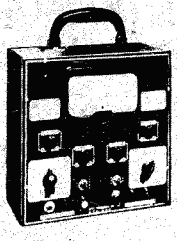
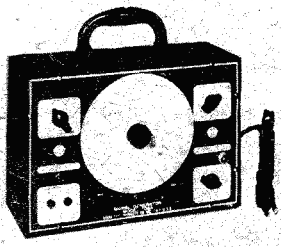
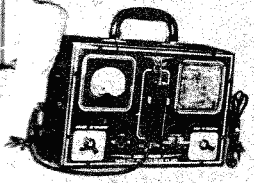
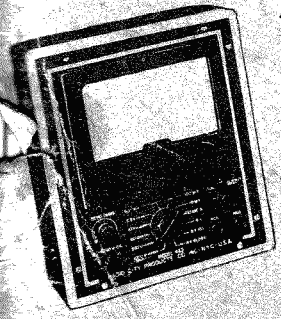








Seventh Edition

GETTING the MOST from the RCP

Tube & Set Tester

MODEL 802NA

and

TUBE TESTER MODEL 322 & 322A

GETTING THE MOST FROM THE RCP TUBE & SET TESTER MODEL 802NA

(The tube section also applies to the RCP tube tester Model 322 & 322A)

DO NOT ATTEMPT TO MAKE TESTS WITHOUT FIRST READING ALL THE INSTRUCTIONS AND THEN FOLLOWING THE PROPER SEQUENCE.

The instrument has been so designed to permit speed and simplicity in servicing, ease of maintenance and reduced possibility of damage. It should be used on a 105-130 volt a-c line for which a protective 1 ampere fuse is mounted in the lower left hand corner on the front panel.

The meter, a high torque Alnico movement, is protected against burn-out by a meter fuse. The fuse will not blow on overloads which are not sufficient to damage the meter. If the meter does not operate on any range, the fuse should be replaced with a 1/16 ampere Littlefuse, Cat. #361.062. IT IS MANDATORY THAT THIS FUSE NOT BE REPLACED WITH ANY OTHER VALUE THAN 1/16 AMPERE. If this precaution is not taken, an error may be introduced or worse, the meter may be burned out.

Provisions are made for testing all types of receiving tubes including octal, non-octal, loctal, cold cathode, miniature, sub-miniature, and ballast tubes. The circuit is so arranged that all tests are made under voltages and loads specified by the Radio Manufacturers Association.

The special "Dynoptimum" tube checking circuit is comparable to those found in far more expensive tube testers. All multi-purpose tubes have individual listings for each of the various sections which are tested separately. Hot and cold shorts between all elements are rapidly checked. Microphonics or noise in a tube due to loose elements can be detected by using the accessible phone jack provided on the front panel, labeled NOISE.

The controls on the front panel are used as follows: The CIRCUIT SELECTOR affords quick choice of the type of measurement to be performed. The TUBE SELECTOR is used to choose the proper tube elements when the instrument is used as a tube tester. The SHUNT CONTROL is used to adjust for proper deflection of the meter. The FILAMENT RANGE SELECTOR acts as the filament voltage selector. The switch marked "1-2" serves the purpose of selecting the proper filament connections for octal and loctal tubes and is normally in position "1". If the tube type is followed by #, set the "1-2" switch to "2" position. The switch marked "3-4" makes it possible to reverse the polarity of the meter. All tube types are followed by either (3) or (4) which indicates the position of the #3-4" switch. The push-button "P" is depressed for certain types of tubes and is so noted on the tube chart by (P) next to the FILAMENT SELECTOR setting. The LINE ADJUST control, which should be properly set before every test, is used to compensate for variations in line voltage. In the full counter-clockwise position, it serves as a line voltage switch (OFF). For complete accuracy make certain that the meter is set at zero, by means of the screw on the meter, before any voltage is applied to the instrument.

CAUTION: Particular care should be given the FILAMENT SELECTOR setting. If this is not properly set according to the chart, you may permanently damage the tube under test.

TO USE AS A TUBE TESTER

TO TEST TUBE: Set LINE ADJUST control to extreme counter-clockwise position (OFF). Connect line cord to 105-130 volt 60 cycle a-c line. Refer to tube chart for proper settings of controls and switches for particular tube to be tested. Tube designations followed by G or GT are the same as those without these letters and don't have a special listing; for instance, 6SJ7GT/G is the same as 6SJ7.

Make certain tubes fit into their proper sockets. Miniature tube sockets are designated A and B on the front panel. The tube chart shows which to use by either of these two letters following the tube type.

Sub-miniature and hearing aid tubes require special attention. As in all tube tests, the LINE ADJUST control must be in the full counter-clockwise position (OFF) before each check. It should also be in OFF position before checking each section on dual purpose tubes.

Series 2G22, etc. and series CX501AX, etc, should be carefully inserted in the socket. The red dot or key on the tube should face the black dot marked on the front panel to the left of the seven contact sub-miniature socket.

Tubes having five and six pins should be inserted in the socket so that the extreme lead or pin on the end without the red dot or key should be in the first right hand socket contact. Otherwise, the filament of the tube may be burned out due to the application of the test plate voltage to the filament. Thus, the filament pins will always be connected to the first and the third or fourth contacts from the right hand side of the tube socket.

When testing hearing aid tubes having long leads, the leads may be inserted in the socket individually with a pair of needle-nose pliers. The leads must not touch when the LINE ADJUST control is turned up. Use small tubular insulation (spaghetti) on the leads.

SHORT AND LEAKAGE TEST: Set the necessary switches and controls as indicated on the tube chart. "1-2" switch, POLARITY switch (3 or 4), TUBE SELECTOR (A to G), SHUNT CONTROL (10 to 100), FILAMENT RANGE SELECTOR (1F to 11F) all should be set properly. Make certain that the FILAMENT RANGE SELECTOR is in the correct position. CAUTION: Should this position be incorrect, the tube under test may be permanently damaged.

Turn the CIRCUIT SELECTOR to L.V. position. Advance the LINE ADJUST control until the needle is set on the red arrow marked "LINE CHECK". This is to be done only after all controls and switches are properly set and the tube to be tested is in its socket. Repeat this procedure whenever a new tube is put on test.

Set CIRCUIT SELECTOR to SHORT position and rotate the TUBE SELECTOR from "A to "G". If the neon lamp should glow continuously or flash at regular intervals in any position, except as indicated on the chart, the tube either has a shorted element or undesirable leakage. Disregard a momentary glow. Tubes having filament voltages higher than 25 volts will sometimes indicate a slight cathode leakage at the rated filament voltage. To determine whether this indicates actual leakage or a short, the filament setting should be reduced by one position. If the glow persists at the reduced filament voltage, the tube is defective. For example: a 25Z5 is first checked for shorts with the FILAMENT RANGE SELECTOR on position 8F. If it is found that a slight glow persists at some position of the TUBE SELECTOR, the filament setting is then reduced to position 7F. If the glow disappears, it means the tube is not shorted and is ready for the next test. This procedure does not apply to tubes with a filament voltage of less than 25 volts, (or lower than position 8F on FILAMENT RANGE SELECTOR).

QUALITY TEST: Return FILAMENT RANGE SELECTOR to the proper setting called for on chart, if it has been moved for the previous test. Also check the position of the TUBE SELECTOR which had to be moved on the Short and Leakage Test. Rotate the CIRCUIT SELECTOR to the position called for on the tube chart. The meter will then indicate whether the tube is poor or good. Do not keep tube in test socket longer than necessary for the test.

NOISE TEST: Turn SHUNT CONTROL to 100. Using an earphone equipped with a phone plug, insert the plug into the phone jack on the front panel marked "NOISE". A steady hum will be heard in the phone. If upon lightly tapping the tube with a finger an additional click is heard, the tube may be considered noisy. Repeat this procedure on all positions of the TUBE SELECTOR.

NOTES: On tube types, 28Z5, and 35Z5, if the left hand heater glow dies down at TUBE SELECTOR position B and CIRCUIT SELECTOR at REG. the heater is open at one end and the tube is defective.

REFERENCE KEY to special symbols listed in TUBE TYPE Column and FILAMENT SELECTOR Column for tube chart 108.

- # - Set 1-2 Switch to 2 position.
- (A) - Insert Tube in Socket Marked "A".
- (B) - Insert Tube in Socket Marked "B".
- (C) - May be tested by using special Acorn Adaptor available as an accessory.
- o - Tube is good if reading is beyond "DIODES O.K." line.
- (P) - Depress Button "P".
- (V) - Return "TUBE SELECTOR" to position indicated on chart before advancing "CIRCUIT SELECTOR" from "SHORT" to "BATT. OP." position.
- (=) - With "TUBE SELECTOR" at "B" and "CIRCUIT SELECTOR" at "REG" left hand heater should light, if not, one side of heater is open.

TUBE CHART NO. 110
BALLAST TUBES

Turn CIRCUIT SELECTOR to SHORT position: FILAMENT RANGE SELECTOR to B.T. position. Insert Ballast tube into proper socket and set TUBE SELECTOR to position indicated on chart. The neon lamp should glow. If it does not glow, the tube is defective.

TUBE TYPE	TUBE SEL.	TUBE TYPE	TUBE SEL.	TUBE TYPE	TUBE SEL.	TUBE TYPE	TUBE SEL.	TUBE TYPE	TUBE SEL.
1-1	A	3	A	7-20	C	31	B	130	C
1A1	A	3-1	A	7-150	C	31	C	140R	A
1A2	B	3-150	C	7-A-5	C	038	C	140R4	A
1A2	C	3-A-5	C	7H-1	A	42A1	A	140R4	C
1-A-5	C	3H-1	A	8	A	42A1	C	140R8	A
1B1	A	3H-220	C	8-A-5	C	42A2	A	140R8	C
1B2	B	4	A	9	A	42A2	C	150	C
1B2	C	4-1	A	9-20	C	42B2	A	155	C
1C1	A	4-220	C	9-150	C	42B2	C	158	C
1C2	D	4-A-5	C	9-A-5	C	46A1	A	165R	A
1C2	C	4H-5	C	10-10	C	46B1	A	165R4	A
1D1	A	4H-220	C	10AB	A	49A1	A	165R4	C
1E1	A	5	A	10-A-5	C	49A1	C	165R8	A
1F1	A	5-1	A	10V10	C	49B2	A	165R8	C
1G1	A	5-16	C	11-10	C	49B2	C	185R	A
1J1	A	5-150	C	11-20	C	52	B	185R4	A
1H-1	A	5-220	C	11-150	C	52	C	185R4	C
1K1	A	5-A-5	C	11-A-5	C	55A1	A	185R8	A
1L1	A	5E1	A	12-20	C	55A1	C	185R8	C
1N1	A	5H-1	A	13-10	C	55A2	A	218	C
1P1	A	5H-5	C	13-20	C	55A2	C	313	C
1Q1	A	5H-220	C	13-A-5	C	55B2	A	314	C
1R1G	A	6	A	14-20	C	55B2	C	315	C
1S1G	A	6-1	A	14-A-5	C	98	C	415	C
1T1G	A	6-20	C	15-10	C	100	C	425	C
1Y1	A	6AA	A	15-20	C	105	C	449	C
1Z1	A	6-A5	C	18-10	C	106	C	460	C
2	A	6H-1	A	20-A-5	C	110	C	538	C
2-A-5	C	D6-1	A	22-10	C	118	C	838	C
2H-1	A	7	A	30	B	125	C	874	C
2H-5	C	7-1	A	30	C	126	C		

If a tube is not listed on this tube chart, rotate the TUBE SELECTOR switch from A to G. If the neon lamp does not glow in at least one position of the TUBE SELECTOR switch, the tube is defective.

TUBE CHART NO. 110

Note: When making "Line Check" the 3 - 4 switch should be in the 3 position. After "Line Check" measurements, throw the 3 - 4 switch to the proper position as indicated on the Tube Chart.

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
00A(4)	5	60	C	Regular	
01A(4)	5	60	C	Regular	
0A3(4)o	1	10	D	Cold K	B, D
0A4(4)	6	63	D	Cold K	
0B3(4)o	1	60	D	Cold K	B, D
0C3(4)o	1	10	D	Cold K	B, D
0D3(4)o	1	10	D	Cold K	B, D
0Y4(4)	6	75	D	Cold K	B, D, A
0Z3(3)	BT	59	A	Cold K	
0Z4(3)	BT	59	A	Cold K	B, D, A
1A3(3)o	1(A)	55	C	Diode	B, E, F
1A4(4)	2	35	G	Batt. Op.	
1A4P(4)	2	48	G	Batt. Op.	
1A4T(4)	2	48	G	Batt. Op.	
1A5(4)	1	50	D	Batt. Op.	
1AB5(4)	1	56	E	Batt. Op.	A, E
1A6(4)	2	35	D	Batt. Op.	
1A7(4)	1	29	D	Batt. Op.	
1B3(4)	1	55	G	Cold K	A
1B4(4)	2	52	G	Batt. Op.	
1B5(4)	2	50	C	Diode	
1B5(4)	2	50	D	Diode	
1B5(4)	2	52	A	Batt. Op.	
1B7(4)	1	54	D	Batt. Op.	
1C4(4)	2	52	G	Batt. Op.	
1C5(4)	1	50	D	Batt. Op.	
1C6(4)	2	45	D	Batt. Op.	
1C7(4)	2	45	D	Batt. Op.	
1D4(4)	2	54	C	Batt. Op.	
1D5(4)	2	52	G	Batt. Op.	
1D7(4)	2	30	D	Batt. Op.	
1D8(4)	1	54	D	Batt. Op.	
1E4(4)	1	55	D	Batt. Op.	
1E5(4)	2	52	G	Batt. Op.	
1E7(4)	2	56	C	Batt. Op.	
1E7(4)	2	56	D	Batt. Op.	
1F4(4)	2	54	C	Batt. Op.	
1F5(4)	2	54	D	Batt. Op.	
1F6(4)	2	52	C	Batt. Op.	
1F6(4)	2	35	A	Diode	
1F6(4)	2	35	D	Diode	
1F7(4)	2	52	G	Batt. Op.	
1F7(4)	2	35	C	Diode	
1G4(4)	1	54	D	Batt. Op.	
1G5(4)	2	55	D	Batt. Op.	
1G6(4)	1	54	C	Batt. Op.	
1G6(4)	1	54	D	Batt. Op.	
1H4(4)	2	52	D	Batt. Op.	
1H5(4)o	1	45	G	Batt. Op.	
1H5(4)o	1	10	D	Diode	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
1H6(4)	2	52	E	Batt. Op.	
1H6(4)o	2	50	C	Diode	
1H6(4)o	2	50	D	Diode	
1J5(4)	2	50	D	Batt. Op.	
1J6(4)	2	54	C	Batt. Op.	
1J6(4)	2	54	D	Batt. Op.	
1L4(4)	1(A)	55	E	Batt. Op.	F
1LA4(4)	1(P)	54	F	Batt. Op.	A
1LA6(4)	1	50	D	Batt. Op.	A
1LB4(4)	1(P)	54	F	Batt. Op.	A
1LB6(4)o	1(P)	50	F	Diode	
1LC5(4)	1(P)	54	F	Batt. Op.	A, E
1LC6(4)	1	10	D	Batt. Op.	A
1LD5(4)	1(P)	54	F	Batt. Op.	A
1LD5(4)	1	50	D	Diode	A
1LE3(4)	1(P)	54	F	Batt. Op.	A
1LG5(4)	1(P)	50	C	Cold K	A, E
1LH4(4)	1	20	D	Diode	A
1LH4(4)	1(P)	55	F	Batt. Op.	A
1LN5(4)	1(P)	55	F	Batt. Op.	A, E
1N5(4)	1	30	G	Batt. Op.	
1N6(4)	1	54	D	Batt. Op.	
1N6(4)	1	10	E	Diode	
1P5(4)	1	52	G	Batt. Op.	
1Q5(4)	1	59	D	Batt. Op.	
1R4(3)o	1	45	B	Batt. Op.	A
1R5(4)	1(A)	50	D	Batt. Op.	F
1SA6(4)	1	56	C	Batt. Op.	
1SB6(4)	1	54	A	Batt. Op.	
1S4(4)	1(A)	54	C	Batt. Op.	B, E, F
1S5(4)	1(A)	50	E	Batt. Op.	
1S5(4)o	1(A)	50	C	Diode	
1T4(4)	1(A)	53	E	Batt. Op.	F
1T5(4)	1	52	D	Batt. Op.	
1U4(4)	1(A)	54	E	Batt. Op.	F
1U5(4)	1(A)	57	E	Regular	
1U5(4)o	1(A)	40	D	Diode	
1V(3)	6	83	C	Regular	
2A3(4)	3	75	C	Regular	
2A4(4)	3	84	D	Regular	
2A5(3)	3	78	A	Regular	
2A6(3)	3	81	A	Regular	
2A6(4)o	3	50	C	Diode	
2A6(4)o	3	50	D	Diode	
2A7(3)	3	80	A	Regular	
2A7S(3)	2	61	C	Cold K	
2B6(4)	3	70	E	Regular	
2B7(3)	3	77	A	Regular	
2B7(4)	3	50	D	Diode	
2B7(4)	3	50	E	Diode	
2C4(3)	3(A)	77	D	Cold K	
2D21(3)	6	90	E	Regular	
2E5(3)	3	65	A	Regular	
(V)2E31(4)	1	58	B	Batt. Op.	C
(V)2E32(4)o	1	50	B	Batt. Op.	C
(V)2E35(4)	1	54	B	Batt. Op.	C
(V)2E36(4)	1	55	B	Batt. Op.	C

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
(V)2E41(4)	1	51	B	Batt. Op.	C
(V)2E41(4)o	1	30	D	Diode	C
(V)2E42(4)o	1	50	B	Batt. Op.	C
(V)2G21(4)	1	56	E	Batt. Op.	C
(V)2G21(4)	1	57	B	Cold K	D
(V)2G22(4)o	1	50	E	Batt. Op.	D
2G5(3)	3	65	A	Regular	
2S/4S(4)	3	55	C	Regular	
2V3G(4)	3	10	G	Cold K	
2W3(4)#	3	65	C	Regular	
2X2(4)o	3	10	G	Regular	
2Y2(4)	3	10	G	Diode	
2Z2(4)	3	62	B	Regular	
3A4(4)	1(A)	54	D	Batt. Op.	B, E, F
3A5(4)	1(A)	57	F	Batt. Op.	D
3A8(4)	1	50	A	Diode	
3A8(4)	1	55	D	Batt. Op.	
3B4(4)o	2	40	B	Batt. Op.	
3B5(4)	1	54	D	Batt. Op.	A
3B7(4)	1	56	C	Batt. Op.	A, D
3C5(4)	1	45	D	Batt. Op.	A
3D6(4)	1(P)	55	F	Batt. Op.	A, B
3E6(4)	1(P)	57	F	Batt. Op.	A, E
3L4(4)	1(P)	53	F	Batt. Op.	A, B
3Q4(4)	1(A)	54	C	Batt. Op.	B, E, F
3Q5(4)	1	55	D	Batt. Op.	A
3S4(4)	1(A)	50	C	Batt. Op.	B, E, F
3V4(4)	1(A)	50	E	Batt. Op.	F
4A6(4)	2	54	C	Batt. Op.	
4A6(4)	2	54	D	Batt. Op.	
5AZ4(4)#	5	62	D	Regular	
5AZ4(4)#	5(P)	62	F	Regular	
5R4GY(4)#	5	57	C	Batt. Op.	
5R4GY(4)#	5	57	E	Batt. Op.	
5T4(4)#	5	79	C	Regular	A
5T4(4)#	5	79	E	Regular	A
5U4(4)#	5	78	C	Regular	A
5U4(4)#	5	78	E	Regular	A
5V4(4)#	5	84	C	Regular	A
5V4(4)#	5	84	E	Regular	A
5W4(4)#	5	52	C	Batt. Op.	A
5W4(4)#	5	52	E	Batt. Op.	A
5X3(4)	5	55	B	Batt. Op.	A
5X3(4)	5	55	C	Batt. Op.	A
5X4(4)	5	75	B	Regular	A
5X4(4)	5	75	D	Regular	A
5Y3(4)#	5	45	C	Batt. Op.	A
5Y3(4)#	5	45	E	Batt. Op.	A
5Y4(4)	5	50	B	Batt. Op.	A
5Y4(4)	5	50	D	Batt. Op.	A
5Z3(4)	5	75	B	Regular	A
5Z3(4)	5	75	C	Regular	A
5Z4(4)#	5	78	C	Regular	A
5Z4(4)#	5	78	E	Regular	A
6A3(4)	6	77	C	Regular	
6A4(4)	6	68	C	Regular	
6A5(4)	6	70	D	Regular	
6A6(4)	6	78	C	Regular	
6A6(4)	6	78	E	Regular	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
6A7(3)	6	80	A	Regular	
6A7(4)	6	75	E	Regular	
6A8(3)	6	80	A	Regular	
6A8(4)	6	73	D	Regular	
6AB5(3)	6	75	A	Regular	
6AB6(3)	6	66	A	Regular	
6AB6(4)	6	59	D	Regular	
6AB7(3)	6	88	D	Regular	
6AC5(3)	6	78	A	Regular	
6AC7(3)	6	88	D	Regular	
6AD5(3)	6	81	A	Regular	
6AD6(3)o	6	50	A	Cold K	
6AD7(3)	6	78	A	Regular	
6AD7(4)	6	47	F	Regular	
6AE5(3)	6	82	A	Regular	
6AE6(3)	6	78	A	Regular	
6AE7(3)	6	82	A	Regular	
6AE7(3)	6	82	D	Regular	
6AF5(3)	6(B)	84	A	Regular	
6AF6(3)o	6	50	A	Cold K	
6AG5(4)	6(B)	87	B	Regular	
6AG7(3)	6	88	D	Regular	
6AH6(3)	6(B)(P)	87	F	Regular	
6AH7(4)	6	68	F	Regular	A
6AH7(4)	6	68	D	Regular	A
6AJ5(3)	6(B)	61	E	Batt. Op.	
6AK5(3)	6(B)	89	E	Regular	
6AK6(3)	6(B)(P)	82	F	Regular	
6AL5(4)o	6(B)	55	E	Diode	
6AL5(4)o	6(B)(P)	55	F	Diode	
6AL6(3)	6(B)	86	A	Regular	
6AN5(3)	6	88	E	Regular	
6AQ5(3)	6(B)	86	E	Regular	
6AQ6(3)	6(B)	85	E	Regular	
6AQ6(4)o	6(B)	45	C	Diode	
6AQ6(4)o	6(B)	45	D	Diode	
6AQ7(3)	6	73	E	Regular	A
6AQ7(4)o	6	40	F	Diode	A
6AQ7(4)o	6	40	B	Diode	A
6AR5(3)	6(B)	76	E	Regular	
6AS5(3)	6(B)	84	B	Regular	E, C
6AS6(3)	6(B)	87	E	Regular	
6AS7(3)	6	92	B	Regular	A
6AS7(3)	6	92	E	Regular	A
6AT6(3)	6(B)	85	E	Regular	
6AT6(4)o	6(B)	45	C	Diode	
6AT6(4)o	6(B)	45	D	Diode	
6AU6(3)	6(B)(P)	90	F	Regular	
6AV6(3)	6(B)	80	E	Regular	
6AV6(4)o	6(B)	40	C	Diode	
6AV6(4)o	6(B)	40	D	Diode	
6B4(4)	6	77	D	Regular	
6B5(3)	6	75	A	Regular	
6B6(3)	6	79	A	Regular	
6B6(4)o	6	50	C	Diode	
6B6(4)o	6	50	D	Diode	
6B7(3)	6	61	A	Regular	
6B7(4)o	6	10	C	Diode	
6B7(4)o	6	10	D	Diode	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
6B8(3)	6	74	A	Regular	
6B8(4)o	6	50	C	Diode	
6B8(4)o	6	50	D	Diode	
6BA6(3)	6(B)(P)	90	F	Regular	
6BA7(3)	6(P)	86	C	Regular	
6BD6(3)	6(B)(P)	81	F	Regular	
6BE6(3)	6(B)	90	E	Regular	
6BF6(4)	6	70	B	Regular	
6BF6(4)o	6	50	C	Diode	
6BF6(4)o	6	50	D	Diode	
6BG6G(3)	6	86	B	Regular	
6BH6(3)	6(B)(P)	86	E	Regular	
6BJ6(3)	6(B)	61	E	Batt. Op	
6C4(3)	6(B)(P)	85	F	Regular	
6C5(3)	6	79	A	Regular	
6C6(3)	6	80	A	Regular	
6C7(3)	6	80	A	Regular	
6C7(4)o	6	50	D	Diode	
6C7(4)o	6	50	E	Diode	
6C8(3)	6	78	C	Regular	
6C8(3)	6	78	A	Regular	
6D4(3)	6(B)(P)	80	C	Regular	
6D5(3)	6	78	A	Regular	
6D6(3)	6	78	A	Regular	
6D7(3)	6	82	A	Regular	
6D8(3)	6	78	A	Regular	
6E5(3)	6	79	A	Regular	
6E6(4)	6	65	C	Regular	
6E6(4)	6	65	E	Regular	
6E7(3)	6	82	A	Regular	
(C)6F4(3)	6	87	A	Regular	B, C, D
6F5(3)	6	78	A	Regular	
6F6(3)	6	68	A	Regular	
6F7(4)	6	10	E	Regular	
6F7(4)	6	50	G	Batt. Op.	
6F8(3)	6	82	A	Regular	
6F8(3)	6	82	C	Regular	
6G5(3)	6	65	A	Regular	
6G6(3)	6	80	A	Regular	
6H4(3)	6	57	A	Diode	
6H5(3)	6	65	A	Regular	
6H6(4)o	6	57	B	Diode	
6H6(4)o	6	57	D	Diode	
6J4(3)	6(B)	90	E	Regular	C, B, D
6J5(3)	6	78	A	Regular	
6J6(4)	6(B)(P)	87	C	Regular	
6J6(4)	6(B)(P)	87	D	Regular	
6J7(3)	6	78	A	Regular	
6J8(4)	6	78	G	REGULAR	
6J8(4)	6	83	A	REGULAR	
6K5(3)	6	83	A	Regular	
6K6(3)	6	78	A	Regular	
6K7(3)	6	78	A	Regular	
6K8(4)	6	85	D	REGULAR	
6K8(4)	6	86	A	REGULAR	
6L5(3)	6	70	A	Regular	
6L6(3)	6	80	A	Regular	
6L7(3)	6	82	A	Regular	
6N4(3)	6	61	B	Batt. Op.	E.

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
6N5(3)	6	60	A	Regular	
6N6(3)	6	78	A	Regular	
6N7(4)	6	77	C	Regular	
6N7(4)	6	77	D	Regular	
6P5(3)	6	75	A	Regular	
6P7(4)#	6	61	G	Regular	B
6P7(4)#	6	57	A	Batt. Op.	B
6Q5G(3)	6	85	A	Regular	
6Q6(3)	6	80	A	Regular	
6Q6(4)o	6	50	C	Diode	
6Q6(4)o	6	50	D	Diode	
6Q7(3)	6	82	A	Regular	
6Q7(4)o	6	50	C	Diode	
6Q7(4)o	6	50	D	Diode	
6R6(3)	6	75	A	Regular	
6R7(3)	6	80	A	Regular	
6R7(4)o	6	35	C	Diode	
6R7(4)o	6	35	D	Diode	
6S7(3)	6	78	A	Regular	
6S8(4)	6	75	G	Regular	A
6S8(4)o	6	55	F	Diode	A
6S8(4)o	6	55	B	Diode	A
6S8(4)o	6	55	C	Diode	A
6SA7(3)	6	85	E	Regular	
6SB7Y(3)	6	87	E	Regular	
6SC7(3)	6	82	E	Regular	A
6SD7(3)	6	86	D	Regular	
6SE7(3)	6	88	D	Regular	
6SF5(4)	6	80	B	Regular	A
6SF7(4)	6	45	D	Diode	A
6SF7(3)	6	78	B	Regular	A
6SG7(4)	6	85	C	Regular	B, D
6SH7(4)	6	84	C	Regular	B, D
6SJ7(3)	6	78	D	Regular	
6SK7(3)	6	78	D	Regular	
6SL7(3)	6	76	B	Regular	A
6SL7(3)	6	76	E	Regular	A
6SN7(3)	6	80	B	Regular	A
6SN7(3)	6	80	E	Regular	A
6SQ7(3)	6	80	B	Regular	A
6SQ7(4)o	6	50	C	Diode	A
6SQ7(4)o	6	50	D	Diode	A
6SR7(3)	6	79	B	Regular	A
6SR7(4)o	6	50	C	Diode	A
6SR7(4)o	6	50	D	Diode	A
6SS7(3)	6	78	D	Regular	
6ST7(3)	6	60	B	Batt. Op.	A
6ST7(4)o	6	10	C	Diode	A
6ST7(4)o	6	10	D	Diode	A
6SU7(3)	6	78	B	Regular	A
6SU7(3)	6	78	E	Regular	A
6SV7(3)	6	85	B	Regular	A
6SV7(4)o	6	50	D	Diode	A
6SZ7(3)	6	74	B	Regular	A
6SZ7(4)o	6	10	D	Diode	A
6SZ7(4)o	6	10	C	Diode	A

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
6T5(3)	6	67	A	Regular	
6T7(3)	6	81	A	Regular	
6T7(4)o	6	50	C	Diode	
6T7(4)o	6	50	D	Diode	
6T8(3)	6(P)	87	E	Regular	
6T8(4)o	6	55	A	Diode	
6T8(4)o	6	55	B	Diode	
6T8(4)o	6	55	D	Diode	
6U5(3)	6	67	A	Regular	
6U6(3)	6	84	A	Regular	
6U7(3)	6	80	A	Regular	
6V6(3)	6	84	A	Regular	
6V7(3)	6	76	A	Regular	
6V7(4)o	6	50	C	Diode	
6V7(4)o	6	50	D	Diode	
6W5(4)	6	82	B	Regular	
6W5(4)	6	82	D	Regular	
6W7(3)	6	82	A	Regular	
6X4(4)	6(B)(P)	77	B	Regular	
6X4(4)	6(B)(P)	77	D	Regular	
6X5(4)	6	78	B	Regular	
6X5(4)	6	78	D	Regular	
6Y5(4)	6	82	A	Regular	
6Y5(4)	6	82	C	Regular	
6Y6(3)	6	85	A	Regular	
6Y7(4)	6	77	C	Regular	
6Y7(4)	6	77	D	Regular	
6Z3(3)	6	83	C	Regular	
6Z4(4)	6	84	B	Regular	
6Z4(4)	6	84	C	Regular	
6Z5(4)	6	82	A	Regular	
6Z5(4)	6	82	C	Regular	
6Z7(4)	6	77	C	Regular	
6Z7(4)	6	77	D	Regular	
6ZY5(4)	6	76	B	Regular	
6ZY5(4)	6	76	D	Regular	
7A4(3)	6(P)	83	B	Regular	A
7A5(3)	6(P)	84	B	Regular	A
7A6(4)o	6	57	C	Diode	A
7A6(4)o	6	57	F	Diode	A
7A7(3)	6(P)	80	B	Regular	A
7A8(3)	6	77	B	Regular	A
7AB7(4)#	6	58	E	Batt. Op.	A, B, D
7AD7(3)	6(P)	82	B	Regular	A
7AF7(4)	6(P)	75	E	Regular	A
7AF7(4)	6	75	D	Regular	A
7AG7(3)	6(P)	86	B	Regular	A
7AH7(3)	6(P)	87	B	Regular	A
7AJ7(3)	6(P)	87	B	Regular	A
7AK7(3)	6	75	A	Regular	
7B4(3)	6(P)	76	B	Regular	A
7B5(3)	6(P)	80	B	Regular	A
7B6(4)	6	80	C	Regular	A, B, D
7B6(4)o	6	55	E	Diode	A, B, D
7B6(4)o	6	55	F	Diode	A, B, D
7B7(3)	6(P)	78	B	Regular	A
7B8(3)	6	80	B	Regular	A
7C4(3)	6	55	B	Batt. Op.	A

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
7C5(3)	6(P)	82	B	Regular	A
7C6(4)	6	75	C	Regular	A, B, D
7C6(4)o	6	55	E	Diode	A, B, D
7C6(4)o	6(P)	55	F	Diode	A, B, D
7C7(3)	6(P)	80	B	Regular	A
7E5(3)#	6	82	D	Regular	A, B, C, E
7E6(4)	6	68	C	Regular	A, B, D
7E6(4)o	6	50	E	Diode	A, B, D
7E6(4)o	6(P)	50	F	Diode	A, B, D
7E7(3)	6(P)	73	B	Regular	A
7E7(3)o	6	50	C	Diode	A
7E7(3)o	6	50	D	Diode	A
7F7(4)	6	78	D	Regular	A
7F7(4)	6(P)	78	E	Regular	A
7F8(3)#o	6	55	D	Diode	B
7F8(3)#o	6(P)	55	E	Diode	B
7G7(3)	6(P)	87	B	Regular	A
7G8(4)	6(P)	78	D	Regular	A
7G8(4)	6(P)	78	E	Regular	A
7H7(3)	6(P)	86	B	Regular	A
7J7(4)	6(P)	77	F	Regular	A
7J7(3)	6(P)	82	B	Regular	A
7K7(4)	6	70	D	Regular	A
7K7(4)o	6	50	E	Diode	A
7K7(4)o	6(P)	50	F	Diode	A
7L7(3)	6(P)	87	B	Regular	A
7N7(4)	6	75	D	Regular	A
7N7(4)	6(P)	75	E	Regular	A
7Q7(3)	6	84	B	Regular	A
7R7(3)	6(P)	84	B	Regular	A
7R7(4)o	6	30	C	Diode	A
7R7(4)o	6	30	D	Diode	A
7S7(3)	6(P)	83	B	Regular	A
7S7(4)	6	70	D	Regular	A
7T7(3)	6(P)	87	B	Regular	A
7V7(3)	6(P)	87	B	Regular	A
7W7(4)	6(P)	89	F	Regular	B, D, A
7X7(3)	6	80	D	Regular	A
7X7(4)o	6	55	E	Diode	A
7X7(4)o	6(P)	55	F	Diode	A
7Y4(4)	6	78	C	Regular	A
7Y4(4)	6(P)	78	F	Regular	A
7Z4(4)	6	70	C	Regular	A
7Z4(4)	6(P)	70	F	Regular	A
10(4)	6	61	C	Regular	
12A(4)	5	63	C	Regular	
12A5(3)	7	78	E	Regular	
12A6(3)	7	80	A	Regular	
12A7(3)	7	84	D	Regular	
12A7(3)	7	70	A	Regular	
12A8(3)	7	80	A	Regular	
12AH7(4)	7	68	D	Regular	A
12AH7(4)	7	68	F	Regular	A
12AL5(3)o	7(B)(P)	55	B	Diode	
12AL5(3)o	7(B)	55	C	Diode	
12AT6(3)	7(B)	84	E	Regular	
12AT6(4)o	7(B)	40	C	Diode	
12AT6(4)o	7(B)	40	D	Diode	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
12AT7(3)	7	87	C	Regular	
12AT7(3)	7	87	G	Regular	
12AU6(3)	7(P)(B)	89	F	Regular	E
12AU7(3)	7	80	C	Regular	
12AU7(3)	7	80	G	Regular	
12AV6(3)	7(B)(P)	80	E	Regular	
12AV6(4)o	7(B)	40	C	Diode	
12AV6(4)o	7(B)	40	D	Diode	
12AW6(3)	7(B)	89	E	Regular	
12AX7(3)	7	82	C	Regular	
12AX7(3)	7	82	G	Regular	
12B7(3)	7(P)	80	B	Regular	A
12B8(3)	7	82	E	Regular	
12B8(4)	7	80	G	Regular	
12BA6(3)	7(B)(P)	90	F	Regular	
12BA7(3)	6(P)	86	C	Regular	
12BE6(3)	7(B)	90	E	Regular	
12BD6(3)	7(P)(B)	84	F	Regular	
12BF6(3)	7(P)(B)	79	E	Regular	
12BF6(4)o	7(B)	10	C	Diode	
12BF6(4)o	7(B)	10	D	Diode	
12C8(3)	7	73	A	Regular	
12C8(4)o	7	45	C	Diode	
12C8(4)o	7	45	D	Diode	
12F5(3)	7	78	A	Regular	
12H6(4)o	7	57	B	Diode	
12H6(4)o	7	57	D	Diode	
12J5(3)	7	83	A	Regular	
12J7(3)	7	78	A	Regular	
12K7(3)	7	78	A	Regular	
12K8(3)	7	86	A	Regular	
12K8(4)	7	85	D	Regular	
12L8(4)	7	75	F	Regular	E
12L8(4)	7	75	B	Regular	E
12Q7(3)	7	80	A	Regular	
12Q7(4)o	7	50	C	Diode	
12Q7(4)o	7	50	D	Diode	
12SA7(3)	7	85	E	Regular	
12SC7(3)	7	82	E	Regular	A
12SF5(4)	7	80	B	Regular	A
12SF7(4)	7	45	D	Diode	A
12SF7(3)	7	78	D	Regular	A
12SG7(4)	7	85	C	Regular	B, D
12SH7(4)	7	84	C	Regular	B, D
12SJ7(3)	7	78	D	Regular	
12SK7(3)	7	78	D	Regular	
12SL7(3)	7	76	B	Regular	A
12SL7(3)	7	76	E	Regular	A
12SN7(3)	7	80	B	Regular	A
12SN7(3)	7	80	E	Regular	A
12SQ7(3)	7	80	B	Regular	A
12SQ7(4)o	7	50	C	Diode	A
12SQ7(4)o	7	50	D	Diode	A
12SR7(3)	7	79	B	Regular	A
12SR7(4)o	7	50	C	Diode	A
12SR7(4)o	7	50	D	Diode	A
12SW7(3)	7	78	B	Regular	A
12SW7(4)o	7	40	C	Diode	A
12SW7(4)o	7	40	D	Diode	A

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
12SX7(3)	7	80	B	Regular	A
12SX7(3)	7	80	E	Regular	A
12SY7(4)	7	80	D	Regular	
12SY7(3)	7	84	E	Regular	
12Z3(3)	7	85	C	Regular	
12Z5(4)	6	82	C	Regular	
12Z5(4)	6	82	A	Regular	
14(3)	7	77	A	Regular	
14A4(3)	7(P)	83	B	Regular	A
14A5(3)	7(P)	83	B	Regular	A
14A7(3)	7(P)	80	B	Regular	
14AF7(4)	7	75	D	Regular	A
14AF7(4)	7(P)	75	E	Regular	A
14B6(4)	7	79	C	Regular	B, D, A
14B6(4)o	7	50	E	Diode	B, D, A
14B6(4)o	7(P)	50	F	Diode	B, D, A
14B8(3)	7	80	B	Regular	A
14C5(3)	7(P)	82	B	Regular	A
14C7(3)	7(P)	82	B	Regular	A
14E6(4)	7	75	C	Regular	B, D, A
14E6(4)o	7	50	E	Diode	B, D, A
14E6(4)o	7	50	F	Diode	B, D, A
14E7(3)	7(P)	75	B	Regular	A
14E7(4)o	7	35	C	Diode	A
14E7(4)o	7	35	D	Diode	A
14F7(4)	7	78	D	Regular	A
14F7(4)	7(P)	78	E	Regular	A
14F8(3)#o	7	55	D	Diode	B
14F8(3)#o	7(P)	55	E	Diode	B
14H7(3)	7(P)	86	B	Regular	A
14J7(3)	7(P)	82	B	Regular	A
14J7(4)	7(P)	77	F	Regular	A
14N7(4)	7	75	B	Regular	A
14N7(4)	7(P)	75	E	Regular	A
14Q7(3)	7	84	B	Regular	A
14R7(3)	7(P)	84	B	Regular	A
14R7(4)o	7	30	C	Diode	A
14R7(4)o	7	30	D	Diode	A
14S7(3)	7(P)	83	B	Regular	A
14S7(4)	7	70	D	Regular	A
14W7(4)	7(P)	87	F	Regular	D, A
14X7(3)	7	80	D	Regular	A
14X7(4)o	7	55	E	Diode	A
14X7(4)o	7(P)	55	F	Diode	A
14Y4(4)	7	78	C	Regular	A
14Y4(4)	7(P)	78	F	Regular	A
14Z3(3)	7	85	C	Regular	
15(3)	2	55	A	Batt. Op.	
17(3)	7	75	A	Regular	
18(3)	7	78	A	Regular	
19(4)	2	56	C	Batt. Op.	
19(4)	2	56	D	Batt. Op.	
19T8(3)	7(P)	87	E	Regular	
19T8(4)o	7	55	A	Diode	
19T8(4)o	7	55	B	Diode	
19T8(4)o	7	55	D	Diode	

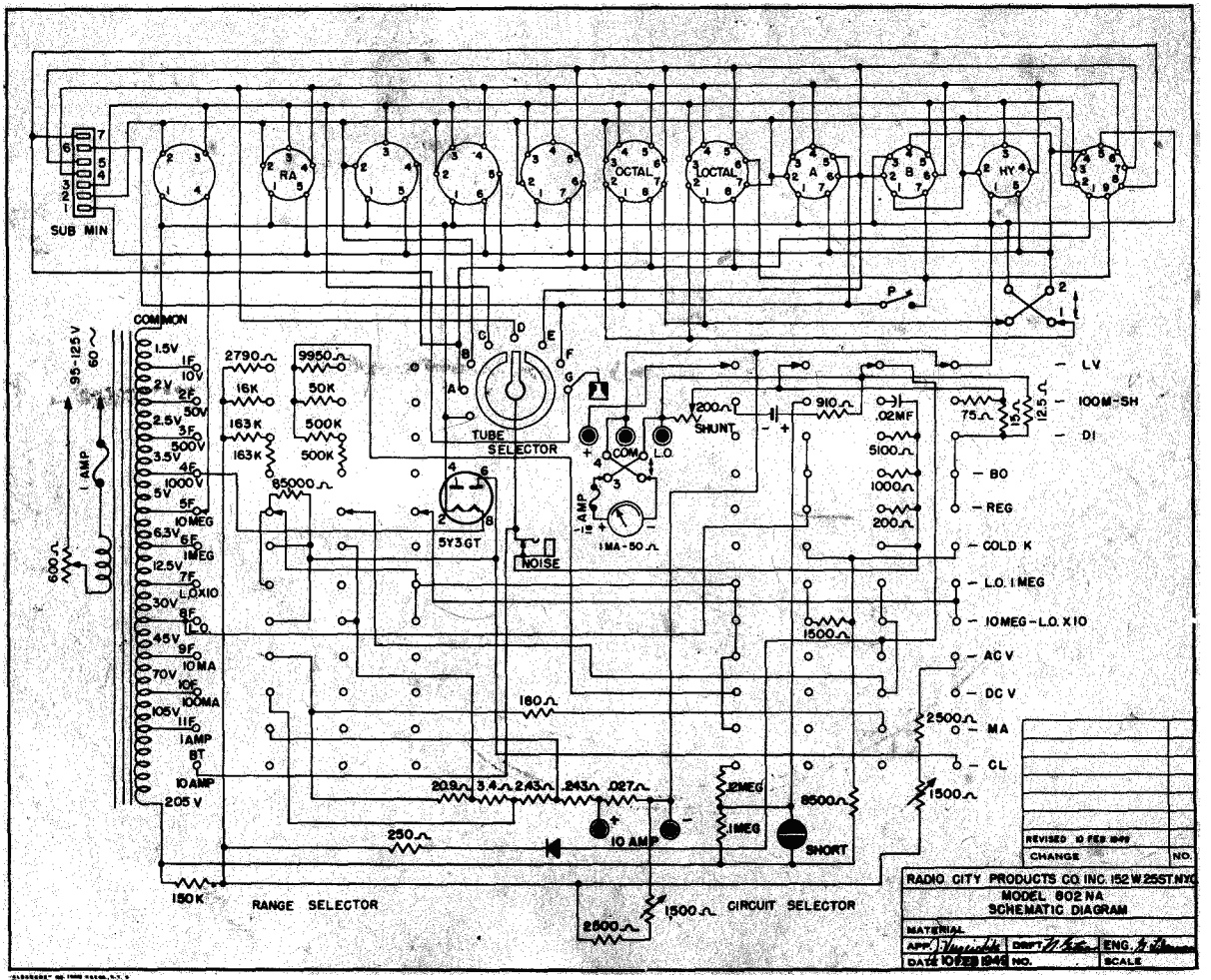
TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
20(4)	4	30	C	Regular	
22(4)	4	10	G	Batt. Op.	
24A(3)	3	78	A	Regular	
25AC5(3)	8	78	A	Regular	
25A6(3)	8	80	A	Regular	
25A7(3)	8	77	A	Regular	
25A7(4)	8	84	E	Regular	
25B5(3)	8	75	A	Regular	
25B5(4)	8	60	D	Regular	
25B6(3)	8	85	A	Regular	
25B8(3)	8	82	E	Regular	
25B8(4)	8	80	G	Regular	
25C6(3)	8	85	A	Regular	
25D8(4)	8	80	D	Regular	
25D8(4)	8	80	G	Regular	
25D8(4)	8	88	A	Regular	
25L6(3)	8	88	A	Regular	
25N6(3)	8	77	A	Regular	
25N6(4)	8	62	D	Regular	
25S(4)	2	52	A	Batt. Op.	
25S(4)o	2	50	C	Diode	
25S(4)o	2	50	D	Diode	
25X6(3)	8	80	A	Regular	
25X6(3)	8	80	C	Regular	
25Y4(4)	8	85	D	Regular	
25Y5(4)	8	85	A	Regular	
25Y5(4)	8	85	B	Regular	
25Z3(3)	8	85	C	Regular	
25Z4(4)	8	85	D	Regular	
25Z5(4)	8	85	A	Regular	
25Z5(4)	8	85	B	Regular	
25Z6(4)	8	85	B	Regular	
25Z6(4)	8	85	D	Regular	
26(4)	1	61	C	Regular	
26A6(3)	8(P)	86	F	Regular	
26A7(4)	8	85	B	Regular	E
26A7(4)	8	85	F	Regular	E
26C6(3)	8(P)(B)	74	E	Regular	
26C6(4)o	8(B)	10	D	Diode	
26C6(4)o	8(B)	10	C	Diode	
26D6(3)	8(B)	86	E	Regular	
26D6(4)	8(B)	85	B	Regular	
27(3)	3	75	A	Regular	
28D7(4)	8(P)	85	B	Regular	A
28D7(3)	8(P)	90	F	Regular	A
28Z5(3)(=)	7	67	B	Regular	D, A
29(3)	3	78	A	Regular	
30(4)	2	50	C	Batt. Op.	
31(4)	2	47	C	Batt. Op.	
32(4)	2	52	G	Batt. Op.	
32L7(4)	8	82	D	Regular	
32L7(4)	8	85	E	Regular	
33(4)	2	58	C	Batt. Op.	
34(4)	2	52	G	Batt. Op.	
35(3)	3	78	A	Regular	
35A5(3)	8(P)	85	B	Regular	A
35B5(3)	8(B)	85	E	Regular	
35C5(3)	8(B)(F)	84	B	Regular	E, C

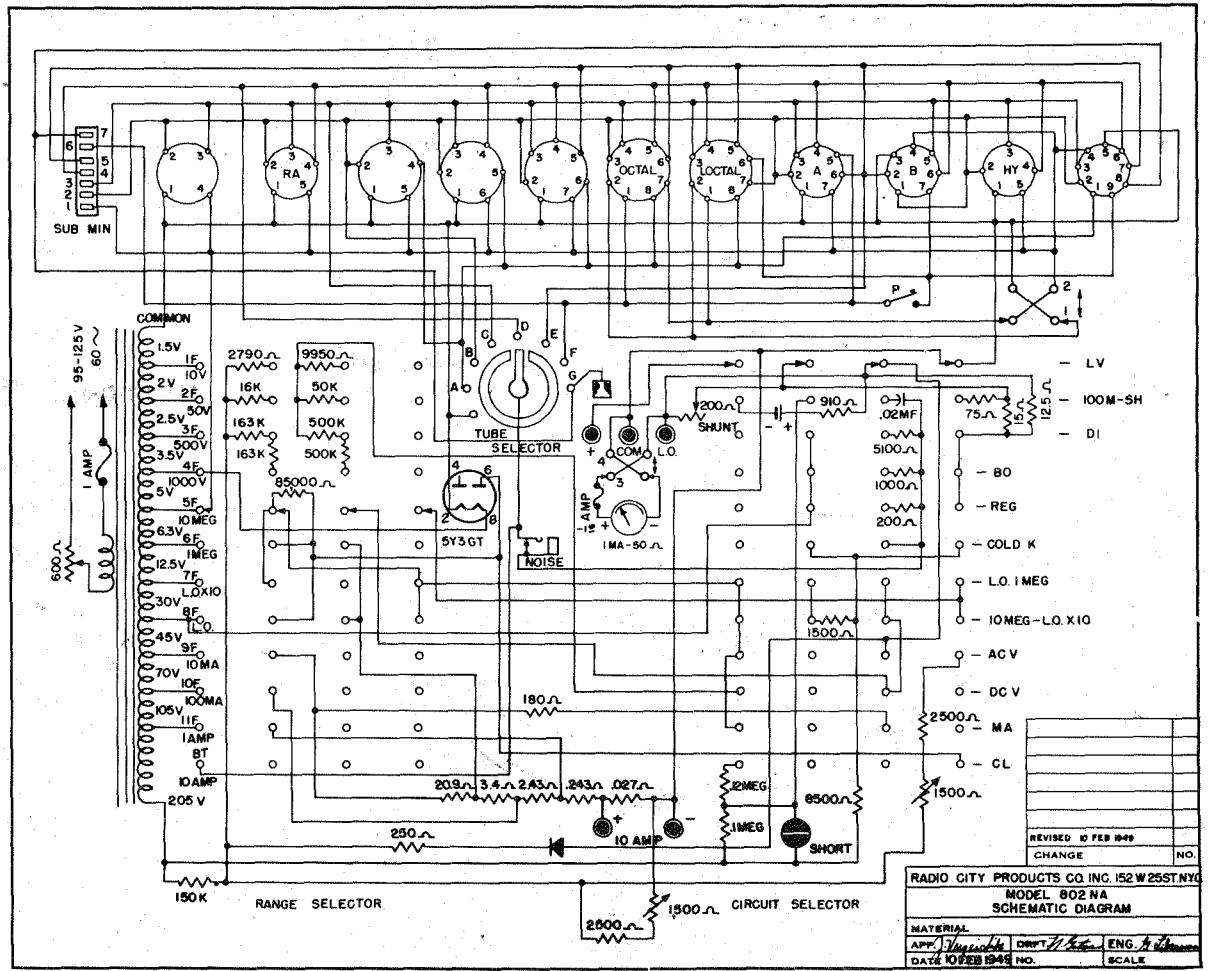
TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
35L6(3)	8	86	A	Regular	
35W4(3)	7(B)(P)	90	F	Regular	D, A
35Y4(3)	7	86	B	Regular	D, A
35Z3(3)	8	85	B	Regular	A
35Z4(3)	8	87	A	Regular	
35Z5(3)(=)	8	87	A	Regular	B
35Z6(3)	8	85	A	Regular	
35Z6(3)	8	85	C	Regular	
36(3)	6	75	A	Regular	
37(3)	6	75	A	Regular	
38(3)	6	75	A	Regular	
39(3)	6	75	A	Regular	
40(4)o	5	60	C	Regular	
40Z5(3)	9	87	A	Regular	
41(3)	6	78	A	Regular	
42(3)	6	78	A	Regular	
43(3)	8	78	A	Regular	
44(3)	6	78	A	Regular	
45(4)	3	63	C	Regular	
45Z3(3)	8(A)	58	D	Batt. Op.	E, B
45Z5(3)	9	87	A	Regular	
46(4)	3	65	C	Regular	
47(4)	3	63	C	Regular	
48(3)	8	83	A	Regular	
49(4)	2	58	C	Batt. Op.	
50(4)	6	57	C	Regular	
50A5(3)	9(P)	87	B	Regular	A
50B5(3)	9(B)	89	E	Regular	
50C5(3)	9(B)(P)	85	B	Regular	E, C
50C6(3)	9	85	A	Regular	
50L6(3)	9	85	A	Regular	
50X6(4)	9	85	C	Regular	A
50X6(4)	9(P)	85	F	Regular	A
50Y6(3)	9	83	A	Regular	
50Y6(3)	9	83	C	Regular	
50Y7(3)#	9	85	A	Regular	E
50Y7(3)#	9	85	C	Regular	E
50Z7(3)#	9	84	A	Regular	E
50Z7(3)#	9	84	C	Regular	E
51(3)	3	78	A	Regular	
52(4)	6	63	C	Regular	
53(4)	3	75	C	Regular	
53(4)	3	75	E	Regular	
55(3)	3	73	A	Regular	
55(4)o	3	50	C	Diode	
55(4)o	3	50	D	Diode	
56(3)	3	72	A	Regular	
56AS(3)	6	72	A	Regular	
57(3)	3	80	A	Regular	
57AS(3)	6	80	A	Regular	
58(3)	3	78	A	Regular	
58AS(3)	6	78	A	Regular	
59(3)	3	78	A	Regular	
64(3)	6	75	A	Regular	
65(3)	6	75	A	Regular	
67(3)	6	75	A	Regular	
68(3)	6	75	A	Regular	
69(3)	6	78	A	Regular	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
70(3)	6	78	A	Regular	
70A7(3)#	10	86	F	Regular	
70A7(3)#	10	84	A	Regular	
70L7(4)	10	85	A	Regular	
70L7(3)	10	87	E	Regular	
71(4)	5	58	C	Regular	
71A(4)	5	58	C	Regular	
75(4)o	6	50	C	Diode	
75(4)o	6	50	D	Diode	
75(3)	6	80	A	Regular	
76(3)	6	75	A	Regular	
77(3)	6	80	A	Regular	
78(3)	6	83	A	Regular	
79(4)	6	77	C	Regular	
79(4)	6	77	G	Regular	
80(4)	5	45	B	Batt. Op.	
80(4)	5	45	C	Batt. Op.	
81(4)	6	57	B	Regular	
82(4)	3	82	D	Regular	
82(4)	3	82	C	Regular	
83(4)	5	84	B	Regular	
83(4)	5	84	C	Regular	
83V(4)	5	80	B	Regular	
83V(4)	5	80	C	Regular	
84(4)	6	84	B	Regular	
84(4)	6	84	C	Regular	
85(3)	6	76	A	Regular	
85(4)o	6	50	C	Diode	
85(4)o	6	50	D	Diode	
85AS(3)	6	71	A	Regular	
85AS(4)o	6	45	C	Diode	
85AS(4)o	6	45	D	Diode	
88(4)	5	84	D	Regular	
88(4)	5	84	C	Regular	
89(3)	6	78	A	Regular	
90(3)	3	78	A	Regular	
92(3)	6	78	A	Regular	
95(3)	3	78	A	Regular	
98(4)	6	84	D	Regular	
X99(4)	4	10	C	Batt. Op.	
117L7/M7(3)	11	84	A	Regular	
117L7/M7(4)	11	84	E	Regular	
117N7(3)#	11	85	A	Regular	
117N7(3)#	11	84	E	Regular	
117P7(3)#	11	85	A	Regular	
117P7(3)#	11	84	E	Regular	
117Z3(3)	11(B)	87	D	Regular	B, C
117Z4(3)	11	85	A	Regular	
117Z6(4)	11	85	D	Regular	
117Z6(4)	11	85	B	Regular	
182A&B(4)	5	61	C	Regular	
183(4)	5	61	C	Regular	
213(4)	5	65	C	Regular	
216(4)	6	60	B	Regular	
401A(4)	5	60	C	Regular	
450(4)	6	61	C	Regular	
482A(4)	5	61	C	Regular	
483(4)	5	61	C	Regular	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
485(3)	4	78	A	Regular	
(V)CK502AX(4)	1	55	B	Batt. Op.	C
(V)CK503AX(4)	1	52	B	Batt. Op.	C
(V)CK505AX(4)	1	47	B	Batt. Op.	C
(V)CK506AX(4)	1	51	B	Batt. Op.	C
(V)CK507AX(4)	1	55	B	Batt. Op.	C
(V)CK510AX(4)	1	45	E	Batt. Op.	C
(V)CK512AX(4)	1	45	B	Batt. Op.	C.
(V)CK518AX(4)	1	52	B	Batt. Op.	C
(V)CK520AX(4)	1	45	B	Batt. Op.	C
(V)CK521AX(4)	1	52	B	Batt. Op.	C
(V)CK522AX(4)	1	52	B	Batt. Op.	C
585(4)	6	61	C	Regular	
586(4)	6	61	C	Regular	
807(3)	6	85	A	Regular	
861(4)	6	84	D	Regular	
861(4)	6	84	C	Regular	
864(4)	1	55	C	Batt. Op.	
866(4)	3	86	G	Regular	
884(3)	6	85	A	Regular	
885(3)	3	85	A	Regular	
950(4)	2	54	C	Batt. Op.	
951(4)	2	52	G	Batt. Op.	
(C)954(3)	6	70	A	Regular	
(C)955(3)	6	82	A	Regular	
(C)956(3)	6	60	A	Batt. Op.	
(C)957(4)	1	55	D	Batt. Op.	A
(C)958A(4)	1	60	D	Batt. Op.	A
(C)959(4)	1	50	G	Batt. Op.	A
985(4)	5	84	B	Regular	
985(4)	5	84	C	Regular	
986(4)	5	84	B	Regular	
986(4)	5	84	C	Regular	
1201(3)#	6	82	D	Regular	A, E, B, C
1203A(3)	6	55	B	Batt. Op.	A
1204(4)#	6	58	E	Batt. Op.	B, D
1206(4)	6(P)	78	D	Regular	A
1206(4)	6(P)	78	E	Regular	A
1221(3)	6	80	A	Regular	
1223(3)	6	59	A	Batt. Op.	
1229(4)	2	52	G	Batt. Op.	
1231(3)	6(P)	87	B	Regular	A
1232(3)	6(P)	87	B	Regular	A
1273(3)	6(P)	80	B	Regular	A
1280(3)	7(P)	82	B	Regular	A
1284(3)	7(P)	82	B	Regular	A
1291(4)	1	56	C	Batt. Op.	D, A
1293(4)	1(P)	55	F	Batt. Op.	A
1294(3)o	1	55	B	Diode	A
1299(4)	1(P)	55	F	Batt. Op.	B, A
1602(4)	6	61	C	Regular	
1603(3)	6	76	A	Regular	
1609(4)	1	45	C	Batt. Op.	
1612(3)	6	82	A	Regular	
1620(3)	6	76	A	Regular	
1621(3)	6	78	A	Regular	
1622(3)	6	80	A	Regular	
1626(3)	6	71	A	Regular	

TUBE TYPE	FILAMENT SELECTOR	SHUNT CONTROL	TUBE SELECTOR	CIRCUIT SELECTOR	DISREGARD GLOW AT
1629(3)	7	79	A	Regular	
1631(3)	7	80	A	Regular	
1632(3)	7	88	A	Regular	
1633(3)	8	80	B	Regular	A
1633(3)	8	80	E	Regular	A
1634(3)	7	82	E	Regular	A
1635(4)	6	70	C	Regular	
1635(4)	6	70	D	Regular	
1644(4)	7	75	F	Regular	E
1644(4)	7	75	B	Regular	E
1851(3)	6	86	A	Regular	
1852(3)	6	88	D	Regular	
1853(3)	6	85	D	Regular	
2050(3)	6	90	A	Regular	A, E
2051(3)	6	90	A	Regular	A, E
5691(3)	6	76	B	Regular	A
5691(3)	6	76	E	Regular	A
5692(3)	6	80	B	Regular	A
5692(3)	6	80	E	Regular	A
5693(3)	6	78	D	Regular	
8016(4)	1	55	G	Cold K	A
9001(3)	6(B)	84	E	Regular	
9002(3)	6(B)	82	E	Regular	
9003(3)	6(B)	82	E	Regular	
(C)9004(3)	6	80	D	Regular	
(C)9005(3)	4	80	C	Regular	A
9006(3)o	6(B)	45	E	Batt. Op.	
AD(3)	6	83	C	Regular	
AF(4)	3	82	B	Regular	
AF(4)	3	82	C	Regular	
AG(4)	5	83	B	Regular	
AG(4)	5	83	C	Regular	
AX(4)	5	60	C	Regular	
BH(4)	BT	62	A	Cold K	
BR(4)	BT	62	A	Cold K	
D4(4)	6	60	B	Regular	
DE1(3)	3	75	A	Regular	
E(4)	4	30	C	Regular	
G2S(4)	3	50	B	Diode	
G2S(4)	3	50	C	Diode	
G4S(4)	3	50	B	Diode	
G4S(4)	3	50	C	Diode	
G84(4)	3	62	B	Regular	
H(4)	5	60	C	Regular	
HY113(4)o	1	10	C	Diode	
HY115(4)o	1	55	C	Diode	
HY125(4)o	1	55	C	Diode	
KR5(4)	6	68	C	Regular	
LA(4)	6	68	C	Regular	
PZ(4)	3	63	C	Regular	
PZH(3)	3	78	A	Regular	
X99(4)	4	10	C	Batt. Op.	
WUNDA(3)	3	75	A	Regular	
AUTO(3)	6	75	A	Regular	
XXB(4)	2	65	D	Regular	A, B, D
XXD(4)	7	75	D	Regular	A
XXD(4)	7(P)	75	E	Regular	A
XXFM(3)	6	80	D	Regular	
XXFM(4)o	6	55	E	Batt. Op.	
XXFM(4)o	6(P)	55	F	Batt. Op.	
XXL(3)	6(P)	82	B	Regular	


SUB MIN
RA
OCTAL
OCTAL
HY
COMMON
95-125 V 60 ~
1 AMP
600Ω
1.5V 1F 10V
2V 2F 50V
2.5V 3F 500V
3.5V 4F 1000V
5V 5F 10MEG
6.3V 6F 1MEG
12.5V 7F LO X10
30V 8F LO
45V 9F 10MA
70V 10F 100MA
105V 11F 1AMP
8T
10 AMP
205 V
2790Ω
16K
163K
163K
9950Ω
50K
500K
500K
65000Ω
TUBE SELECTOR
5Y3GT
NOISE
COM
L.O.
1 AMP
1MA-50Ω
SHUNT
910Ω
.02MF
5100Ω
1000Ω
200Ω
1500Ω
75Ω
15Ω
12.5Ω
LV
100M-SH
DI
BO
REG
COLD K
L.O. 1 MEG
10MEG-L.O. X10
AC V
DC V
MA
CL
2500Ω
1500Ω
180Ω
209Ω 34Ω 243Ω .243Ω .027Ω
12MEG
1MEG
8500Ω
SHORT
10 AMP
250Ω
150K
RANGE SELECTOR
2500Ω
1500Ω CIRCUIT SELECTOR
REVISED 10 FEB 1949
CHANGE NO.
RADIO CITY PRODUCTS CO. INC. 152 W 25ST. NYC
MODEL 802 NA
SCHEMATIC DIAGRAM
MATERIAL
APP. DRFT. ENG.
DATE 10/23/1948 NO. SCALE


SUB MIN
RA
OCTAL
OCTAL
A
B
HY
COMMON
95-125 V 60 ~
1 AMP
600
1.5V 1F
2V 2F
2.5V 3F
3.5V 4F
5V 5F
6.3V 6F
12.5V 7F
30V 8F
45V 9F
70V 10F
105V 11F
205 V
10MEG
1MEG
L.O.X10
L.O.
10MA
100MA
1AMP
8T
10AMP
2790Ω
16K
163K
163K
9950Ω
50K
500K
500K
85000Ω
150K
RANGE SELECTOR
TUBE SELECTOR
5Y3GT
NOISE
1MA-50Ω
SHUNT
200Ω
COM
L.O.
910Ω
.02MF
5100Ω
1000Ω
200Ω
1500Ω
75Ω
15Ω
12.5Ω
180Ω
20.9Ω 3.4Ω 2.43Ω .243Ω .027Ω
250Ω
10 AMP
.2MEG
.1MEG
6500Ω
SHORT
2500Ω
1500Ω CIRCUIT SELECTOR
1500Ω
2500Ω
LV
100M-SH
DI
BO
REG
COLD K
L.O. 1MEG
10MEG-L.O. X10
AC V
DC V
MA
CL
REVISED 10 FEB 1949
CHANGE NO.
RADIO CITY PRODUCTS CO. INC. 152 W 25 ST. N.Y.C.
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(The following instructions apply to the multi-tester section of the RCP model 802N)

The multi-tester section includes a d-c voltmeter, an a-c voltmeter, a d-c milliameter, a d-c ammeter, an ohmmeter, a db meter, an output meter and a capacitor leakage checker. It features the exclusive RCP method of a-c voltage measurement which eliminates temperature frequency errors. A gold plated copper oxide rectifier is used in these measurements. No line voltage is necessary when making a-c voltage measurements. The ohmmeter has a low range of 0.1 ohms to the high 10 megohm range which is so useful in today's modern circuits. All ohmmeter ranges, with the exception of the 100,000 ohm range, are line operated. The 100,000 ohm range is battery operated and has been included in order to make possible resistance measurements in places where no a-c outlet is conveniently available. A 1½ volt cell mounted on the resistor board is used for the operation of this range. This cell should be replaced when it is no longer possible to adjust for full-scale deflection on this range.

The controls on the front panel are used as follows: The CIRCUIT SELECTOR affords quick choice of the type of measurement to be performed. The FILAMENT RANGE SELECTOR is the range selector when the instrument is used as a multi-tester. The SHUNT CONTROL is used to adjust the meter to full scale on the 100,000 ohm range. The switch marked "3-4" makes it possible to reverse the meter polarity instantly when making d-c current or voltage measurements without changing any connections. For normal operation this switch should be in position "3". The LINE ADJUST control is used to set certain ohmmeter ranges as indicated later on.

The jacks are used as follows: The COMMON is the negative jack and used for all measurements. The "+" jack is used with the COMMON jack for all voltage, current, resistance and condenser leakage checks except on 10 ampere and low ohm ranges. For d-c current measurements that would be read on the 10 ampere scale, the special jacks marked 10 AMP are used. For low resistance measurements, the L.O. and the L.O. X 10 positions on CIRCUIT SELECTOR, and COMMON jack and the L.O. jack are used. The SHORT neon indicator will reveal the condition of all types of non-electrolytic condensers and electrolytic condensers of 250 volts and higher rated working voltage.

The instrument should be adjusted for the measurement to be made before the test leads are connected to the unit to be tested. The tips of the leads should be inserted into the proper jacks. The probes of the test leads should be connected and disconnected only when the source is "dead". All connections should be secure and there should be plenty of slack in the leads. It is essential for high current measurements that the leads make good solid contact to prevent arcing.

High voltage presents a hazard at all times and extreme care should be taken when making any tests or measurements. Contact with "live" leads, terminals or objects of 1,000 volts or more may prove fatal. Consequently, it is dangerous to take any risk in violation of these precautions.

TO USE AS A MULTI-TESTER

In all measurements the greatest accuracy is obtained when the range used gives the highest reading (largest deflection). If the approximate value of the voltage or current to be measured is unknown, first use the highest range. Then after approximating the value, switch to the range which will give a reading as close to full scale as possible. This will assure maximum accuracy and also protect the meter from damage.

The meter range selector has been combined with the FILAMENT RANGE SELECTOR in order to reduce the number of controls on the front panel and also make operation as simple as possible.

There are four d-c voltage ranges and four a-c voltage ranges. The

0-10 volt scale and the 0-50 volt scale are marked in black directly on the meter face. For the 500 volt range read on the 0-50 volt scale and multiply by 10 (add one zero). For the 1,000 volt range read on the 0-10 volt scale and multiply by 100 (add two zeros). For example: If the pointer deflects to 30 on the 0-50 scale and the FILAMENT RANGE SELECTOR is at 500 V, then 30 X 10 = 300 volts actual reading.

D-C VOLTAGE MEASUREMENTS: Set the CIRCUIT SELECTOR to D.C.V. position and the FILAMENT RANGE SELECTOR to the voltage range desired. Insert the tip ends of the test leads into the jacks marked COMMON and "+". Apply the probes to the points across which the voltage is to be measured. If the meter reads backwards simply throw the "3-4" switch to its other position.

The four d-c voltage ranges each have a sensitivity of 1,000 ohms per volt.

D-C CURRENT MEASUREMENTS: Set the CIRCUIT SELECTOR to the MA position and the FILAMENT RANGE SELECTOR to the current range desired. Insert the tip ends of the test leads into the jacks marked COMMON and "+" and connect in series with the line in which the current is to be measured. For current measurements above 1 ampere, use the special jacks marked 10 AMP and set the FILAMENT RANGE SELECTOR to 10 AMP position. To use the 1 milliampere meter range set the CIRCUIT SELECTOR to DCV position and use the COMMON and L.O. jacks. If the meter reads backwards merely flip the "3-4" switch to its other position. The FILAMENT RANGE SELECTOR may be left in any position.

AC VOLTAGE MEASUREMENTS: It is not necessary to plug into the power line for these measurements. Set the CIRCUIT SELECTOR to ACV position and the FILAMENT RANGE SELECTOR to the desired range. Insert the tip ends of the test leads into the jacks marked COMMON and "+" and apply the probes across the points to be measured.

RESISTANCE MEASUREMENTS: As mentioned previously, the instrument need not be connected to the power line for the 100,000 ohm range. The a-c power line is necessary on all other resistance ranges. CAUTION: when the FILAMENT RANGE SELECTOR is set at L.O. and the CIRCUIT SELECTOR is at L.O. x 10 the meter pointer will go off scale. Avoid this combination of these switch settings at all times. When switching from L.O. to L.O. x 10 rotate both CIRCUIT and FILAMENT RANGE SELECTORS simultaneously thus avoiding excess meter current.

0-500 Ohm Range: Set CIRCUIT SELECTOR to L.O. and the FILAMENT RANGE SELECTOR to L.O. position. Rotate LINE ADJUST control until meter reads full scale. The circuit is now balanced and ready for accurate measurements. Connect the unknown resistance across the jacks marked COMMON and L.O. If test leads are used on measurements of two ohms or less, the resistance of the leads should be deducted from the reading. Short leads to read their resistance. Read directly on scale marked Low Ohms in red.

0-5000 Ohm Range: Set CIRCUIT SELECTOR to L.O. x 10 and FILAMENT RANGE SELECTOR to L.O. x 10 position. Rotate the LINE ADJUST control until meter reads full scale. Connect the unknown resistance to the jacks marked COMMON and L.O. Read on the Low Ohm scale and multiply by 10 (add one zero).

1 Megohm Range: Set CIRCUIT SELECTOR to 1 MEG position and the FILAMENT RANGE SELECTOR to 1 MEG position. Insert test leads in COMMON and "+" jacks. Short leads together and rotate LINE ADJUST control until meter reads full scale. Read on Ohms scale directly ("M" on this scale stands for 1,000, thus 5M ohms = 5,000 ohms).

10 Megohm Range: Set CIRCUIT SELECTOR to 10 MEG position and the FILAMENT RANGE SELECTOR to 10 MEG position. Using the COMMON and "+" jacks, short the leads together and rotate LINE ADJUST control until the meter reads full scale. Read on Ohms scale and multiply by 10 (add one zero).

100,000 Ohm Range: Set CIRCUIT SELECTOR to 100M position. The FILAMENT RANGE SELECTOR may be left in any position. Using the COMMON and "+" jacks short the leads together and rotate SHUNT CONTROL until meter reads full scale. Read on the Ohms scale and divide by 10 (drop last zero).

OUTPUT METER: Set up instrument as for a-c voltage measurement. Connect a 0.25 mfd. condenser or higher in series with one of the test leads. This condenser is used to block out any d-c component which may be present at the point where measurements are taken. Read on Volts scale.

DECIBEL MEASUREMENTS: Set up instrument for a-c voltage measurement. The db meter scale is for the 0-10 volt range and measuring a 500 ohm impedance line. Make the following corrections when using the other ranges: 0-50 volt range add + 14 db to meter reading, 0-500 volt range add + 34 db to the meter reading and 0-1000 volt range add + 40 db to the meter reading.

For measuring lines with an impedance other than 500 ohms use the following corrections:

Line Impedance in Ohms	5	50	100	200	400	600	1000
Correction Factor in db	+20	+10	+7.0	+4.0	+1.0	-0.8	-3.0

For example: On a 200 ohm line the 50 volt range is used and the meter indication is +9db. The correction factor for this impedance is +4 db, therefore, the true value is (+9) + (+4) + (+14) = +27 db.

CONDENSER LEAKAGE TEST: CAUTION: When checking electrolytic type condensers, make certain their rated working voltage is at least 250 volts. All other types are not limited in this respect. Set circuit selector switch to LV and adjust line adjust control to the line check arrow at meter mid-scale. Set CIRCUIT SELECTOR to CL position and connect condenser under test between the COMMON and "+" jacks. A constant glow of the SHORT neon bulb indicates a shorted or leaky condenser. A flickering of the neon which quickly disappears indicates a satisfactory condenser.

REPAIR SERVICE

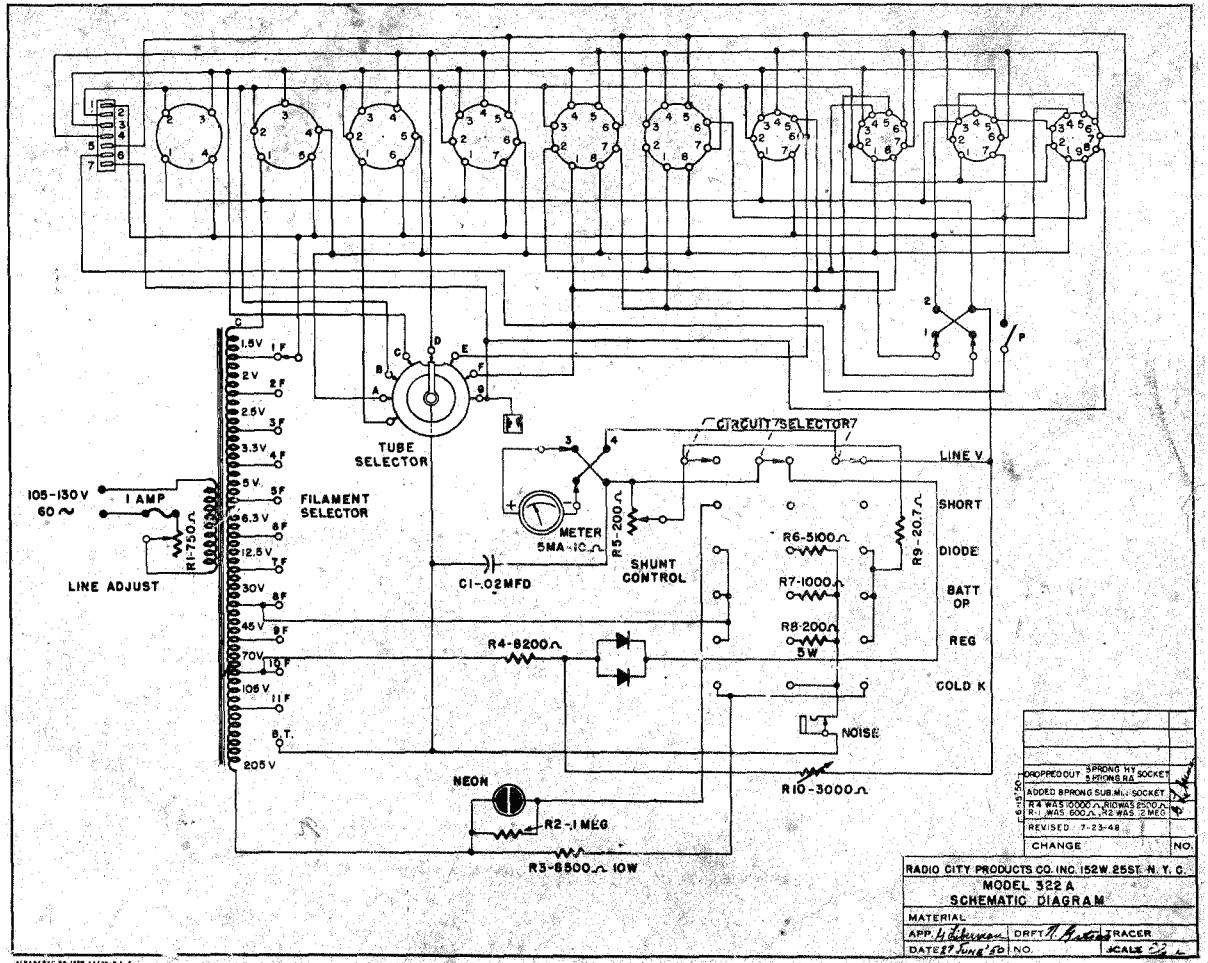
When returning any Radio City Products instrument for service, ALWAYS pack carefully in a strong, oversized corrugated shipping container, using a generous supply of padding such as excelsior, shredded paper, or crumpled newspaper. The original container and its pads (if available) are ideal for this purpose. Fragile label should appear on at least four sides of the carton. Ship PREPAID and mark for: RADIO CITY PRODUCTS CO., INC., 152 West 25th Street, New York 1, N. Y. ATT: Service Division.

NEVER return an instrument unless it is accompanied by full explanation of difficulties encountered. The more explicit the details, the more rapidly your instrument can be handled and processed. If the unit is mailed, the explanation should be attached as a letter to the outside of the package with its appropriate first class postage. Do not enclose the explanation in any 3rd class mailed package, as this may delay our receipt of the unit and its consequent repair.

GUARANTEE

The instrument is guaranteed to be free from any defect in material and workmanship that may develop within a period of 90 days from date of purchase under the terms of the standard RMA guarantee. Any part or parts that prove defective within this period will be replaced without charge when subjected to examination at our factory, providing such defect is, in our opinion, due to faulty workmanship or material, and not caused by tampering, abuse or normal wear.

Radio City Products Company, Inc. reserves the right to make changes in design or add improvements to instruments manufactured by them without incurring any obligation to install such changes or improvements in any instrument previously purchased.



CHANGE	NO.
DROPPED OUT 3 PRONG HY 5 PRONG RA SOCKET	
ADDED 8 PRONG SUB MI. SOCKET	
R4 WAS 10000Ω R10 WAS 2500Ω R1 WAS 600Ω R2 WAS 2 MEG	
REVISED 7-23-48	

E-6-15-50

RADIO CITY PRODUCTS CO. INC. 152 W. 25 ST. N. Y. C.

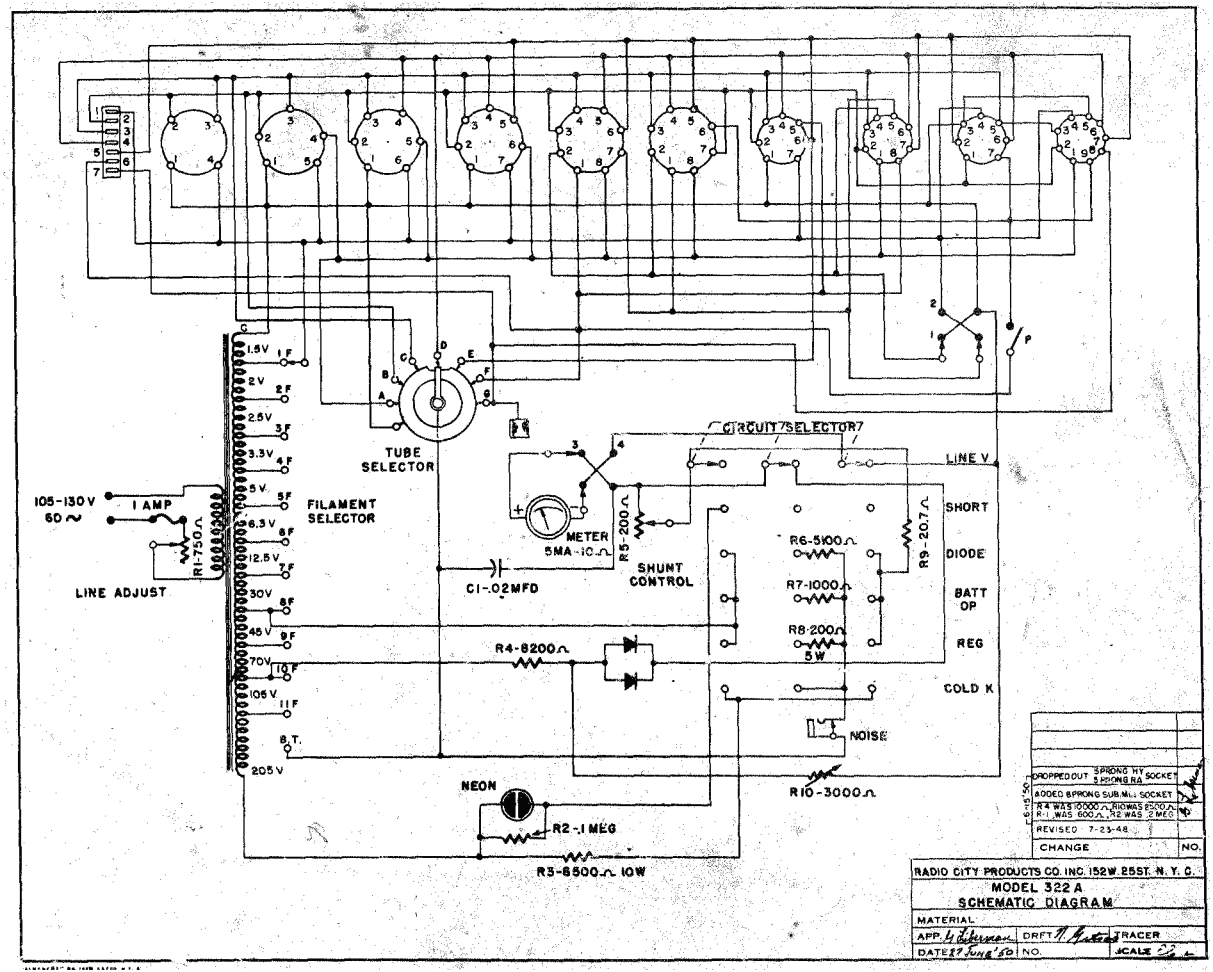
MODEL 322 A

SCHEMATIC DIAGRAM

MATERIAL

APP. H. Silverman DRFT. M. Gates TRACER

DATE 27 June '50 NO. SCALE Full



CHANGE	NO.
DROPPED OUT 5 PRONG HY SOCKET 5 PRONG RA	
ADDED 8 PRONG SUB-MIN SOCKET	
R4 WAS 10000Ω, R10 WAS 6700Ω R1 WAS 600Ω, R2 WAS .2 MEG	
REVISED 7-23-48	

RADIO CITY PRODUCTS CO. INC. 152 W. 25 ST. N. Y. C.

MODEL 322 A

SCHEMATIC DIAGRAM

MATERIAL			
APP. H. Lieberman	DRFT. N. Gates	TRACER	
DATE 27 JUNE '50	NO.	SCALE 2" = 1"	

ADDITIONS TO ROLL CHART #109 AND TUBE CHART #110

TUBE TYPE	F.S.	S.C.	T.S.	C.S.	DIS. GLOW AT
1AC5(4)o	1	56	B	Diode	
1AD5(4)o	1	56	B	Diode	
1AE4(4)	1(A)	57	E	Batt.Op.	F
1AX2(4)o	1	55	G	Cold K	A,B,C,E
1C3(4)	1(A)	50	D	Batt.Op.	B,E
1C8(4)o	1	50	B	Diode	
1E8(4)o	1	54	B	Diode	
1L6(4)	1(A)	35	D	Batt.Op.	
1T6(4)o	1	55	C	Diode	
1T6(4)o	1	46	D	Diode	
1U5(4)o	1	56	D	Diode	
1U6(4)	1	45	D	Batt.Op.	
1V2(4)	1(P)	55	F	Cold K.	
1W4(4)	1(A)	44	E	Batt.Op.	
1X2(4)	1	59	G	Cold K.	A,B,C,E
1Z2(4)	1	57	G	Cold K.	B,C,D,F
2C21(3)	6	87	A	Regular	
2C21(3)	6	87	B	Regular	
2C22(3)	6	84	A	Regular	
3C6(4)	2	65	D	Regular	A,B,D,E
3E5(4)	1	50	E	Batt.Op.	F
3LF4(4)	1(P)	59	F	Regular	A,B
5A6(4)	5	76	E	Regular	C,G
6AB4(4)	6(B)(P)	89	D	Regular	
6AD4(4)#	6	60	B	Batt.Op.	
6AF4(3)	6(B)	86	C	Regular	D,E
6AL7(4)	6	61	F	Cold K.	
6AN6(4)o	6(A)	55	B	Diode	
6AN6(4)o	6(A)	55	C	Diode	
6AN6(4)o	6(A)	55	D	Diode	
6AN6(4)o	6(A)	55	F	Diode	
6AU5(4)	6	80	F	Regular	
6AV5(3)	6	85	B	Regular	
6AW6(3)	6(B)	82	E	Regular	
6AX4(4)o	6	50	D	Diode	A
6AX5(4)	6	80	B	Regular	
6AX5(4)	6	80	D	Regular	
6BA5(4)#	6	60	C	Batt.Op.	
6BC5(4)	6(B)	89	B	Regular	
6BC7(4)	6	50	B	Diode	
6BC7(4)	6	50	D	Diode	
6BC7(P)(4)	6	50	G	Diode	
6BD5(4)	6	82	F	Regular	
6BF5(4)	6(B)	82	B	Regular	E
6BH6(B)(3)	6	85	E	Regular	
6BK5(3)	6	86	D	Regular	C,E
6BK6(4)	6(B)	80	B	Regular	
6BK6(4)o	6(B)	55	C	Diode	
6BK6(4)o	6(B)	50	D	Diode	
6BK7(4)	6	86	B	Regular	
6BK7(4)	6	86	E	Regular	
6BL7(3)	6	85	B	Regular	A
6BL7(3)	6	84	E	Regular	A
6BN6(3)	6	60	B	Cold K.	
6BQ6(4)	6	84	D	Regular	
6BQ7(4)	6	80	B	Regular	
6BQ7(4)	6	80	E	Regular	
6BY5(3)	6	60	A	Batt.Op.	
6BY5(3)	6	60	F	Batt.Op.	
6BZ7(4)	6	86	B	Regular	
6BZ7(3)	6	86	G	Regular	
6CB6(4)	6(B)	89	B	Regular	
6CD6(3)	6	90	B	Regular	
6CL6(4)	6	87	B	Regular	C,G
6D4(4)	6(B)	79	B	Regular	

ADDITIONS TO ROLL CHART #109 AND TUBE CHART #110

TUBE TYPE	F.S.	S.C.	T.S.	C.S.	DIS. GLOW
6RB(4)o	6	59	A	Diode	
6R8(4)o	6	59	B	Diode	
6R8(4)o	6	59	D	Diode	
6R8(4)	6	84	G	Regular	
6S4(3)	6(P)	85	B	Regular	C,D
6T4(B)(3)	6	88	C	Regular	D,E
6U4(4)o	6	59	D	Regular	A
6U8(4)	6	84	B	Regular	
6U8(4)	6(P)	86	F	Regular	
6V3(3)	6	86	G	Regular	B,E
6V4(4)o	6	45	A	Diode	
6V4(4)o	6	45	E	Diode	
6V8(4)	6	61	B	Batt.Op.	
6V8(4)	6	61	E	Batt.Op.	
6V8(4)	6(P)	30	F	Regular	
6V8(4)	6	78	D	Regular	
6W4(4)o	5	55	D	Diode	A
6W6(4)	6	85	D	Regular	
6X8(4)	6	85	B	Regular	
6X8(4)	6	86	E	Regular	
7X6(4)	6	59	C	Batt.Op.	A
7X6(4)	6(P)	59	F	Batt.Op.	A
12AV7(4)	7	84	B	Regular	
12AV7(4)	7	85	E	Regular	
12AX4(3)o	7	45	B	Diode	A
12AY7(3)	7	77	C	Regular	
12AY7(3)	7	79	G	Regular	
12AZ7(3)	7	86	C	Regular	
12AZ7(3)	7	86	G	Regular	
12BA7(3)	7(P)	86	C	Regular	
12BH7(4)	7	86	B	Regular	
12BH7(4)	7	86	E	Regular	
12BK6(4)	7(B)	80	B	Regular	
12BK6(4)o	7(B)	55	C	Diode	
12BK6(4)o	7(B)	50	D	Diode	
12BN6(3)	7	60	B	Cold K.	
12BY7(3)	6	81	A	Regular	D
12S8(4)	7	75	G	Regular	A
12S8(4)o	7	55	F	Diode	A
12S8(4)o	7	55	B	Diode	A
12S8(4)o	7	55	C	Diode	A
12V6(3)	7	81	A	Regular	
12X4(B)(4)	7	50	B	Diode	
12X4(B)(4)	7	50	D	Diode	
19BG6(4)	7	84	D	Regular	
19J6(4)	7(B)(P)	58	C	Batt.Op.	
19J6(4)	7(B)(P)	58	D	Batt.Op.	
25AV5(3)	8	86	B	Regular	
25BQ6(4)	8	84	D	Regular	
25W4(4)o	8	60	D	Diode	A
26BK6(4)	8(B)	80	B	Regular	
26BK6(4)o	8(B)	55	C	Diode	
26BK6(4)o	8(B)	55	D	Diode	
26Z5W(4)o	7	50	A	Diode	
26Z5W(4)o	7	50	D	Diode	
CK524AX(4)	1	43	B	Batt.Op.	C
CK525AX(4)	1	45	B	Batt.Op.	C
CK526AX(4)	1	45	B	Batt.Op.	C
CK527AX(4)o	1	50	B	Batt.Op.	C
CK528AX(4)	1	50	B	Batt.Op.	C
CK529AX(4)	1	48	B	Batt.Op.	C
CK533AX(4)	1	40	B	Batt.Op.	C
CK534AX(4)	1	35	B	Batt.Op.	C
CK535AX(4)	1	35	B	Batt.Op.	C
CK551AXA(4)o	1	55	B	Diode	C
CK551AXA(4)o	1	44	D	Diode	C
CK553AXA(4)	1	55	B	Batt.Op.	C
CK574AX(4)	1	43	B	Batt.Op.	C

ADDITIONS TO ROLL CHART #109 AND TUBE CHART #110

TUBE TYPE	F.S.	S.C.	T.S.	C.S.	DIS. GLOW AT
879(4)o	3	10	G	Regular	
1642(3)	6	87	A	Regular	
1642(3)	6	87	B	Regular	
FM1000(3)	6(P)	90	C	Regular	A

CORRECTIONS TO ROLL CHART #109 & TUBE CHART #110

TUBE TYPE	F.S.	S.C.	T.S.	C.S.	DIS. GLOW AT
0Z4(4)	BT	59	B	Cold K	A
0Z4(4)	BT	59	D	Cold K	A
1B3(4)#	1	55	G	Cold K	A
1N5(4)	1	50	G	Batt. Op.	
2D21(3)	6(B)	90	E	Reg.	
2V3(4)	3	57	G	Cold K	
3B4(4)o	2(B)	40	B	Batt. Op.	
5AZ4(4)#	5	62	D	Reg.	A
5AZ4(4)#	5(P)	62	F	Reg.	A
6AN5(3)	6(B)	88	E	Reg.	
6BH6(3)	6(B)	90	E	Reg.	
6C4(3)	6(B)(P)	85	F	Reg.	B,C
6J8(4)	6	79	G	Cold K	
6J8(4)	6	79	D	Cold K	
6K8(4)	6	85	D	Reg.	
6K8(3)	6	86	A	Reg.	
6SL7(4)	6	84	B	Reg.	A
6SL7(4)	6	84	C	Reg.	A
7AF7(4)	6(P)	75	E	Reg.	A
7AF7(4)	6	75	D	Reg.	A
7AK7(4)	6(P)	83	F	Reg.	A
7B6(4)o	6(P)	55	F	Diode	A,B,D
7E7(3)	6(P)	73	B	Reg.	A
7E7(4)o	6	50	C	Diode	A
7E7(4)o	6	50	D	Diode	A
12SC7(4)	7	84	B	Reg.	A
12SC7(4)	7	84	C	Reg.	A
12SF7(3)	7	78	B	Reg.	A
14E6(4)	7	75	C	Reg.	B,D,A
14E6(4)o	7	50	E	Diode	B,D,A
14E6(4)o	7(P)	50	F	Diode	B,D,A
26A6(3)	8(B)(P)	86	F	Reg.	
8016(4)#	1	55	G	Cold K	A
XXL(3)	6(P)	82	B	Reg.	A

NOTE: There are a few tubes that can not be checked on tube testers which were manufactured at the time the testers covered by this booklet were originally designed and put on the market. These tubes include 0A2, 0B2, 1V5, 6AJ4 and the 19 volt series.

Most Modern tube testers, such as have been available for the past three years, can test all tubes. The latest RCP testers Model #324 and #808A not only test all tubes including Cathode Ray tubes but also prove a considerable obsolescence protection against the future.