PHILED PHILE SERVICE 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-TI104, Code

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 Philoo 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



MODEL 50-T1401



MODEL 50-T1430

TP9-699

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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

- 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.
- 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.
- 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

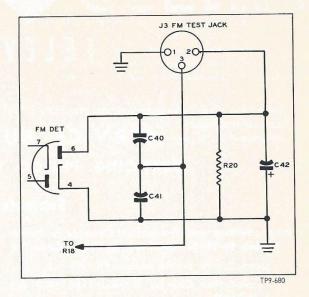


Figure 1. Connections to FM TEST Jack, Models 50-T1400; 50-T1402; 50-T1104, Code 123

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) she	ould 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

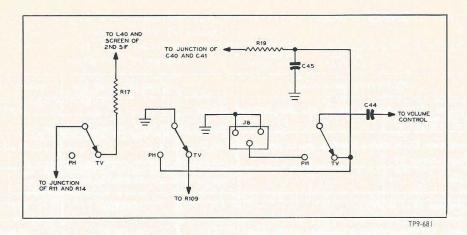


Figure 2. Preproduction Connections to Phono Switch, Models 50-T1400; 50-T1402; 50-T1104, Code 123

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-μμf. condenser (C117) added in parallel with C27.		62-215001011

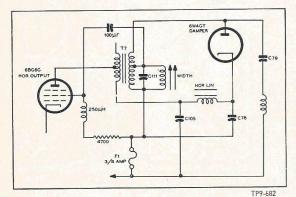


Figure 3. Location of Fuse, Runs 1F, 2F, and 3F of Models 50-T1400 and 50-T1402

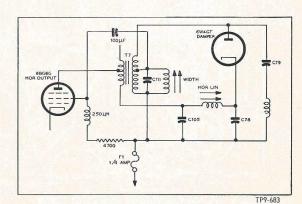


Figure 4. Location of Fuse, Run 4 of Models 50-T1400 and 50-T1402

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
1590-μμf. condenser (C117) added in parallel with C27.		62-215001011

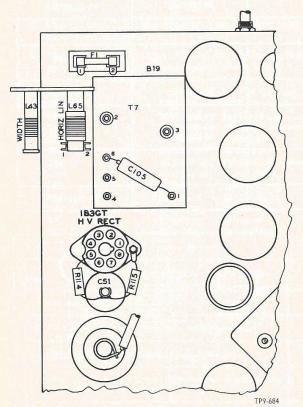


Figure 5. Partial Top View of Models 50-T1400, 50-T1401, 50-T1402, and 50-T1430, Showing Components Located in High-Voltage Cage

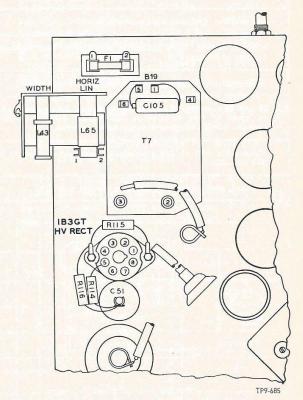


Figure 6. Partial Top View of Models 50-T1104, Code 123, Showing Components Located in High-Voltage Cage

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 man- ual, 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.

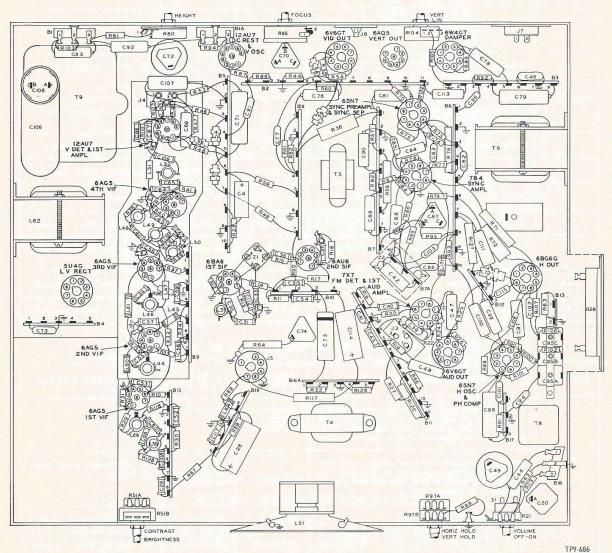


Figure 7. Bottom View of Models 50-T1400, 50-T1401, 50-T1402, and 50-T1430, Showing Locations of Components

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 man- ual, 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 % ampere to 1/4 ampere.	45-2656-10	45-2656-8	To reduce α-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	I8 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- μ f. 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 Barkhauser 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

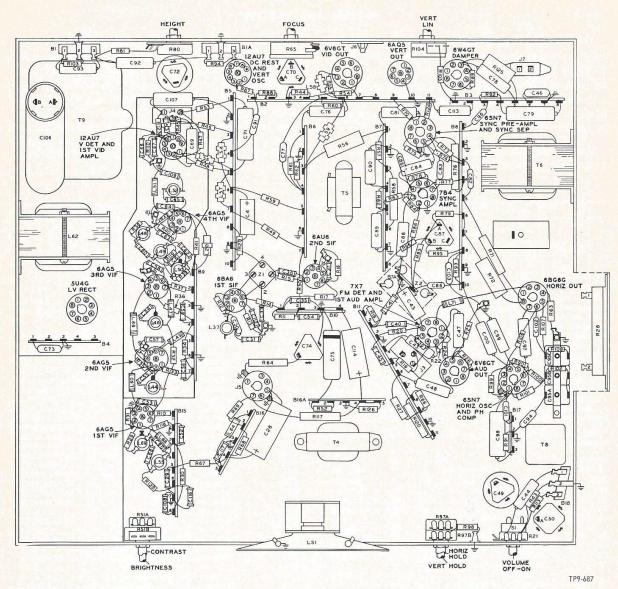


Figure 8. Bottom View of Model 50-T1104, Code 123, Showing Locations of Components

PRODUCTION CHANGE IN 1-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.	

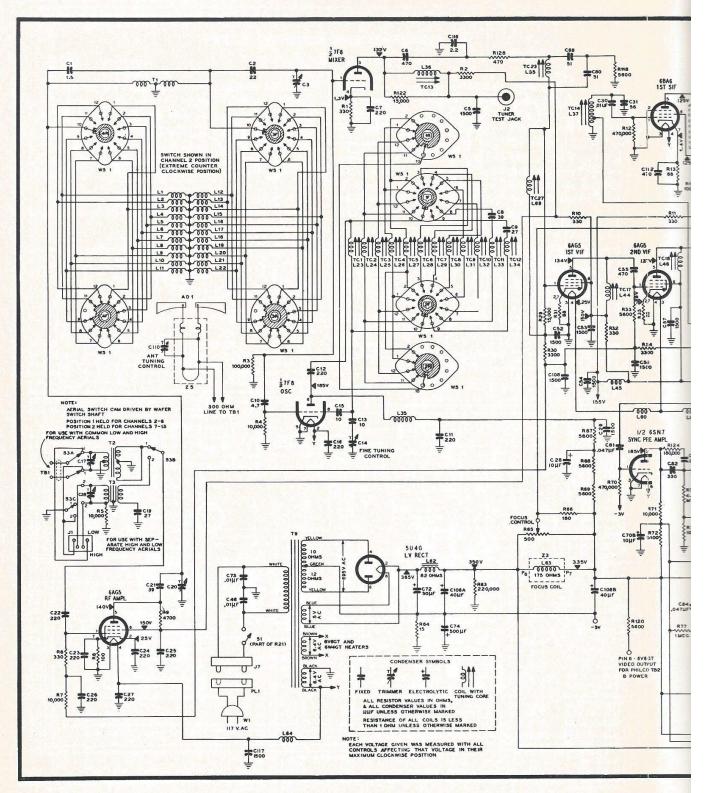
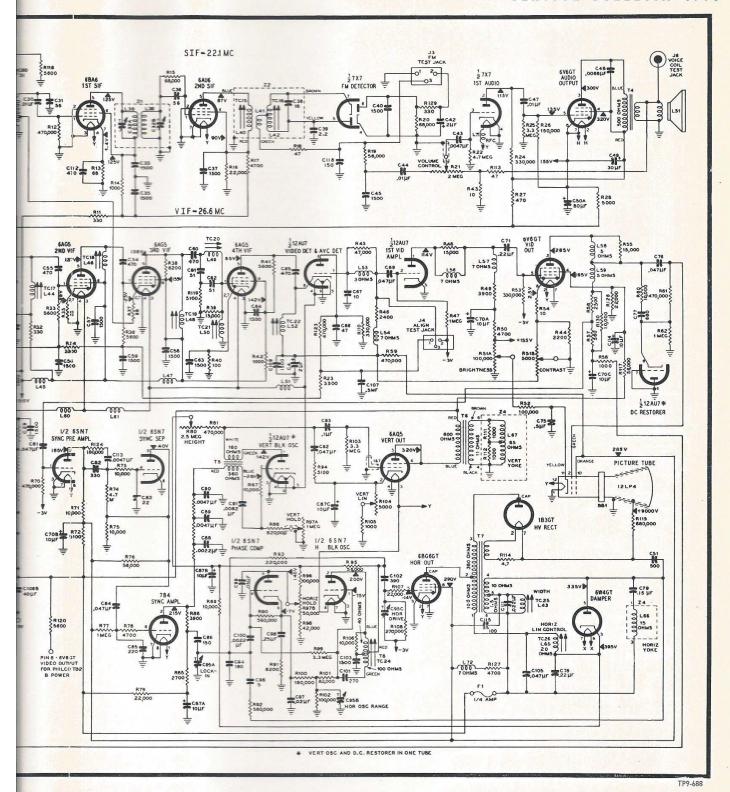


Figure 9. Philco Television Receiver Models 50-T1400, 50-T1401, 50-T1-

SERVICE BULLETIN 49T3



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

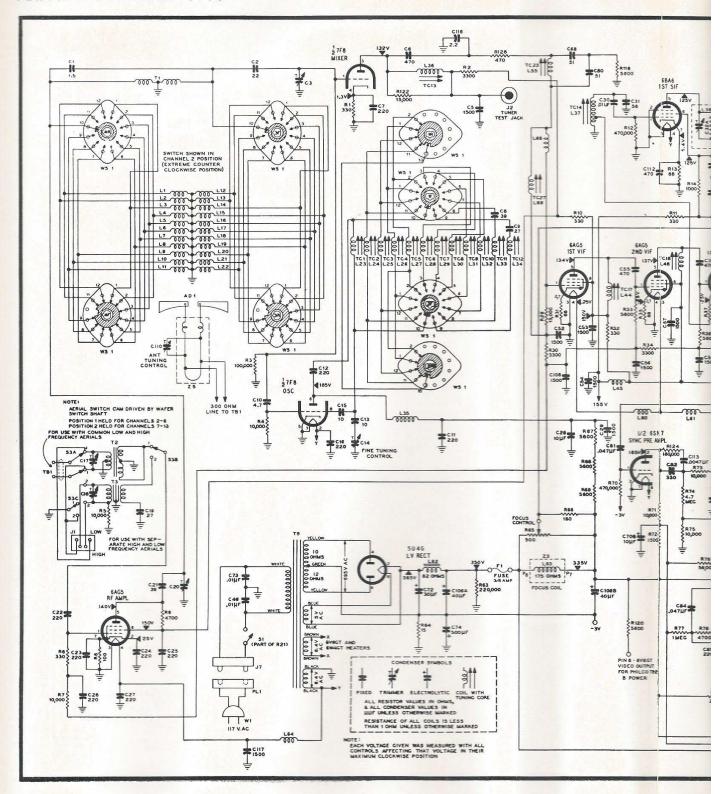
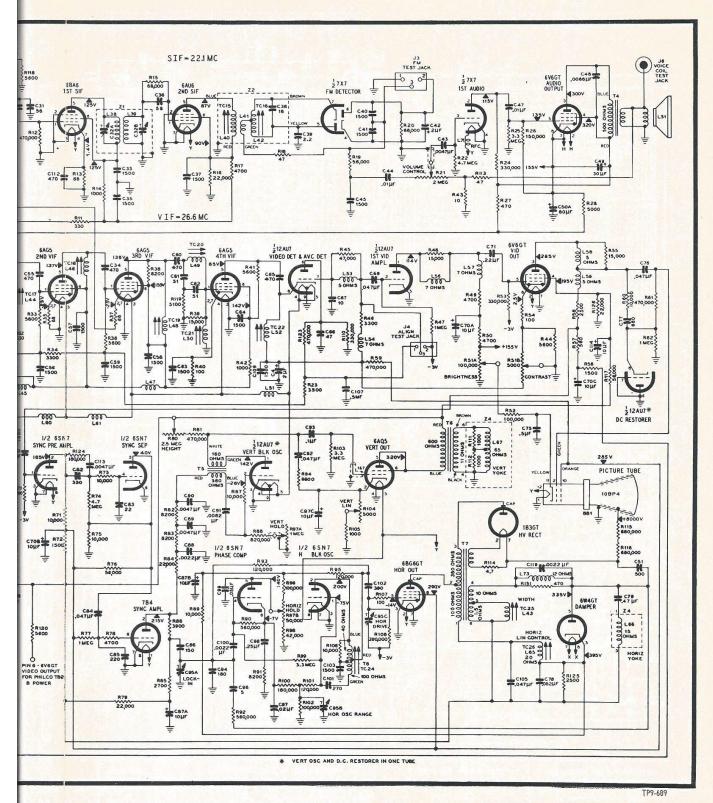


Figure 10. Philco Television Receiver Model 50-T1104, Code 123



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).

Service

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	Service Description Part No.
A STATE OF THE STA	Built in dinale (2 used)56-7635
AD1	Beam bender, p.m. Part of 76-3913-4
BB1	Condenser, d-c blocking, 1.5 $\mu\mu f$. Part of 76-4402-6
C1	Condenser, d-c blocking, 22 $\mu\mu f$ Part of 76-4402-6
C2	Candenger miver tuning
C3	5 to 2 uuf Part of 76-4402-b
~.	Condonsor filter 7 ut
C4	Condensor of by-ness [500] uut. Part of /6-4402-6
C5	Condenser, d-c blocking, 470 µµfPart of 76-4402-6
C6	
C7	Part of /6-44112-b
an a	Condenser tived paddet, 33 MM ruit of 70-1101
C8	Condenser fixed nadder. 2/ uulPart of /0-4402-0
C9	Condenser oscillator injection,
C10	Condenser, oscillator injection, 4.7 \(\mu\mu f\). Part of 76-4402-6
C11	Condensor ref by pass, 220 441,Part of 76-4402-6
C12	Condenser de blocking. 20 HulPart of 70-4402-0
C12	Condenser, fixed padder, 10 $\mu\mu f$. Part of 76-4402-6
C14	C. J trimmor fine funing
CIA	Part of 76-44U2-b
C15	Condensor dec blocking. II IIIIPart of 70-4-102-0
C16	Condenser, r-f by-pass, 220 $\mu\mu f$. Part of 76-4402-6
C17	C James trimmor I t GATIGI
017	5 to 50 uuf Part of 76-4402-6
C18	Condenser, trimmer, h-f aerial, 5 to 50 \(\mu \mu f\). Part of 76-4402-6
010	5 to 50 μμf
C19	Condenser, fixed padder, 27 µµjPart of 70-4402-0
C20	
	.5 to 5 \(\mu\mu f\).
C21	Condenser de hlocking, 39 uulPart of 70-4-202-0
C22	Condenser, d-c blocking, 220 µµfPart of 76-4402-6
200	Section and the section of the secti

Reference Symbol	Description	Part No.
C23	Condenser, cathode by-pass, 220 \(\mu \mu f\). Part of	76-4402-6
C24	Condenser, cathode by-pass,	
C25	Condenser, screen by-pass,	76-4402-6
C26	Condenser ref by-pass, 220 uut. Part of	76-4402-0
C27	Condenser ref by-pass 220 uuf. Part of	76-4402-6
C28	Condonger filter 10 uf 450v	30-2417-6
C29	Candenger osc filter 1500 uut. b2	SISOUTUII
C30	Condensor dec blocking III III.	01-0120
C31	Condonger fixed trimmer, 56 uut	-056409001
C32A	Condenser primary trimmer	Part of Li
C32B	Candonaer cocondary trimmer	Part of Li
C33	Condonser screen by-noss. 500 uut62	-212001011
C34	Condensor de blocking, 4/U IIII.	-14/001001
C35	Candonger ref by noss 1500 000.	-213001011
C36	Candongor grid 56 HHT	-030403001
C37	Condensor screen by-nass 1500 44104	-213001011
C38		
C39	Condensor balancing 22 HHI.	30-1221-4
C40	Condensor ret by-nass 1500 441.	-213001011
C42	Candenger FM detector filter 2 ut., 50v	30-2417-7
C43	Condenger d c blocking 10047 u.f.	45-3303-30
C44		
C45	Condenger r-t hy-ness [300] IIII	2-210001011
C46	Condenger line tilter III III.	01-0120
C47	Candonger de blocking III III.	
C48	Condensor tone compensation, July #1.	40-0000-01
C49	Condensor filter 30ut 4/5V	30-2300-13
C50	Condenser, 2-section, $80-10\mu f$.	3U-Z3/U-33
C50A	Condensor filter 80 ut 450V	Part of Cou
C51	Candonacy filter 500 uut 15000V	30-1443-4
C52	Condenser, r-f by-pass, 1500 \(\mu \mu f\).	2 215001011
C53	Condenser, screen by-pass, 1500 $\mu\mu f$ 6	2 215001011
C54	Condenser, r-f by-pass, 1500 µµf6	2 147001011
C55	Condenser, d-c blocking, 470 µµf6	2.215001001
C56	Condenser, r-f by-pass, 1500 \(\mu \text{p} \text{f} \)	2.215001011
C57	Condenser, screen by-pass, 1500 $\mu\mu f$ 6	2 215001011
C58	Condenser, screen by-pass, 1500 $\mu\mu f$ 6	2.215001011
C59	Condenser, r-f by-pass, 1500 \(\mu\text{p}\text{u}\text{f}\)6	2.147001011
C60	Condenser, de blocking, 470 µµf6	30-1224-2
C61	Condenser, fixed trimmer 51 $\mu\mu f$. Condenser, fixed trimmer 51 $\mu\mu f$.	30-1224-2
C62	Condenser, fixed trimmer of $\mu\mu$).	
C83	Condenser, cathode by-pass,	32-215001011
The Late to	Condenser, screen by-pass, 1500 $\mu\mu f$	62-215001011
C64	Condenser, d-c blocking, 470 \(\mu\mu f\).	62-147001001
C65	Condensel, d-c blocking, 410 hpj.	

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

Reference		Service	Reference		Service
Symbol	Description	Part No.	Symbol	Description	Part No.
C66	Condenser, r-f by-pass, 47 µµf	30-1224-2	J5	Socket, deflection cable	27-6174-4
C67	Condenser, r-f by-pass, 10 $\mu\mu f$	62-010009001*	16	Jack, VOICE COIL TEST	
C68	Condenser, fixed trimmer, 51 \(\mu \mu f\)	30-1224-62*	J7	Socket, power	
C69	Condenser, d-c blocking, .047 µf		LI to LII	Coils, r-f plate P	
C70	Condenser, 3-section, 10-10-10 µf	30-25/0-13	L12 to L22 L23 to L34	Coils, mixer grid P Coils, oscillator P	art of 76.4402-6
C70A	Condenser, l-f compensation, 10 \(\mu f\), 475v	Part of C70	L35	Coil, plate chokeP	
C70B	Condenser, plate filter, 10 μf ., 475v	Part of C70	L36	Coil, mixer plate tank P	art of 76-4402-6
C70C	Condenser, l-t compensation.		L37	Coil, 1st sound i-f autotransformer	
	10 μf., 475v	Part of C70	L38	Coil, primary	
C71	Condenser, d-c blocking, .22 µf		L39	Coil, secondary	
C72	Condenser, filter, 30 μf ., 475v		L40 L41	Coil, primary	Part of ZZ
C73 C74	Condenser, filter, 500 μf ., 25v		L42	Coil, secondary	Part of 72
C75	Condenser, cathode by-pass, .5 μf		L43	Coil, WIDTH	
C76	Condenser, d-c blocking, .047 \u03c4f	61-0122*	L44	Coil, 1st v-i-f plate tank	32-4359
C77	Condenser, d-c blocking, 680 \(\mu\mu f\)	.60-10685401*	L45	Choke, r-f	
C78	Condenser, horizontal snaping, .22 μf .		L46	Coll, 2nd v-i-f plate tank	
CTO	(50-T1400, 50-T1402)	45-3505-49 45 3505 49*	L47 L48	Choke, r-f	
C79 C80	Condenser, fixed trimmer, 51 $\mu\mu f$.	30-1224-62*	L49	Coil, accompanying-sound trap	
C81	Condenser, d-c blocking, .047 μf .	61-0122*	L50	Coil, 4th v-i-f grid tank	
C82	Condenser, d-c blocking, 330 µµf	62-133001001*	L51	Coil, r-f choke	32-4112-11
C83	Condenser, video filter, 22 µµf		L52	Coil, 4th v-i-f tank	32-4234-1
C84	Condenser, d-c blocking, .047 \(\mu f\)		L53	Coil, series peaking, 40 microhenrie	s32-4143-1
C85	Condenser, video filter, 220 µµf.		L54	Coil, shunt peaking, 250 microhenrie	
C86	Condenser, d-c blocking, 150 µµf		L55 L56	Coil series peaking 250 migrahansi	
C87 C87A	Condenser, 3-section, 10-10-10 μf		L57	Coil, series peaking, 250 microhenri Coil, shunt peaking, 250 microhenri	
C87B	Condenser, filter, 10 \(\mu f.\), 475v		L58	Coil, series peaking, 180 microhenri	es 32-4143-5
C87C	Condenser, cathode by-pass.		L59	Coil, shunt peaking, 180 microhenri	es32-4143-5
	10 μf., 475v		L60	Coil, r-f choke	
C88	Condenser, integrating, .0022 µf.		L61	Coil, r-f choke	
C89	Condenser, integrating, .0047 µf.	45-3505-56	L62 L63	Choke, filterCoil, FOCUS	32-8387
C90 C91	Condenser, integrating, .0047 μf		L64	Coil, r-f choke	Part of 23
C92	Condenser, weep charging, .047 μf		L85	Coil, horizontal linearity	
C93	Condenser, d-c blocking, .1 µf		L66	Coil, horizontal-deflection yoke	
C94	Condenser, voltage divider, 180 $\mu\mu f$		L67	Coil, vertical-deflection yoke	Part of Z4
C95	Condenser, trimmer, 3-section	31-6477-2	L69	Coil, grid tank	32-4233-4
C95A	Condenser, horizontal lock-in		L71 L72	Filament choke	
C95B C95C	Condenser, horizontal oscillator range .	Part of C95	LS1	Coil, oscillation suppressor, 250 ohr Speaker, 4" x 6", p.m.	ns32-4143-7
C96	Condenser, horizontal feedback, 5 $\mu\mu f$.		PL1	Plug, power	Part of W1
C97	Condenser, filter .02 μf .		PL2	Plug-and-cable assembly, deflection	
C98	Condenser, filter, .25 µf.		PL3	Plug-and-cable assembly	
C99	Condenser, plate by-pass, .05 µf			picture-tube socket	41-3772-2
C100	Condenser, d-c blocking, .0022 µf		RI	Resistor, cathode bias, 330 ohmsP	
C101	Condenser, d-c blocking, 270 $\mu\mu f$ Condenser, d-c blocking, 390 $\mu\mu f$		R2 R3	Resistor, loading, 3300 ohms PResistor, grid return, 100,000 ohms.	
C102 C103	Condenser, sweep charging, 1500 $\mu\mu f$.		R4	Resistor, grid return, 10,000 ohmsP	art of 76-4402-6
C104	Condenser, r-f filter, 1500 $\mu\mu f$.		R5	Resistor, loading, 10,000 ohmsP	
C105	Condenser, horizontal shaping, .047 μf .	61-0122*	R6	Resistor, grid return, 330 ohmsP	
C106	Condenser, 2-section, 40-40 µf.	30-2570-13	R7	Resistor, a-v-c filter, 10,000 ohmsP	
C106A	Condenser, filter, 40 µf., 450v	Part of C106	R8	Resistor, cathode bias, 100 ohmsP	
C106B	Condenser, filter, 40 µf., 450v	ci oi Club	R9 R10	Resistor, plate load, 4700 ohmsP	art of 76-4402-6
C107 C108	Condenser, a-v-c filter, .5 μf .	32-215001011*	RII	Resistor, decoupling, 330 ohms	66 1338340*
C108			R12	Resistor, grid return, 470,000 ohms .	66-4478340*
0100	Condenser, cathode by-pass, 1500 $\mu\mu f$	62-245001001	R13	Resistor, cathode bias, 68 ohms	
C110	Condenser, aerial trimmer control	31-6518	R14	Resistor, decoupling, 1000 ohms	
C111	Condenser, width coil, .022 µf.		R15	Resistor, grid, 68,000 ohms	
C112	Condenser, cathode by-pass, 470 $\mu\mu f$. Condenser, d-c blocking, .0047 $\mu\mu f$.		R16 R17	Resistor, voltage divider, 22,000 ohn Resistor, voltage divider, 4700 ohms	
C113 C114	Condenser, d-c blocking, .0047 $\mu\mu$ J		R18	Resistor, decoupling, 47 ohms	66-0478340*
C114 C115	Condenser, feedback, 1500 $\mu\mu f$		R19	Resistor, decoupling, 56,000 ohms	
C116	Condenser, r-f filter, 2.2 $\mu\mu f$.		R20	Resistor, FM-detector load, 68,000 o	hms66-3688340*
C117	Condenser, r-f by-pass, 1500 µµf	30-215001011*	R21	Potentiometer, VOLUME control,	
C118	Condenser, r-f by-pass, 150 µµf		700	2 megohms	
F1	Fuse, B+ protective, ¼ ampere	45-2856-8	R22	Resistor, grid return, 4.7 megohms .	66-5478340*
11	Socket, aerial input Part Jack, TUNER TEST Part		R23 R24	Resistor, a-v-c filter, 3300 ohms Resistor, plate load, 330,000 ohms	
J2 J3	Jack, FM TESTFull		R25	Resistor, voltage divider, 3.3 megoh	
J4	Jack, ALIGN TEST		R26	Resistor, voltage divider, 150,000 oh	ms66-4158340*
					CONTRACTOR OF THE PARTY OF THE

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

Reference		Service Part No.	Reference Symbol	Description Service
Symbol	Description		R93	Resistor horizontal feedback,
R27	Resistor, decoupling, 470 ohms	65-14/8340	noo	220 000 ohms 66-4228340*
R28			R94	Resistor, vertical shaping, 5100 ohms66-2519240*
R29	Resistor, grid return, 15,000 ohms	66-2338340*	R95	Resistor horizontal charging,
R30	Resistor, cathode bias, 68 ohms	66-0688340*		56 000 ohms 66-3568340
R31	Resistor, decoupling, 330 ohms	66-1338340*	R96	Resistor, voltage divider, 82,000 ohms66-3828340
R32	Designator grid return Shill Onms	00-2000010	R97	Potentiometer assembly, dual, 50,000 ohms-
R33				1 megohm33-5563-6
R34 R35	Designer cathode by-nass by Onns	00-0000-20	R97A	Potentiometer, VERT. HOLD control,
R36	Posistor grid return Shill Onms	00-2300010	DOND	1 megohm Part of R97 Potentiometer, HORIZ. HOLD control,
R37	Desister gathode bigs by Ohms	00-000030	R97B	50,000 ohms Part of R97
R38	Desister loading 8200 ohms	00-2020340	DOO	Resistor, temperature compensation,
R39	Pagistar loading 15 IIIII onms	00-3130040	R98	42,000 ohms33-1343-2
R40	Pasister cathode bigs IIII Ohms	DO-1100340	R99	Resistor, bigs filter, 3.3 megohms
R41	Pagistar loading 5600 ohms	66-2366340	R100	Resistor, filter, 180,000 ohms66-4188340
R42	Parietor decoupling IIIII onms	00-2100040	R101	Resistor, grid return, 82,000 ohms66-3828340
R43	Resistor, neg. feedback, 10 ohms	66-2228340*	R102	Resistor, cathode return, 100,000 ohms66-4108340
R44	Resistor, voltage divider, 2200 ohms Resistor, loading, 47,000 ohms	36-3478340*	R103	Resistor, grid return, 3.3 megohms63-5338340
R45	Resistor, video-detector load, 2400 ohms	66-2248340*	R104	Potentiometer, VERT, LIN, control,
R46	Resistor, grid return, 1 megohm	66-5108340*		5,000 ohms33-5546-10
R47	Resistor, loading, 15,000 ohms	66-3158340*	R105	Resistor, limiting, 1,000 ohms66-2108340
R48	Resistor, plate load, 3900 ohms	66-2398340*	R106	Resistor, horizontal-oscillator damping,
R49	Resistor, 1-f compensations, 4700 ohms	66-2478340*		10,000 ohms66-3108340
R50	Detentiomator assembly dual, 5000 Onn	1S-	R107	Resistor, parasitic suppressor,
R51	100 000 ohms	33-5533-10		22,000 ohms66-3224340
R51A	Detentiometer BRIGHTNESS control.		R108	Resistor, grid return, 270,000 ohms 66-4278340
HOIA	100 000 ohms	Part of R51	R110	Resistor, a-v-c load, 330,000 ohms
R51B	Detentiometer CONTRAST control,		R111	Resistor, vertical damping, 1,000 ohmsPart of Z4
11012	E OOO ohme	Part of R51	R112	Resistor, audio feedback, 470 ohms66-0473340
R52	Posistor limiting 100,000 ohms	66-4100340	R113 R114	Resistor, filament dropping, 4.7 ohms66-9478340
R53	Pagister grid return 330,000 ohms	00-4330340	R115	Resistor, limiting, 680,000 ohms66-4685340
R54	Pagister cathode bigs 10 ohms	00-0100340	R117	Resistor, screen grid, 56,000 ohms66-3564340
R55	Periator loading 15 ((()) ohms	00-3130340	R118	Resistor, terminating, 5600 ohms66-2568340
R56	Pagister plate load 2500 ohms	00-4434340	R119	Resistor, terminating, 5100 ohms66-2508340
R57	Resistor, voltage divider, 560 ohms	66 2108340*	R120	Resistor, booster dropping, 5600 ohms66-2565340
R58	Resistor, 1-f compensation, 1000 ohms	66-4478340*	R122	Resistor, damping, 15,000 ohms66-3158340
R59	Resistor, voltage divider, 470,000 ohms Resistor, isolating, 10,000 ohms	66.3108340*	R123	Resistor, a-v-c filter, 470,000 ohms66-4478340
R60	Resistor, grid return, 470,000 ohms	66-4478340*	R124	Resistor, vert. sync coupling,
R61	Resistor, d-c restorer load, 1 megohm	66-5108340*		180,000 ohms66-4188340
R62	Resistor, bleeder, 220,000 ohms	36-4225340*	R126	Resistor, screen bleeder, 22,000 ohms66-322434
R63	Designation bigg 15 ohms	66-0133340	R127	Resistor, screen dropping, 4700 ohms36-247534
R64	Detentiometer FOCUS control, 500 onm	S33-3340-40	R128	Resistor, r-f filter, 470 ohms66-147834
R65	Posistor limiting 1811 Ohms	00-1104040	R129	Resistor, beat suppressor, 330 ohms
R86	Pasister dropping 5600 ohms	00-2304340	R130	Resistor, plate-load shunt, 10,000 ohms66-310434
R67 R68	Pasister dropping 5600 ohms	00-2304340	S1	Switch ON-OFF Part of R2 Switch, band Part of 76-4402-
R69	Posistor dropping 5600 ohms	00-2304340	S3	Switch, aerial Part of S
R70	Pagistor grid return 470,000 ohms	00-44/0340	S3A	Switch, aerial transformer Part of S
R71	Pagistar plate load 10,000 ohms	06-3104340	S3B S3C	Switch, aerial grounding
R72	Register decoupling, 5,100 ohms, 5w	33-3340-20	TI	Transformer, r-f
R73	Pagistor video filter 11.000 ohms	00-3100340	T2	Transformer, 1-f aerial
R74	Posistor grid return 47 megohms	06-34/0340	T3	Transformer, h-f aerial Part of 76-4402-
R75	Resistor, voltage divider, 10,000 ohms	66-3564340*	T4	Transformer, audio output32-8367-
R76	Resistor, plate load, 56,000 ohms	66-5108340*	T5	Transformer, vertical-blocking oscillator32-830
R77	Resistor, grid return, 1 megohmResistor, video filter, 4700 ohms	66-2478340*	T6	Transformer, vertical output32-840
R78	Resistor, video filter, 4700 offilis	66-3228340*	T7	Transformer, horizontal output32-842
R79	D i Line alor UCICHI control		Т8	Transformer, horizontal-blocking oscillator32-436
R80	Potentiometer, HEIGHT control, 2.5 megohms	33-5565-10	Т9	Transformer, power 32-8411
Annual Control	Resistor, limiting, 470,000 ohms	66-4478340*	TB1	Terminal board, aerial input38-868
R81	Resistor, integrating, 8200 ohms	66-2828340*		C13 Tuning cores Part of 76-4402
R82	Resistor, integrating, 8200 ohms	66-2828340*	TC14	Tuning core Part of L3
R83	Resistor, integrating, 8200 onms Resistor, integrating, 22,000 ohms	66-3228340*	TC15	Tuning core Part of Z
R84	Resistor, integrating, 22,000 onms Resistor, plate load, 2700 ohms	66-2274340*	TC16	Tuning core Part of Z
R85	Resistor, plate load, 2/00 onms	66-2394340*	TC17	Tuning core Part of La
R86	Resistor plate load, 3900 ohms	66 3108340*	TC18	Tuning core Part of La
R87	Resistor, grid, 10,000 ohms	00-31U034U	TC19	Tuning core Part of La
R88	Resistor, limiting, 820,000 ohms	D0-40Z834U	TC20	Tuning core Part of L.
R89	Resistor, decoupling, 10,000 ohms		TC21	Tuning core Part of L.
R90	Besistor, grid return, 560,000 ohms	66-4568340	TC22	Tuning core Part of L
R91	Resistor, filter, 8200 ohms	bb-2828340*	TC23	Tuning core Part of
R92	Resistor, horizontal feedback, 560,000 ohms	00 4500040*	TC24	Tuning core, WIDTH control Part of L
	T 0 0 0 0 0 1	hh-45h834U*	TC25	Tuning coro, True 111 Johnson

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

Reference		Service	Description Servi	ice Part No
Symbol	Description	Part No.	Knob, CHANNEL SELECTOR (50-T1400, 50-T140))56-6596-1
TC26	Tuning core, HORIZ, LIN, control		Knob, CHANNEL SELECTOR (50-T1402, 50-T1430)56-6596-3
TC27	Tuning core		Knob, CONTRAST control (50-T1400, 50-T1401)	54-4707-2
W1	Line cord		Knob, CONTRAST control (50-T1402)	54-4864-1
WS1	Wafer-switch-and plate assemblyP		Knob, CONTRAST control (50-T1430)	54-4707
Z1	Transformer, 2nd sound i-f		Knob, FINE TUNING control (50-T1400, 50-T140	1,
Z2	Transformer, FM detector		50-T1402)	54-4632-1
Z3	Focus-coil assembly		Knob, FINE TUNING control (50-T1430)	54-4662-2
Z4	Deflection-coil assembly		Knob, HORIZ. HOLD control (50-T1400, 50-T1401)	54-4707-2
Z5	Loop assembly, aerial tuning	54-4661	Knob, HORIZ. HOLD control (50-T1402)	54-4664-3
	MICORILANIBALIC		Knob, HORIZ. HOLD control (50-T1430)	54-4707
	MISCELLANEOUS		Knob, VERT. HOLD control (50-T1400, 50-T1401)	54-4699-3
Description		rvice Part No.	Knob, VERT. HOLD control (50-T1402)	54-4659-3
	-T1400)		Knob, VERT. HOLD control (50-T1430)	54-4699
Tribine de la company de la co	-T1401)		Knob, VOLUME control (50-T1400, 50-T1401)	54-4703-2
	-T1402)		Knob, VOLUME control (50-T1402)	54-4661-1
Cabinet (50	-T1430)	10780	Knob, VOLUME control (50-T1430)	54-4703
	rdware and Parts		Mask (50-T1401)	219204
Back a	and cup assembly (50-T1400)	76-5406-2	Nut, mask (50-T1401)	53-5740FA3
Back o	and cup assembly (50-T1401)	76-5406-3	Shaft, AERIAL TUNING control (50-T1400, 50-T1	401,
	md cup assembly (50-T1402)		50-T1402)	54-4747-6
Back o	and cup assembly (50-T1430)	76-5406-1	Shaft, AERIAL TUNING control (50-T1430)	54-4747-7
	ask (50-T1401)	1W8038FE11	Window (50-T1400)	54-4754
Brace,	picture tube, 5-15/16" x 1-15/16"		Window (50-T1401)	54-7595-8
(50	-T1400)	56-5581-33FA3	Window (50-T1402)	54-7983-1
Brace,	picture tube (50-T1400)	56-5581-39FA3	Window (50-T1430)	54-7943-5
Brace,	picture tube, 2-3/8" x 3-5/16"		Cable assembly, high voltage	41-3771-2
(50	FT1401)	56-5581-35FA3	Cable assembly, picture tube	41-3772-2
Brace,	picture tube, 2-3/8" x 6" (50-T1401)	56-5581-36FA3	Cord, drive (25-foot spool)	
	picture tube, 4-3/8" x 1-13/16"		Insulator, high voltage	54-7573-5
)-T1402)	56-5581-23FA3	Insulator, stand-off	54-7309-6
Brace,	picture tube, 6-1/4" x 1-13/16"		Mounting-frame assembly, picture tube	
(50	-T1402)	56-5581-27FA3	Shield, Loktal tube	56-2731
Brace,	picture tube, 4-12/32" long (50-T1430)	56-7754-1FA3	Shield, miniature tube	56-5629FA3
Brace,	picture tube, 7-13/16" long (50-T1430)	56-7754FA3	Socket, Loktal tube	
Couple	r, rubber, aerial-tuning shaft	54-4748	Socket, miniature tube	
Knob,	AERIAL TUNING control	54-4750	Socket, octal tube	
Knob,	BRIGHTNESS control (50-T1400, 50-T14	01)54-4699-3	Socket, octal tube (1B3GT)	
Knob,	BRIGHTNESS control (50-T1402)	54-4659-1	Socket, 9-pin (12AU7)	
Knob.	BRIGHTNESS control (50-T1430)	54-4699	Tuner assembly, complete	

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.

Reference Symbol	Description	Service Part No.
AD1	Built-in dipole (2 used)	56-7635
BB1	Beam bender, p.m. Part of	
C1	Condenser, d-c blocking, 1.5 µµfPart of	
C2	Condenser, d-c blocking, 22 µµfPart of	76-4402-6
C3	Condenser, mixer tuning,	
	.5 to 2 \(\mu\mu f\)	76-4402-6
C4	Condenser, filter, 2 µf.	30-2417-7
C5	Condenser r-f by-pass, 1500 µµfPart of	
C6	Condenser, d-c blocking, 470 uufPart of	
C7	Condenser, cathode by-pass,	
	220 µµfPart of	76-4402-6
C8	Condenser, fixed padder, 39 µµfPart of	76-4402-6
C9	Condenser, fixed padder, 27 µµfPart of	76-4402-6
C10	Condenser, oscillator injection,	101 0
	4.7 μμf	76-4402-6

MODEL 50-T1104, CODE 123 (RUN 4)

Defenence		Service	Reference	Service
Reference Symbol	Description F	art No.	Symbol	Description Part No.
C11	Condenser, r-f by-pass, 220 µµfPart of 7	6-4402-6	C70C	Condenser, 1-f compensation,
C12	Condenser, d-c blocking, 220 $\mu\mu f$ Part of 7	6-4402-6		10 μf., 475v Part of C70
C13	Condenser, fixed padder, 10 µµfPart of 7	6-4402-6	C71	Condenser, d-c blocking, .22 \(\mu f\)
C14	Condenser, trimmer, fine tuning		C72	Condenser, filter, 30 \(\mu f\), 475v
	4 to 7 μμf	6-4402-6	C73	Condenser, line filter, .01 μf
C15	Condenser, d-c blocking, 10 µµfPart of 7	6-4402-6	C74 C75	Condenser, cathode by-pass, .5 μf
C16	Condenser, r-f by-pass, 220 µµfPart of 7	0-4402-0	C76	Condenser d-c blocking, 047 ut
C17	Condenser, trimmer, 1-f aerial, 5 to 50 $\mu\mu f$	6-4402-6	C77	Condenser, d-c blocking, 680 \(\mu\mu f\)
C18	Condenser, trimmer, h-f aerial,		C78	Condenser, horizontal shaping, .082 µf.
C10	5 to 50 μμf	6-4402-6		(50-T1104, Code 123)30-4651-3
C19	Condenser, fixed padder, 27 µµfPart of 7	6-4402-6	C79	Condenser, d-c blocking, .47 \(\mu f \)61-0133
C20	Condenser, trimmer, r-f plate,		C80	Condenser, fixed trimmer, 51 µµf30-1224-62*
	5 to 5 uuf. Part of 7	6-4402-6	C81	Condenser, d-c blocking, .047 \(\mu f\)
C21	Condenser, d-c blocking, 39 µµfPart of 7	6-4402-6	C82 C83	Condenser, video filter, 22 $\mu\mu f$
C22	Condenser, d-c blocking, 220 µµfPart of 7	6-4402-6	C84	Condenser, d-c blocking, .047 \(\mu f \)
C23	Condenser, cathode by-pass, 220 $\mu\mu f$	6-4402-6	C85	Condenser, video filter, 220 \(\mu\mu\frac{1}{2}\)62-122001001
C24	Condenser, cathode by-pass,		C86	Condenser, d-c blocking, 150 \(\mu \mu f\)60-10155407*
C24	220 µµf. Part of 7	6-4402-6	C87	Condenser, 3-section, 10-10-10 \(\mu f\)30-2570-13
C25	Condenser screen by-noss		C87A	Condenser, filter, 10 μf ., 475v
	220 µµf	6-4402-6	C87B	Condenser, filter, 10 μf ., 475v Part of C87
C26	Condenser, r-f by-pass, 220 µµfPart of	6-4402-6	C87C	Condenser, cathode by-pass,
C27	Condenser, r-f by-pass, 220 µµfPart of		C88	10 µf., 475v Part of C87 Condenser, integrating, .0022 µf. 61-0062
C28	Condenser, filter, 10 μf ., 450v		C89	Condenser, integrating, .0047 µf45-3505-56*
C29	Condenser, osc. filter, 1500 $\mu\mu f$		C90	Condenser, integrating, .0047 µf
C30	Condenser, fixed trimmer, 56 $\mu\mu f$ 62-05	6409001*	C91	Condenser, d-c blocking, .0082 µf61-0174*
C31 C32A	Condenser, primary trimmer Po	art of Z1	C92	Condenser, sweep charging, .047 µf45-3505-62*
C32B	Condenser, secondary trimmerPo	art of Z1	C93	Condenser, d-c blocking, .1 \(\mu f \)
C33	Condenser, screen by-pass, 1500 $\mu\mu f$ 62-2	15001011*	C94	Condenser, voltage divider, 180 $\mu\mu f$ 30-1220-30
C34	Condenser, d-c blocking, 470 $\mu\mu f$ 62-14		C95	Condenser, trimmer, 3-section 31-6477-2 Condenser, horizontal lock-in Part of C95
C35	Condenser, r-f by-pass, 1500 µµf62-2	15001011	C95A C95B	Condenser, horizontal oscillator rangePart of C95
C36	Condenser, grid 56 \(\mu\mu f\)		C95C	Condenser, horizontal drivePart of C95
C37	Condenser, screen by-pass, 1500 $\mu\mu f$ 62-2. Condenser, fixed trimmer, 18 $\mu\mu f$ 62-0		C96	Condenser, horizontal feedback, 5 $\mu\mu f$ 60-90505007*
C38 C39	Condenser, balancing, 2.2 $\mu\mu f$.		C97	Condenser, filter, .02 ut
C40	Condenser, r-f by-pass, 1500 µµf62-2	15001011*	C98	Condenser, filter, 25 \(\mu f\)
C41	Condenser, r-f by-pass, 1500 µµf62-2	15001011*	C99	Condenser, plate by-pass, .05 µf
C42	Condenser, FM-detector filter, 2 \(\mu f.\), 50v		C100	Condenser, d-c blocking, .0022 μf
C43	Condenser, d-c blocking, .0047 µf3	0-4650-56	C101 C102	Condenser, d-c blocking, 390 $\mu\mu f$
C44	Condenser, d-c blocking, .01 μf .	61-0120	C102	Condenser, sweep charging, 1500 \(\mu \mu f\)60-20155404*
C45	Condenser, r-f by-pass, 1500 $\mu\mu f$ 62-2 Condenser, line filter, .01 μf	61-0120*	C104	Condenser, r-f filter, 1500 µµf62-215001001
C46	Condenser, dec blocking, .01 μf .	61-0120*	C105	Condenser, horizontal shaping, .047 \(\mu f\)61-0122*
C47 C48	Condenser, tone compensation, .0068 μf 3	0-4650-91*	C106	Condenser, 2-section, 40-40 \(\mu f\)30-2570-13
C49	Condenser, filter, 30 \(\mu f.\), 475v3	0-2568-19	C106A	Condenser, filter, 40 μf ., 450v
C50	Condenser, 2-section, 80-10 \(\mu f\)3	0-2570-39	C106B	Condenser, filter, 40 μf ., 450v Part of C106
C50A	Condenser, filter, 80 µf., 450v Par	rt of C50	C107	Condenser, α -v-c filter, .5 μf
C51	Condenser, filter, 500 µµf., 15,000v	30-1229-2	C108	Condenser, cathode by-pass,
C52	Condenser, rf by-pass, 1500 µµf62-2	15001011	C109	1500 µµf. 62-245001001
C53	Condenser, screen by-pass, 1500 μμf62-2 Condenser, r-f by-pass, 1500 μμf62-2	15001011*	C110	Condenser, aerial trimmer control31-6518
C54 C55	Condenser, d-c blocking, 470 $\mu\mu f$ 62-1		C112	Condenser, cathode by-pass, 470 µµf62-147001001*
C56	Condenser, r-f by-pass, 1500 µµf62-2	15001011*	C113	Condenser, d-c blocking, .0047 µµf
C57	Condenser, screen by-pass, 1500 µµf62-2	15001011*	C114	Condenser, filter, video output, 10 μf 30-2417-6*
C58	Condenser, screen by-pass, 1500 µµf62-2	15001011*	C118	Condenser, r-f filter, 2.2 \(\mu\mu\mu\)f
C59	Condenser, r-f by-pass, 1500 µµf62-2	15001011*	C117	Condenser, filter, .0022 \(\mu f\)
C60	Condenser, d-c blocking, 470 μμf62-1	47001001*	C119 F1	Fuse, B+ protective, 3/8 ampere
C61	Condenser, fixed trimmer, 51 µµf	30-1224-2*	J1	Socket geriel input Part of 76-4402-6
C62	Condenser, fixed trimmer, 51 μμf	30-1224-2	J2	Iack THNER TEST Part of 76-4402-6
C63	Condenser, cathode by-pass,	15001011*]3	Iack, FM TEST 27-6126
Minney Const	1500 $\mu\mu f$	15001011	J4	Jack, ALIGN TEST
C64	Condenser, screen by-pass, 1500 \(\mu \text{pt} f \text{62-2}\) Condenser, d-c blocking, 470 \(\mu \text{pt} f \text{62-1}\)		J5	Socket, deflection cable 27-6174-4 Jack, VOICE COIL TEST 27-6180
C65	Condenser, r-f by-pass, $47 \mu \mu f$.		16	Socket, power27-6240
C66	Condenser, r-f by-pass, 10 $\mu\mu f$		J7 L1 to L11	Coils, r-f plate Part of 76-4402-6
C67	Condenser, fixed trimmer, 51 $\mu\mu f$.		L1 to L11	Coils, mixer grid Part of 76-4402-6
C68	Condenser, d-c blocking, .047 μf		L23 to L34	Coils, oscillatorPart of 76-4402-6
C70	Condenser, 3-section, 10-10-10 µf3	0-2570-13	L35	Coil, plate chokePart of 76-4402-6
C70A	Condenser, 1-f compensation,		L36	Coil, mixer plate tank Part of 76-4402-6
3,022	10 uf 475v Po	rt of C70	L37	Coil, 1st sound i-f autotransformer 32-4302-3
C70B	Condenser, plate filter, 10 µf., 475vPo	rt of C70	L38	Coil, primary Part of Z1

MODEL 50-T1104, CODE 123 (RUN 4)

Reference		Service	Reference		Service
Symbol	Description	Part No.	Symbol	Description	Part No.
L39	Coil, secondary	Part of Z1	R36	Resistor, grid return, 5600 ohms	66-2588340*
L40	Coil, primary		R37	Resistor, cathode bias, 68 ohms	
L41	Coil, tertiary		R38	Resistor, loading, 8200 ohms	
L42	Coil, secondary		R39	Resistor, loading, 15,000 ohms	
L43	Coil, WIDTH		R40	Resistor, cathode bias, 100 ohms	
L44 L45	Coil, 1st v-i-f plate tank	32-4359	R41 R42	Resistor, loading, 5600 ohms	
L45	Coil, 2nd v-i-f plate tank		R43	Resistor, decoupling, 1000 ohms Resistor, neg. feedback, 10 ohms	
L47	Choke, r-f		R44	Resistor, voltage divider, 2200 ohms	
L48	Coil, 3rd v-i-f plate tank		R45	Resistor, loading, 47,000 ohms	
L49	Coil, accompanying-sound trap		R46	Resistor, video-detector load, 3300 ohm	
L50	Coil, 4th v-i-f grid tank		R47	Resistor, grid return, 1 megohm	66-5108340*
L51	Coil, r-f choke		R48	Resistor, loading, 15,000 ohms	
L52	Coil, 4th v-i-f tank		R49	Resistor, plate load, 4700 ohms	
L53	Coil, series peaking, 150 microhenries.		R50 R51	Resistor, 1-f compensation, 4700 ohms	
L54 L55	Coil, shunt peaking, 250 microhenries Coil, adjacent-channel trap		W21	Potentiometer assembly, dual, 5000 ohm 100,000 ohms	
L56	Coil, series peaking, 250 microhenries		R51A	Potentiometer, BRIGHTNESS control,	30-3303-22
L57	Coil, shunt peaking, 250 microhenries			100,000 ohms	Part of R51
L58	Coil, series peaking, 180 microhenries		R51B	Potentiometer, CONTRAST control,	
L59	Coil, shunt peaking, 180 microhenries			5,000 ohms	Part of R51
L60	Coil, r-f choke		R52	Resistor, limiting, 100,000 ohms	66-4108340*
L61	Coil, r-f choke		R53	Resistor, grid return, 330,000 ohms	
L62	Choke, filter		R54	Resistor, cathode bias, 100 ohms	
L63 L64	Coil, FOCUS	Part of Z3	R55 R56	Resistor, loading, 15,000 ohms	
L65	Coil, horizontal linearity		R57	Resistor, plate load, 2500 ohms	
L66	Coil, horizontal-deflection yoke		R58	Resistor, 1-f compensation, 1500 ohms	
L67	Coil, vertical-deflection yoke		R59	Resistor, voltage divider, 470,000 ohms	
L68	Coil, r-f choke		R60	Resistor, isolating, 10,000 ohms	
L69	Coil, grid tank		R61	Resistor, grid return, 470,000 ohms	
L71	Filament choke		R62	Resistor, d-c restorer load, 1 megohm	
L73	Coil, filter, 600 µh.		R63	Resistor, bleeder, 220,000 ohms	
LS1 PL1	Speaker, 4" x 6", p.m.		R64 R65	Resistor, bias, 15 ohms	
PL1 PL2	Plug, power		R66	Potentiometer, FOCUS control, 500 ohm Resistor, limiting, 180 ohms	
PL3	Plug-and-cable assembly,	41-3000-0	R67	Resistor, dropping, 5600 ohms	
	picture-tube socket	41-3772-2	R68	Resistor, dropping, 5600 ohms	
R1	Resistor, cathode bias, 330 ohmsPart		R69	Resistor, dropping, 5600 ohms	
R2	Resistor, loading, 3300 ohmsPart		R70	Resistor, grid return, 470,000 ohms	
R3	Resistor, grid return, 100,000 ohmsPart		R71	Resistor, plate load, 10,000 ohms	
R4	Resistor, grid return, 10,000 ohmsPart		R72	Resistor, decoupling, 1,500 ohms, 5w	
R5 R6	Resistor, loading, 10,000 ohmsPart Resistor, grid return, 330 ohmsPart		R73 R74	Resistor, video filter, 10,000 ohms	
R7	Resistor, α-v-c filter, 10,000 ohmsPart		R75	Resistor, voltage divider, 10,000 ohms	
R8	Resistor, cathode bias, 100 ohmsPart		R76	Resistor, plate load, 56,000 ohms	
R9	Resistor, plate load, 4700 ohmsPart		R77	Resistor, grid return, 1 megohm	
R10	Resistor, decoupling, 330 ohms		R78	Resistor, video filter, 4700 ohms	
R11	Resistor, decoupling, 330 ohms		R79	Resistor, decoupling, 22,000 ohms	66-3228340*
R12	Resistor, grid return, 470,000 ohms		R80	Potentiometer, HEIGHT control,	00 5505 10
R13 R14	Resistor, cathode bias, 68 ohms		R81	2.5 megohms	
R14	Resistor, decoupling, 1,000 ohmsResistor, grid, 68,000 ohms		R82	Resistor, limiting, 470,000 ohmsResistor, integrating, 8200 ohms	
R16	Resistor, voltage divider, 22,000 ohms		R83	Resistor, integrating, 8200 ohms	
R17	Resistor, voltage divider, 4700 ohms		R84	Resistor, integrating, 22,000 ohms	
R18	Resistor, decoupling, 47 ohms	66-0478340*	R85	Resistor, plate load, 2700 ohms	
R19	Resistor, decoupling, 56,000 ohms		R86	Resistor, plate load, 3900 ohms	
R20	Resistor, FM-detector load, 68,000 ohms	s66-3688340*	R87	Resistor, grid, 10,000 ohms	
R21	Potentiometer, VOLUME control,	00 5500 10	R88 R89	Resistor, limiting, 820,000 ohms	
R22	2 megohms		R90	Resistor, decoupling, 10,000 ohms Resistor, grid return, 560,000 ohms	
R23	Resistor, α-v-c filter, 3300 ohms		R91	Resistor, filter, 8200 ohms	66-2828340*
R24	Resistor, plate load, 330,000 ohms		R92	Resistor, horizontal feedback,	
R25	Resistor, voltage divider, 3.3 megohms	66-5338340*		560,000 ohms	66-4568340*
R26	Resistor, voltage divider, 150,000 ohms		R93	Resistor, horizontal feedback,	Table of the second
R27	Resistor, decoupling, 470 ohms			120,000 ohms	
R28	Resistor, bleeder, 5000 ohms	33-3435-30	R94	Resistor, vertical shaping, 6800 ohms	66-2688340*
R29 R30	Resistor, grid return, 15,000 ohms Resistor, α-v-c filter, 3300 ohms		R95	Resistor, horizontal charging, 120,000 ohms	CC 4100040*
R31	Resistor, cathode bias, 68 ohms		R96	Resistor, voltage divider, 82,000 ohms	
R32	Resistor, decoupling, 330 ohms	66-1338340*	R97	Potentiometer assembly, dual, 50,000 ol	
R33	Resistor, grid return, 5600 ohms			1 megohm	
R34	Resistor, a-v-c filter, 3300 ohms	66-2338340*	R97A	Potentiometer, VERT. HOLD control,	
R35	Resistor, cathode by-pass, 68 ohms	66-0688340*		1 megohm	Part of R97

MODEL 50-T1104, CODE 123 (RUN 4)

		Service
Reference	Description	Part No.
Symbol		
R97B	Potentiometer, HORIZ, HOLD control, 50,000 ohms	Part of R97
R98	Resistor, temperature compensation, 42,000 ohms	22 13/3 2
	Resistor, bias filter, 3.3 megohms	66-5338340*
R99	Resistor, filter, 180,000 ohms	66-418340*
R100	Resistor, grid return, 120,000 ohms	66.4128340*
R101	Resistor, cathode return, 100,000 ohms	66-4108340*
R102	Resistor, grid return, 3.3 megohms	66-5338340*
R103	Potentiometer, VERT. LIN. control,	
R104	5,000 ohms	33-5546-10
R105	Resistor, limiting, 1,000 ohms	66-2108340*
R106	Resistor, horizontal-oscillator damping,	
H100	10,000 ohms	66-3108340*
R107	Resistor, parasitic suppressor,	
IIIO,	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	68-3158340*
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, α-v-c filter, 470,000 ohms	65-4478340
R124	Resistor, vert. sync coupling,	CC 4100240*
	180,000 ohms	66 2258340*
R125	Resistor, horiz. shaping, 2500 ohms Resistor, screen bleeder, 22,000 ohms	66.3224340*
R126	Resistor, r-f filter, 470 ohms	66-1478340*
R128	Resistor, domping	66-1475340*
R131 S1	Switch, ON-OFF	Part of R21
S3	Switch, band Pan	t 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	rt of 76-4402-6
T2	Transformer, l-f aerialPa	rt of 76-4402-6
T3	Transformer, h-f aerialPa	rt of 76-4402-6
T4	Transformer, audio output	32-8367-1
T5	Transformer, vertical-blocking oscillate	or32-8304
Т6	Transformer, vertical output	32-8405
T7	Transformer, horizontal output	32-8409
Т8	Transformer, horizontal-blocking oscill	ator32-4367
Т9	Transformer, power	32-8411-1
TB1	Terminal board, aerial input	-t of 76 4402 6
TC1 to TC13	Tuning cores	Part of 127
TC14	Tuning core	Part of 72
TC15	Tuning core	Part of 72
TC16	Tuning core	Part of I.44
TC17	runing core	

Reference Symbol	Service Description Part No.
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
	Tuning core, WIDTH control Part of L43
TC25	Tuning core, HORIZ, LIN. control Part of L65
	Tuning core Part of L69
TC27	Line cord 41-3865
W1	
WS1	Wafer-switch-and plate assemblyPart of 76-4402-6
Zl	Transformer, 2nd sound i-f32-4236
Z2	Transformer, FM detector32-4317-2
Z3	Focus-coil assembly76-2622-5
Z4	Deflection-coil assembly 32-9622
Z5	Loop assembly, aerial tuning54-4661

MISCELLANEOUS

Description	Service Part No.
Bolt, wing, adjusting bracket	W2547FA3
Bracket assembly, picture-tube support (rear)	76-5190FA3
Cabinet	
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	54-4861-1
Mask	56-7144-2
Screw, window rail	1W25201
Strap, mask	56-6816
Window	
Cable assembly, high voltage	41-3771-2
Cable assembly, picture tube	41-3772-2
Cord, drive (25-foot spool)	45-8750
Insulator, high-voltage	
Insulator, stand-off	54-7309-6
Shield, Loktal tube	56-2731
Shield, miniature tube	
Socket, Loktal tube	27-6207
Socket, miniature tube	27-6226
Socket, octal tube	
Socket, octal tube (1B3GT)	
Socket, 9-pin (12AU7)	27-6203-5
Strap assembly, picture-tube support (front) .	76-5191
Support, picture tube	76-5192
Tuner assembly, complete	
The contract of the contract o	

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."
- 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.

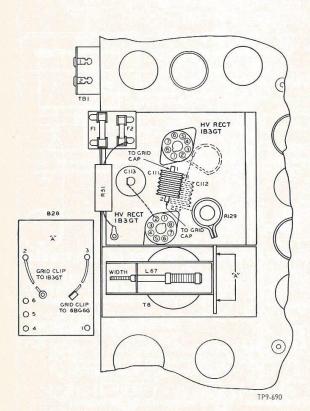


Figure 11. Partial Top View of Models 50-T1443, Code 122, and 50-T1443, Code 123, Showing Components Located in High-Voltage Cage

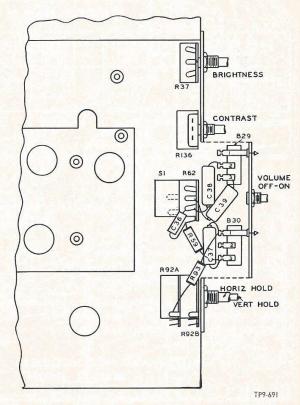


Figure 12. Partial Top View of Models 50-T1443, Code 122, and 50-T1443, Code 123, Showing Components Located on Control Panel

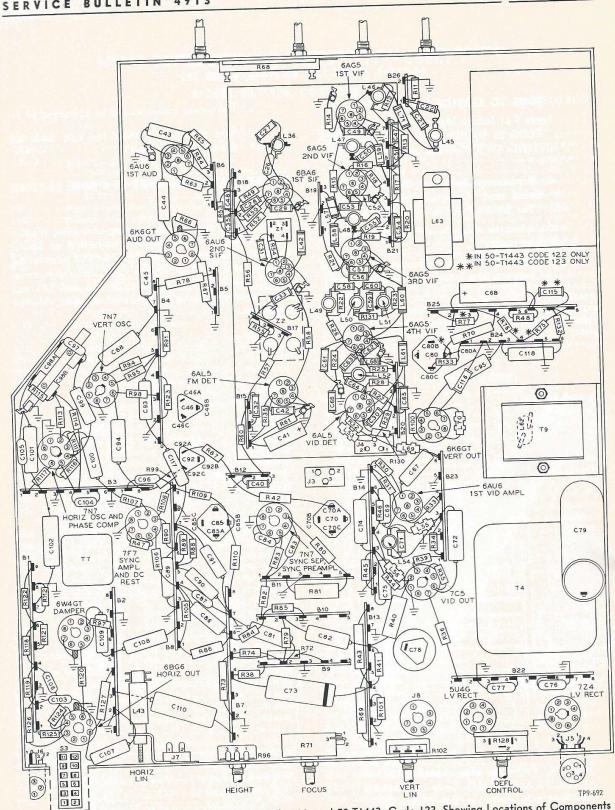


Figure 13. Bottom View of Models 50-T1443, Code 122, and 50-T1443, Code 123, Showing Locations of Components 20

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

DESCRIPTION OF CHANGE	REASON FOR CHANGE
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.
Two unused (triangle and plain) sections of C80 were connected in parallel across R51. Runs 27 and 3 also incorporate the change made in run 2.	To reduce vertical-sweep-generator feedback into $B+$ supply.
C92B disconnected and replaced with unused (half-moon) section of C85.	To provide condenser with higher voltage rating in HEIGHT-control
	Pin 6 of audio-output tube disconnected from 160-volt B+ supply and reconnected to pin 4 of audio-output tube. 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.

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 33 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

^{*} 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

- 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:
 - The 70-microhenry shunt-peaking coil in the plate circuit of the first-video amplifier should be symbolized L28 instead of L25.
 - 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.
- 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
310 changed from 18,000 ohms to 5600 ohms.	66-3188340	66-2568340
.6 removed and replaced with a 1000-ohm resistor (R135).	32-4112-11	66-2108340
1.4 choke (L38) added in series with the filament-supply lead to the tuner.		32-4112-15
354 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
.29 changed from 70 microhenries to 125 microhenries.	32-4143-2	32-4143-6
$10-\mu f$. 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% ampere to 1/4 ampere.	45-2656-10	45-2656-8

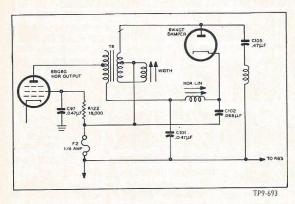


Figure 14. Location of Fuse, First Production of Model 50-T1630

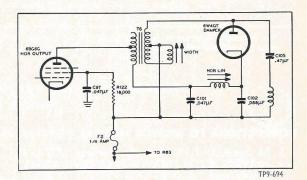


Figure 15. Location of Fuse, Run 2 of Model 50-T1630

PRODUCTION CHANGE IN MODEL 50-T1630

RUN NO.	DESCRIPTION OF CHANGE	REASON FOR CHANGE	
2	F2 rewired as shown in figure 15.	To reduce α-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- 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 originial value used in run 1).

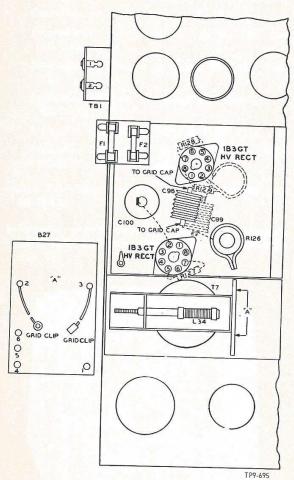


Figure 16. Partial Top View of Model 50-T1630, Showing Components Located in High-Voltage Cage

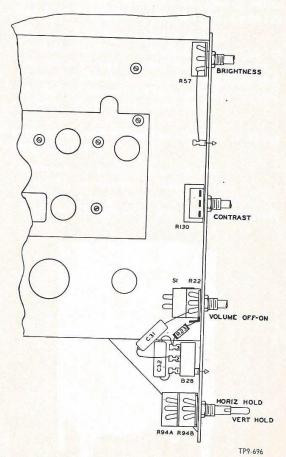


Figure 17. Partial Top View of Model 50-T1630, Showing Components Located on Control Panel

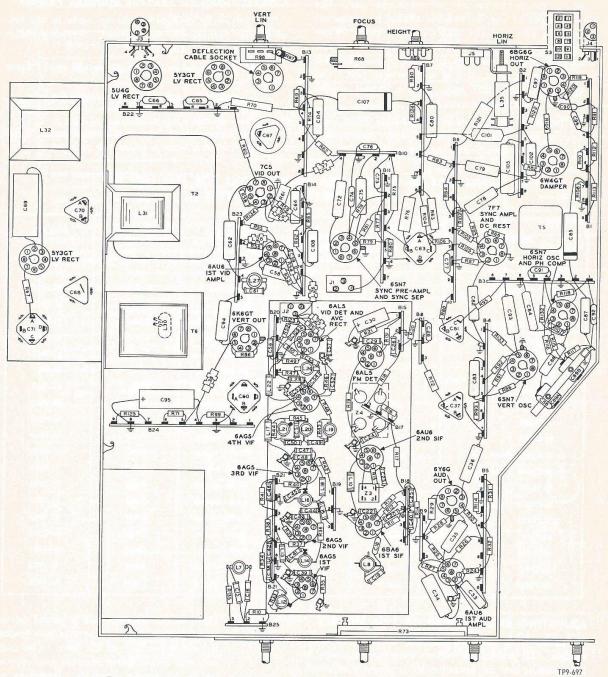


Figure 18. Bottom View of Model 50-T1630, Showing Locations of Components

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 Audio output	ADAPTER TYPE	PHILCO PART NO.
50-T701					
50-T702, Code 122	l 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	41-3983
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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