

IMPORTANT

If difficulty is ever experienced when testing tubes with OVERHEAD caps, always FIRST check for continuity between flexible grid cap lead and bakelite encased dual cap connector. The flexible wire occasionally breaks at the point of entrance to the cap connector.

NOTE - 70A7 and 117N7 RECTIFIER TEST

Because of unusual internal connections, the 70A7 and 117N7 RECTIFIER sections require a special test procedure.

Buttons (A and E) or (A) respectively, as noted on the tube chart, must be depressed simultaneously along with the "READ METER" button. Normal meter indication will be obtained for a few seconds and will then gradually recede (fade) because the 70A7 and 117N7 filament connections must necessarily be isolated from the test circuit to provide merit indication for the rectifier section. RECTIFIER merit is therefore to be judged only by the initial meter deflection. Buttons (A) or (A and E) must be immediately returned to normal position if it is desired to keep the filaments of the 70A7 or 117N7 in a heated condition.

FORM G-109-7/49

INSTRUCTIONS FOR USE OF ADAPTER G-109
with PRECISION SERIES 910, 912, 914, 915, 920, 922 and 954 TESTERS

Many "PRECISION" tube testers of the series listed above, were manufactured prior to the introduction of the miniature 9 pin type (Noval) tubes. Consequently, those instruments did not include the socket required for test of the Noval 9 pin types.

The Precision No. G-109, 9 pin adapter, has been developed as the most practical and economical means for rapid check of these special tubes in the above described instruments.

The adapter is available from factory or PRECISION distributor at your net cost of only \$1.50 each.

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Before using the No. G-109 Noval 9 pin adapter, a simple modification of your instrument must be made in order to provide a filament supply of approximately 18.9 volts, required for several of the new 9 pin tubes - - -

1. Remove the instrument from its case.
2. The 40 Ohm flexible resistor, supplied with Adapter G-109, is to be soldered across two of the lugs on the rear Switch "B". The two lugs involved are identified as follows:
 - a) Lug at position 9 of the "B" switch. In most cases a red wire with a black tracer is already soldered thereto.
 - b) Lug at position 12 of the "B" switch. This lug will be found to be an unused lug with no wire connected to it.

After the above modification has been completed, Noval 9 pin tubes are then tested in your instrument by use of Adapter G-109 inserted into the Octal test socket.

NOTE: The black grid cap of your tube tester must be connected to the side stud of the adapter.

SPECIAL TEST DATA FOR TUBE TYPES 1V2, 1X2, 2E24, 6S4 and 5516
 For Use With PRECISION Series 910-12-14-15-20-22-54

Because of unusual multiple element terminations in the following tube types, it is necessary to use special test adapters, which can be conveniently constructed as outlined below. The parts for these adapters are not available from the Precision Apparatus Company, Inc. -- See your local parts distributor.

<u>Tube Type 1V2</u>		<u>Tube Type 1X2</u>	
<u>Noval 9 Pin Socket</u> (Amphenol Part #44-9)	<u>Octal Plug Base</u> (Amphenol Part #50-8SG)	<u>Noval 9 Pin Socket</u> (Amphenol Part #44-9)	<u>Octal Plug Base</u> (Amphenol Part #50-8SD)
Pin #1	open	Pin #1	_____ to _____ 1
Pin #2	open	Pin #2	open
Pin #3	open	Pin #3	open
Pin #4	2.5Ω Resistor 1/2 W. — 4	Pin #4	open
Pin #5	_____ to _____ 5	Pin #5	_____ to _____ 5
Pin #6	open	Pin #6	open
Pin #7	open	Pin #7	open
Pin #8	open	Pin #8	open
Pin #9	_____ to _____ Side Stud (Grid Cap of Instrument)	Pin #9	open

<u>Tube Types 2E24 and 5516</u>		<u>Tube Type 6S4</u>	
<u>Octal Socket</u> (Amphenol Part #44-8)	<u>Octal Plug Base</u> (Amphenol Part #50-8SD)	<u>Noval 9 Pin Socket</u> (Amphenol Part #44-9)	<u>Octal Plug Base</u> (Amphenol Part #50-8SG)
Pin #1	_____ to _____ 1	Pin #1	open
Pin #2	_____ to _____ 2	Pin #2	_____ to _____ 2
Pin #3	_____ to _____ 3	Pin #3	open
Pin #4	open	Pin #4	_____ to _____ 4
Pin #5	_____ to _____ 5	Pin #5	_____ to _____ 5
Pin #6	open	Pin #6	_____ to _____ 6
Pin #7	_____ to _____ 7	Pin #7	open
Pin #8	_____ to _____ 8	Pin #8	open
		Pin #9	_____ to _____ Side Stud (Grid Cap of Instrument)

TEST SETTINGS

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>DEPRESS</u>
1V2	7	1	0	44	1	6	0
	(1V2 - Fil. Cont. - Depress C)						
1X2	1	1	0	18	12	2	0
	(1X2 - Fil. Cont. - Depress D)						
2E24	4	3	6	16	2	2	B0
	(2E24 - Fil. Cont. - Depress A, J)						
6S4	5	6	26	9	1	6	0
	(6S4 - Fil. Cont. - Depress C)						
5516	4	3	7	20	2	2	B0
	(5516 - Fil. Cont. - Depress A, J)						

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