

# OPERATING DATA

## Model ~~1210-A~~ Master Tube Tester

*1310A* (SEE SEPARATE CHART)

**GENERAL:** Before proceeding with the operation of this tester, be sure to study the operating data and the tube chart. The outstanding feature of the Triplett tester is its ability to differentiate between Good and Bad tubes on a single scale meter. It is simple to operate. Has but four sockets, three selector switches, one load control and two push buttons. One push button determines the VALUE or quality of the tube. The other push button when pressed gives separate values for double plate tubes.

Practically all tubes are tested with the Tube Selector switch in position No. 1. On this position the plates of multi-plate tubes are checked together. This simplifies testing and gives generally satisfactory results.

Experienced service men have found it desirable to check each plate of multi-plate tubes for best balance between plates. See Chart No. 2.

The Diode plates of multi-plate tubes are very easily deactivated if proper precautions are not taken to prevent an overload voltage being applied to these elements. The Triplett tester is so designed to prevent this deactivation. It is practically impossible to injure either the tube or meter when excessive voltages are placed on the various tube elements, with the exception of the filament voltage which would of course, cause the filament to burn out under an excessive overload.

The Triplett tester incorporates a sensitive short test which leaves nothing for granted, as it is positive and accurate. Shorts are measured in excess of a half million ohms, which is far beyond the sensitivity necessary to accurately determine a shortage or leakage condition in a tube.

Mercury vapor type rectifying tubes are critical as to load setting and in some instances the meter needle will go slightly off scale. These tubes are fast being replaced by the high vacuum type of the same number.

The transconductance values of all tubes have been standardized. Some manufacturers allow the production tolerance for tubes to run considerably higher than others. This may cause a slight variation in the readings of different brands as shown on the meter. The tester has been designed for the average limit, and the tube that has outlived its usefulness will be so indicated.

Renew rectifier tube when required. Type is 201-A. Repeated tests of the rectifier tube are essential. Remove panel to replace rectifier tube.

A condenser discharge at certain short positions will cause a needle "kick" which should not be confused with a short. The needle will return immediately to zero on a condenser discharge, and will not move again until the switch is rotated. On an intermittent short the meter needle will not remain steady but will move when the tube is tapped or jarred. Lightly tap all tubes at each short position on tube selector switch.

## The Triplett Electrical Instrument Co.

BLUFFTON - - OHIO

# TRIPLETT MASTER TUBE TESTER, MODEL 1210A

## OPERATING DATA

**ADJUSTMENTS:** Connect to A. C. line, 60 cycles 100-130 volts. Switches should be set in the OFF position. Note type of tube to be tested, Column One of Chart No. 1 (1) Set switch—**FILAMENT VOLTS**—to the correct voltage position, Column 3 of Chart No. 1. (2) Insert tube. Connect grid lead if required. (3) Set toggle switch to **LINE VOLTS** position. (4) Rotate the selector switch—**LINE VOLTS CONTROL**—from the OFF position in a clockwise direction until the meter pointer rests on the black line in the center of the scale. (5) Move the toggle switch to the **TEST** position. (6) Set control—**LOAD**—to the proper position according to Chart No. 1, Column Two. (7) Rotate the switch—**TUBE SELECTOR**—from the OFF position in a clockwise direction to all the positions marked—**SHORTS**. A short or degree of leakage will be indicated by a deflection of the meter pointer along the scale. (8) If no short is indicated in the **BAD** sector of the scale, continue to rotate switch—**TUBE SELECTOR**—in the same clockwise direction until the proper position is reached according to Chart No. 1, Column 4.

**SPECIAL!** Since tubes 6Z5, 12Z5 and 12A5 have filaments with center tapped connections, disregard meter **SHORT** indications when switch is in positions **S** or **T** for tubes 6Z5-12Z5, and **O** or **S** for tubes 12A5 and 5Z4.

**NOTE:** A combination 5 and 6 hole socket is used for 5 and 6 prong tubes.

**VALUE TESTS:** (9) Press button—**VALUE**—after tube has thoroughly heated. The meter pointer will indicate the worth of the tube directly as **GOOD—DOUBTFUL—BAD**. The doubtful position is the white space between the colored portions of the scale. If only the **VALUE** button is pressed when testing tubes with multi plates, according to Chart No. 1, all plates will be tested together. Reference to tube Chart No. 2 gives separate plate values for each plate. (10) The **LOAD** control is used in a different position for separate plate tests of certain diodes—Column 4 for first plate, Column 5 for second plate. (11) Test the value of the first plate by pressing **VALUE** button. (12) Press both **VALUE** and **DIODE** buttons to test the value of the second plate. Release **Value Button** as soon as reading is noted.

### CHART NUMBER 1

Tube	Load	Fil. V.	Selec- tor	Tube	Load	Fil. V.	Selec- tor	Tube	Load	Fil. V.	Selec- tor	Tube	Load	Fil. V.	Selec- tor
1A6	100	2	1	6P7	61	6.3	13	44	33*	6.3	1	85	40	6.3	1
1C6	80	2	1	700A	80	5	3	45	43	2.5	1	89	35	6.3	1
2A3	28	2.5	1	12A5	33	12.6	10	46	36	2.5	2	485	31	3.3	1
2A5	38	2.5	1	12A7	40	12.6	1	47	39	2.5	2	99	100	3.3	3
2A6	37	2.5	1	14	43	12.6	1	48	28	25	1	183	43	5	1
2A7	36	2.5	1	15	60	2	1	49	56	2	2	483	50	3.3	1
2B7	47	2.5	1	17	40	12.6	1	50	55	7.5	1				
6A4	40	6.3	2	19	90	2	3*	51	39	2.5	1				
6A7	35	6.3	1	20	95	3.3	1	53	35	2.5	11*				
6A8	30	6.3	1	22	75	3.3	3	55	40	2.5	1				
6B5	40	6.3	1	24A	40	2.5	1	56	36	2.5	1				
6B8	50	6.3	1	26	55	1.5	1	57	31	2.5	1				
6B7	45	6.3	1	27	49	2.5	1	58	36	2.5	1				
6C5	42	6.3	1	30	100	2	3	59	37	2.5	1				
6C6	35	6.3	1	31	63	2	1	64	33	6.3	1				
6C7	31	6.3	1	32	100	2	3	65	36	6.3	1				
6D5	35	6.3	1	33	45	2	2	67	37	6.3	1				
6D6	37	6.3	1	34	100	2	3	68	36	6.3	1				
6D7	36	6.3	1	35	39	2.5	1	71A	88	5	3				
6E6	31	6.3	11*	33	37	6.3	1	75	30	6.3	1				
6E7	36	6.3	1	37	36	6.3	1	76	39	6.3	1				
6F5	32	6.3	1	38	45	6.3	1	77	33	6.3	1				
6F3	37	6.3	1	39	33	6.3	1	78	33	6.3	1				
6F7	46	6.3	1	40	45	5	1	79	31	6.3	10*				
6J7	35	6.3	1	41	38	6.3	1	'01A	100	5	3				
6K7	37	6.3	1	42	37	6.3	1	'10	50	7.5	1				
6L7	26	6.3	1	43	31	25	1	12A	42	5	1				

\*Press Diode Button for second plate reading.

### DOUBLE PLATE CHECK CHART NUMBER 2

Tube No.	Fil. V.	Selec- tor	1st Plate	2nd Plate	Tube No.	Fil. V.	Selec- tor	1st Plate	2nd Plate	Tube No.	Fil. V.	Selec- tor	1st Plate	2nd Plate	
2B7	triode	2.5	4	60	†6C7	diode	6.3	5	100	100	5Z3	5	8	43	48
†2B7	diode	2.5	5	100	55	triode	2.5	6	45	80	5	8	59	68	
6B7	triode	6.3	4	58	†55	diode	2.5	7	100	100	82	2.5	8	26	26
†6B7	diode	6.3	5	100	75	triode	6.3	6	35	83	5	8	30	34	
2A6	triode	2.5	6	46	†75	diode	6.3	7	100	100	84	6.3	8	30	30
†2A6	diode	2.5	7	100	85	triode	6.3	6	44	KR98	6.3	8	30	30	
6P7	pentode	6.3	4	59	†85	diode	6.3	7	100	100	83V	5	8	30	30
6C7	triode	6.3	4	35	†6H6	diode	6.3	5	100	100	†25S	tr'de 2	3	100	100

Hold down both buttons—**VALUE, DIODE**—for second plate reading.  
†A **GOOD** tube reads in "Diode O. K." sector of meter scale.

## The Triplett Electrical Instrument Co., Bluffton, Ohio

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