

Procedure for use of MODEL PTA TV Picture Tube Adapter Cable  
with **PRECISION** TUBE TESTERS

This Adapter Cable has been designed for use with the various PRECISION Tube Testers listed below. It provides for a true BEAM CURRENT test when used with the Models 660, 10-40 and 10-60 Testers, and provides emission test facility on all other units.

BEAM CURRENT testing of Picture Tubes: Use with PRECISION Model 660 or 10-60 Tube and Transistor Tester, or 10-40 Tube Tester.

Emission testing of Picture Tubes: Use with PRECISION Models 612, 614, 620, 640, 654, 10-12, 10-15, 10-22 and 10-54 and Models 910 through 954.

Important Data Concerning  
Picture Tube Testing

The results obtained with Adapter Cables when used with general purpose tube testers to adapt these instruments for picture tube testing are not always as conclusive as compared with readings obtained on a BEAM CURRENT type of Tester (Model 660) for the following reasons:-

A standard type receiving-tube Tester is specifically designed to test receiving tubes; - CABLE ADAPTERS when used with this class of Tube Tester only check for filament continuity, limited inter-element shorts or leakages and overall cathode emission.

However when the Adapter is used with PRECISION Models 660, 10-40 and 10-60 Checkers, the resulting picture tube test is based upon the BEAM CURRENT capabilities of the tube. BEAM CURRENT is a direct indication of picture tube brightness inasmuch as the actual beam which traces the pattern on the face of the picture tube originates from a relatively small area directly in the center of the cathode disc. The PRECISION Models 660, 10-40 and 10-60 are designed to test for the condition of this critical central area of the cathode whereas emission testers must, because of the nature of the standard circuit employed, check for emissive capabilities of the entire cathode disc. A BEAM CURRENT testing circuit necessitates a more sensitive indicating circuit which is included only in a PRECISION Model 660, 10-40 or 10-60 Tester.

Test Instructions

- 1) Set controls and switches, as listed on the attached sheet, for your particular PRECISION Tube Tester.
- 2) Plug Adapter Cable into the octal socket of the Tube Tester, attach the duodecal socket end of the PTA Cable to the picture tube and connect the alligator clip of the Cable to the High Voltage anode of the picture tube. (It is not necessary to remove or disturb the ion trap, focus coil or yoks.)
- 3) Make "LINE" adjustment, same as for receiving tubes.
- 4) Check for SHORTS and/or LEAKAGE in the same manner as prescribed for receiving tubes.

NOTE:

On 612, 614, 620 and 654 and 10-00 series instruments - Throw "short" check toggle switch to "SPEC." or "COND" position. On Model 640, throw the slide switch to the "HIGH" position.

- 5) Check "Filament Continuity" same as for receiving tubes.
- 6) Depress the "READ METER" button of the Tube Tester and read on the numerical reference scale. DISREGARD COLORED RECEIVING TUBE QUALITY ARC.

TEST SETTINGS: - See the attached chart for the specific test settings which apply to your particular PRECISION Tube Tester. Take note that the Reject-Questionable-Good calibration points may differ for each model.

**PTA PICTURE TUBE  
TEST SETTINGS**  
(For use with PRECISION Tube Testers)

MODEL	A	B	C	D	Cath Short	Cont.	Test	*Read on Meter Scale				Most new Tubes will Read:
								REJECT	?	GOOD		
640	1	9	16	3	7	-	2456	0-100	0-10	10-15	15-100	60-70
660	See specific instructions for "Beam Current Tests" in the Instruction Manual for Model 660 Tube and Transistor Tester											

MODEL	A	B	C	D	E	F	Fil Cont.	*Read on Meter Scale				Most new Tubes will Read:
								REJECT	?	GOOD		
612	3	7	45	1	-	2	8	0-100	0-10	10-15	15-100	60-70
614	3	7	45	1	-	2	8	0-100	0-10	10-15	15-100	60-70
620	3	7	45	1	-	2	8	0-120	0-12	12-18	18-120	72-84
654	3	7	45	1	-	2	8	0-120	0-12	12-18	18-120	72-84

MODEL	A	B	C	D	E	F	Depress	Fil Cont.	*Read on Meter Scale				Most new Tubes will Read:
									REJECT	?	GOOD		
910	2	6	0	45	10	2	J	F	0-100	0-10	10-15	15-100	75-85
912	2	6	0	45	10	2	J	F	0-100	0-10	10-15	15-100	75-85
914	2	6	0	45	10	2	J	F	0-100	0-10	10-15	15-100	75-85
915	2	6	0	45	10	2	J	F	0-100	0-10	10-15	15-100	75-85
920	2	6	0	45	10	2	J	F	0-120	0-12	12-18	18-120	90-102
922	2	6	0	45	10	2	J	F	0-120	0-12	12-18	18-120	90-102
954	2	6	0	45	10	2	J	F	0-120	0-12	12-18	18-120	90-102

MODEL	A	B	C	D	E	W	X	Y	Z	Fil Cont.	*Read on Meter Scale				Most new Tubes will Read:
											REJECT	?	GOOD		
10-12	3	1	0	22	7	-	-	2	-	1-8	0-100	0-20	20-30	30-100	90-100
10-15	3	1	0	22	7	-	-	2	-	1-8	0-100	0-20	20-30	30-100	90-100
10-20	3	1	0	22	7	-	-	2	-	1-8	0-120	0-24	24-36	36-120	108-120
10-22	3	1	0	22	7	-	-	2	-	1-8	0-120	0-24	24-36	36-120	108-120
10-54	3	1	0	22	7	-	-	2	-	1-8	0-120	0-24	24-36	36-120	108-120

10-40 See specific instructions for "Beam Current Tests" in the Instruction Manual for Model 10-40 Tube Tester

10-60 See specific instructions for "Beam Current Tests" in the Instruction Manual for Model 10-60 Tube and Transistor Tester

\*DISREGARD COLORED ARC:  
READ ON NUMERICAL REFERENCE SCALE AS LISTED ABOVE

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