PHILCO SERVICE

TELEVISION

SERVICE BULLETIN 49T3

SERVICING PHILCO TELEVISION RECEIVERS

Subjects Covered

Preproduction and Production Changes in Philco Models 50-T1400; 50-T1402; 50-T1104, Code 123

- Correction to Service Manual PR-1793
- Preproduction Changes in Models 50-T1400 and 50-T1402
- Preproduction Changes in Model 50-T1104, Code 123
- Production Changes in Models 50-T1400 and 50-T1402
- Production Changes in Model 50-T1104, Code 123
- Production Change in I-F Strip of Models 50-T1400; 50-T1402; 50-T1104, Code 123

Philco Television Receiver Models 50-T1401 and 50-T1430

Schematic and Replacement Parts List, Models 50-T1400; 50-T1401; 50-T1402; 50-T1430 (All Run 5)

Schematic and Replacement Parts List, Model 50-T1104, Code 123 (Run 4)

Preproduction and Production Changes in Philco Models 50-T1443, Code 122; 50-T1443, Code 123

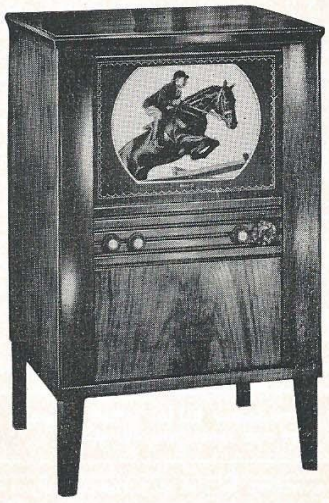
- Corrections to Service Manual PR-1774
- Preproduction Change in Model 50-T1443, Code 123
- Production Change in Model 50-T1443, Code 122
- Production Changes in Model 50-T1443, Code 123
- Production Changes in I-F Strip for Models 50-T1443, Code 122; 50-T1443, Code 123

Preproduction and Production Changes in Philco Model 50-T1630

- Correction to Service Manual PR-1791
- Preproduction Changes in Model 50-T1630
- Production Change in Model 50-T1630
- Production Changes in I-F Strip for Model 50-T1630

TP9-698

MODEL 50-T1401



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MODEL 50-T1430

Supplementary Alignment Information for Models 50-T1443, Code 123; 50-T1630

Corrections to Service Manual PR-1803

Summary of TB2 Booster Connections for 1950 Line of Philco Television Receivers

Adjusting Beam Bender of 1950 Models

Preproduction and Production Changes in Philco Models 50-T1400; 50-T1402; 50-T1104, Code 123

CORRECTIONS TO SERVICE MANUAL PR-1793

1. FM TEST jack J3 should be wired as shown in figure 1.
2. In the schematic diagram, the video-output screen by-pass condenser, C108, should be deleted.
3. In figure 2 of PR-1793, the wording "PLUG IS SHOWN WITH PRONGS POINTING AWAY" should read "PRONG-END VIEW."
4. The PHONO switch, S2, should be wired as shown in figure 2.
5. The caption for figure 10 should read "Philco Television Receiver Models 50-T1400; 50-T1402; 50-T1104, Code 123; Complete Schematic Diagram."
6. Pins 2 and 7 of the high-voltage rectifier tube should be reversed.
7. The following changes should be made in the part numbers in the Replacement Parts List:

Reference Symbol or Description	Published Part No.	New or Correct Part No.
C43	30-4650-56	45-3505-56
C48	30-4650-91	45-3505-91
C71	30-4650-49	45-3505-49
C78	30-4650-49	45-3505-49
C104	62-215001001	62-215001011
C108	62-215001001	62-215001011
L37	32-4302-3	32-4303-2
R21	33-5586-16	33-5564-4
R51	33-5563-22	33-5563-10
R97	33-5563-23	33-5563-6
R119	66-2518340	66-2508340

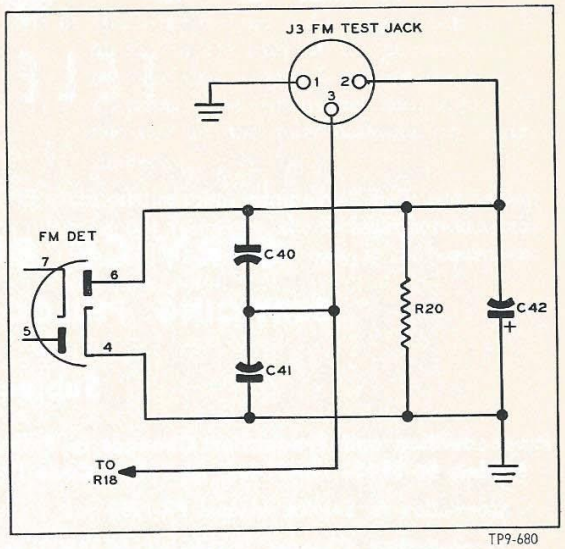


Figure 1. Connections to FM TEST Jack, Models 50-T1400; 50-T1402; 50-T1104, Code 123

Reference Symbol or Description	Published Part No.	New or Correct Part No.
Bolt, wing, deflection yoke		W2547FA3
Cabinet (50-T1402)	10776-1	10776
Cable assembly, high voltage	41-3771-9	41-3771-2
Knob, BRIGHTNESS control (50-T1400)	54-4999-3	54-4699-3
Knob, CHANNEL SELECTOR (50-T1400)	56-6596-3FCP	56-6596-3
Screw, window rail	1W25201FA3	1W25201

All references to 76-4402-9 (the tuner unit) should read 76-4402-6.

PREPRODUCTION CHANGES IN MODELS 50-T1400 AND 50-T1402

The following changes were made in Models 50-T1400 and 50-T1402 between the time of printing of Service Manual PR-1793 and the time of first production of Models 50-T1400 and 50-T1402:

DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.
L55 changed to different coil.	32-4234-4	32-4234-8
R118 changed from 5100 ohms to 5600 ohms.	66-2518340	66-2568340
C68 and C80 changed from 18 $\mu\mu f$. to 51 $\mu\mu f$.	60-00185317	30-1224-62
100-$\mu\mu f$. condenser (C115) added between screen (pin 8) of horizontal-output tube and secondary tap of T7.		60-10105407
Lead to screen (pin 8) of horizontal-output tube removed. Pin 8 reconnected to pin 6 of T7 through a 250-microhenry choke (L72) and a 4700-ohm resistor (R127) in series.		32-4143-7 66-2475340

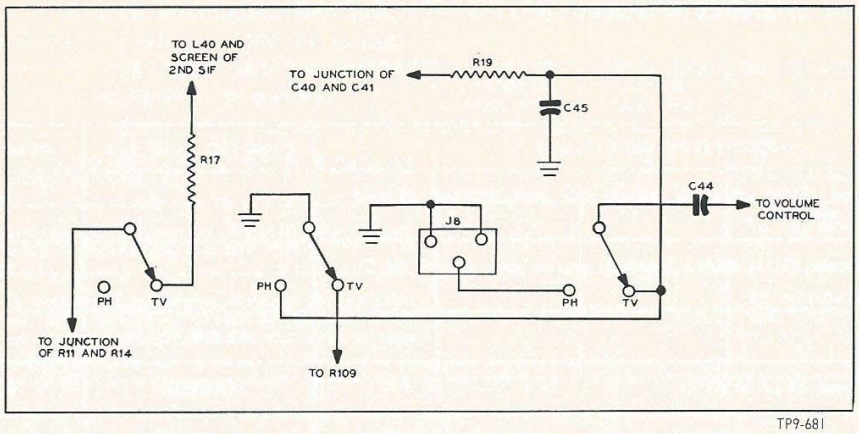


Figure 2. Preproduction Connections to Phono Switch, Models 50-T1400; 50-T1402; 50-T1104, Code 123

DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.
R121 removed. R28 changed from 10,000 ohms to 5000 ohms.	33-1335-47	33-3435-30
R94 changed from 6800 ohms to 5100 ohms.	66-2688340	66-2518240
L68 removed; L69 connected across R29.	32-4112-15	
470-ohm resistor, R128, added in series with lead between C6 and junction of L55 and C68.		66-1478340
R116 removed. R115 connected to junction of R114 and C51.	66-4685340	
J8 and S2 removed. Leads to S2 rewired so that connections are same as when S2 was switched to TELEVISION position. R109 removed. Cathode (pin 3) of horizontal-output tube grounded.	27-6126 42-1893-1 66-2105340	
Ungrounded end of C28 disconnected and reconnected to junction of R67 and R68.		
1500-$\mu\mu f$. condenser (C117) added in parallel with C27.		62-215001011

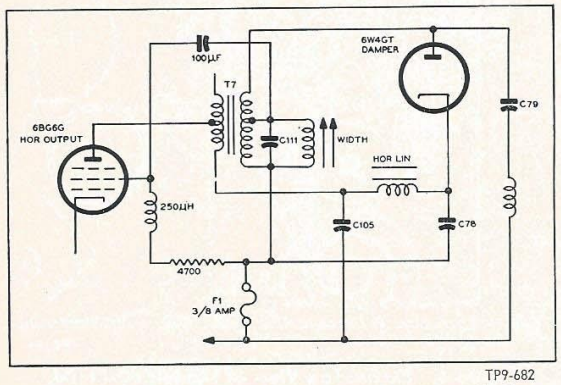


Figure 3. Location of Fuse, Runs 1F, 2F, and 3F of Models 50-T1400 and 50-T1402

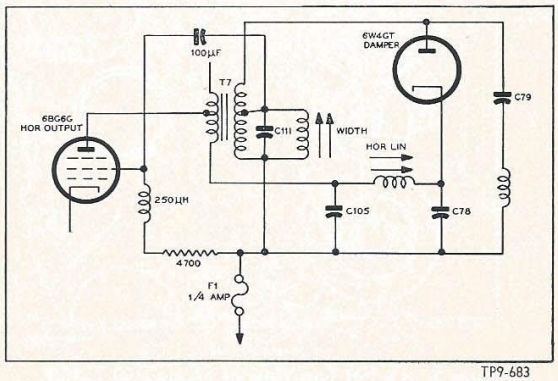


Figure 4. Location of Fuse, Run 4 of Models 50-T1400 and 50-T1402

PREPRODUCTION CHANGES IN MODEL 50-T1104, CODE 123

The following changes were made in Model 50-T1104, Code 123, between the time of printing of Service Manual PR-1793 and the time of first production of Model 50-T1104, Code 123:

DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.
470-ohm resistor (R128) added in series with lead between C6 and junction of L55 and C68.		66-1478340
2.2-$\mu\mu f$. condenser (C116) added between ground and junction of C6 and R128.		30-1221-4
C111 removed.	45-3505-60	
C79 changed from .15 μf. to .47 μf.	45-3505-48	61-0133
R121 removed. R28 changed from 10,000 ohms to 5000 ohms.	33-1335-47	33-3435-30
R108 changed from 270,000 ohms to 390,000 ohms.	66-4278340	66-4398340
R72 changed from 5100 ohms to 1500 ohms.	33-5546-28	66-2155340
1500-$\mu\mu f$. condenser (C117) added in parallel with C27.		62-215001011

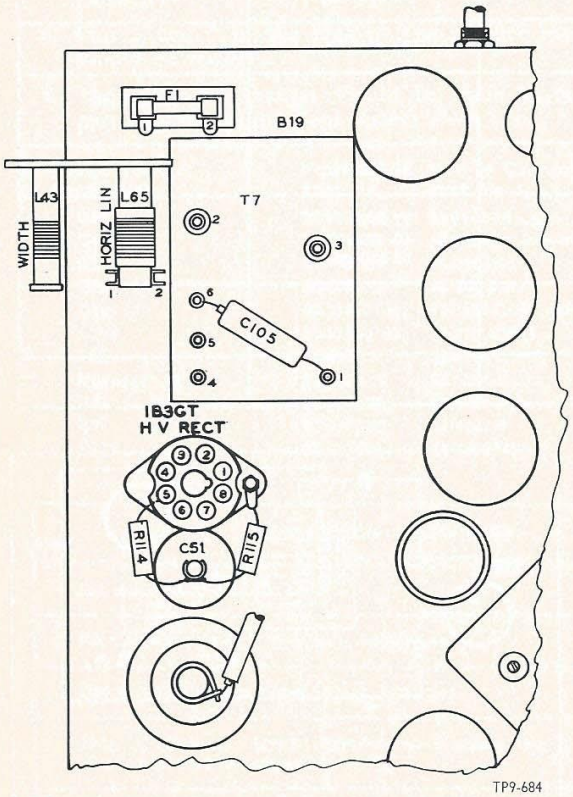


Figure 5. Partial Top View of Models 50-T1400, 50-T1401, 50-T1402, and 50-T1430, Showing Components Located in High-Voltage Cage

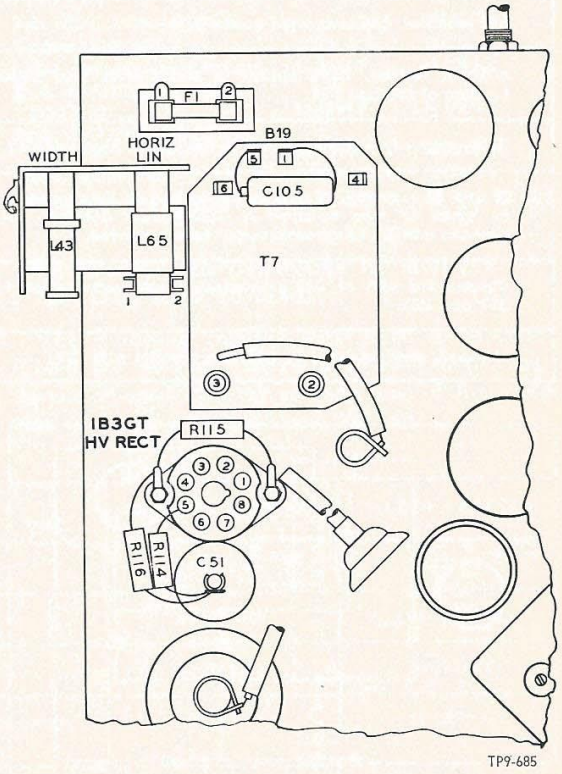


Figure 6. Partial Top View of Models 50-T1104, Code 123, Showing Components Located in High-Voltage Cage

PRODUCTION CHANGES IN MODELS 50-T1400 AND 50-T1402

RUN NO.	DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.	REASON FOR CHANGE
2	2.2-$\mu\mu f$. condenser added between ground and junction of C6 and R128.		30-1221-4	To center tuning of first video-i-f transformer.
2Z and 3	Arm of HEIGHT control disconnected and rewired to junction of R89 and R96.			To improve vertical linearity.
1F	F1 removed from position shown in service manual, and rewired as shown in figure 3. This run does not include the changes made in runs 2, 2Z, or 3.			To provide increased protection.

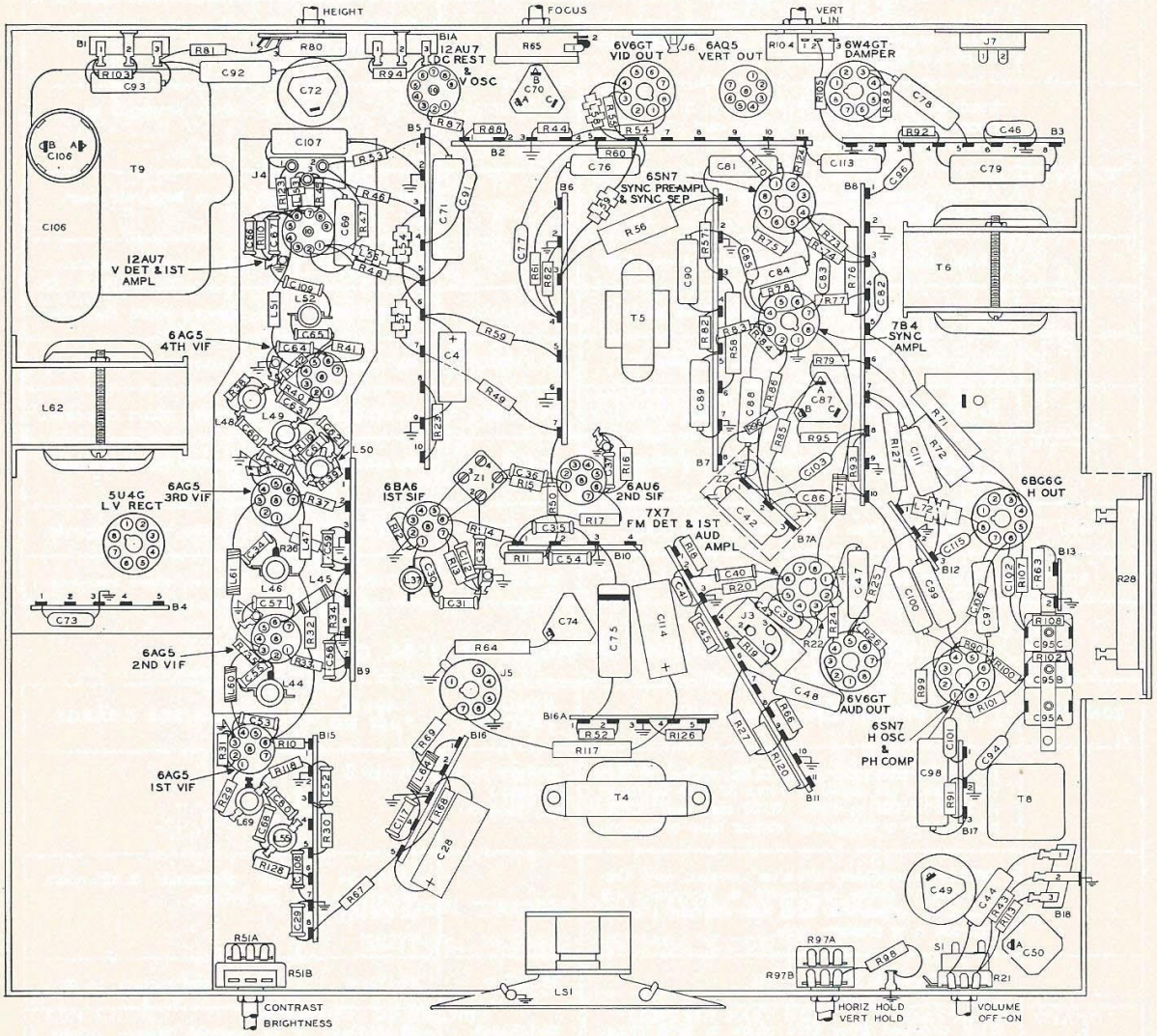


Figure 7. Bottom View of Models 50-T1400, 50-T1401, 50-T1402, and 50-T1430, Showing Locations of Components

PRODUCTION CHANGES IN MODELS 50-T1400 AND 50-T1402 (Cont.)

RUN NO.	DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.	REASON FOR CHANGE
2F	F1 removed from position shown in service manual, and rewired as shown in figure 3. This run includes the changes made in run 2, but does not include the change made in runs 2Z and 3.			To provide increased protection.
3F	F1 removed from position shown in service manual, and rewired as shown in figure 3. This run includes the changes made in runs 2, 2Z, and 3.			To provide increased protection.
4	F1 rewired as shown in figure 4. Value changed from ⅜ ampere to ¼ ampere.	45-2656-10	45-2656-8	To reduce a-c current through fuse.
5	330-ohm resistor added in series with lead between ungrounded (negative end) of C42 and junction of R20 and pin 2.		66-1338340	To reduce harmonic beat.
5	Lead from junction of R19 and pin 3 of J3 disconnected from junction of C40 and C41. C41 removed. C40 connected across R20.	62-215001011		To reduce harmonic beat.
5	150-$\mu\mu f$. condenser added between ground and junction of R18 and R19.		60-10155407	To reduce harmonic beat.
5	10,000-ohm resistor added across R56 and R57.		66-3104340	To improve video response.
5	R49 changed from 4700 ohms to 3900 ohms.	66-2478340	66-2398340	To improve video response.
5	R54 changed from 100 ohms to 10 ohms.	66-1108340	66-0108340	To improve video response.
5	R44 changed from 5600 ohms to 2200 ohms.	66-2568340	66-2228340	To improve video response.
5	L53 changed from 150 microhenries to 40 microhenries.	32-4143	32-4143-1	To improve video response.
5	R46 changed from 3300 ohms to 2400 ohms.	66-2338340	66-2258340*	To improve video response.
5	R58 changed from 1500 ohms to 1000 ohms.	66-2158340	66-2108340	To improve video response.

PRODUCTION CHANGES IN MODEL 50-T1104, CODE 123

RUN NO.	DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.	REASON FOR CHANGE
2	J8 and S2 removed. Leads to S2 rewired so that connections are same as when S2 was switched to TELEVISION position. R109 removed. Cathode (pin 3) of horizontal output tube grounded.	27-6126 42-1893-1 66-2105340		
3	.0022-μf. condenser, 470-ohm resistor, and 600-microhenry choke connected in parallel, and added in series with lead between pin 4 of T7 and pin 5 of damper tube.		45-3505-54 66-1475340 32-4264-1	To eliminate Barkhausen oscillations.
4	L55 changed to different coil.	32-4234-4	32-4234-8	To improve picture quality.
4	R118 changed from 5100 ohms to 5600 ohms.	66-2518340	66-2568340	To improve picture quality.
4	C68 and C80 changed from 18 $\mu\mu f$. to 51 $\mu\mu f$.	60-00185317	30-1224-62	To improve picture quality.

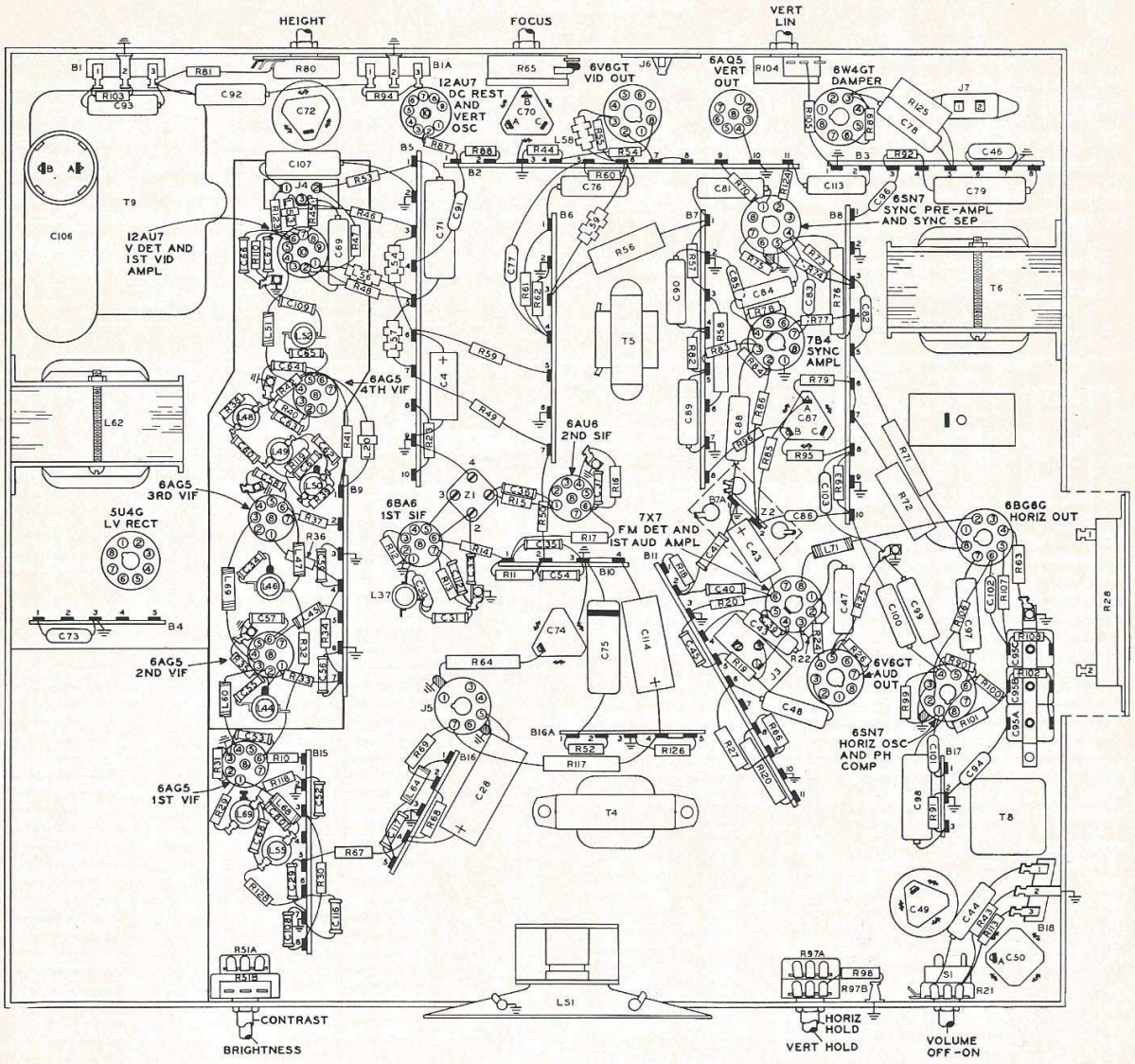


Figure 8. Bottom View of Model 50-T1104, Code 123, Showing Locations of Components

PRODUCTION CHANGE IN I-F STRIP OF MODELS 50-T1400; 50-T1402; 50-T1104, CODE 123

RUN NO.	DESCRIPTION OF CHANGE	REMOVED PART NO.	REASON FOR CHANGE
4	L70 removed. R41 connected between plate (pin 5) and screen (pin 6) of 4th v-i-f tube.	32-4143-1	To improve lead dress.

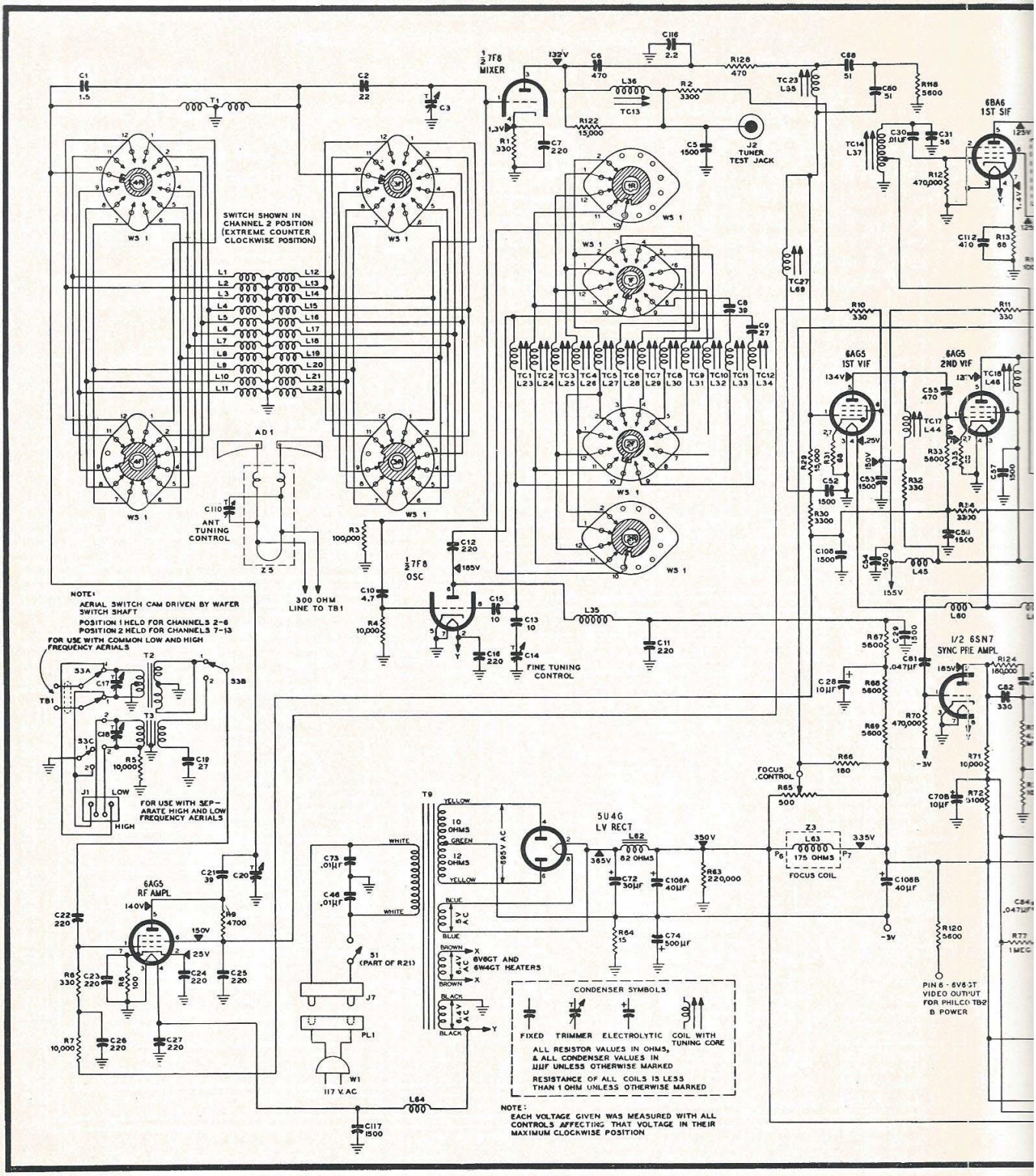
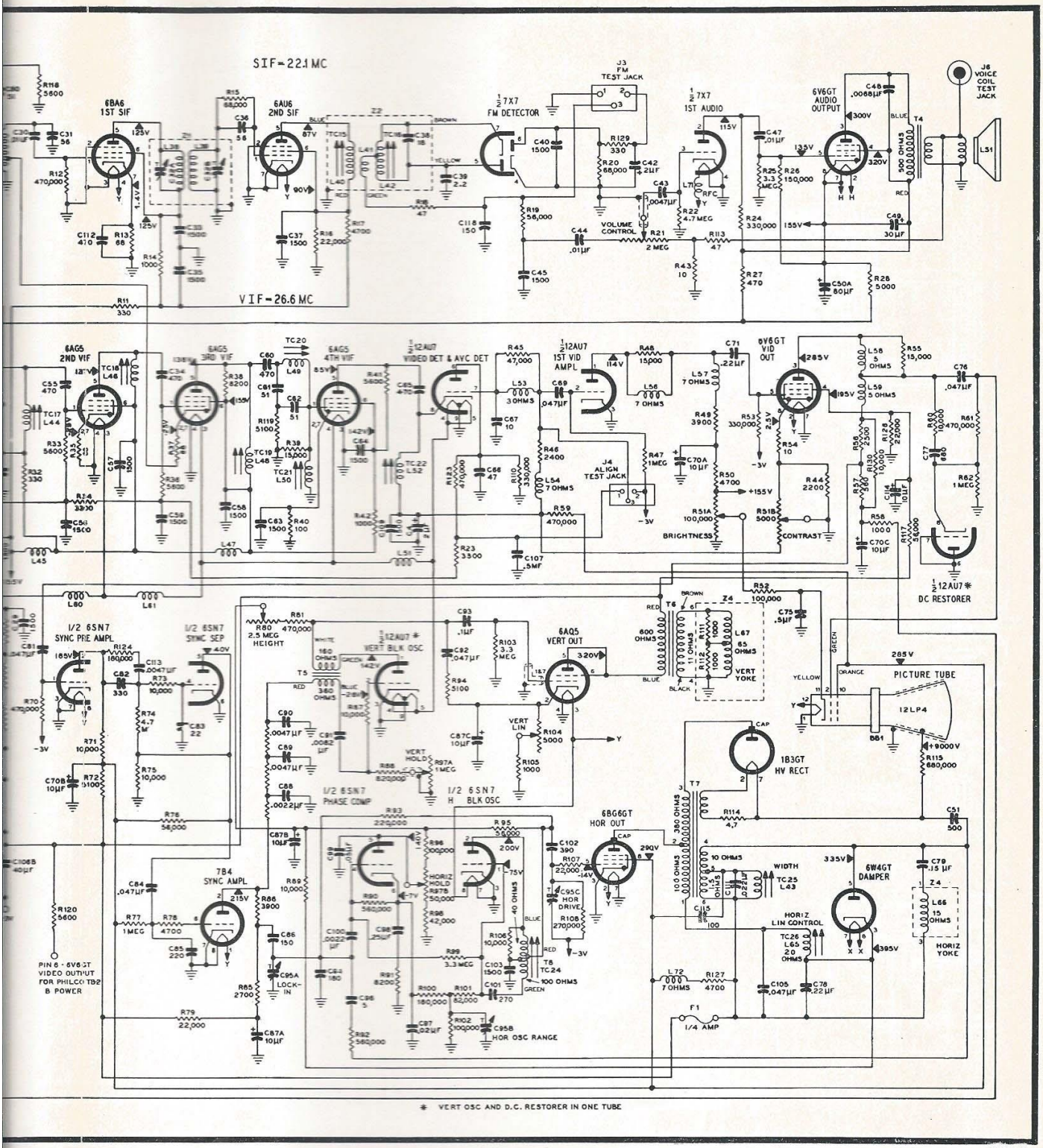


Figure 9. Philco Television Receiver Models 50-T1400, 50-T1401, 50-T1



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00, 50-T1401, 50-T1402, and 50-T1430 (All Run 5), Complete Schematic Diagram

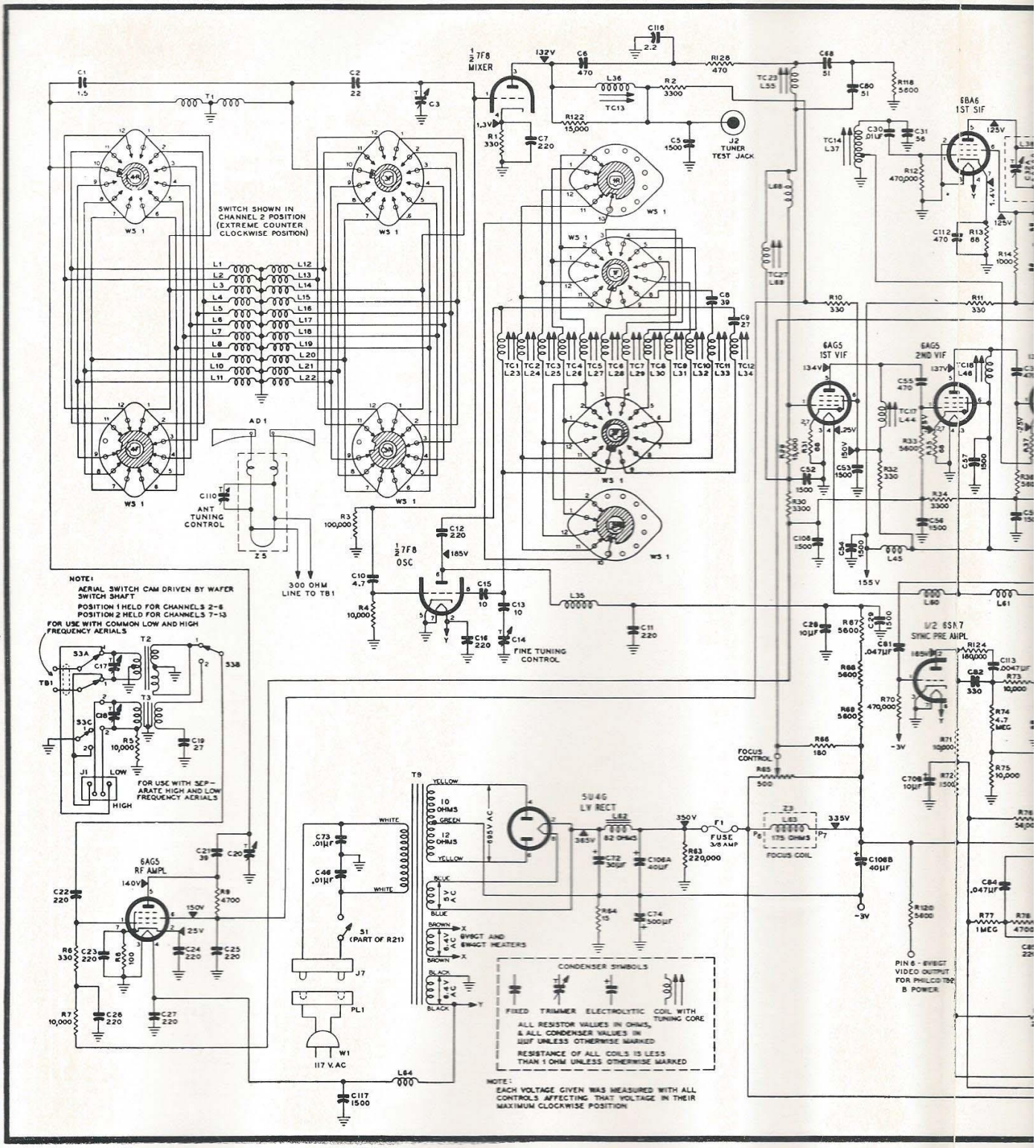
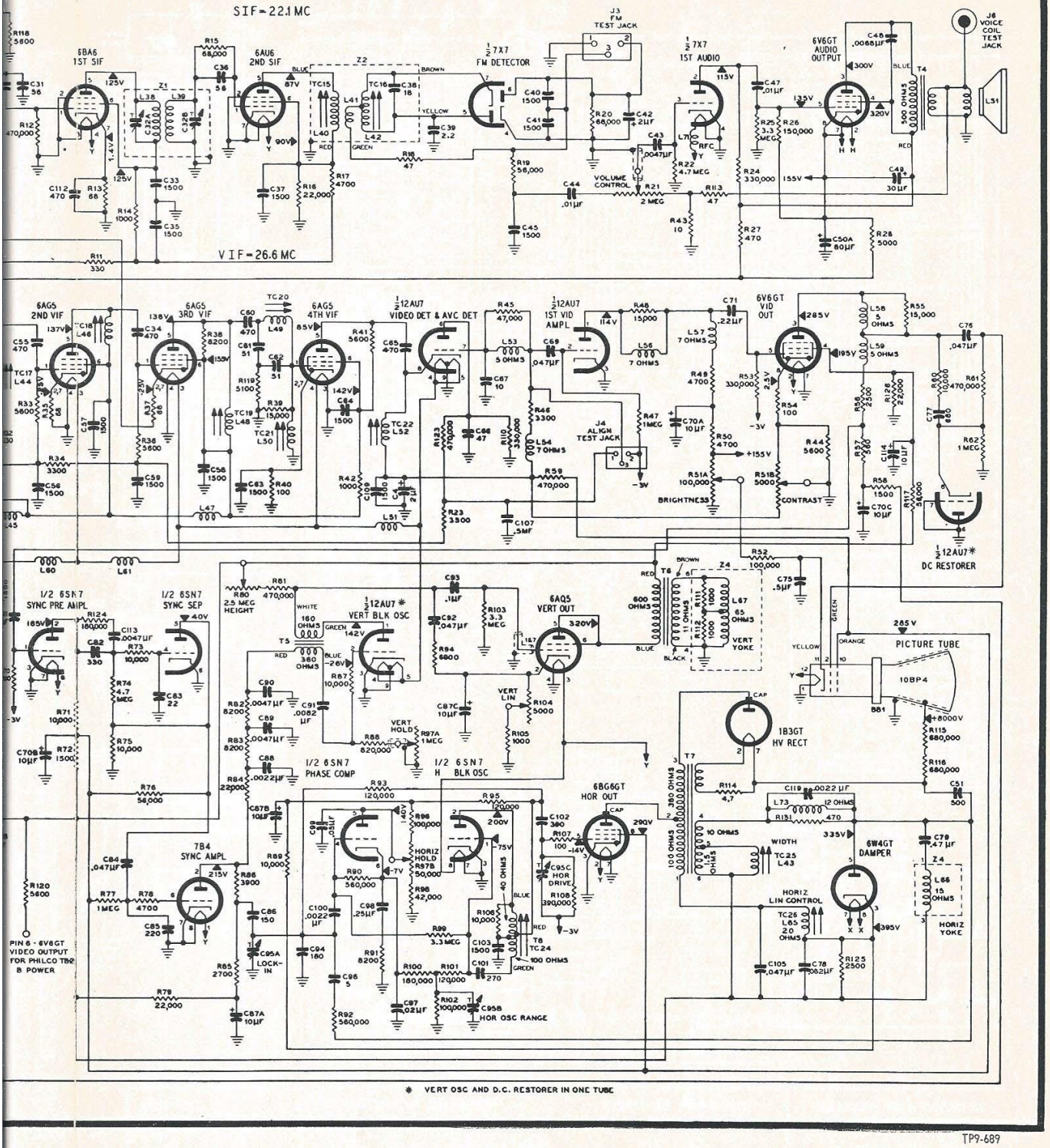


Figure 10. Philco Television Receiver Model 50-T1104, Code 123



* VERT OSC AND D.C. RESTORER IN ONE TUBE

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50-T1104, Code 123 (Run 4), Complete Schematic Diagram

PHILCO TELEVISION RECEIVER MODELS

50-T1401 AND 50-T1430

The chassis of Philco Models 50-T1401 and 50-T1430 are the same as that used in Model 50-T1400. Model 50-T1401 is a table model with a wrap-around mahogany cabinet. Model 50-T1430 is a console model with a modern-style mahogany cabinet. Both models incorporate a 12-inch picture tube, a wide mask, and a built-in aerial.

For service information pertaining to Models 50-T1401 and 50-T1430, refer to Philco Service Manual PR-1793, which covers Models 50-T1400, 50-T1402, and 50-T1104, Code 123, and to the supplementary information in this bulletin. However, the miscellaneous section of the Replacement Parts List in PR-1793 does not apply to Models 50-T1401 and 50-T1430 because of the difference in the cabinets. For miscellaneous parts, therefore, refer to the miscellaneous section of the following Replacement Parts List for Models 50-T1400, 50-T1401, 50-T1402, and 50-T1430 (All Run 5).

REPLACEMENT PARTS LIST

MODELS 50-T1400; 50-T1401; 50-T1402; 50-T1430 (ALL RUN 5)

NOTE: Part numbers identified by an asterisk (*) are general replacement items. These numbers may not be identical with those on factory parts; also, the electrical values of some replacement items may differ from the values indicated in the schematic diagram and parts list. The values substituted in any case are so chosen that the operation of the equipment will be either unchanged or improved. When ordering replacements, use only the "Service Part No."

In the event of failure of any component in the tuner, other than tubes, the entire Tuner Unit should be exchanged through your Philco Distributor. Only Tuner Units found to be defective by the Philco Distributor will be accepted for exchange. The Service Part No. of the entire Tuner Unit is 76-4402-6.

The following list incorporates all changes made up to and including run-5 production.

Reference Symbol	Description	Service Part No.
AD1	Built-in dipole (2 used)	56-7635
BB1	Beam bender, p.m.	Part of 76-3913-4
C1	Condenser, d-c blocking, 1.5 $\mu\mu f$.	Part of 76-4402-6
C2	Condenser, d-c blocking, 22 $\mu\mu f$.	Part of 76-4402-6
C3	Condenser, mixer tuning, .5 to 2 $\mu\mu f$.	Part of 76-4402-6
C4	Condenser, filter, 2 μf.	30-2417-7
C5	Condenser, r-f by-pass, 1500 $\mu\mu f$.	Part of 76-4402-6
C6	Condenser, d-c blocking, 470 $\mu\mu f$.	Part of 76-4402-6
C7	Condenser, cathode by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C8	Condenser, fixed padder, 39 $\mu\mu f$.	Part of 76-4402-6
C9	Condenser, fixed padder, 27 $\mu\mu f$.	Part of 76-4402-6
C10	Condenser, oscillator injection, 4.7 $\mu\mu f$.	Part of 76-4402-6
C11	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C12	Condenser, d-c blocking, 220 $\mu\mu f$.	Part of 76-4402-6
C13	Condenser, fixed padder, 10 $\mu\mu f$.	Part of 76-4402-6
C14	Condenser, trimmer, fine tuning, 4 to 7 $\mu\mu f$.	Part of 76-4402-6
C15	Condenser, d-c blocking, 10 $\mu\mu f$.	Part of 76-4402-6
C16	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C17	Condenser, trimmer, l-f aerial, 5 to 50 $\mu\mu f$.	Part of 76-4402-6
C18	Condenser, trimmer, h-f aerial, 5 to 50 $\mu\mu f$.	Part of 76-4402-6
C19	Condenser, fixed padder, 27 $\mu\mu f$.	Part of 76-4402-6
C20	Condenser, trimmer, r-f plate, .5 to 5 $\mu\mu f$.	Part of 76-4402-6
C21	Condenser, d-c blocking, 39 $\mu\mu f$.	Part of 76-4402-6
C22	Condenser, d-c blocking, 220 $\mu\mu f$.	Part of 76-4402-6
C23	Condenser, cathode by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C24	Condenser, cathode by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C25	Condenser, screen by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C26	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C27	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C28	Condenser, filter, 10 μf., 450v	30-2417-6*
C29	Condenser, osc. filter, 1500 $\mu\mu f$.	62-215001011
C30	Condenser, d-c blocking, .01 μf.	61-0120*
C31	Condenser, fixed trimmer, 56 $\mu\mu f$.	62-056409001*
C32A	Condenser, primary trimmer	Part of Z1
C32B	Condenser, secondary trimmer	Part of Z1
C33	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C34	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C35	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C36	Condenser, grid 56 $\mu\mu f$.	62-056409001*
C37	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C38	Condenser, fixed trimmer, 18 $\mu\mu f$.	62-018300001*
C39	Condenser, balancing, 2.2 $\mu\mu f$.	30-1221-4*
C40	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C42	Condenser, FM-detector filter, 2 μf., 50v	30-2417-7
C43	Condenser, d-c blocking, .0047 μf.	45-3505-56*
C44	Condenser, d-c blocking, .01 μf.	61-0120*
C45	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C46	Condenser, line filter, .01 μf.	61-0120*
C47	Condenser, d-c blocking, .01 μf.	61-0120*
C48	Condenser, tone compensation, .0068 μf.	45-3505-91*
C49	Condenser, filter, 30μf., 475v	30-2568-19
C50	Condenser, 2-section, 80-10μf.	30-2570-39
C50A	Condenser, filter 80 μf. 450v	Part of C50
C51	Condenser, filter, 500 $\mu\mu f$., 15,000v	30-1229-2
C52	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C53	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C54	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C55	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C56	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C57	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C58	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C59	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C60	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C61	Condenser, fixed trimmer 51 $\mu\mu f$.	30-1224-2*
C62	Condenser, fixed trimmer 51 $\mu\mu f$.	30-1224-2*
C63	Condenser, cathode by-pass, 1500 $\mu\mu f$.	62-215001011*
C64	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C65	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*

REPLACEMENT PARTS LIST (Cont.)

MODELS 50-T1400; 50-T1401; 50-T1402; 50-T1430 (ALL RUN 5)

Reference Symbol	Description	Service Part No.
C66	Condenser, r-f by-pass, 47 $\mu\mu f$.	30-1224-2
C67	Condenser, r-f by-pass, 10 $\mu\mu f$.	62-010009001*
C68	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-62*
C69	Condenser, d-c blocking, .047 μf.	61-0122*
C70	Condenser, 3-section, 10-10-10 μf.	30-2570-13
C70A	Condenser, i-f compensation, 10 μf., 475v	Part of C70
C70B	Condenser, plate filter, 10 μf., 475v	Part of C70
C70C	Condenser, i-f compensation, 10 μf., 475v	Part of C70
C71	Condenser, d-c blocking, .22 μf.	45-3505-49*
C72	Condenser, filter, 30 μf., 475v	30-2568-19
C73	Condenser, line filter, .01 μf.	61-0120*
C74	Condenser, filter, 500 μf., 25v	30-1229-2
C75	Condenser, cathode by-pass, .5 μf.	61-0133*
C76	Condenser, d-c blocking, .047 μf.	61-0122*
C77	Condenser, d-c blocking, 680 $\mu\mu f$.	60-10685401*
C78	Condenser, horizontal snaping, .22 μf. (50-T1400, 50-T1402)	45-3505-49*
C79	Condenser, d-c blocking, .15 μf.	45-3505-48*
C80	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-62*
C81	Condenser, d-c blocking, .047 μf.	61-0122*
C82	Condenser, d-c blocking, 330 $\mu\mu f$.	62-133001001*
C83	Condenser, video filter, 22 $\mu\mu f$.	62-022009001*
C84	Condenser, d-c blocking, .047 μf.	45-3505-62*
C85	Condenser, video filter, 220 $\mu\mu f$.	62-122001001*
C86	Condenser, d-c blocking, 150 $\mu\mu f$.	60-10155407*
C87	Condenser, 3-section, 10-10-10 μf.	30-2570-13
C87A	Condenser, filter, 10 μf., 475v	Part of C87
C87B	Condenser, filter, 10 μf., 475v	Part of C87
C87C	Condenser, cathode by-pass, 10 μf., 475v	Part of C87
C88	Condenser, integrating, .0022 μf.	61-0062*
C89	Condenser, integrating, .0047 μf.	45-3505-56*
C90	Condenser, integrating, .0047 μf.	45-3505-56*
C91	Condenser, d-c blocking, .0082 μf.	61-0174*
C92	Condenser, sweep charging, .047 μf.	45-3505-62*
C93	Condenser, d-c blocking, .1 μf.	45-3505-64*
C94	Condenser, voltage divider, 180 $\mu\mu f$.	30-1220-30
C95	Condenser, trimmer, 3-section	31-6477-2
C95A	Condenser, horizontal lock-in	Part of C95
C95B	Condenser, horizontal oscillator range	Part of C95
C95C	Condenser, horizontal drive	Part of C95
C96	Condenser, horizontal feedback, 5 $\mu\mu f$.	60-90505007*
C97	Condenser, filter .02 μf.	61-0108*
C98	Condenser, filter, .25 μf.	61-0125*
C99	Condenser, plate by-pass, .05 μf.	61-0170*
C100	Condenser, d-c blocking, .0022 μf.	61-0062*
C101	Condenser, d-c blocking, 270 $\mu\mu f$.	60-10275407*
C102	Condenser, d-c blocking, 390 $\mu\mu f$.	60-10395407*
C103	Condenser, sweep charging, 1500 $\mu\mu f$.	60-20155404*
C104	Condenser, r-f filter, 1500 $\mu\mu f$.	62-215001011*
C105	Condenser, horizontal shaping, .047 μf.	61-0122*
C106	Condenser, 2-section, 40-40 μf.	30-2570-13
C106A	Condenser, filter, 40 μf., 450v	Part of C106
C106B	Condenser, filter, 40 μf., 450v	Part of C106
C107	Condenser, a-v-c filter, .5 μf.	61-0133*
C108	Condenser, a-v-c filter, 1500 $\mu\mu f$.	62-215001011*
C109	Condenser, cathode by-pass, 1500 $\mu\mu f$.	62-245001001
C110	Condenser, aerial trimmer control	31-6518
C111	Condenser, width coil, .022 μf.	45-3505-60
C112	Condenser, cathode by-pass, 470 $\mu\mu f$.	62-147001001*
C113	Condenser, d-c blocking, .0047 μf.	45-3505-56
C114	Condenser, filter, video output, 10 μf.	30-2417-6*
C115	Condenser, feedback, 1500 $\mu\mu f$.	60-10105407*
C116	Condenser, r-f filter, 2.2 μf.	30-1221-4
C117	Condenser, r-f by-pass, 1500 $\mu\mu f$.	60-215001011*
C118	Condenser, r-f by-pass, 150 $\mu\mu f$.	60-10155407*
F1	Fuse, B+ protective, ¼ ampere	45-2356-8
J1	Socket, aerial input	Part of 76-4402-6
J2	Jack, TUNER TEST	Part of 76-4402-6
J3	Jack, FM TEST	27-6126
J4	Jack, ALIGN TEST	27-6126
J5	Socket, deflection cable	27-6174-4
J6	Jack, VOICE COIL TEST	27-6180
J7	Socket, power	27-6240
L1 to L11	Coils, r-f plate	Part of 76-4402-6
L12 to L22	Coils, mixer grid	Part of 76-4402-6
L23 to L34	Coils, oscillator	Part of 76-4402-6
L35	Coil, plate choke	Part of 76-4402-6
L36	Coil, mixer plate tank	Part of 76-4402-6
L37	Coil, 1st sound i-f autotransformer	32-4303-2
L38	Coil, primary	Part of Z1
L39	Coil, secondary	Part of Z1
L40	Coil, primary	Part of Z2
L41	Coil, tertiary	Part of Z2
L42	Coil, secondary	Part of Z2
L43	Coil, WIDTH	32-4419
L44	Coil, 1st v-i-f plate tank	32-4359
L45	Choke, r-f	32-4112-11
L46	Coil, 2nd v-i-f plate tank	32-4359
L47	Choke, r-f	32-4112-11
L48	Coil, 3rd v-i-f plate tank	32-4234-1
L49	Coil, accompanying-sound trap	32-4234-7
L50	Coil, 4th v-i-f grid tank	32-4233-2
L51	Coil, r-f choke	32-4112-11
L52	Coil, 4th v-i-f tank	32-4234-1
L53	Coil, series peaking, 40 microhenries	32-4143-1
L54	Coil, shunt peaking, 250 microhenries	32-4143-7
L55	Coil, adjacent-channel trap	32-4234-8
L56	Coil, series peaking, 250 microhenries	32-4143-7
L57	Coil, shunt peaking, 250 microhenries	32-4143-7
L58	Coil, series peaking, 180 microhenries	32-4143-5
L59	Coil, shunt peaking, 180 microhenries	32-4143-5
L60	Coil, r-f choke	32-4112-11
L61	Coil, r-f choke	32-4112-11
L62	Choke, filter	32-8387
L63	Coil, FOCUS	Part of Z3
L64	Coil, r-f choke	32-4112-11
L65	Coil, horizontal linearity	32-4211-1
L66	Coil, horizontal-deflection yoke	Part of Z4
L67	Coil, vertical-deflection yoke	Part of Z4
L69	Coil, grid tank	32-4233-4
L71	Filament choke	32-4112-11
L72	Coil, oscillation suppressor, 250 ohms	32-4143-7
LS1	Speaker, 4" x 6", p.m.	36-1615-11
PL1	Plug, power	Part of W1
PL2	Plug-and-cable assembly, deflection	41-3850-6
PL3	Plug-and-cable assembly picture-tube socket	41-3772-2
R1	Resistor, cathode bias, 330 ohms	Part of 76-4402-6
R2	Resistor, loading, 3300 ohms	Part of 76-4402-6
R3	Resistor, grid return, 100,000 ohms	Part of 76-4402-6
R4	Resistor, grid return, 10,000 ohms	Part of 76-4402-6
R5	Resistor, loading, 10,000 ohms	Part of 76-4402-6
R6	Resistor, grid return, 330 ohms	Part of 76-4402-6
R7	Resistor, a-v-c filter, 10,000 ohms	Part of 76-4402-6
R8	Resistor, cathode bias, 100 ohms	Part of 76-4402-6
R9	Resistor, plate load, 4700 ohms	Part of 76-4402-6
R10	Resistor, decoupling, 330 ohms	66-1338340*
R11	Resistor, decoupling, 330 ohms	66-1338340*
R12	Resistor, grid return, 470,000 ohms	66-4478340*
R13	Resistor, cathode bias, 68 ohms	66-0688340*
R14	Resistor, decoupling, 1000 ohms	66-2108340*
R15	Resistor, grid, 68,000 ohms	66-3688340*
R16	Resistor, voltage divider, 22,000 ohms	66-3228340*
R17	Resistor, voltage divider, 4700 ohms	66-2478340*
R18	Resistor, decoupling, 47 ohms	66-0478340*
R19	Resistor, decoupling, 56,000 ohms	66-3568340*
R20	Resistor, FM-detector load, 68,000 ohms	66-3688340*
R21	Potentiometer, VOLUME control, 2 megohms	33-5564-4
R22	Resistor, grid return, 4.7 megohms	66-5478340*
R23	Resistor, a-v-c filter, 3300 ohms	66-2338340*
R24	Resistor, plate load, 330,000 ohms	66-4338340*
R25	Resistor, voltage divider, 3.3 megohms	66-5338340*
R26	Resistor, voltage divider, 150,000 ohms	66-4158340*

REPLACEMENT PARTS LIST (Cont.)

MODELS 50-T1400; 50-T1401; 50-T1402; 50-T1430 (ALL RUN 5)

Reference Symbol	Description	Service Part No.
R27	Resistor, decoupling, 470 ohms	66-1478340*
R28	Resistor, bleeder, 5000 ohms	33-3435-30
R29	Resistor, grid return, 15,000 ohms	66-3158340*
R30	Resistor, a-v-c filter, 3300 ohms	66-2338340*
R31	Resistor, cathode bias, 68 ohms	66-0688340*
R32	Resistor, decoupling, 330 ohms	66-1338340*
R33	Resistor, grid return, 5600 ohms	66-2568340*
R34	Resistor, a-v-c filter, 3300 ohms	66-2338340*
R35	Resistor, cathode by-pass, 68 ohms	66-0688340*
R36	Resistor, grid return, 5600 ohms	66-2568340*
R37	Resistor, cathode bias, 68 ohms	66-0688340*
R38	Resistor, loading, 8200 ohms	66-2828340*
R39	Resistor, loading, 15,000 ohms	66-3158340
R40	Resistor, cathode bias, 100 ohms	66-1108340*
R41	Resistor, loading, 5600 ohms	66-2568340*
R42	Resistor, decoupling, 1000 ohms	66-2108340*
R43	Resistor, neg. feedback, 10 ohms	66-0103340*
R44	Resistor, voltage divider, 2200 ohms	66-2228340*
R45	Resistor, loading, 47,000 ohms	66-3478340*
R46	Resistor, video-detector load, 2400 ohms	66-2248340*
R47	Resistor, grid return, 1 megohm	66-5108340*
R48	Resistor, loading, 15,000 ohms	66-3158340*
R49	Resistor, plate load, 3900 ohms	66-2398340*
R50	Resistor, l-f compensations, 4700 ohms	66-2478340*
R51	Potentiometer assembly, dual, 5000 ohms-100,000 ohms	33-5533-10
R51A	Potentiometer, BRIGHTNESS control, 100,000 ohms	Part of R51
R51B	Potentiometer, CONTRAST control, 5,000 ohms	Part of R51
R52	Resistor, limiting, 100,000 ohms	66-4108340*
R53	Resistor, grid return, 330,000 ohms	66-4338340*
R54	Resistor, cathode bias, 10 ohms	66-0108340*
R55	Resistor, loading, 15,000 ohms	66-3158340*
R56	Resistor, plate load, 2500 ohms	66-2254340*
R57	Resistor, voltage divider, 560 ohms	66-1564340*
R58	Resistor, l-f compensation, 1000 ohms	66-2108340*
R59	Resistor, voltage divider, 470,000 ohms	66-4478340*
R60	Resistor, isolating, 10,000 ohms	66-3108340*
R61	Resistor, grid return, 470,000 ohms	66-4478340*
R62	Resistor, d-c restorer load, 1 megohm	66-5108340*
R63	Resistor, bleeder, 220,000 ohms	66-4225340*
R64	Resistor, bias, 15 ohms	66-0155340*
R65	Potentiometer, FOCUS control, 500 ohms	33-5546-28
R66	Resistor, limiting, 180 ohms	66-1184340*
R67	Resistor, dropping, 5600 ohms	66-2564340*
R68	Resistor, dropping, 5600 ohms	66-2564340*
R69	Resistor, dropping, 5600 ohms	66-2564340*
R70	Resistor, grid return, 470,000 ohms	66-4478340*
R71	Resistor, plate load, 10,000 ohms	66-3104340*
R72	Resistor, decoupling, 5,100 ohms, 5w	33-5546-28
R73	Resistor, video filter, 10,000 ohms	66-3108340*
R74	Resistor, grid return, 4.7 megohms	66-5478340*
R75	Resistor, voltage divider, 10,000 ohms	66-3108340*
R76	Resistor, plate load, 56,000 ohms	66-3564340*
R77	Resistor, grid return, 1 megohm	66-5108340*
R78	Resistor, video filter, 4700 ohms	66-2478340*
R79	Resistor, decoupling, 22,000 ohms	66-3228340*
R80	Potentiometer, HEIGHT control, 2.5 megohms	33-5565-10
R81	Resistor, limiting, 470,000 ohms	66-4478340*
R82	Resistor, integrating, 8200 ohms	66-2828340*
R83	Resistor, integrating, 8200 ohms	66-2828340*
R84	Resistor, integrating, 22,000 ohms	66-3228340*
R85	Resistor, plate load, 2700 ohms	66-2274340*
R86	Resistor plate load, 3900 ohms	66-2394340*
R87	Resistor, grid, 10,000 ohms	66-3108340*
R88	Resistor, limiting, 820,000 ohms	66-4828340*
R89	Resistor, decoupling, 10,000 ohms	66-3108340*
R90	Resistor, grid return, 560,000 ohms	66-4568340*
R91	Resistor, filter, 8200 ohms	66-2828340*
R92	Resistor, horizontal feedback, 560,000 ohms	66-4568340*
R93	Resistor, horizontal feedback, 220,000 ohms	66-4228340*
R94	Resistor, vertical shaping, 5100 ohms	66-2519240*
R95	Resistor, horizontal charging, 56,000 ohms	66-3568340*
R96	Resistor, voltage divider, 82,000 ohms	66-3828340*
R97	Potentiometer assembly, dual, 50,000 ohms-1 megohm	33-5563-6
R97A	Potentiometer, VERT. HOLD control, 1 megohm	Part of R97
R97B	Potentiometer, HORIZ. HOLD control, 50,000 ohms	Part of R97
R98	Resistor, temperature compensation, 42,000 ohms	33-1343-2
R99	Resistor, bias filter, 3.3 megohms	66-5338340*
R100	Resistor, filter, 180,000 ohms	66-4188340*
R101	Resistor, grid return, 82,000 ohms	66-3828340*
R102	Resistor, cathode return, 100,000 ohms	66-4108340*
R103	Resistor, grid return, 3.3 megohms	66-5338340*
R104	Potentiometer, VERT. LIN. control, 5,000 ohms	33-5546-10
R105	Resistor, limiting, 1,000 ohms	66-2108340*
R106	Resistor, horizontal-oscillator damping, 10,000 ohms	66-3108340*
R107	Resistor, parasitic suppressor, 22,000 ohms	66-3224340*
R108	Resistor, grid return, 270,000 ohms	66-4278340*
R110	Resistor, a-v-c load, 330,000 ohms	66-4338340*
R111	Resistor, vertical damping, 1,000 ohms	Part of Z4
R112	Resistor, vertical damping, 1,000 ohms	Part of Z4
R113	Resistor, audio feedback, 470 ohms	66-0473340
R114	Resistor, filament dropping, 4.7 ohms	66-9478340*
R115	Resistor, limiting, 680,000 ohms	66-4685340*
R117	Resistor, screen grid, 56,000 ohms	66-3564340*
R118	Resistor, terminating, 5600 ohms	66-2568340*
R119	Resistor, terminating, 5100 ohms	66-2508340*
R120	Resistor, booster dropping, 5600 ohms	66-2565340*
R122	Resistor, damping, 15,000 ohms	66-3158340*
R123	Resistor, a-v-c filter, 470,000 ohms	66-4478340*
R124	Resistor, vert. sync coupling, 180,000 ohms	66-4188340*
R126	Resistor, screen bleeder, 22,000 ohms	66-3224340*
R127	Resistor, screen dropping, 4700 ohms	66-2475340*
R128	Resistor, r-f filter, 470 ohms	66-1478340*
R129	Resistor, beat suppressor, 330 ohms	66-1338340*
R130	Resistor, plate-load shunt, 10,000 ohms	66-3104340*
S1	Switch ON-OFF	Part of R21
S3	Switch, band	Part of 76-4402-6
S3A	Switch, aerial	Part of S3
S3B	Switch, aerial transformer	Part of S3
S3C	Switch, aerial grounding	Part of S3
T1	Transformer, r-f	Part of 76-4402-6
T2	Transformer, l-f aerial	Part of 76-4402-6
T3	Transformer, h-f aerial	Part of 76-4402-6
T4	Transformer, audio output	32-8367-1
T5	Transformer, vertical-blocking oscillator	32-8304
T6	Transformer, vertical output	32-8405
T7	Transformer, horizontal output	32-8421
T8	Transformer, horizontal-blocking oscillator	32-4367
T9	Transformer, power	32-8411-1
TB1	Terminal board, aerial input	38-8688
TC1 to TC13	Tuning cores	Part of 76-4402-6
TC14	Tuning core	Part of L37
TC15	Tuning core	Part of Z2
TC16	Tuning core	Part of Z2
TC17	Tuning core	Part of L44
TC18	Tuning core	Part of L46
TC19	Tuning core	Part of L48
TC20	Tuning core	Part of L49
TC21	Tuning core	Part of L50
TC22	Tuning core	Part of L52
TC23	Tuning core	Part of L55
TC24	Tuning core	Part of T8
TC25	Tuning core, WIDTH control	Part of L43

REPLACEMENT PARTS LIST (Cont.)

MODELS 50-T1400; 50-T1401; 50-T1402; 50-T1430 (ALL RUN 5)

Reference Symbol	Description	Service Part No.
TC26	Tuning core, HORIZ. LIN. control	Part of L65
TC27	Tuning core	Part of L69
W1	Line cord	41-3865
WS1	Wafer-switch-and plate assembly	Part of 76-4402-6
Z1	Transformer, 2nd sound i-f	32-4236
Z2	Transformer, FM detector	32-4217-2
Z3	Focus-coil assembly	76-2822-5
Z4	Deflection-coil assembly	32-9622
Z5	Loop assembly, aerial tuning	54-4661

MISCELLANEOUS

Description	Service Part No.
Cabinet (50-T1400)	10785
Cabinet (50-T1401)	10784
Cabinet (50-T1402)	10776
Cabinet (50-T1430)	10780
Cabinet Hardware and Parts	
Back and cup assembly (50-T1400)	76-5406-2
Back and cup assembly (50-T1401)	76-5406-3
Back and cup assembly (50-T1402)	76-5406
Back and cup assembly (50-T1430)	76-5406-1
Bolt, mask (50-T1401)	1W8038FE11
Brace, picture tube, 5-15/16" x 1-15/16" (50-T1400)	56-5581-33FA3
Brace, picture tube (50-T1400)	56-5581-39FA3
Brace, picture tube, 2-3/8" x 3-5/16" (50-T1401)	56-5581-35FA3
Brace, picture tube, 2-3/8" x 6" (50-T1401)	56-5581-36FA3
Brace, picture tube, 4-3/8" x 1-13/16" (50-T1402)	56-5581-23FA3
Brace, picture tube, 6-1/4" x 1-13/16" (50-T1402)	56-5581-27FA3
Brace, picture tube, 4-12/32" long (50-T1430)	56-7754-1FA3
Brace, picture tube, 7-13/16" long (50-T1430)	56-7754FA3
Coupler, rubber, aerial-tuning shaft	54-4748
Knob, AERIAL TUNING control	54-4750
Knob, BRIGHTNESS control (50-T1400, 50-T1401)	54-4699-3
Knob, BRIGHTNESS control (50-T1402)	54-4659-1
Knob, BRIGHTNESS control (50-T1430)	54-4699
Knob, CHANNEL SELECTOR (50-T1400, 50-T1401)	56-6596-1
Knob, CHANNEL SELECTOR (50-T1402, 50-T1430)	56-6596-3
Knob, CONTRAST control (50-T1400, 50-T1401)	54-4707-2
Knob, CONTRAST control (50-T1402)	54-4364-1
Knob, CONTRAST control (50-T1430)	54-4707
Knob, FINE TUNING control (50-T1400, 50-T1401, 50-T1402)	54-4632-1
Knob, FINE TUNING control (50-T1430)	54-4662-2
Knob, HORIZ. HOLD control (50-T1400, 50-T1401)	54-4707-2
Knob, HORIZ. HOLD control (50-T1402)	54-4664-3
Knob, HORIZ. HOLD control (50-T1430)	54-4707
Knob, VERT. HOLD control (50-T1400, 50-T1401)	54-4699-3
Knob, VERT. HOLD control (50-T1402)	54-4659-3
Knob, VERT. HOLD control (50-T1430)	54-4699
Knob, VOLUME control (50-T1400, 50-T1401)	54-4703-2
Knob, VOLUME control (50-T1402)	54-4661-1
Knob, VOLUME control (50-T1430)	54-4703
Mask (50-T1401)	219204
Nut, mask (50-T1401)	53-5740FA3
Shaft, AERIAL TUNING control (50-T1400, 50-T1401, 50-T1402)	54-4747-6
Shaft, AERIAL TUNING control (50-T1430)	54-4747-7
Window (50-T1400)	54-4754
Window (50-T1401)	54-7595-8
Window (50-T1402)	54-7983-1
Window (50-T1430)	54-7943-5
Cable assembly, high voltage	41-3771-2
Cable assembly, picture tube	41-3772-2
Cord, drive (25-foot spool)	45-8750
Insulator, high voltage	54-7573-5
Insulator, stand-off	54-7309-6
Mounting-frame assembly, picture tube	76-3938
Shield, Loktal tube	56-2731
Shield, miniature tube	56-5629FA3
Socket, Loktal tube	27-6207
Socket, miniature tube	27-6226
Socket, octal tube	27-6174-6
Socket, octal tube (1B3GT)	27-6174-5
Socket, 9-pin (12AU7)	27-6203-5
Tuner assembly, complete	76-4402-6

REPLACEMENT PARTS LIST

MODEL 50-T1104, CODE 123 (RUN 4)

NOTE: Part numbers identified by an asterisk (*) are general replacement items. These numbers may not be identical with those on factory parts; also, the electrical values of some replacement items may differ from the values indicated in the schematic diagram and parts list. The values substituted in any case are so chosen that the operation of the equipment will be either unchanged or improved. When ordering replacements, use only the "Service Part No."

In the event of failure of any component in the tuner, other than tubes, the entire Tuner Unit should be exchanged through your Philco Distributor. Only Tuner Units found to be defective by the Philco Distributor will be accepted for exchange. The Service Part No. of the entire Tuner Unit is 76-4402-6.

The following list incorporates all changes made up to and including run-4 production.

Reference Symbol	Description	Service Part No.
AD1	Built-in dipole (2 used)	56-7635
BB1	Beam bender, p.m.	Part of 76-3913-4
C1	Condenser, d-c blocking, 1.5 $\mu\mu f$.	Part of 76-4402-6
C2	Condenser, d-c blocking, 22 $\mu\mu f$.	Part of 76-4402-6
C3	Condenser, mixer tuning, .5 to 2 $\mu\mu f$.	Part of 76-4402-6
C4	Condenser, filter, 2 μf.	30-2417-7
C5	Condenser r-f by-pass, 1500 $\mu\mu f$.	Part of 76-4402-6
C6	Condenser, d-c blocking, 470 $\mu\mu f$.	Part of 76-4402-6
C7	Condenser, cathode by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C8	Condenser, fixed padder, 39 $\mu\mu f$.	Part of 76-4402-6
C9	Condenser, fixed padder, 27 $\mu\mu f$.	Part of 76-4402-6
C10	Condenser, oscillator injection, 4.7 $\mu\mu f$.	Part of 76-4402-6

REPLACEMENT PARTS LIST (Cont.)

MODEL 50-T1104, CODE 123 (RUN 4)

Reference Symbol	Description	Service Part No.
C11	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C12	Condenser, d-c blocking, 220 $\mu\mu f$.	Part of 76-4402-6
C13	Condenser, fixed padder, 10 $\mu\mu f$.	Part of 76-4402-6
C14	Condenser, trimmer, fine tuning 4 to 7 $\mu\mu f$.	Part of 76-4402-6
C15	Condenser, d-c blocking, 10 $\mu\mu f$.	Part of 76-4402-6
C16	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C17	Condenser, trimmer, l-f aerial, 5 to 50 $\mu\mu f$.	Part of 76-4402-6
C18	Condenser, trimmer, h-f aerial, 5 to 50 $\mu\mu f$.	Part of 76-4402-6
C19	Condenser, fixed padder, 27 $\mu\mu f$.	Part of 76-4402-6
C20	Condenser, trimmer, r-f plate, .5 to 5 $\mu\mu f$.	Part of 76-4402-6
C21	Condenser, d-c blocking, 39 $\mu\mu f$.	Part of 76-4402-6
C22	Condenser, d-c blocking, 220 $\mu\mu f$.	Part of 76-4402-6
C23	Condenser, cathode by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C24	Condenser, cathode by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C25	Condenser, screen by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C26	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C27	Condenser, r-f by-pass, 220 $\mu\mu f$.	Part of 76-4402-6
C28	Condenser, filter, 10 μf., 450v	30-2417-6*
C29	Condenser, osc. filter, 1500 $\mu\mu f$.	62-215001011
C30	Condenser, d-c blocking, .01 μf.	61-0120*
C31	Condenser, fixed trimmer, 56 $\mu\mu f$.	62-056409001*
C32A	Condenser, primary trimmer	Part of Z1
C32B	Condenser, secondary trimmer	Part of Z1
C33	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C34	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C35	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C36	Condenser, grid 56 $\mu\mu f$.	62-056409001*
C37	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C38	Condenser, fixed trimmer, 18 $\mu\mu f$.	62-018300001*
C39	Condenser, balancing, 2.2 $\mu\mu f$.	30-1221-4*
C40	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C41	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C42	Condenser, FM-detector filter, 2 μf., 50v	30-2417-7
C43	Condenser, d-c blocking, .0047 μf.	30-4650-56*
C44	Condenser, d-c blocking, .01 μf.	61-0120*
C45	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C46	Condenser, line filter, .01 μf.	61-0120*
C47	Condenser, d-c blocking, .01 μf.	61-0120*
C48	Condenser, tone compensation, .0068 μf.	30-4650-91*
C49	Condenser, filter, 30 μf., 475v	30-2568-19
C50	Condenser, 2-section, 80-10 μf.	30-2570-39
C50A	Condenser, filter, 80 μf., 450v	Part of C50
C51	Condenser, filter, 500 $\mu\mu f$., 15,000v	30-1229-2
C52	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C53	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C54	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C55	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C56	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C57	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C58	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C59	Condenser, r-f by-pass, 1500 $\mu\mu f$.	62-215001011*
C60	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C61	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-2*
C62	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-2*
C63	Condenser, cathode by-pass, 1500 $\mu\mu f$.	62-215001011*
C64	Condenser, screen by-pass, 1500 $\mu\mu f$.	62-215001011*
C65	Condenser, d-c blocking, 470 $\mu\mu f$.	62-147001001*
C66	Condenser, r-f by-pass, 47 $\mu\mu f$.	30-1224-2
C67	Condenser, r-f by-pass, 10 $\mu\mu f$.	62-010009001*
C68	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-62*
C69	Condenser, d-c blocking, .047 μf.	61-0122*
C70	Condenser, 3-section, 10-10-10 μf.	30-2570-13
C70A	Condenser, l-f compensation, 10 μf., 475v	Part of C70
C70B	Condenser, plate filter, 10 μf., 475v	Part of C70
C70C	Condenser, l-f compensation, 10 μf., 475v	Part of C70
C71	Condenser, d-c blocking, .22 μf.	30-4650-49
C72	Condenser, filter, 30 μf., 475v	30-2568-19
C73	Condenser, line filter, .01 μf.	61-0120*
C74	Condenser, filter, 500 μf., 25v	30-1229-2
C75	Condenser, cathode by-pass, .5 μf.	61-0133*
C76	Condenser, d-c blocking, .047 μf.	61-0122*
C77	Condenser, d-c blocking, 680 $\mu\mu f$.	60-10685401*
C78	Condenser, horizontal shaping, .082 μf. (50-T1104, Code 123)	30-4651-3
C79	Condenser, d-c blocking, .47 μf.	61-0133
C80	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-62*
C81	Condenser, d-c blocking, .047 μf.	61-0122*
C82	Condenser, d-c blocking, 330 $\mu\mu f$.	62-133001001*
C83	Condenser, video filter, 22 $\mu\mu f$.	62-022009001*
C84	Condenser, d-c blocking, .047 μf.	45-3505-62*
C85	Condenser, video filter, 220 $\mu\mu f$.	62-122001001*
C86	Condenser, d-c blocking, 150 $\mu\mu f$.	60-10155407*
C87	Condenser, 3-section, 10-10-10 μf.	30-2570-13
C87A	Condenser, filter, 10 μf., 475v	Part of C87
C87B	Condenser, filter, 10 μf., 475v	Part of C87
C87C	Condenser, cathode by-pass, 10 μf., 475v	Part of C87
C88	Condenser, integrating, .0022 μf.	61-0062*
C89	Condenser, integrating, .0047 μf.	45-3505-56*
C90	Condenser, integrating, .0047 μf.	45-3505-56*
C91	Condenser, d-c blocking, .0082 μf.	61-0174*
C92	Condenser, sweep charging, .047 μf.	45-3505-62*
C93	Condenser, d-c blocking, .1 μf.	45-3505-64*
C94	Condenser, voltage divider, 180 $\mu\mu f$.	30-1220-30
C95	Condenser, trimmer, 3-section	31-6477-2
C95A	Condenser, horizontal lock-in	Part of C95
C95B	Condenser, horizontal oscillator range	Part of C95
C95C	Condenser, horizontal drive	Part of C95
C96	Condenser, horizontal feedback, 5 $\mu\mu f$.	60-90505007*
C97	Condenser, filter, .02 μf.	61-0108*
C98	Condenser, filter, 25 μf.	61-0125*
C99	Condenser, plate by-pass, .05 μf.	61-0170*
C100	Condenser, d-c blocking, .0022 μf.	61-0062*
C101	Condenser, d-c blocking, 270 $\mu\mu f$.	60-10275407*
C102	Condenser, d-c blocking, 390 $\mu\mu f$.	60-10395407*
C103	Condenser, sweep charging, 1500 $\mu\mu f$.	60-20155404*
C104	Condenser, r-f filter, 1500 $\mu\mu f$.	62-215001001
C105	Condenser, horizontal shaping, .047 μf.	61-0122*
C106	Condenser, 2-section, 40-40 μf.	30-2570-13
C106A	Condenser, filter, 40 μf., 450v	Part of C106
C106B	Condenser, filter, 40 μf., 450v	Part of C106
C107	Condenser, a-v-c filter, .5 μf.	61-0133*
C108	Condenser, a-v-c filter, 1500 $\mu\mu f$.	62-215001001
C109	Condenser, cathode by-pass, 1500 $\mu\mu f$.	62-245001001
C110	Condenser, aerial trimmer control	31-6518
C112	Condenser, cathode by-pass, 470 $\mu\mu f$.	62-147001001*
C113	Condenser, d-c blocking, .0047 $\mu\mu f$.	45-3505-56*
C114	Condenser, filter, video output, 10 μf.	30-2417-6*
C116	Condenser, r-f filter, 2.2 $\mu\mu f$.	30-1221-4
C117	Condenser, r-f by-pass, 1500 $\mu\mu f$.	60-215001011*
C119	Condenser, filter, .0022 μf.	45-3505-54*
F1	Fuse, B+ protective, 3/8 ampere	45-2656-10
J1	Socket, aerial input	Part of 76-4402-6
J2	Jack, TUNER TEST	Part of 76-4402-6
J3	Jack, FM TEST	27-6126
J4	Jack, ALIGN TEST	27-6126
J5	Socket, deflection cable	27-6174-4
J6	Jack, VOICE COIL TEST	27-6180
J7	Socket, power	27-6240
L1 to L11	Coils, r-f plate	Part of 76-4402-6
L12 to L22	Coils, mixer grid	Part of 76-4402-6
L23 to L34	Coils, oscillator	Part of 76-4402-6
L35	Coil, plate choke	Part of 76-4402-6
L36	Coil, mixer plate tank	Part of 76-4402-6
L37	Coil, 1st sound i-f autotransformer	32-4302-3
L38	Coil, primary	Part of Z1

REPLACEMENT PARTS LIST (Cont.)

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Reference Symbol	Description	Service Part No.
L39	Coil, secondary	Part of Z1
L40	Coil, primary	Part of Z2
L41	Coil, tertiary	Part of Z2
L42	Coil, secondary	Part of Z2
L43	Coil, WIDTH	32-4419
L44	Coil, 1st v-i-f plate tank	32-4359
L45	Choke, r-f	32-4112-11
L46	Coil, 2nd v-i-f plate tank	32-4359
L47	Choke, r-f	32-4112-11
L48	Coil, 3rd v-i-f plate tank	32-4234-1
L49	Coil, accompanying-sound trap	32-4234-7
L50	Coil, 4th v-i-f grid tank	32-4233-2
L51	Coil, r-f choke	32-4112-11
L52	Coil, 4th v-i-f tank	32-4234-1
L53	Coil, series peaking, 150 microhenries	32-4143
L54	Coil, shunt peaking, 250 microhenries	32-4143-7
L55	Coil, adjacent-channel trap	32-4234-8
L56	Coil, series peaking, 250 microhenries	32-4143-7
L57	Coil, shunt peaking, 250 microhenries	32-4143-7
L58	Coil, series peaking, 180 microhenries	32-4143-5
L59	Coil, shunt peaking, 180 microhenries	32-4143-5
L60	Coil, r-f choke	32-4112-11
L61	Coil, r-f choke	32-4112-11
L62	Choke, filter	32-8387
L63	Coil, FOCUS	Part of Z3
L64	Coil, r-f choke	32-4112-11
L65	Coil, horizontal linearity	32-4211-1
L66	Coil, horizontal-deflection yoke	Part of Z4
L67	Coil, vertical-deflection yoke	Part of Z4
L68	Coil, r-f choke	32-4112-15
L69	Coil, grid tank	32-4233-4
L71	Filament choke	32-4112-11
L73	Coil, filter, 600 μh.	32-4264-1
LS1	Speaker, 4" x 6", p.m.	36-1615-11
PL1	Plug, power	Part of W1
PL2	Plug-and-cable assembly, deflection	41-3860-6
PL3	Plug-and-cable assembly, picture-tube socket	41-3772-2
R1	Resistor, cathode bias, 330 ohms	Part of 76-4402-6
R2	Resistor, loading, 3300 ohms	Part of 76-4402-6
R3	Resistor, grid return, 100,000 ohms	Part of 76-4402-6
R4	Resistor, grid return, 10,000 ohms	Part of 76-4402-6
R5	Resistor, loading, 10,000 ohms	Part of 76-4402-6
R6	Resistor, grid return, 330 ohms	Part of 76-4402-6
R7	Resistor, a-v-c filter, 10,000 ohms	Part of 76-4402-6
R8	Resistor, cathode bias, 100 ohms	Part of 76-4402-6
R9	Resistor, plate load, 4700 ohms	Part of 76-4402-6
R10	Resistor, decoupling, 330 ohms	66-1338340*
R11	Resistor, decoupling, 330 ohms	66-1338340*
R12	Resistor, grid return, 470,000 ohms	66-4478340*
R13	Resistor, cathode bias, 68 ohms	66-0688340*
R14	Resistor, decoupling, 1,000 ohms	66-2108340*
R15	Resistor, grid, 68,000 ohms	66-3688340*
R16	Resistor, voltage divider, 22,000 ohms	66-3228340*
R17	Resistor, voltage divider, 4700 ohms	66-2478340*
R18	Resistor, decoupling, 47 ohms	66-0478340*
R19	Resistor, decoupling, 56,000 ohms	66-3568340*
R20	Resistor, FM-detector load, 68,000 ohms	66-3688340*
R21	Potentiometer, VOLUME control, 2 megohms	33-5566-16
R22	Resistor, grid return, 4.7 megohms	66-5478340*
R23	Resistor, a-v-c filter, 3300 ohms	66-2338340*
R24	Resistor, plate load, 330,000 ohms	66-4338340*
R25	Resistor, voltage divider, 3.3 megohms	66-5338340*
R26	Resistor, voltage divider, 150,000 ohms	66-4158340*
R27	Resistor, decoupling, 470 ohms	66-1478340*
R28	Resistor, bleeder, 5000 ohms	33-3435-30
R29	Resistor, grid return, 15,000 ohms	66-3158340*
R30	Resistor, a-v-c filter, 3300 ohms	66-2338340*
R31	Resistor, cathode bias, 68 ohms	66-0688340*
R32	Resistor, decoupling, 330 ohms	66-1338340*
R33	Resistor, grid return, 5600 ohms	66-2568340*
R34	Resistor, a-v-c filter, 3300 ohms	66-2338340*
R35	Resistor, cathode by-pass, 68 ohms	66-0688340*
R36	Resistor, grid return, 5600 ohms	66-2568340*
R37	Resistor, cathode bias, 68 ohms	66-0688340*
R38	Resistor, loading, 8200 ohms	66-2828340*
R39	Resistor, loading, 15,000 ohms	66-3158340*
R40	Resistor, cathode bias, 100 ohms	66-1108340*
R41	Resistor, loading, 5600 ohms	66-2568340*
R42	Resistor, decoupling, 1000 ohms	66-2108340*
R43	Resistor, neg. feedback, 10 ohms	66-0103340
R44	Resistor, voltage divider, 2200 ohms	66-2228340*
R45	Resistor, loading, 47,000 ohms	66-3478340*
R46	Resistor, video-detector load, 3300 ohms	66-2338340*
R47	Resistor, grid return, 1 megohm	66-5108340*
R48	Resistor, loading, 15,000 ohms	66-3158340*
R49	Resistor, plate load, 4700 ohms	66-2478340*
R50	Resistor, l-f compensation, 4700 ohms	66-2478340*
R51	Potentiometer assembly, dual, 5000 ohms 100,000 ohms	33-5563-22
R51A	Potentiometer, BRIGHTNESS control, 100,000 ohms	Part of R51
R51B	Potentiometer, CONTRAST control, 5,000 ohms	Part of R51
R52	Resistor, limiting, 100,000 ohms	66-4108340*
R53	Resistor, grid return, 330,000 ohms	66-4338340*
R54	Resistor, cathode bias, 100 ohms	66-1108340*
R55	Resistor, loading, 15,000 ohms	66-3158340*
R56	Resistor, plate load, 2500 ohms	66-2254340*
R57	Resistor, voltage divider, 560 ohms	66-1564340*
R58	Resistor, l-f compensation, 1500 ohms	66-2158340*
R59	Resistor, voltage divider, 470,000 ohms	66-4478340*
R60	Resistor, isolating, 10,000 ohms	66-3108340*
R61	Resistor, grid return, 470,000 ohms	66-4478340*
R62	Resistor, d-c restorer load, 1 megohm	66-5108340*
R63	Resistor, bleeder, 220,000 ohms	66-4225340*
R64	Resistor, bias, 15 ohms	66-0155340*
R65	Potentiometer, FOCUS control, 500 ohms	33-5546-28
R66	Resistor, limiting, 180 ohms	66-1184340*
R67	Resistor, dropping, 5600 ohms	66-2564340*
R68	Resistor, dropping, 5600 ohms	66-2564340*
R69	Resistor, dropping, 5600 ohms	66-2564340*
R70	Resistor, grid return, 470,000 ohms	66-4478340*
R71	Resistor, plate load, 10,000 ohms	66-3104340*
R72	Resistor, decoupling, 1,500 ohms, 5w	66-2155340*
R73	Resistor, video filter, 10,000 ohms	66-3108340*
R74	Resistor, grid return, 4.7 megohms	66-5478340*
R75	Resistor, voltage divider, 10,000 ohms	66-3108340*
R76	Resistor, plate load, 56,000 ohms	66-3564340*
R77	Resistor, grid return, 1 megohm	66-5108340*
R78	Resistor, video filter, 4700 ohms	66-2478340*
R79	Resistor, decoupling, 22,000 ohms	66-3228340*
R80	Potentiometer, HEIGHT control, 2.5 megohms	33-5565-10
R81	Resistor, limiting, 470,000 ohms	66-4478340*
R82	Resistor, integrating, 8200 ohms	66-2828340*
R83	Resistor, integrating, 8200 ohms	66-2828340*
R84	Resistor, integrating, 22,000 ohms	66-3228340*
R85	Resistor, plate load, 2700 ohms	66-2274340*
R86	Resistor, plate load, 3900 ohms	66-2394340*
R87	Resistor, grid, 10,000 ohms	66-3108340*
R88	Resistor, limiting, 820,000 ohms	66-4828340*
R89	Resistor, decoupling, 10,000 ohms	66-3108340*
R90	Resistor, grid return, 560,000 ohms	66-4568340*
R91	Resistor, filter, 8200 ohms	66-2828340*
R92	Resistor, horizontal feedback, 560,000 ohms	66-4568340*
R93	Resistor, horizontal feedback, 120,000 ohms	66-4128340*
R94	Resistor, vertical shaping, 6800 ohms	66-2688340*
R95	Resistor, horizontal charging, 120,000 ohms	66-4128340*
R96	Resistor, voltage divider, 82,000 ohms	66-3828340*
R97	Potentiometer assembly, dual, 50,000 ohms-1 megohm	33-5563-23
R97A	Potentiometer, VERT. HOLD control, 1 megohm	Part of R97

REPLACEMENT PARTS LIST (Cont.)

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Reference Symbol	Description	Service Part No.
R97B	Potentiometer, HORIZ. HOLD control, 50,000 ohms	Part of R97
R98	Resistor, temperature compensation, 42,000 ohms	33-1343-2
R99	Resistor, bias filter, 3.3 megohms	66-5338340*
R100	Resistor, filter, 180,000 ohms	66-418340*
R101	Resistor, grid return, 120,000 ohms	66-4128340*
R102	Resistor, cathode return, 100,000 ohms	66-4108340*
R103	Resistor, grid return, 3.3 megohms	66-5338340*
R104	Potentiometer, VERT. LIN. control, 5,000 ohms	33-5546-10
R105	Resistor, limiting, 1,000 ohms	66-2108340*
R106	Resistor, horizontal-oscillator damping, 10,000 ohms	66-3108340*
R107	Resistor, parasitic suppressor, 100 ohms	66-1108340*
R108	Resistor, grid return, 390,000 ohms	66-4398340
R110	Resistor, a-v-c load, 330,000 ohms	66-4338340*
R111	Resistor, vertical damping, 1,000 ohms	Part of Z4
R112	Resistor, vertical damping, 1,000 ohms	Part of Z4
R113	Resistor, audio feedback, 470 ohms	66-0473340
R114	Resistor, filament dropping, 4.7 ohms	66-9478340*
R115	Resistor, limiting, 680,000 ohms	66-4685340*
R116	Resistor, limiting, 680,000 ohms	66-4685340*
R117	Resistor, screen grid, 56,000 ohms	66-3564340*
R118	Resistor, terminating, 15,000 ohms	66-3158340*
R119	Resistor, terminating, 5800 ohms	66-2568340*
R120	Resistor, booster dropping, 5600 ohms	66-2565340*
R122	Resistor, damping, 15,000 ohms	66-3158340*
R123	Resistor, a-v-c filter, 470,000 ohms	66-4478340*
R124	Resistor, vert. sync coupling, 180,000 ohms	66-4188340*
R125	Resistor, horiz. shaping, 2500 ohms	66-2258340*
R126	Resistor, screen bleeder, 22,000 ohms	66-3224340*
R128	Resistor, r-f filter, 470 ohms	66-1478340*
R131	Resistor, damping	66-1475340*
S1	Switch, ON-OFF	Part of R21
S3	Switch, band	Part of 76-4402-6
S3A	Switch, aerial	Part of S3
S3B	Switch, aerial transformer	Part of S3
S3C	Switch, aerial grounding	Part of S3
T1	Transformer, r-f	Part of 76-4402-6
T2	Transformer, l-f aerial	Part of 76-4402-6
T3	Transformer, h-f aerial	Part of 76-4402-6
T4	Transformer, audio output	32-8367-1
T5	Transformer, vertical-blocking oscillator	32-8304
T6	Transformer, vertical output	32-8405
T7	Transformer, horizontal output	32-8409
T8	Transformer, horizontal-blocking oscillator	32-4367
T9	Transformer, power	32-8411-1
TB1	Terminal board, aerial input	38-8688
TC1 to TC13	Tuning cores	Part of 76-4402-6
TC14	Tuning core	Part of L37
TC15	Tuning core	Part of Z2
TC16	Tuning core	Part of Z2
TC17	Tuning core	Part of L44
TC18	Tuning core	Part of L46
TC19	Tuning core	Part of L48
TC20	Tuning core	Part of L49
TC21	Tuning core	Part of L50
TC22	Tuning core	Part of L52
TC23	Tuning core	Part of L55
TC24	Tuning core	Part of T8
TC25	Tuning core, WIDTH control	Part of L43
TC26	Tuning core, HORIZ. LIN. control	Part of L65
TC27	Tuning core	Part of L69
W1	Line cord	41-3865
WS1	Wafer-switch-and plate assembly	Part of 76-4402-6
Z1	Transformer, 2nd sound i-f	32-4236
Z2	Transformer, FM detector	32-4317-2
Z3	Focus-coil assembly	76-2622-5
Z4	Deflection-coil assembly	32-9622
Z5	Loop assembly, aerial tuning	54-4661

MISCELLANEOUS

Description	Service Part No.
Bolt, wing, adjusting bracket	W2547FA3
Bracket assembly, picture-tube support (rear)	76-5190FA3
Cabinet	10748-7
Cabinet Hardware and Parts	
Back and cup assembly	76-4601
Baffle, speaker	54-7758
Coupler, rubber, aerial-tuning shaft	54-4748
Knob, AERIAL TUNING control	54-4750
Knob, BRIGHTNESS control	54-4659-1
Knob, CHANNEL SELECTOR	56-6596-1
Knob, CONTRAST control	54-4664-1
Knob, FINE TUNING control	54-4662-1
Knob, HORIZ. HOLD control	54-4664-3
Knob, VERT. HOLD control	54-4659-3
Knob, VOLUME control	54-4661-1
Mask	56-7144-2
Screw, window rail	1W25201
Strap, mask	56-6816
Window	54-7983-1
Cable assembly, high voltage	41-3771-2
Cable assembly, picture tube	41-3772-2
Cord, drive (25-foot spool)	45-8750
Insulator, high-voltage	54-7573-5
Insulator, stand-off	54-7309-6
Shield, Loktal tube	56-2731
Shield, miniature tube	56-5629FA3
Socket, Loktal tube	27-6207
Socket, miniature tube	27-6226
Socket, octal tube	27-6174-6
Socket, octal tube (1B3GT)	27-6174-5
Socket, 9-pin (12AU7)	27-6203-5
Strap assembly, picture-tube support (front)	76-5191
Support, picture tube	76-5192
Tuner assembly, complete	76-4402-6

PREPRODUCTION AND PRODUCTION CHANGES IN PHILCO MODELS 50-T1443, CODE 122; 50-T1443, CODE 123

CORRECTIONS TO SERVICE MANUAL PR-1774

1. In figure 4 of Service Manual PR-1774, the wording "PLUG IS SHOWN WITH THE PRONGS POINTING AWAY" should read "PRONG-END VIEW."
2. In the Replacement Parts List, the description for C85 should read "Condenser, electrolytic, 4-section." The Service Part No. should be 30-2570-10.
3. In the schematic diagram, the following changes should be made:
   a. R61 should be connected across C41 instead of between pins 5 and 7 of the FM detector.
   b. The reference symbol for the CONTRAST control should be R136 instead of R134.
   c. The power socket should be J7 instead of J1.
   d. The reference symbols for C32 and C35 should be reversed.

PREPRODUCTION CHANGE IN MODEL 50-T1443, CODE 123

Between the time of the printing of Service Manual PR-1800 and the time of first production of Model 50-T1443, Code 123, L71 was removed and reconnected in series with the lead between C15T and the junction of C21 and L45. The junction of C22 and L45 was then connected directly to pin 1 of the first video-i-f amplifier.

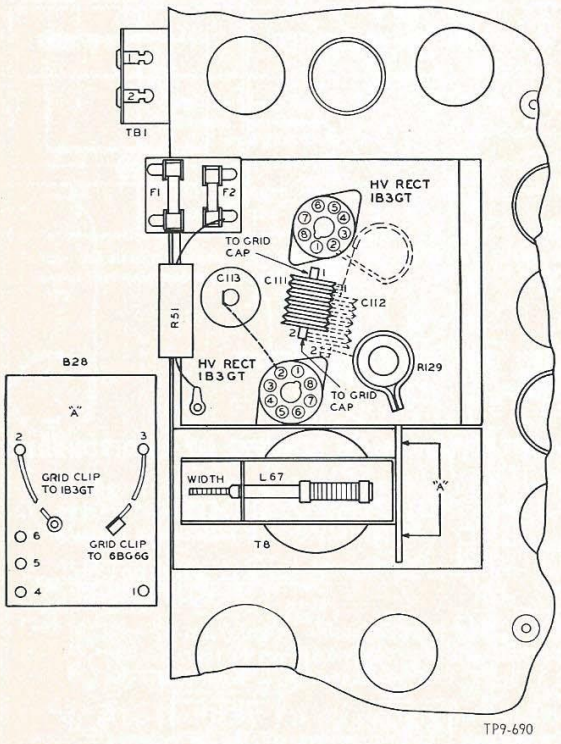

Figure 11. Partial Top View of Models 50-T1443, Code 122, and 50-T1443, Code 123, Showing Components Located in High-Voltage Cage

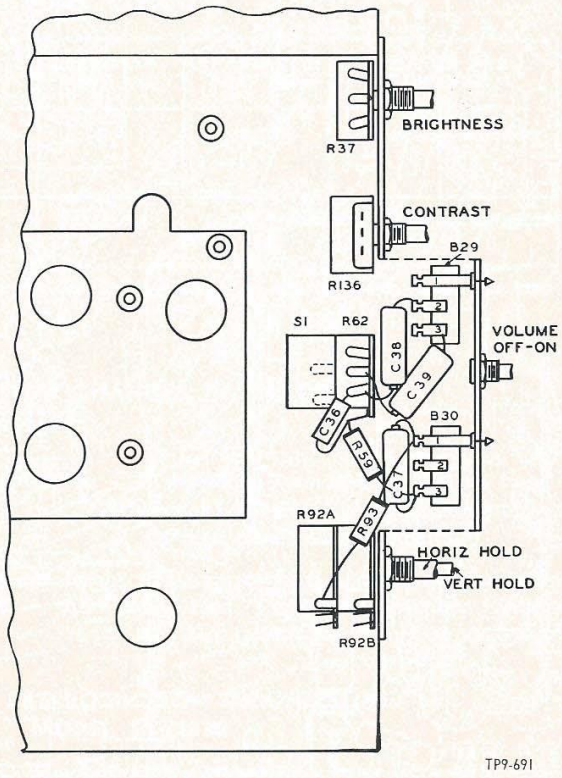

Figure 12. Partial Top View of Models 50-T1443, Code 122, and 50-T1443, Code 123, Showing Components Located on Control Panel

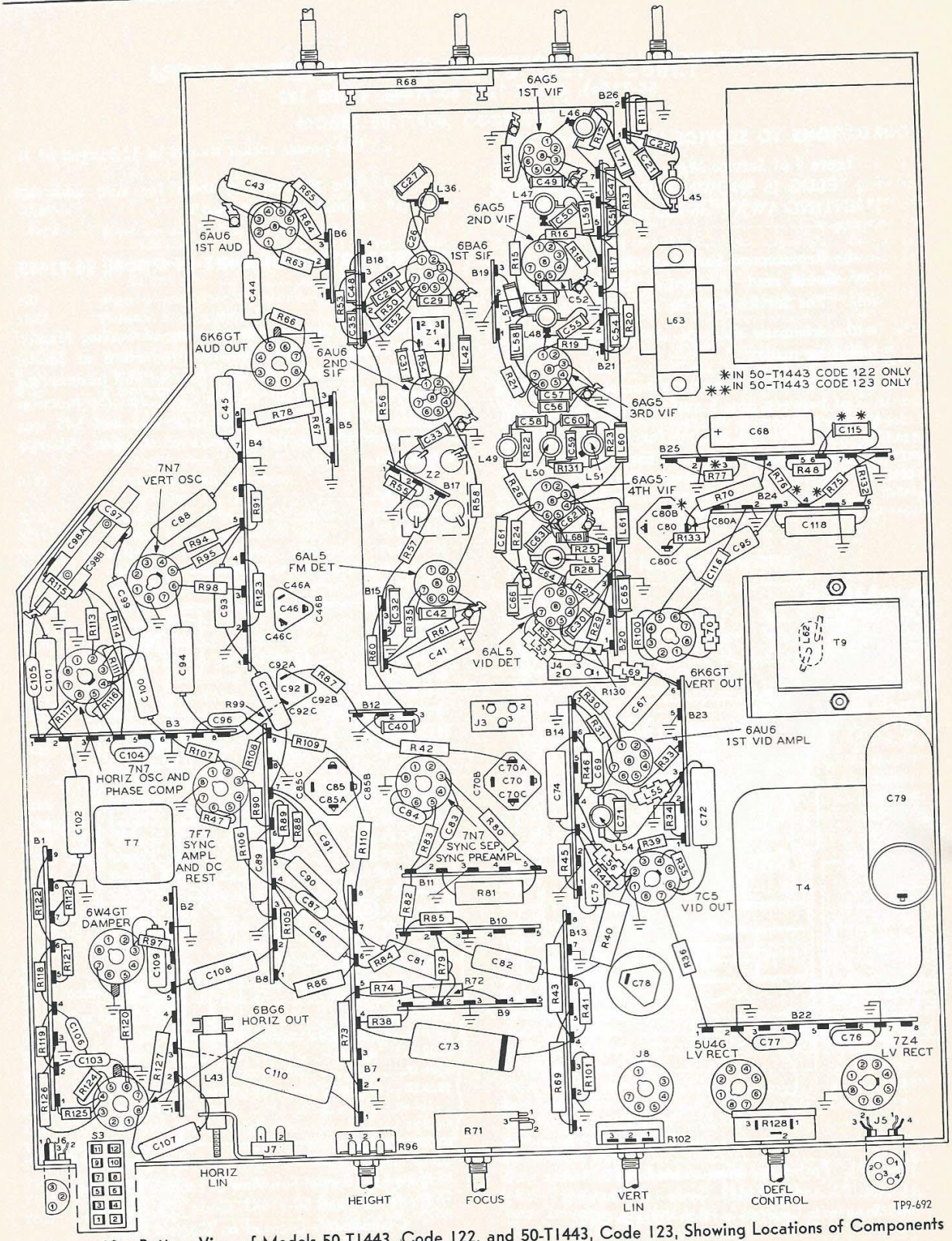

Figure 13. Bottom View of Models 50-T1443, Code 122, and 50-T1443, Code 123, Showing Locations of Components

PRODUCTION CHANGE IN MODEL 50-T1443, CODE 122

RUN NO.	DESCRIPTION OF CHANGE	REASON FOR CHANGE
1Z	In early production of run 1Z, the unused (triangle) section of C80 and the unused (half-moon) section of C85 were added in parallel across R51. In later production of run 1Z, the unused (triangle) section of C80 and the unused (square) section of C70 were added in parallel across R51.	To reduce vertical-sweep-generator feedback into B+ supply.

PRODUCTION CHANGES IN MODEL 50-T1443, CODE 123

RUN NO.	DESCRIPTION OF CHANGE	REASON FOR CHANGE
2	Pin 6 of audio-output tube disconnected from 160-volt B+ supply and reconnected to pin 4 of audio-output tube.	To supply higher B+ voltage for Philco Booster TB-2.
1Z 2Z 3	Two unused (triangle and plain) sections of C80 were connected in parallel across R51. Runs 2Z and 3 also incorporate the change made in run 2. Run 1Z does not incorporate the change made in run 2.	To reduce vertical-sweep-generator feedback into B+ supply.
4	C92B disconnected and replaced with unused (half-moon) section of C85.	To provide condenser with higher voltage rating in HEIGHT-control circuit.

PRODUCTION CHANGES IN I-F STRIP FOR MODELS 50-T1443, CODE 122; 50-T1443, CODE 123

RUN NO.	DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.	REASON FOR CHANGE
2	2200-ohm resistor (R135*) added in series with lead between junction of C41 and pin 2 of J3 and junction of C42 and pin 7 of FM-detector tube.		66-2228340	To reduce harmonic beat.
2Z 3	R135* changed from 2200 ohms to 330 ohms.	66-2228340	66-1338340	To facilitate sound-i-f alignment.

* The schematic diagram in Service Manual PR-1774 shows R135 as 330 ohms (the value used in runs 2Z and 3), rather than 2200 ohms (the original value used in run 1).

PREPRODUCTION AND PRODUCTION CHANGES IN PHILCO MODEL 50-T1630

CORRECTIONS TO SERVICE MANUAL PR-1791

1. In figure 2 of PR-1791, the wording "PLUG IS SHOWN WITH PRONGS POINTING AWAY" should read "PRONG-END VIEW."
2. The following changes should be made in the schematic diagram:
   a. The 70-microhenry shunt-peaking coil in the plate circuit of the first-video amplifier should be symbolized L28 instead of L25.
   b. The filter choke for the negative low-voltage rectifier should be symbolized L32 instead of L132.
   c. The horizontal-output transformer should be symbolized T7.
   d. C96 should be connected to the junction of R118 and C92 instead of to the filament lead of the vertical-blocking oscillator.
3. In the Replacement Parts List, the description for C60 should read "Condenser, 4-section, 10-10-10-10 μf." The Service Part No. should be 30-2570-10.

PREPRODUCTION CHANGES IN MODEL 50-T1630

The following changes were made between the time of the printing of Service Manual PR-1791 and the time of first production of Philco Television Receiver Model 50-T1630.

DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.
L7 changed to different coil.	32-4234-7	32-4234-8
C15 and C16 changed from 18 $\mu\mu f$. to 51 $\mu\mu f$.	60-00185317	30-1224-62
R10 changed from 18,000 ohms to 5600 ohms.	66-3188340	66-2568340
L6 removed and replaced with a 1000-ohm resistor (R135).	32-4112-11	66-2108340
R-f choke (L38) added in series with the filament-supply lead to the tuner.		32-4112-15
R54 changed from 82 ohms to 150 ohms.	66-0824340	66-1158340
C59 changed from 1500 $\mu\mu f$. to 680 $\mu\mu f$.	62-215001011	60-10685401
C59 changed from 27,000 ohms to 10,000 ohms.	66-3278340	66-3108340
56,000-ohm screen-dropping resistor (R134) added in series with screen-supply lead of 7C5 video-output tube.		66-3568340
L29 changed from 70 microhenries to 125 microhenries.	32-4143-2	32-4143-6
10-μf. condenser (C60C) added between screen (pin 3) of video-output tube and ground. An additional section of C60 is used.		
180-microhenry coil (L37) added in series with R61 and R62, between R61 and the sync take-off point.		32-4143-5
F2 removed from position shown in service manual and rewired as shown in figure 14. Value changed from 3/8 ampere to 1/4 ampere.	45-2656-10	45-2656-8

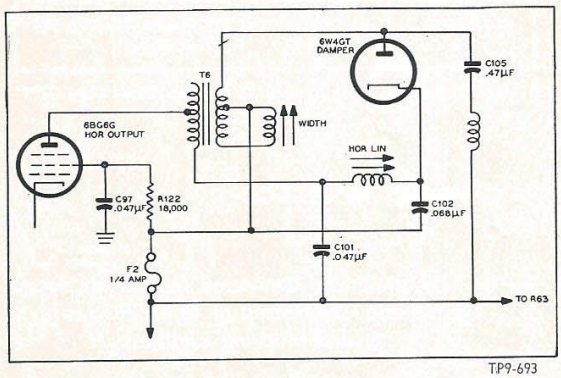

Figure 14. Location of Fuse, First Production of Model 50-T1630

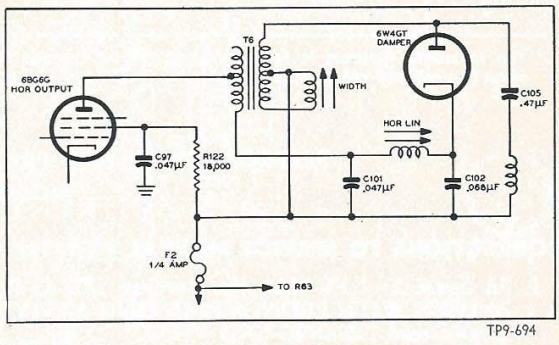

Figure 15. Location of Fuse, Run 2 of Model 50-T1630

PRODUCTION CHANGE IN MODEL 50-T1630

RUN NO.	DESCRIPTION OF CHANGE	REASON FOR CHANGE
2	F2 rewired as shown in figure 15.	To reduce a-c current through fuse.

PRODUCTION CHANGES IN I-F STRIP FOR MODEL 50-T1630

RUN NO.	DESCRIPTION OF CHANGE	REMOVED PART NO.	ADDED PART NO.	REASON FOR CHANGE
2	2200-ohm resistor (R131*) added in series with lead between junction of C30 and R21 and junction of C29 and pin 7 of FM-detector tube.		66-2228340	To reduce harmonic beat.
2Z 3	R131* changed from 2200 ohms to 330 ohms.	66-2228340	66-1338340	To facilitate sound-i-f alignment.

* The schematic diagram in Service Manual PR-1791 shows R131 as 330 ohms (the value used in runs 2Z and 3), rather than 2200 ohms (the orginial value used in run 1).

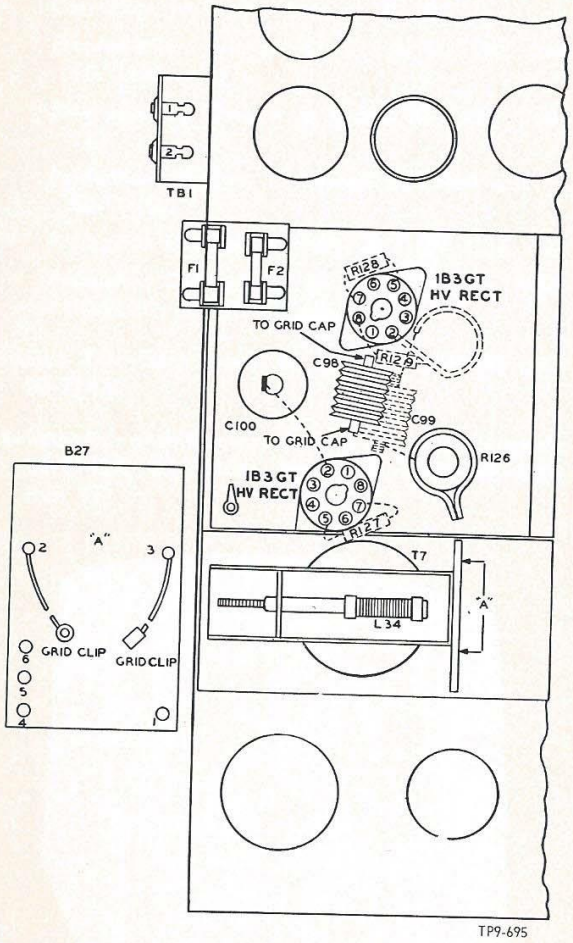

Figure 16. Partial Top View of Model 50-T1630, Showing Components Located in High-Voltage Cage

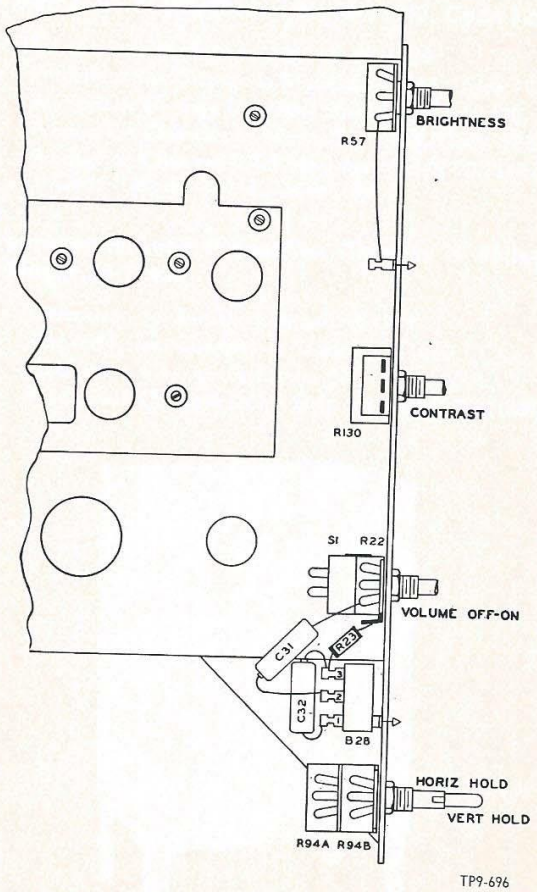

Figure 17. Partial Top View of Model 50-T1630, Showing Components Located on Control Panel

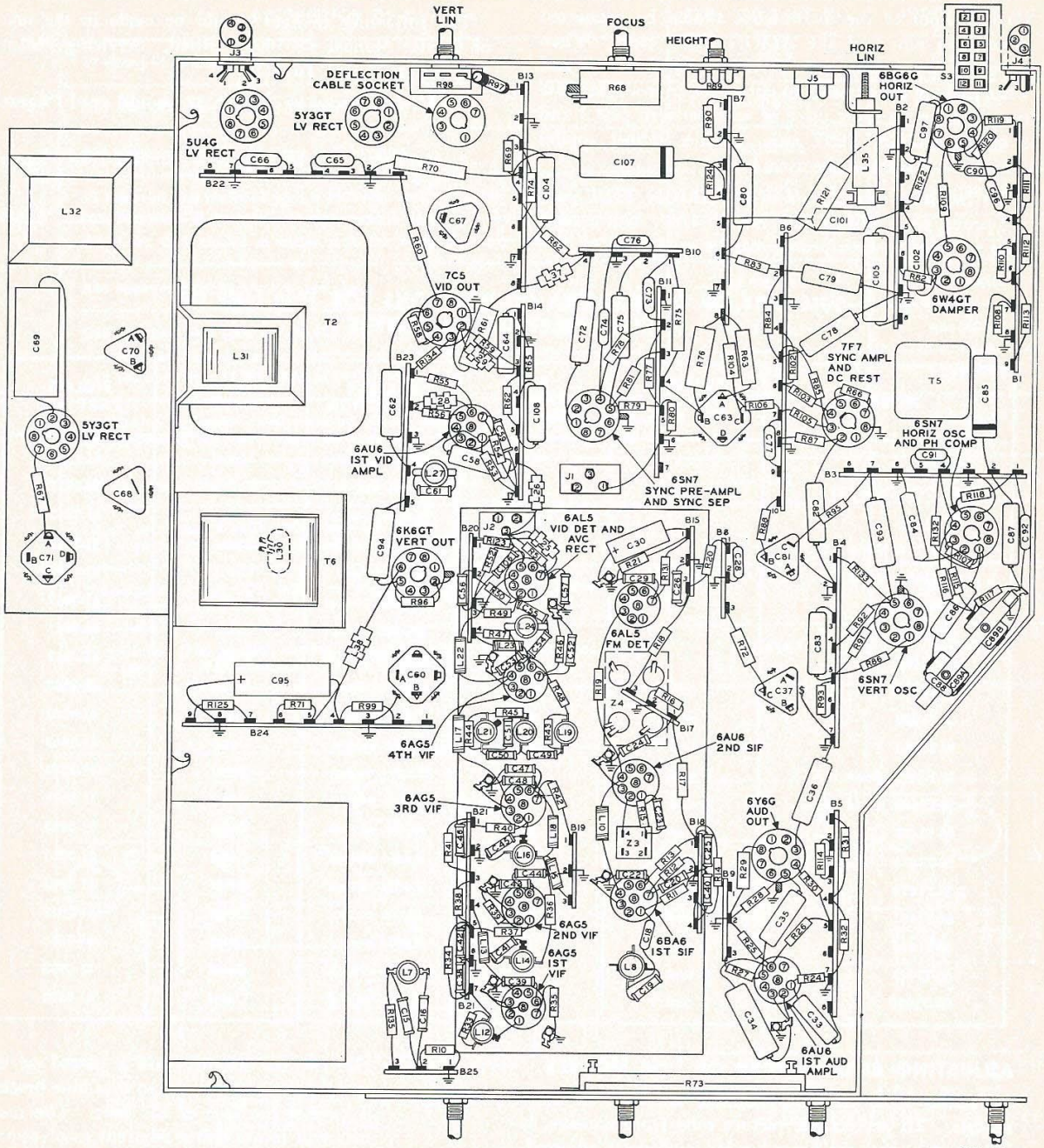

Figure 18. Bottom View of Model 50-T1630, Showing Locations of Components

SUPPLEMENTARY ALIGNMENT INFORMATION FOR MODELS 50-T1443, CODE 123; 50-T1630

When the video-i-f stages of the above models are being aligned, better results may be obtained if bias is applied to the a-v-c bus only during the adjustment of the tuning core of the mixer-plate coil and during the adjustments that affect the over-all video-response curve.

During alignment, the ALIGN TEST jack adapter,

shown in the service manuals should not be used. The vertical input of the oscilloscope should be connected directly to pin 3 of the ALIGN TEST jack. When adjusting the tuning core of the mixer-plate coil and when making adjustments to obtain the over-all response curve, connect a short piece of wire between pins 1 and 2 of the ALIGN TEST jack. Such a jumper applies a bias of –3 volts to the a-v-c bus.

To facilitate connections to the ALIGN TEST jack, a 3-prong plug, Philco Part No. 27-4787, with a short wire soldered in each prong, may be used.

CORRECTIONS TO SERVICE MANUAL PR-1803

The following changes should be made in the text of Service Manual PR-1803 entitled, "Servicing Philco 12-Position Turret Tuner:"

1. All references to "figure 3" should read "figure 2."
2. All references to "figure 4" should read "figure 3."
3. All references to "figure 5" should read "figure 4."

SUMMARY OF TB2 BOOSTER CONNECTIONS FOR 1950 LINE OF PHILCO TELEVISION RECEIVERS

MODEL	FILAMENT POWER (Pin No.)	B+ POWER (Pin No.)	ADAPTER CONNECTION	ADAPTER TYPE	PHILCO PART NO.
50-T701	1 and 8	3	Audio output	Loktal	41-3913
50-T702, Code 122	1 and 8	3	Audio output	Loktal	41-3913
50-T1104			Special socket	3-pin	41-3942
50-T1104, Code 122			Special socket	3-pin	41-3942
50-T1104, Code 123	2 and 7	6	Video output	Octal	41-3963
50-T1105			Special socket	3-pin	41-3942
50-T1105, Code 122			Special socket	3-pin	41-3942
50-T1106			Special socket	3-pin	41-3942
50-T1400	2 and 7	6	Video output	Octal	41-3963
50-T1402	2 and 7	6	Video output	Octal	41-3963
50-T1430	2 and 7	6	Video output	Octal	41-3963
50-T1443, Code 122	2 and 7	6	Audio output	Octal	41-3963
50-T1443, Code 123	2 and 7	6	Audio output	Octal	41-3963
50-T1477	2 and 7	6	Audio output	Octal	41-3963
50-T1478	2 and 7	6	Audio output	Octal	41-3963
50-T1479	2 and 7	6	Audio output	Octal	41-3963
50-T1481	2 and 7	6	Audio output	Octal	41-3963
50-T1482	2 and 7	6	Audio output	Octal	41-3963
50-T1483	2 and 7	6	Audio output	Octal	41-3963
50-T1630	2 and 7	6	Audio output	Octal	41-3963

ADJUSTING BEAM BENDER OF 1950 MODELS

Various types of beam benders are used in 1950 models. To protect the picture tube from damage, it is important that the beam bender is properly adjusted. The types of beam benders encountered and their correct mechanical pre-set positions are as follows:

Type 1: Has two ring magnets and is placed on the neck of the picture tube so that the smallest ring magnet is toward the face of the tube. The arrow on the frame of the assembly must point toward the anode connector.

Type 2: Has two bar magnets and is placed on the neck of the picture tube so that blue bracket is toward the face of the tube. The magnets will locate either adjacent to or opposite to the anode connector, depending on which is found to give maximum brilliance.

Type 3: Has a single bar magnet and is placed on the neck of the picture tube so that the Philco Part Number is toward the tube base and the magnet is on the side of the tube opposite the anode connector.

Type 4: Has a single bar magnet and is placed on the neck of the picture tube so that the arrow located on the frame of the assembly points toward the anode connector.

Type 5: Has a single bar magnet and is placed on the neck of the picture tube so that the magnet on the side of the tube is adjacent to the anode connector. The arrow on the magnet-support bracket must point toward the anode connector.

Type 6: Has a bar magnet and a ring magnet and is placed on the neck of the picture tube so that the ring magnet is toward the face of the tube. The bar magnet must appear on the side of the tube opposite the anode connector.

NOTE: On picture tubes using metal shells and having no anode connector, the location between pins 3 and 4 on the tube base is the equivalent reference point.

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