INSTRUCTIONS

PHILCO MODEL 7050 TUBE TESTER

Operates on 110-120 volts, 60-cycle A.C.
Tube Complement: 1 — 6X5GT (rectifier).
Short Indicator: Neon, ¼ watt, 105-125 volts, screw base.
Pilot Lamp: 6-8V.

Test Methods Employed

The PHILCO 7050 Tube Tester uses the emission test for quality determination. The control settings given in the chart, with the average run of normal tubes, will provide readings near the central portion of the GOOD area on the meter; with a little practice, the operator will be able to determine the difference in readings for normal, or slightly weak, as well as for weak, and dead tubes. A separate quality test is applied to each section of multi-purpose tubes.

The short test gives positive indication of a short existing between one element of a tube and any one (or more) of the remaining elements.

Ballast tubes may also be tested in the Model 7050 Tube Tester; see the ballast-tube section of the chart for operating instructions.

Supplementary Tube Data

In order to keep the tube-test chart for the PHILCO 7050 Tube Tester up to date, PHILCO will, from time to time, issue data for the testing of newly-released tubes.

Spare Socket Holes

Two additional socket holes (covered by bakelite caps) are provided on the panel of the Tester. These may be used for installing sockets to accommodate special-purpose tubes, or they may be reserved for tubes of future development.

RETURN YOUR REGISTRATION CARD

To have your name placed on the mailing list for supplementary tube data, fill in the information requested on the registration card packed with Philco Model 7050 Tube Tester and return the card as directed, without delay.

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HOW TO OPERATE THE PHILCO 7050 TUBE TESTER

For correct operation of this Tester, the following procedure should be used:

1. Line Check

Insert the power-cord plug into a 110-to-120-volt, 60-cycle power source. Hold the TEST control in the LINE position, and adjust the a-c voltage by turning the LINE control until the meter pointer is over the LINE CHECK mark in the center of the scale. Leave the LINE control in this position, and release the TEST control.

2. Filament Control

Refer to the data in the chart for the type of tube to be tested, and turn the FIL. (filament voltage) control to the position indicated in the Filament Control column.

3. Toggle Switches

Nine toggle switches, operating in slots marked with letters at each end, are used to switch the separate tube elements into the neon lamp a-c circuits when making the *short test*, or to connect the proper elements to the rectified-voltage supply and meter when making the *quality* test, as directed by the chart.

Each of these switches has three positions. Before proceeding with *any* test, set each toggle switch to its center position.

4. Short Test

a. Before placing the tube in the tester, refer to the toggle switch settings, listed in the *Short Test* column, for the type of tube to be tested.

For many types of tubes, one or more toggle-switch settings are indicated by *small* letters; before the tube is placed in the socket, the switches thus indicated must be set to these positions, where they must remain while those indicated by the large letters are manipulated. If no large letters appear, the small letters indicate the complete short test (in one operation).

b. To make the *short test*, observe the neon lamp while throwing the toggle switches, *one at a time*, to positions indicated in the chart by *large* letters; return each switch to its center position before operating the next switch.

If the neon lamp glows steadily when one or another of the switches is thrown to its listed position, a shorted tube is indicated.

Note: When each toggle switch is in its short-test position, if there is no glow of the neon lamp, it is advisable to tap the tube on its sides with the fingers. If this causes flashes of light, or a steady glow, in the lamp, *intermittently-shorting* tube elements are indicated, and the tube should be replaced.

For a few types of tubes, *two* of the letters indicating toggle-switch positions are topped by a heavy line. The two switches thus identified must be operated *at the same time*, to prevent a false short indication.

5. Quality Test

a. Turn the LOAD control to the position indicated for the type of tube to be tested, in the *Load Control* column of the chart.

b. Place the toggle switches in the positions indicated in the Quality Test column of the chart. If no toggle-switch settings are indicated for the quality test, the switches should remain in their center positions.

c. Turn the TEST control to the QUALITY position, and read the condition of the tube on the meter.

d. It will be noted that for certain types of tubes (multi-purpose), the chart lists two or three LOAD-control and toggle-switch combinations. Make the Quality Test as directed in steps *a*, *b*, and *c* above, for each of the combinations given.

Note: To aid in localizing radio and tube troubles, the classifications of *sections* of multi-purpose tubes, according to the grouping of elements, are listed in the *Tube Section* column.

Replacing Rectifier Tube (6X5GT) in 7050 Tube Tester

If the tube tester should fail to give any meter indications, or should give low readings on tubes known to be good, the trouble is probably caused by failure of the type 6X5GT rectifier tube; this tube may be replaced as follows:

1. Remove power-cord plug from a-c power source.
2. Remove the ten Phillips machine screws from around the edges of the front panel.
3. Lift the tester from its case. Replace the rectifier tube, and reassemble the tester.

Replacing Neon Lamp

The neon lamp used for short testing may be replaced without removing the tester from its case. The lamp used is a ¼-watt, 105-to-125-volt, screw-base bulb.

BALLAST TUBE TESTING WITH THE PHILCO MODEL 7050 TUBE TESTER

The Philco Model 7050 Tube Tester gives a complete continuity test on ballast tubes, providing a separate test for each ballast section. To test ballast tubes, proceed as follows:

1. Turn LINE control on.

2. Turn LOAD control to position 1.

3. Set TEST control to SHORT.

4. Set FIL. control to position 0.

5. Throw all toggle switches to their center positions, and insert ballast tube in tester.

6. Refer to the following chart for listing of the type of tube to be tested. For a tube having more than one ballast section, the combinations of toggle-switch settings required for testing the separate sections are listed one below the other, and enclosed in a bracket.

7. Observe the neon lamp as the switches are set. If the lamp glows steadily with the switches set to the indicated combination, the tube (or the section under test) is good. If the lamp *fails to glow* with the switches set to *any one* of the indicated combinations, the tube has an open section, and should be replaced.

Note: With some ballast tubes, the neon lamp will normally glow before the toggle switches are operated; the tube test, however, depends upon the glowing of the lamp when the switches are set to the indicated combinations.

REPLACEMENT PARTS LIST

C100	Condenser, .1 mf, 400 volts	61-0113
I100	Lamp, pilot	34-2085
N100	Lamp, Neon	34-2482
R100	Resistor, 10,000 ±5% ohms, ½ watt	66-3103240
R101	Resistor, 400,000 ±10% ohms, ½ watt	66-4393340
R102	Resistor, 22,000 ±5% ohms, ½ watt	66-3223340
R103	Resistor, 1300 ±5% ohms, ½ watt	66-2133240
R104	Resistor, 200 ±5% ohms, ½ watt	66-1203240
R105	Resistor, 5000 ±5% ohms, ½ watt	66-2503240
R106	Resistor, 8000 ±5% ohms, ½ watt	66-2803240
R107	Resistor, 220 ±5% ohms, ½ watt	66-1223240
R108	Resistor, 10 ±5% ohms, ½ watt	66-0103240
R109	Resistor, 18 ±5% ohms, ½ watt	66-0183240
R110	Resistor, 5 ±5% ohms, ½ watt	66-0053240
R111	Resistor, 10 ±5% ohms, ½ watt	66-0103240
R112	Resistor, 18 ±5% ohms, ½ watt	66-0183240
R113	Resistor, 35 ±5% ohms, ½ watt	66-0353240
R114	Resistor, 110 ±5% ohms, ½ watt	66-1113240
S100	Toggle switch and rivet assembly	76-1668
	Toggle switch (9 required)	42-1584
	Toggle-switch knob	27-4781
	Toggle switch mtg. plate	56-2693
S101	Switch, filament selector	42-1583
S102	Switch, line adjustment	42-1594
S103	Switch, test	42-1588
	S103A: Part of S103	
	S103B: Part of S103	
S104	Switch, load selector	42-1764
	S104A: Part of S104	
	S104B: Part of S104	
T100	Transformer, power	32-8118
X100	Socket, 5-prong bantam	27-6147
X101	Socket, 4 prong	27-6110
X102	Socket, 5 prong	27-6111
X103	Socket, 6 prong	27-6112
X104	Socket, 7 prong	27-6155
X105	Socket, octal	27-6114
X106	Socket, loctal	27-6148
X107	Socket, 7-prong bantam	27-6146

MISCELLANEOUS

Socket, octal (rectifier)	27-6199
Socket mounting bracket	56-2694
a-c cord	L-3337
Meter	45-3013
Lugs (meter mounting)	L1843FE9
Knob (4 required)	54-4281
Grid cap and lead assembly	76-1965
Lamp socket (neon lamp)	27-6210
Bulls-eye, lamp socket assembly (pilot)	76-1658
Terminal panel assembly	76-2052
Front panel assembly	76-1665
Housing assembly	76-1666
Name plate	56-3106
Felt feet (8 required)	54-4240
Switch key plate (2 required)	56-3099
Housing and plate assembly	76-1966
Log folder Assy	76-2426

Part No. 39-7634 Printed in U.S.A.

TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
1A1	R	1Y1	R
1B1	R	1Z1	R
1C1	R	2	R
1D1	R	3	R
1D2	A B	4	R
		5	R
1E1	R	5E1	R
1E2	A B	6	R
1F1	R	7	R
1G1	R	8	R
1J1	R	9	R
1K1	R	BKU126D	R AR ADR ABDR ABCDR
1L1	R		
1N1	R		
1P1	R	4A1	R
1Q1	R	4A21	R
1R1G	R	BKU172B	DRS BDRS BCDRS
1S1G	R		
1T1G	R	BKV51DJ	R AR ABR ABCR
1U1	R		
1V1	R		
1X1	R	BKX11BJ	AR ARB ARS

KEY TO TUBE-SECTION DESIGNATIONS

BP	Beam Power	Hp	Heptode	P	Pentode
D	Diode	M	Mixer	T	Triode
H	Hexode	Os	Oscillator	TE	Tuning Eye
				Te	Tetrode

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
0Z4 0Z4G	0	ABCDEF	14	CT	
00	5	ABCDEF	9		
01A	5	ABCDEF	9		
1A3	1	e$\overline{\text{A}}$FB	11	BE	
1A4 1A4P 1A4T	2	ABCDEF	4		
1A5G 1A5GT 1A5GT/G	1	ABCDEF	4		
1A6	2	ABCDEF	4		
1A7G 1A7GT 1A7GT/G	1	ABCDEF	4		
1AB5	1	cghABF	6	CGH	
1B4 1B4P 1B4T	2	ABCDEF	4		
1B5 1B5/25S	2	ABCDEF	9 14 14	BD ABC ACD	T D D
1B7G 1B7GT 1B7GT/G	1	ABCDEF	6		

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
1B8GT	1	ABCDEF	4	B	Bp
		Grid Cap	4	ADE*	T
1C5G 1C5GT 1C5GT/G	1	ABCDEF	6		
1C6	2	ABCDEF	4	AC	Os
			14	BD	M
1C7G	2	ABCDEF	9	AD	Os
			2	BET*	M
1D5G 1D5GP 1D5GT	2	ABCDEF	4		
1D7G	2	ABCDEF	9		
1D8GT	1	ABCDEF	6	ABCD	T
			8	E*	P
1E4G	1	ABCDEF	4		
1E5GP 1E5GT	2	ABCDEF	4		
1E7G	2	ABCDEF	4	AD	P
			4	BE	P
1F4	2	ABCDEF	6		
1F5G	2	ABCDEF	6		
1F6	2	ABCDEF	4	BC	P
			11	ABD*	D
			11	ACD*	D
1F7G 1F7GH 1F7GV	2	ABCDEF	4	DE	P
			11	ABD*	D
			11	ABE*	D

*Grid cap off.

1-20-49

PHILCO MODEL 7050 TUBE TESTER

Supplemental Tube Settings for Testing Recently Developed Tubes

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
1B3	1	m Cap	8	MT	
1H6GT	2	ABCDEF	8	ABD	D
			8	ABE	D
2C21/1642	6	ABCDE	6	ABCE	T
			6	ACD*	T
3A5	1	dhABEF	6	ABDH	T
			6	DEFH	T
3V4	1	ehABD	4	EH	
6AH6	6	bnrAEF	1	BGNS	
6AR5	6	bnAEFS	11	ABN	
6BD6	6	bnrAEF	7	BGNS	
6BG6G	6	AEG	5	A	
6W4GT	6	ACE	3	AC	
7A7 Load should be changed from 4 to 5 in the tube tester chart.					
7AJ7	6	ABCDE	5	CE	
117Z4	13	CE	3	C	
12AH7GT	8	ABCDEF	3	E	
12AL5	8	benACFG	5	BNR	D
			5	BENS	D
12AV6	8	bnAEFGS	4	ABEFNRS	T
			11	ABEGN	D
			11	ABFGN	D
14A5	8	ABCF	7	C	
50C5	11	bnAEFG	5	BNR	
864	1	AB	12		
1229	2	ABCDEF	4		
1275	5	AB	10	A	D
			10	B	D
1621	6	ABCDEF	10	C	
1622	6	ABCDEF	7	C	
1634	8	cABDEF	6	ABCH	T
			6	BCDE	T
1654	1	klp Cap	11	KLPT	

Keep this card for handy reference until receiving complete revised set of cards which will include the above listings.

PHILCO CORPORATION
PHILADELPHIA 34, PA.

AD 1059

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THIS SIDE OF CARD IS FOR ADDRESS

Leonard
2650 Fairview
Detroit 14, Mich.

2398 Holmes (12)
1462c

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
1G4G	1	ABCDEF	10		
1G4GT 1G4GT/G	1	ABCDEF	4		
1G5G	1	ABCDEF	6		
1G6G	1	ABCDEF	4	AD	T
1G6GT 1G6GT/G	1	ABCDEF	4	BE	T
1H4G	2	ABCDEF	4		
1H5G	1	ABCDEF	6	E	T
1H5GT 1H5GT/G	1	ABCDEF	8	A*	D
			4	DE	T
1H6G	2	ABCDEF	8	ABD	D
			8	ABE	D
1J5G	2	ABCDEF	6		
1J6G	2	ABCDEF	6	AD	T
			6	BE	T
1L4	1	eABF	6	E	
1LA4	1	ABCDEF	4		
1LA6	1	ABCDEF	4	AEF	Os
			14	BD	M
1LB4	1	ABCEDF	6		
1LB6	1	ABCDEF	4		
1LC5	1	eghABDF	6	EGH	
1LC6	1	ABCDEF	4		

1B8GT to 1LC6

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
1LD5	1	ABCDEF	6		
1LE3	1	ABCDEF	6		
1LH4	1	ABCDEF	6 11	D AF	T D
1LN5	1	oABCDF	6	O	
1N5G 1N5GT 1N5GT/G	1	ABCDEF	6		
1N6G 1N6GT	1	ABCDEF	4 14	B ADE	
1P5G 1P5GT 1P5GT/G	1	ABCDEF	6		
1Q5G 1Q5GT 1Q5GT/G	1	ABCDEF	7		
1R4/1294	1	ACD	8	C	
1R5	1	eABCDF	6	E	
1S4	1	eBCD	7	E	
1S5	1	ABCDEF	10		
1T4	1	eABCDF	10	E	
1T5 1T5GT	1	ABCDEF	6		
1U5	1	ABCDEF	4		
1V	6	ABCDEF	5	B	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
2A3 2A3H	3	ABCDEF	5		
2A4G	3	eABCDF	11	E	
2A5	3	ABCDEF	7	C	
2A6	3	ABCDEF	7 11 11	BCD ABC* ACD*	T D D
2A7	3	ABCDEF	7 11	ACD BCE	Os M
2A7S	3	ABCDEF	5	C	
2B6	3	ACDEF	7	C	
2B7 2B7S	3	ABCDEF	4 8 8	BCE ABCD* ACDE*	P D D
2C4	2	BDE	5	D	
2C22	6	C	8	CT	
2C26	6	C	8	CT Plate Cap	
2D21	6	begnAF	4	ABEGNS	
2E5	3	ABCDEF	6	C	
2G5	3	ABCDEF	6	C	
2S/4S	2	ABC	8 8	AC BC	D D
2V3G	3	Grid cap	8	T	
2W3 2W3GT	3	mABDEF	4	M	

*Grid cap off.

1LD5 to 2W3GT

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
2X2 2X2/879	3	ABCDEF	2	T	
2Y2	2	Grid cap	4	GHT	
2Z2 2Z2/G84	3	ABCDEF	4		
3A4	1	ch$\overline{AF}$BD	6	EH	
3A8GT	1	ABCDE	6 4 4	CEPG EPGH CPGH	
3B7/1291	1	dhABC	4 4	ABDH CDFH	T T
3C5GT	1	cABDEF	2	CH	
3C6/XXB	1	cABDEF	6 6	AC AM	T T
3LE4	1	cABDEF	6	C	
3LF4	1	chABF	7	CH	
3Q4	1	ch$\overline{AF}$BD	4	EH	
3Q5GT 3Q5GT/G	1	mABDEF	7	MG	
3S4	1	ch$\overline{AF}$BC	4	EH	
4A6G	2	mgABDEF	6 6	AMDG BMEG	T T
5R4GY	5	mABDEF	4 4	BM DM	D D
5T4	5	mABDEF	7 7	MD BM	D D

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
5U4G	5	mABDEF	4	MD	D
			4	BM	D
5V4G	5	mABDEF	4	MD	D
			4	BM	D
5W4 5W4G 5W4GT 5W4GT/G	5	mABDEF	4	MD	D
			4	BM	D
5X3	5	AB	4		
5X4G	5	cABDEF	4	AC	D
			4	CE	D
5Y3G 5Y3GT/G	5	mABDEF	4	MD	D
			4	BM	D
5Y4G	5	cABDEF	4	AC	D
			4	CE	D
5Z3	5	ABCDEF	4	A	D
			4	B	D
5Z4 5Z4G 5Z4MG	5	mABDEF	4	BM	D
			4	MD	D
6A3	6	ABCDEF	5		
6A4 6A4/LA	6	ABCDEF	7		
6A5G	4	mABDEF	5	MG	
6A6	6	ABCDEF	7	ADE	T
			7	BCE	T
6A7	6	ABCDEF	7	ACD	M
			11	BCE	Os

2X2 to 6A7

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6A7S	6	ABCDEF	5	C	
6AB7 6AB7/1853	6	ABCDEF	3	E	
6AC7 6AC7/1852	6	ABCDEF	3	E	
6A8	6	ABCDEF	6 11	ACD BCE	M Os
6A8G 6A8GT 6A8MG	6	ABCDEF	7 11	ACD BCE	M Os
6AB5 6AB5/6N5	6	ABCDEF	10	C	
6AB6G	6	ABCDEF	6	C	
6AC5G 6AC5GT 6AC5GT/G	6	ABCDEF	7	C	
6AD6G	6	ABCDEF	14	CT	
6AD7G	6	ABCDEF	6 7	ACD C	T P
6AE5G	6	ABCDEF	5	C	
6AE5GT 6AE5GT/G	6	ABCDEF	3	C	
6AE6G	6	ABCDEF	7	C	
6AE7GT	6	ABCDE	7 7	C E	T T
6AF5G 6AF5GT	6	ABCDEF	5	C	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6AF6G	6	ABCDEF	14	CT	
6AG5	6	bnr$\overline{\text{AG}}$EF	14	ABGN	
6AG7	6	ABCDEF	3	E	
6AH5G	6	BCDF	2	C	
6AH7GT	6	csABDEF	6	ACDF	
			6	BCDE	
6AJ5	6	abgnEFS	2	ABGNS	
6AK5	6	abgnEFS	2	ABGNS	
6AK6	6	bnAEFG	7	BGNS	
6AL5	6	benACFG	2	BNR	
			2	BEN	
6AN6	6	ABDEF	2	AF	D
			2	BF	D
			2	DF	D
			2	EF	D
6AQ6	6	bnrsAG	2	ABNRS	
6AS6	6	bnAEFG	2	ABGNS	
6B4G	6	ABCDEF	5		
6B5	6	ABCDEF	10	C	
6B6	6	ABCDEF	5	CDE	T
6B6G			8	ACD*	D
			8	ACE*	D
6B7	6	ABCDEF	6	BCE	P
6B7S				ACDE*	D
				ABCD*	D

*Grid cap off.

6A7S to 6B7S

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6B8 6B8G	6	ABCDEF	6 8 8	CDE ABCE* ABCD*	P D D
6C4	6	bnsFG	2	BGNS	
6C5 6C5G 6C5GT 6C5GT/G 6C5MG	6	ABCDEF	7	C	
6C6	6	ABCDEF	7	C	
6C7	6	ABCDEF	7 8 8	BDCE ABC* ACE*	T D D
6C8G	6	ABCDEF	7 7	BCDE ACD*	T T
6D4	6	bnER	3	BENR	
6D5 6D5G 6D5MG	6	ABCDEF	7	C	
6D6	6	ABCDEF	7	C	
6D7	6	ABCDEF	7	C	
6D8G	6	ABCDEF	10 11	ACD BCE	Os M
6E5	6	ABCDEF	6	C	
6E6	6	ABCDEF	10 10	ADE BCE	T T
6E7	6	ABCDEF	7	C	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6F5 6F5G 6F5GT 6F5GT/G 6F5MG	6	ABCDEF	5	C	
6F6 6F6G 6F6GT/G 6F6MG	6	ABCDEF	7	C	
6F7	6	ABCDEF	10 4	BCE ACD*	P T
6F7S	6	ABCDEF	7 4	BCE ACD	P T
6F8G	6	ABCDEF	5 2	BCDE ACD*	T T
6G6G	6	ABCDEF	7	C	
6H4GT	6	ABCDEF	10	C	
6H6 6H6G 6H6GT 6H6GT/G 6H6MG	6	ABCDEF	7	ACD CDE	D D
6J4	6	befnAR	1	ABGNS	
6J5 6J5G 6J5GT 6J5GT/G	6	ABCDEF	5	C	
6J6	6	bnAEFG	2 2	ABGNS BGN	T T

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6J7 6J7G 6J7GT 6J7GT/G 6J7MG	6	ABCDEF	7	C	
6J8G	6	ABCDEF	2 2	BCE ACD*	Hp T
6K5G	6	ABCDEF	5	C	
6K5GT 6K5GT/G	6	ABCDEF	7	C	
6K6GT 6K6GT/G	6	ABCDEF	7	C	
6K7 6K7G	6	ABCDEF	7	C	
6K7GT 6K7MG	6	ABCDEF	2	C	
6K8 6K8G 6K8GT	6	ABCDEF	11 2	BCE ACD*	H T
6L5G	6	ABCDEF	7	C	
6L6 6L6G 6L6GA	6	ABCDEF	5	C	
6L7 6L7G 6L7MG	6	ABCDEF	7 5	ACDE C	Os M
6N5	6	ABCDEF	10	C	
6N6G 6N6MG	6	ABCDEF	10	C	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6N7	6	ABCDEF	7	ACD	T
6N7G			7	BCE	T
6N7GT/G					
6N7MG					
6P5G	6	ABCDEF	7	C	
6P5GT					
6P5GT/G					
6P7G	6	BCDEF	7	KBCG	P
			11	KCDE	T
6Q6G/6T7G	6	ABCDEF	5	CDE	T
			8	ACD*	D
			8	ACE*	D
6Q7	6	ABCDEF	7	CDE	T
6Q7G			8	ACD*	D
6Q7GT			8	ACE*	D
6Q7MG	6	ABCEDF	5	CDE	T
			8	ACD*	D
			8	ACE*	D
6R7	6	ABCDEF	7	CDE	T
			8	ACD*	D
			8	ACE*	D
6R7G	6	ABCDEF	10	CDE	T
			8	ACD*	D
			8	ACE*	D
6R7GT	6	ABCDEF	7	CDE	T
6R7MG			8	ACD*	D
			8	ACE*	D
6S7	6	ABCDEF	7	C	
6S7G					
6SA7	6	ABCDEF	5	B	
6SA7GT/G					

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6SC7 6SC7GT	6	cABDEF	7 7	ABCH BCDE	T T
6SD7GT	6	ABCDEF	2	E	
6SF5 6SF5GT	6	cABDEF	5	C	
6SF7	6	cABDE	8 11	ABCD ACE	D P
6SG7	6	aeBCDF	2	AEF	
6SH7	6	aeBCDF	3	AE	
6SJ7 6SJ7GT/G	6	ABCDEF	5	E	
6SK7 6SK7GT 6SK7GT/G	6	ABCDEF	5	E	
6SL7GT	6	csABDEF	7 7	ABCF ABCDES	T T
6SN7GT	6	csABDEF	2 2	ABCDES ABCF	T T
6SQ7 6SQ7GT/G	6	cABDEF	7 8 8	ACDES ABCD ABCE	T D D
6SR7	6	cABDEF	7 8 8	ACDES ABCD ABCE	T D D
6SS7	6	ABDE	7	E	
6SU7GTY	6	csABDEF	7 7	ABCF ABCDES	T T
6T5	6	ABCDEF	6	C	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6T7G	6	ABCDEF	7	CDE	T
			8	ACD*	D
			8	ACE*	D
6U5 6U5/6G5	6	ABCDEF	6	C	
6U6GT	6	ABCDE	2	C	
6U7G	6	ABCDEF	7	C	
6V5G	6	cABDEF	5	C	
6V6	6	ABCDEF	7	C	
6V6G	6	ABCDEF	5	C	
6V6GT 6V6GT/G	6	ABCDEF	7	C	
6V7 6V7G	6	ABCDEF	7	CDE	
			8	ACD*	
			8	ACE*	
6W5G	6	ABCDEF	7	AC	D
			7	CE	D
6W6GT	6	ABCDEF	3	C	
6W7G	6	ABCDEF	5	C	
6X5 6X5G 6X5GT 6X5GT/G 6X5MG	6	ABCDEF	7	AC	D
			7	CE	D
6Y3G	6	Grid Cap	4	GHT	
6Y5 6Y5V	6	ABCDEF	5	BC	D
			5	BD	D
6Y6	6	ABCDEF	1	C	

6SC7 to 6Y6

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6Y6G	6	ABCDEF	3	C	
6Y6GT	6	ABCDEF	1	C	
6Y7G	6	ABCDEF	7	ACD	T
			7	BCE	T
6Z3	6	ABCDEF	5	B	
6Z4/84	6	ABCDEF	7	AC	D
			7	BC	D
6Z5	6	kBCDEF	4	KBC	D
			4	KBD	D
6Z7G	6	ABCDEF	5	ACD	T
			5	BCE	T
6ZY5G	6	ABCDEF	7	AC	D
			7	CE	D
7A4	6	ABCDEF	5	C	
7A5	6	ABCDEF	3	C	
7A6	6	ABCDEF	4	ABC	D
			4	ACF	D
7A7 7A7LM	6	ABCDEF	4	C	
7AF7	6	ABCDEF	2	A	T
			2	C	T
7A8	6	ABCDEF	11	BCD	M
			10	ACEF	Os
7B4	6	ABCDEF	5	C	
7B5	6	ABCDEF	7	C	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
7B6	6	cdABEF	2	CDEF	T
			8	ABCDE	D
			8	ABCDF	D
7B7	6	ABCDEF	7	C	
7B8	6	ABCDEF	11	BCD	M
			7	ACEF	Os
7C4/1203A	6	CD	4	C	
7C5	6	ABCDEF	5	C	
7C6	6	cdABEF	6	CEDF	T
			8	ABCDE	D
			8	ABCDF	D
7C7	6	ABCDEF	7	C	
7D7	6	ABCDEF	3	C	
7E5/1201	6	as$\overline{BC}\overline{DF}$	2	ADFS	
7E6	6	cdABEF	7	CDEF	T
			8	ABCDE	D
			8	ABCDF	D
7E7	6	ABCDEF	6	BCD	P
			11	ABCEF	D
			11	ACDEF	D
7F7	6	ABCDEF	7	A	T
			7	C	T
7F8	6	agmB$\overline{DE}$F	2	ABDEM–R	T
			2	ADEFG–MS	T
7G7/1232	6	ABCDEF	1	C	
7G8/1206	6	ABCDEF	2	BCEF	Te
			2	ABDF	Te
7H7	6	ABCDEF	2	C	

6Y6G to 7H7

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
56A 56AS	6	ABCDEF	2	C	
56S	3	ABCDEF	2	C	
57	3	ABCDEF	7	C	
57A 57AS	6	ABCDEF	7	C	
57S	3	ABCDEF	7	C	
58	3	ABCDEF	7	C	
58A 58AS	6	ABCDEF	7	C	
58S	3	ABCDEF	7	C	
59	3	ABCDEF	7	C	
64	6	ABCDEF	7	C	
65	6	ABCDEF	6	C	
67	6	ABCDEF	10	C	
68	6	ABCDEF	7	C	
70A7GT	11	cf1ADEF	3	CFL	
70L7GT	12	ABCDEF	3 3	ABDEF BCF	D BP
71 71A 71B	5	ABCDEF	10		
75 75S	6	ABCDEF	7 8 8	BCD ACD* ABC*	T D D

*Grid cap off.

45Z3 to 75S

Correction Sheet February 1947
Additions and Alterations in Tube Setting for Model 7050 Tube Tester

TUBE TYPE	Filament Control	**See note below — Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6N4	6	bngAFES	4	ABFNRS	
6BE6	6	bnAEFGS	11	ABN	
6S8GT	6	ceABDFS	4	ACE	TD
			8	BCDEF*	D
6ST7	6	cABDEFG	4	ACDES	T
			11	ABCD	D
			11	ABCE	D
6SZ7	6	cABDEFS	4	ACDES	T
			11	ABCD	D
				ABCE	D
6SR7GT	6	cABDEF	6	ACDES	T
			8	ABCD	D
			8	ABCE	D
6AR6	6	bmAEFG	4	BFMR	
6SB7Y	6	ABCDEF	3	B	
12BA6	8	bnAEFGS	3	BGNS	
12AT6	8	bnEFG	4	ABEFNRS	T
			11	ABENG	D
			11	ABFNG	D
12L8GT	8	bACDEFS	5	B	
12BE6	8	bnAEFGS	11	ABN	
50B5	11	bnrsAEF	4	ABNRS	
117P7	13	mABDE	2	BM	

*Grid cap off.

**"If no large letters appear, the small letters indicate the complete short test (in one operation)."

CAUTION—Switches indicated by small letters must not be moved while the tube is plugged in unless changed under Quality Test. Damage to Tester may result.

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TUBE TYPE	Filament Control	**See note (over) Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
50X6	10	ABCF	4	A	D
			4	C	D
6X4	6	bgnF	4	BFGNS	D
			4	BGN	D
35Y4	0	Test 1. Indicator lamp will glow when all switches are in center position and should go out when switch D is thrown. Before Test No. 2 remove tube and set all indicated controls before reinserting tube.			
		Test 2.			
	10	dAC	4	CD	
35W4	0	Test 1. Indicator lamp will glow when switch is in Pos. B and should go out when all switches are in center position. Before Test 2 remove tube and set all indicated controls before reinserting tube.			
		Test 2.			
	10	bgnpE	4	BGNP	
6AS7	6	csABDEF	3	ACS	T
			3	BCS	T
6AQ5	6	bgnAEF	8	ABGN	
6BA6	6	bgnAEF	11	BGN	
6AU6	6	bgnAEF	14	BGN	
117N7	13	mABDE	4	BM	
1U4	1	eABF	4	E	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
117Z3	13	bnsF	3	BFNS	
117Z6G	1		3		
	All switches in center position. If Indicator Lamp glows use Test A. If Indicator Lamp does not glow use Test B.				
Test A — Before Resetting Filament Control throw switches P & G and leave thrown throughout test.	11	ABCDE	3 3	CPG DPG	D D
Test B	13	BCD	3 3	C D	D D
117Z6GT	13	BCDF	3 3	C D	D D
182B	5	ABCDEF	6		
183	5	ABCDEF	7		
482B	5	ABCDEF	6		
483	5	ABCDEF	7		
485	4	ABCDEF	7	C	
884	6	ABCDEF	3	C	
885	3	ABCDEF	5	C	
879	3	ABCDEF	2	T	
950	2	ABCDEF	4		
FM1000	6	ABCDEF	3	B	

*Grid cap off.

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
1201	6	as$\overline{BC}\overline{DF}$	2	ADFS	
1203A	6	CD	4	C	
1221	6	ABCDEF	7	C	
1223	6	ABCDEF	7	C	
1231	6	ABCDEF	1	C	
1232	6	ABCDEF	1	C	
1284	8	ABCDEF	7	C	
1291	1	dhABC	4 4	ABDH CDFH	
1293	1	AF	4		
1294	1	ACD	8	C	
1603	6	ABCD	7	C	
1611	6	ACDEF	7	C	
1612	6	ABCDEF	7 5	ACDE C	Os M
1620	6	ABCDEF	7	C	
1621	6	ACDE	6	C	
1626	8	ACE	4	C	
1629	8	ACDE	4 4	AC CD	TE T
1631	8	ABCDEF	5	C	
1632	8	ABCDEF	1	C	

*Grid cap off.

6/1/48

PHILCO MODEL 7050 TUBE TESTER

Settings for Testing Recently Developed Tubes

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
6BH6	6	bgnAEF	3	ABGNS	
6BJ6	6	bgnAEF	3	ABGNS	
6T8	6	ABCDF	10	ABC	T
			7	ACF	D
			5	BCF	D
			5	ABCEF	D
7AD7	6	ABCDEF	3	C	
12AT7	6	bABCDEF	3	FH	T
			3	EH	T
12AU6	8	bgnAEF	3	BGNS	
12AU7	6	hABCDEF	7	EH	T
			7	FH	T
14E7	8	ABCDEF	6	BCD	P
			11	ABCEF	D
			11	ABDEF	D
19T8	9	ABCDF	10	ABC	T
			7	ACF	D
			5	BCF	D
			5	ABCEF	D
35C5	10	bgnAEF	5	BGN	
50Y7GT Test 1	0	Indicator lamp will glow when all switches are in center position, and should go out when switch "B" is pushed.			
NOTE: Before Test 2, remove tube and set all indicated controls BEFORE re-inserting tube.					
Test 2	11	1ACDE	5	CL	D
			5	DL	D

Keep this card for handy reference until receiving complete revised set of cards which will include the above listings.

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TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
5520	A, G	5539	A, G
5521	A, G	5540	A, G
5522	A, G	5541	G
5523	A, G	5542	A, G
5524	A, G	5543	GS, CGS, CG
5525	A, G	5544	A, G
5527	A, G	5547	A, G
5530	A, G	5548	A, G
5532	A, G	5549	GS, CGS, CG
5533	A, G	5550	A, G
5534	A, G	5551	D, G
5535	A, G	5552	A, G
5536	A, G	5553	A, G
5537	A, G	5555	A, G
5538	A, G		

185KD to 5555

TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
5556	A G	5588	GS CGS CG
5561	A G	5589	GS CGS CG
5562	A G	5590	D F
5563	A G	5592	C D
5567	GS CGS CG	5593	C D
5571	D	5595	C D
5574	A G	5596	C D
5576	D G	5597	GS CGS CG
5577	D F	5598	C D
5579	A G	5600	D F
5580	A G	5601	D F
5581	G	5602	D F
5584	C D	5603	DS ADS AD
5586	AG ACG CFG	5604	A G
5587	GS CGS CG		

TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
5605	DS ADS AD	5619	D F
5606	D F	5620	D F
5607	D F	5622	A G
5608	DS ADS AD	5623	A G
5609	A G	5624	A G
5610	DS ADS AD	5625	A G
5612	D F	5626	GS CGS CG
5613	AG ACG CFG	5629	A G
5614	D F	5630	GS CGS CG
5615	D F	5633	GS CGS CG
5616	DS ADS AD	5636	AG R
5617	DS ADS AD	5637	AG ACG CFG
5618	D F	5638	AG R
		5640	AG ACG CFG

5556 to 5640

TUBE TYPE	TOGGLE SWITCHES
5641	AG ACG CFG
5644	GS CGS CG
5647	A G
5648	A G
5649	A G
5651	AG ACG CFG
5652	GS CGS CG
5653	G
5654	AG ACG CFG
5655	AG ACG CFG
5656	AG ACG CFG
5657	A G
5658	GS CGS CG
5660	A G
5662	D G
5663	D G
5664	G
5666	AG R
5667	A G
5675	A G
5676	A G
5679	G
5681	C
5682	C
5683	C
5684	G
5685	G
5686	G
5687	G
5689	A G
5690	AG R

TUBE TYPE	TOGGLE SWITCHES
5691	AG R
5692	D G
5693	AG ACG CFG
5694	D G
5695	A G
5696	A G
5697	A G
5698	A G
5699	GS CGS CG
5700	A G
5701	G
5702	AG ACG CFG
5703	A G
5704	AG R
5705	GS CGS CG
5707	A G
5708	A G
5710	A G
5711	AG ACG CFG
5712	A G
5714	AG ACG CFG
8589	A G
8593	A G
8598	A G
16032	A G
16035	A G
16036	A G
16039	A G

5641 to 16039

TUBE TYPE	TOGGLE SWITCHES
38710	A G
45788	G
69-2033	A G
69-2037	A G
819662	A G
A16040	A G
BK42C	A G
BK42D	GS CGS CG
BK49C	A G
BK49D	GS CGS CG
BK49D-10	GS CGS CG
BK55B	A G
BK55C	A G
BK55D	GS CGS CG
BL42B	A G
BL42C	A G
BL42D	GS CGS CG
BL49B	A G
BL49C	A G
BL49D	GS CGS CG
G133	D
K13T56	A G
K40C	A G
K40D	GS CGS CG
K42B-BG	A G
K42C-CG	A G
K42D-DG	GS CGS CG
K42E	GS CGS CG ECG

TUBE TYPE	Filament Control	Toggle Switches Short Test	Load Control	Toggle Switches Quality Test	Tube Section
1633	8	csABEFG	6	ABCF	T
			6	ABCDE	T
1635	6	ABCDE	7	ACD	T
			7	BCE	T
1644	8	glACDEF	4	ADEGL	P
			4	CEFGL	P
1851	6	ABCDEF	2	C	
1852	6	ABCDEF	3	E	
1853	6	ABCDEF	3	E	
2050	6	ABCE	1	C	
2051	Use 0 Fil. setting for Short Test				
	6	ABCE	3	C	
9001	6	bnrA$\overline{G}$EFS	2	ABGNS	
9002	6	bnreA$\overline{G}$F	2	ABGNS	
9003	6	bnrA$\overline{G}$EFS	2	ABGNS	
9006	6	bnrsA$\overline{G}$	4	ABGNS	
G84	3	ABCDEF	4		
RK62	1	AB	4		
XXB	1	cABDEF	6	AC	T
			6	AM	T
XXD	8	ABCDEF	7	A	T
			7	C	T
XXFM	6	ABCDEF	8	ABCDE	D
			8	ABCDF	D
			4	CDEF	T
XXL	6	ABCDEF	5	C	

1201 to XXL

*Grid cap off.

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TUBE TYPE	TOGGLE SWITCHES
BKX21BJ	ARS AR ARB
33-3341-1	R AR ABR
33-3377	F CF
33-3391	G GA GS
2LR212	A G
2UR224	A G
2VR215	A G
3CR241	GS CGS CG
3ER248	GS CGS CG
3.25	A G
4XR308	GS CGS CG
5B	D F
6B	D F
6.125	GS CGS CG
6.126	GS CGS CG
6.129	GS CGS CG
6.133	G
6.135	G
40	D
40A2	D F
40W	D
40X300	D
42A1	C
42A2	C D
42B2	C D
42HA	G
45W	D
46A1	C
46A2	C D
46B1	R

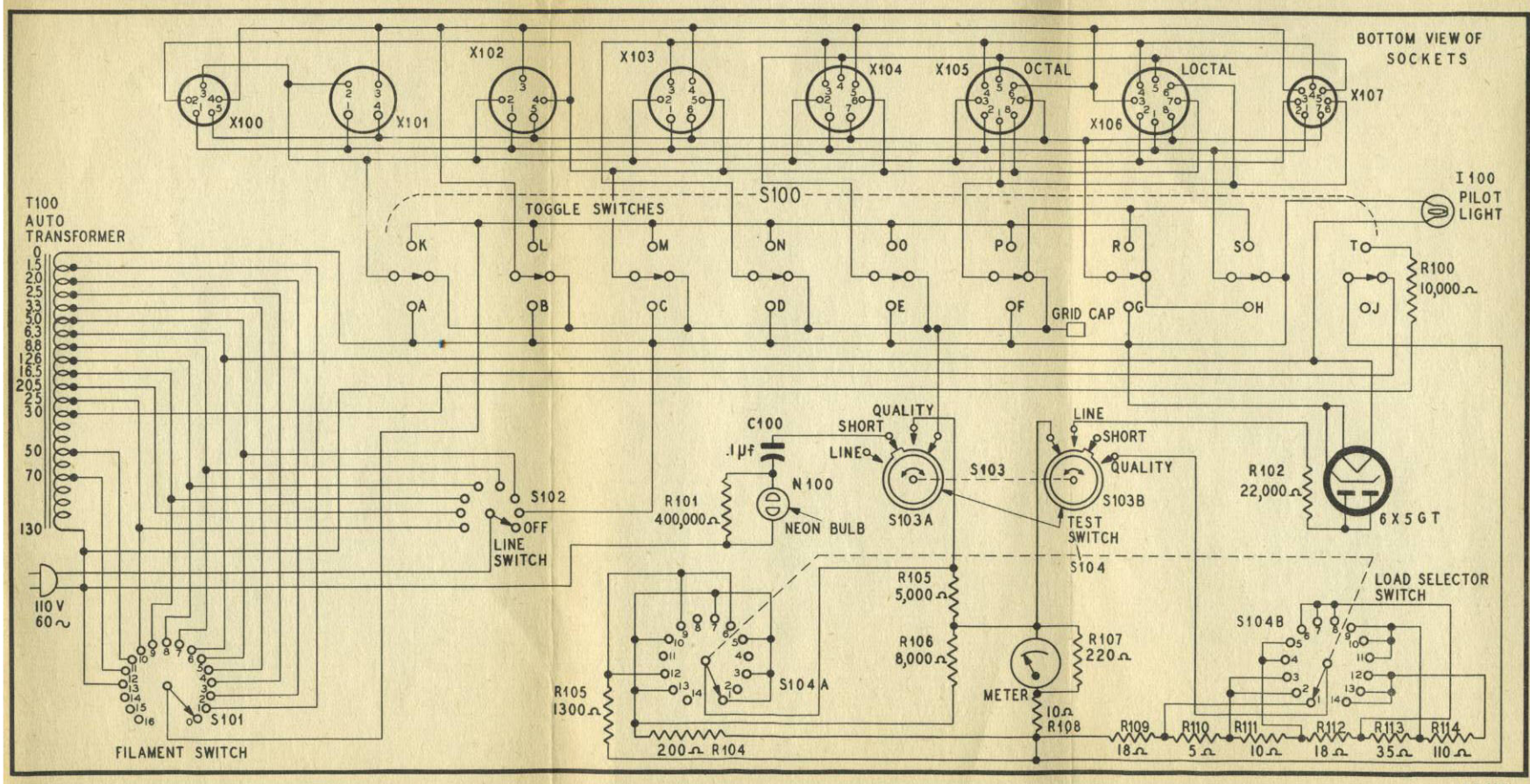
TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
46B2	C, D	50X300	D
49A1	C	55A1	D
49A2	C, D	55A2	DM, FN
49B2	C, D	55B2	DM, FN
49KB	A, G	55KB	A, G
49KC	A, G	60R30-G	D, F
49KD	GS, CGS, CG	69.2033	A, G
49LB	A, G	69.2037	A, G
49LC	A, G	80A1	D
49LD	GS, CGS, CG	80A2	DM, FN
50	D	80B2	DM, FN
50A2	D	85LC	A, G
50B2	D, F	86A1	D
50W	D	86A2	DM, FN
50X3	D	86B2	DM, FN
50X3T	D, F	92A1	D

TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
92A2	DM FN	140R	R
92B2	DM FN	140R4	BHR
		140R8	BHR
95K2	A G	140R44	DS ADS AD
100.37	D G	150R	DS ADS AD
100.38	D G		
115.14	GS CGS CG	160LB	A G
		160LC	A G
115.22	GS CGS CG	165KB	A G
		165LB	A G
115.28	GS CGS CG	165LC	A G
115.40	G		
115.41	A G	165L44	DS ADS AD
115.42	GS CGS CG	165R	R
		165R4	BHR
135K1	A G	165R8	BHR
135K1A	D G	180KB	A G
140L44	DS ADS AD	185KB	A G

TUBE TYPE	TOGGLE SWITCHES	TUBE TYPE	TOGGLE SWITCHES
185KD	GS CGS CG	3334	DS ADS AD
185LB	A G	3334A	DS ADS AD
185LC	A G	3613	A G
185L44	DS ADS AD	5502	D G
185R	R	5503	D G
185R4	BHR	5510	D F
185R8	BHR		
185R44	DS ADS AD	5512	D F
340	D	5514	A G
878R48	D	5515	A G
2903	A G	5516	A G
2904	A G	5517	GS CGS CG
2905	A G		
3035	G	5518	GS CGS CG
3326	GS CGS CG	5519	A G

TUBE TYPE	TOGGLE SWITCHES
K42E1	GS, CGS, CG, ECG
K43B	A, G
K43B2	A, G
K49B	A, G
K49C	A, G
K49D	GS, CGS, CG
K50C	A, G
K54B	A, G
K55B-BG	A, G
K55C	A, G
K55D	GS, CGS, CG
KY49C	A, G
L42B-BG	A, G
L42C-CG	A, G
L42D-DG	GS, CGS, CG
L49B	A, G
L49C	A, G
L49D	GS, CGS, CG
L455.5C	A, G
L495.5C	A, G
MT30A	A, G
YTU9	A, G
YTD16040	A, G
W143357	A, G
XB90	D, F

38710 to XB90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X100
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X102
X103
X104
X105
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X106
X107
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S102
OFF
LINE SWITCH
C100 .1μf
R101 400,000Ω
N100
NEON BULB
QUALITY
SHORT
LINE
S103A
S103
S103B
TEST SWITCH
S104
R102 22,000Ω
6X5GT
R105 5,000Ω
R106 8,000Ω
R107 220Ω
METER
10Ω R108
R105 1300Ω
200Ω R104
S104A
S104B
LOAD SELECTOR SWITCH
R109 18Ω
R110 5Ω
R111 10Ω
R112 18Ω
R113 35Ω
R114 110Ω
S101
FILAMENT SWITCH
TP482