••	Part @ .0. (64-A). Part @ shreet Part f Part @ shc Referring t denser mar denser @ c	is is Replacement. 5 mf. Conden: ould be .03 mf. Number is 30-46 ould be 3615-D6 ou bottom view ked \$\mathbb{S}\$ should hanged to \$\mathbb{S}\$. 25). ser of B-C Resi 25e. do. 27-4225 Wi	ser is part of , and the cor- 125. i. of chassis, con- be @ and con- is (.05 — .2 —
11-1-85 Be	Part zel Assembl	Old Ps y 40-572		
12-1-35	2 .	A .00011 1031 is cor 85 Detector	Mf. Condenser, nected from the Tube to the C	Part No. 80- ne plate of the athode Circuit.
MODEL 64	2			
			Old Part	New Part
9-1-35	Fone Contro	ol 😝	30-4316	30-4382
12-1-85	2	changed t	and Mask . o the Glowing eator Type.	Assembly were Arrow Wave
Part	.1	Schematic No	Old Part No.	
Tuning Conder Hub and Set S Mask Assemble Glowing Arrow Screen Bracke Glowing Arrow Mask Arm Link	crew Assem y v Screen t	® bly	31-1526 31-1550	31-1741 31-1724 27-5137 27-5166 31-1760 27-5167 29-3274 29-3285 29-3586
Coupling Pilot Lamp As Wave Switch	sembly	•	38-7032 42-1107	42-1152

MODEL 643

9-1-85		it shoul	t current reads (d read 750MA.	
		letin N	o, 33-5119 🕸 in o, 226, listed at :	Model 643, Bul \$1.10 changed t
	•	\$1.45.	Observation Manageria	a Weeher (rub
12-1-35	'		Chassis Mountin ted as 27-4021 to amp 🖦 Part No.	
11-1-35	8	Part N	o. 34-2065.	
Part S	chematic N	Jo Ole	Part Ne	w Part
Condenser	6		.006 mf.) 30-1031	(.00011 mf.)
Condenser				(.00011 mf.)
				(.00011 mf.)
11-1-35	0	6359 ((.00011 mf.) New Part
11-1-35 Part	13 Schema	6359 (tic No.	.006 mf.) 30-1031	
11-1-35	13 Schema ser &	6359 (tic No.	.006 mf.) 30-1031	New Part

Philco 59

The schematic, furnished by the manufacturer and shown on page 5-30 of Rider's Volume V, has an error in the field coil circuit, Part No. 25. Compare



Partial schematic of Philos 59, showing correct wiring of the field coil, Part No. 25.

the partial schematic shown here with the one mentioned above and you will see the difference in the connections to the field coil.

Philco 37-33

Starting with Run No. 3, the filament wiring of the 1D5G i-f. tube was reversed, thus improving operation of the set. In Fig. 1 on page 7-16 of Rider's Volume VII, the left-shand filament terminal of this tube is marked "2 volts." This terminal is now grounded to the chassis.

Referring to Fig. 3 on the same page, resistor No. 8 has been removed from the r-f. terminal panel and connected directly from the oscillator grid contact on the 1D7G socket to ground. This change improved the sensitivity in the center of the broadcast band.

Philco 630

The schematic of this receiver shown on page 6-31 of Rider's Volume VI indicates a ld-coil resistance of 1140 ohms. This is incorrect and should be 640 ohms. Please make this change in your Volume VI.

DL:1-- 4E

The schematic of this receiver was published on the following pages of Rider's Volume I: page 1-10 of the revised edition and page *459 of the early edition; and on page 1038 of the Rider-Combination Manual. At the time of publication the values of the parts were unobtainable and these are now given in the list below. The first column is the identifying number used on the schematic; the second column is the part number; and the third column is the value.

Sche-			
matic	Part		
Number	Number	Value	
1	3524	10,000 ohms	3
5	3292A .1	mf. — 250 c	hms
6	3584A .05	5 mf. — 250	ohms
13	3583	.5 mf.	
14	3525	32,000 ohm	15
21	3422	200 "	
22	3526	5,000 "	
23	3518	4,000 "	
24	3512 270	0 ohms (700,	2000)
25	3528	2,000 oh.n	1\$
26	3628	6 "	
27	3292B .0	5 mf. 00 250	
29	2850	3200	**

Philco 645

The schematic of this set will be found on page 7-109 of Rider's Volume VII. Several changes have been made, as follows:

Starting with Run No. 3, the 51,000-ohm resistor, No. 16, has been removed. A 32,000-ohm resistor, ½ watt, Part No. 33-332334, has been connected from the oscillator grid of the 6A7 to the suppressor grid of the 78 r-f. tube. The 0.05-mf. condenser, No. 61, has been removed. The 25,000-ohm resistor, No. 60, has been replaced with one having a value of 240,000 ohms, ¼ watt, Part No. 33-424143

A 0.06-mf. condenser, Part No. 30-4114, has been connected from the —C end of the B.C. resistor, No. 64, to the junction of the 1-megohm and 490,000-ohm resistors, Nos. 66 and 67.

The filament voltage of the 80 rectifier is shown as 6.3 volts in Fig. 3 on page 7-108 of Rider's Volume VII. This should be 5.0 volts.

Beginning with Run No. 4, the green and yellow leads of the a-f. input transformer, No. 52, were reversed to reduce hum.

Philco 651

The leads of the i-f. transformer should be separated as widely as possible from each other, in order to reduce the possibilities of i-f. oscillation. This means, too, that the leads from one of these transformers should be as far as possible from the leads of the other.

The -B lead from the suppressor plate terminal of the 78 r-f. tube to the wiring panel mounted on the 0.05-mf. condenser, No. 72, should be run close to the baseboard and away from the wave trap coil. This should eliminate motor-boating at 540 kc.

For schematic, see page 7-111, Rider's Volume VII.

Philco 655

In the paragraph titled "Police" of the alignment instructions on page 7-116 of Rider's Volume VII, it reads that the detector trimmer No. 11 should be adjusted for maximum output. This should be trimmer No. 12 to conform with the layout of Fig. 4 at the top of the page.

In Fig. 1, the designations of the r-f. transformers on page 7-114 shoul, b changed as follows: 15-A, oscilla.cr, to 16; 9, antenna, to 3; and 14, detector, to 10. To correct the lead designations of the oscillator transformer, No. 16 on the schematic, change No. 3 to 7; 7 to 5; 5 to 4; and 4 to 3.

Another error in the manufacturer's data was in the tube layout shown on the top of page 7-115 of Rider's Volume VII. The second detector is a 75, not an 85. The designation on the schematic on this same page is correct. Please make these changes in your Volume VII.

Beginning with Run No. 2, the 51,000-ohm resistor, No. 14, was removed and a 32,000-ohm resistor, Part No. 33-332334, ½ watt, was connected from the oscillator grid of the 6A7 to the suppressor of the 78 r-f. tube.

Phuco I-F. Peaks

In certain localities it has been found advisable to align certain two-and three-gang Philico sets at some other i-f. peak than the one for which they were designed, i.e., 470 kc. This change has been found necessary because of some interference that is peculiar to these localities: Portland, Maine; Maini, Fla.; New Haven, Conn.; San Diego, Cal.; about one third of northern Long Island; Newark and southern New Jersey.

Therefore, if you are operating in any of these places and are bothered by code interference, align either of the two type sets mentioned above at 456 kc., 465 kc., or 480 kc. The i-f. peaks just mentioned are to be used depending on the location and type of interference.

Remier 49, 171

The Remler Model 171 is identical with Model 49, shown on page 9-3 of Rider's Volume IX. The following additional information, not included on page 9-3, is now available.

The antenna-RF coil is located near the back of the chassis and is trimmed by the trimmer on the rear section of variable condenser. The detector coil is located under the chassis and is trimmed by the trimmer on the front section of the variable condenser.

The following table shows the d-c voltages to ground with no signal and the volume control at full volume.

Tube	Plate	Screen	Cathode
6D6	180	180	4.5
6C6	70	180	9.0
41	170	180	0

The d-c voltage of the bias supply for the 41 grid is a 15-volt drop across resistor (9) in the negative side of the power supply.

Airline 62-362 Issue B

Several changes are included in Issue B of the Model' 62-362 Airline receiver (above serial number 81285-200) as compared with the Model 62-362 shown on Montgomery-Ward pages 9-45 to 9-47 of Rider's Volume IX. Fig. 1 shows that condensers C1, C4, C5, C6, and C9 are mounted in the same unit in Model 62-362, Issue B. Fig. 1 of course corresponds to the layout shown in the upper left-hand corner of page 9-45.

Fig. 2 shows the output end of the schematic for Issue B of Model 62-362. By comparing Fig. 2 with the corresponding portion of the schematic shown on page 9-45, you will notice the new position of the tone control consisting of R14 and C20, and also the two resistors R16 and R17 added across the winding of the phonograph pickup coil.

The accompanying table lists the part numbers and descriptions for Model 62-362 Issue B which are different from those listed on page 9-45-

Schematic Reference R5 R16 R17	Part Number BE130144 BE130238 BE13020	Description 15,000 ohms, 1 w. 400,000 ohms, 34 w. 100,000 ohms, 34 w.
C1	BE12456	3-35 mmf adjustable trimmer
C1 C4 C5 C6	BE12456	2-15 mmf "
či	BE12456	2-15 mmf " "
64	BE12456	2-15 mmf " "
čš	BE12456	450 mmf working capacity, series pad
C20	BE1292	.0005 mf, mica
Č22	BE10092	.001 mf, 600 v

Phileo 630, 630PF

Certain oscillator trimmers are incorrectly numbered on pages 6-32 and
6-33 of Rider's Volume VI (early
model 630 Philco). In Fig. 2 and in
the alignment instructions, both on
page 6-32, the reference numbers
should be changed as, follows: Change
13 to 16; change 14 to 17; change
16 to 13; change 17 to 14. The same
changes should be made in the parts
list on page 6-33. These changes must
be made so that the reference numbers
will agree with those shown on the
schematic which appears on page 6-31.
Do NOT alter the numbers on the
schematic

These errors in numbering also appear in the parts list for the late Model

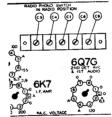


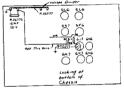
Fig. 1, above. The five trimmers, C1, C4, C5, C6, and C9 are contained in a single unit and located on the chassis as shown in Issue B of the Airline model 62-362.

Fig. 2, left. The partial schematic of the output circuit of the Issue B shows the change in the tone control and two new resistors across the pickup coil.

630 and the Model 630PF Philco. Therefore the reference numbers on page 7-98 of Rider's Folume VII must be changed as follows: Change 13 to 16; change 14 to 17; change 16 to 13: change 17 to 14.

Stromberg 160-L

Variations in new 6J7 tubes have occasionally caused distortion in the automatic tone-control circuit of the Stromberg Model 160-L receiver as first released. These tubes function correctly after "aging" a few hours.



By adding the wire indicated, distortion can be eliminated from the automatic tone control circuit of the Stromberg Model 160-L

This possibility of distortion can also be eliminated by adding a wire as shown in the accompanying layout. This change stabilizes the screen voltage; it was put in effect at the factory in all 160-P and 180-L receivers, and in all 160-L receivers produced after October 23, 1936.

Philco 37-62

In order to eliminate oscillation, the screen resistor, No. 11, has been changed from 25,000 ohms to 32,000 ohms. See schematic on page 8-19 in Rider's Volume VIII.

Fairbanks-Morse 12A

Refer to the schematic shown on page 8-11 of Rider's Volume VIII. During production, the 47,000-ohm resistor in the AVC line which was connected to the bottom of the antenna coil secondary, and the condenser (4) were removed. The r-f secondary was then grounded directly, thus removing AVC from the 6L7G mixer tube, and the bottom of the antenna coil secondary was connected directly to the resistor (16). The condenser (33) in the grid circuit of the 6C5G oscillator was changed from 50 mmf to 100 mmf to increase sensitivity on the u-h-f band.

